

**SUSTAINABILITY PERFORMANCE EVALUATION
MANAGEMENT SYSTEMS MODEL FOR INDIVIDUAL
ORGANIZATIONS AND SUPPLY CHAINS**

by

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ABSTRACT

The title of the research is *Sustainability Performance Evaluation Management Systems Model for Individual Organizations and Supply Chains*. This research has achieved its aim to develop and demonstrate the practical implementation of a simple and objective sustainability performance evaluation management system model for individual organizations and supply chains. It has resulted in the recognition that a new concept – Network of Interested Partners – underpins the achievement of sustainability. The term acknowledges the interdependence and reflects the essential cooperation that must be achieved between business organisations, their commercially related entities and the local community if progress towards sustainability is to be achieved. It therefore encompasses and extends the concept of a supply chain as currently used.

Sustainable Development is defined by the World Commission on Environment and Development as development, which meets the needs of the present without compromising the ability of future societies to meet their own needs. Organizations, as part of human activities, also have to be sustainable. The sustainability of organizations is directly linked to the continual improvement of business performance. Many organizations have found a way to improve performance through the establishment of management systems. International Organization for Standardization (ISO) standards are recognized worldwide as reliable and efficient tools for the implementation of management systems. However, they do not always result in the desired improvement in outcomes. Therefore, if the required improvement of business performance is to be achieved, improved methodologies for development and implementation of performance evaluation (PE) processes are necessary. These methodologies must take into consideration sustainability principles. They also have to be applicable to individual entities and supply chains, with or without management systems in place. Supply chains

are important because it is being increasingly recognized that overall supply chain performance is a means of adding value and competitive advantage to all businesses.

In the first part of the research a performance evaluation model or PE (version 1 model) was developed. This was used as criteria to compare and evaluate existing performance evaluation processes and outcomes of individual organisations and their respective supply chain within the Gladstone region, Australia. Questionnaires have also been used to identify and evaluate the needs of the interested parties in relation to the organizations' and supply chains' business performance and processes of performance evaluation.

All the information provided in the first part of the research was used by the researcher to develop the Sustainability Performance Evaluation Management Systems model or SPEMS (version 2 model). This incorporates the concepts of Network of Interested Parties/Partners. In particular, one of the outcomes is recognition that organizations need to establish partnerships if effective supply chain performance improvement is to be achieved. Therefore the establishment of partnerships has become a key requirement for the implementation of SPEMS.

The establishment of partnership among participants of a supply chain of Gladstone and implementation of the eight first steps of the SPEMS (version 2 model) in this supply chain was commenced successfully through workshops. The supply chain was formed by commercial organizations, government entities and interested parties from the community. SPEMS requires that partners all have the same level of ownership and authority in the decisions of the supply chain.

Some new terms and their definitions have been created within the research to support the new SPEMS model. They include: Network of Interested Partners, sustainability for organizations, sustainability KPI and sustainability friendly organizations.

All of the above are encompassed within the final SPEMS (version 3 model).

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PUBLICATIONS AND PARTICIPATION IN EVENTS

1 - Journals and conference proceedings - Refereed

- ❖ Coelho, JFGM & Moy, D 2001, 'Integrated Management Systems and Performance Evaluation - A Case Study in Brazil', paper presented to Annual Quality Conference 2001 - Improving Business, Carlton Crest, Brisbane, Australia, 25-27 November 2001.
- ❖ Coelho, JFGM, Moy, D & Whitwell, R 2002, 'Performance Evaluation: A New Approach for Integrated Management Systems based on the AS/NZS 14031:2000', paper presented to 7th International Conference on ISO 9000 and TQM, RMIT, Melbourne, Australia, 2 - 4 April 2002. - **Awarded best paper in the sub-theme 3 of the Conference.**
- ❖ Coelho, JFGM & Moy, D 2003, 'The New Performance Evaluation Methodology and Its Integration with Management Systems', The TQM Magazine, vol. 15, no. 1, pp. 25-9.
- ❖ Coelho, JFGM, Moy, D & Edwards, R 2004, 'Sustainability Performance Evaluation Management Systems and Corporate Social Responsibility Management Systems', paper presented to Enviro 04 Convention & Exhibition, Sydney Convention Centre, 28 March - 01 April 2004.
- ❖ Coelho, JFGM, Moy, D & Edwards, R 2004, 'Sustainability Performance Evaluation Management Systems (SPEMS) for Network of Interested Partners (NIP)', paper presented to GIN2004 - 12th International Conference of The Greening of Industry Network: Partnerships for Sustainable Development, Hong Kong Convention and Exhibition Centre, 7 - 10 November 2004.

2 – Papers in preparation

- ❖ Coelho, JFGM, Moy, D & Edwards, R 2004, 'Performance Evaluation Management Systems for Organizations and Supply Chains based on the AS/NZS ISO 14031:2000', The Environmental Engineer Journal, vol. Draft (abstract already approved).
- ❖ Coelho, JFGM, Moy, D & Edwards, R 2004, 'The Integration of Corporate Social Responsibility Management Systems and The New Sustainability Performance Evaluation Management Systems', Corporate Governance: The International Journal of Business in Society, vol. Draft (abstract already approved).
- ❖ Coelho, JFGM, Moy, D & Edwards, R 2004, 'Sustainability Performance Evaluation Management Systems (SPEMS) for Supply Chains', Supply Chain Management Journal, vol. Draft.

3 - Symposium proceedings - Non-refereed

- ❖ Coelho, JFGM, Moy, D & Whitwell, R 2001, 'Integrated Management Systems and Performance Evaluation - Case Studies in Brazil', paper presented to 2001 Postgraduate Symposium, Central Queensland University - Rockhampton, October 2001.
- ❖ Coelho, JFGM & Moy, D 2002, 'Performance Evaluation: A New Approach for Integrated Management Systems based on the AS/NZS 14031:2000', paper presented to 2002 Postgraduate Symposium, Central Queensland University - Rockhampton, October 2002. - **Awarded engineering best paper presentation.**
- ❖ Coelho, JFGM, Moy, D & Edwards, R 2003, 'Performance Evaluation Management Systems for Organisations and Supply Chains based on the AS/NZS ISO 14031:2000', paper presented to 2003 Postgraduate Symposium, Central Queensland University - Rockhampton, October 2003.

4 – Platform presentations – Conferences and Symposiums

- ❖ Quality Conference 2001 - Improving Business, Carlton Crest, Brisbane, Australia, 25-27 November 2001.
- ❖ 2001 Postgraduate Symposium, Central Queensland University - Rockhampton, October 2001.
- ❖ 7th International Conference on ISO 9000 and TQM, RMIT, Melbourne, Australia, 2 - 4 April 2002.
- ❖ 2002 Postgraduate Symposium, Central Queensland University - Rockhampton, October 2002.
- ❖ 2003 Postgraduate Symposium, Central Queensland University - Rockhampton, October 2003.
- ❖ Enviro 04 Convention & Exhibition, Sydney Convention Centre, 28 March - 01 April 2004.
- ❖ GIN2004 - 12th International Conference of the Greening of Industry Network: Partnerships for Sustainable Development, Hong Kong Convention and Exhibition Centre, 7 - 10 November 2004.

5 – Seminars presentations and lectures

- ❖ Presentation of poster at Central Queensland University Open Day 2001. The title of the poster was: 'Research Project'.
- ❖ Coelho, JFGM & Moy, D 2003, 'Performance Evaluation Management Systems for Organisations and Supply Chains Based on the AS/NZS 14031:2000', paper presented to Research Seminar of The James Goldston Faculty of Engineering and Physical Systems, Central Queensland University - Gladstone, 16 October 2003.

- ❖ Lectures and presentations to students of The James Goldston Faculty of Engineering and Physical Systems, Central Queensland University related to integrated management systems. The researcher has also provided some materials and advice for the implementation of the integrated management systems of the Faculty.

6 – Nominations and awards

- ❖ Coelho, JFGM 2001, Improvement of Business Performance Towards Sustainability Through Performance Evaluation and Communication - Entrance for the Gladstone Region Business and Management Awards of Excellence 2001 of The Australian Institute of Management, Central Queensland University, Gladstone.
- ❖ Coelho, JFGM 2004, Sustainability Performance Evaluation Management Systems Model for Individual Organizations and Supply Chains - Entrance for the Gladstone 2004 Management and Business Excellence Awards of The Australian Institute of Management, Central Queensland University, Gladstone. - **The Researcher was awarded with ‘Special Commendation’ on the Professional Manager of the Year (2004) category due to the management and strategy used within the PhD research.**

ABBREVIATIONS AND ACRONYMS

AA – Accountability

ABEF - Australian Business Excellence Framework

ANZECC - Australian and New Zealand Environment and Conservation Council State of the Environment Reporting Task Force

AS – Standards Australia

BEST – Biophysical, Environmental, Economic, Societal and Technological Sustainability

BS – British Standards Institute

BSC - Balanced scorecard

CWRT - Centre for Waste Reduction Technologies

CERES - Coalition for Environmentally Responsible Economics

CI – Continual improvement

CO – Commercial organization

COPOLCO - Consumer Policy Committee

CQU – Central Queensland University

CR - Corporate responsibility

CRMS - Corporate responsibility management systems

CRMSSs - Corporate responsibility management system standards

CSA – Canadian Standards Association

CSR - Corporate social responsibility

CSRMS – Corporate social responsibility management systems

DEA - Data envelopment analysis

DJSGI - Dow Jones Sustainability Group Indexes

DJSIF - Dow Jones Sustainability Index Family

DP - Documented procedures

EA – Environmental auditing

ECI - Environmental condition indicators

EIA – Environmental impact assessment

EFQM - European Foundations for Quality Management Excellence Model

EL – Environmental labelling

EMS – Environmental management systems

EMAS - Eco Management and Audit Scheme

EPA – Environmental Protection Agency

EPE – Environmental performance evaluation

EPI - Environmental performance indicators

GAPDL - Gladstone Area Promotion and Development Ltd

GEM - General environmental management

GEMI - Global Environmental Management Initiative

GRI – Global Reporting Initiative

HACCP – Hazard Analysis and Critical Control Point

IMS – Integrated management systems

IO – Individual commercial organization or organization(s)

IP – Interested parties or interested party

ISEA - Institute for Social and Ethical Accountability

ISO - International Organization for Standardization

IT – Information technology

KC – Key characteristics of a business

KPI – Key performance indicator or key performance indicators or performance indicator or performance indicators

LCA - Life cycle assessment

LCSP - Lowell Centre for Sustainable Production

MBNQA - Malcolm Baldrige National Quality Award

MPI - Management performance indicators

MS – Management systems

NIP – Network of interested parties or networks of interested parties

NMED - The State of New Mexico Environment Department

NRTEE – National Round Table on the Environment and the Economy

NSESD – National Strategy for Ecological Sustainable Development

NZS – Standards New Zealand

OPI - Operational performance indicators

PE – Performance evaluation or performance evaluation methodology or performance evaluation model

PEMS - Performance evaluation management systems

PER - Public environmental reporting

PR – Performance reporting

QFD - Quality function deployment

QMS – Quality management systems

QS – Quality system

SA - Social Accountability

SAI - Social Accountability International

SAM - Sustainable Asset Management

SC - Supply chain or supply chains

SCM – Supply chain management

SD – Sustainable development

SI – Standards Israel

SIGMA – Sustainability: Integrated Guidelines for Management Projects

SME – Small and medium enterprise or enterprises

SPEMS – Sustainability performance evaluation management systems or sustainability performance evaluation management system model

SQMS – Safe Quality Management System

TBL – Triple Bottom Line

TC – Technical committee

TQM - Total Quality Management

TR – Technical reporting

UNEP - United Nations Environmental Program

UK – United Kingdom

WBCSD - World Business Council for Sustainable Development

WH&S - Workplace, health and safety

WH&SMS - Workplace, health and safety management systems

WRI - World Resources Institute

WTO - World Trade Organization

GLOSSARY

- ❖ **Aspects** – Causes or elements of the organizations that interact with the social, economic and built/natural environment (term expanded to relate to elements of organizations linked to sustainable principles).
- ❖ **Benchmarking** – The practice of setting operating targets for a particular function by selecting top performance levels.
- ❖ **Communication** – Exchange of information with clear understanding of the subject dealt. Then it is a two way information process that includes the emission of information by a transmitter, the retention and evaluation of the information by the recipient and the feedback of the evaluation of the information received by the recipient to the original transmitter. The information only emitted (one way process) from a transmitter to a recipient is not always clear for the recipient.
- ❖ **Conditions indicators** - Specific expression that provides information about the condition of the environment and of the interested parties (including the society, the employees and the clients).
- ❖ **Consultation** – The action of asking opinion, advice or information from someone.
- ❖ **Continual improvement** - Process to enhance the Management System to achieve improvements in an overall performance in line with the organization's policy.
- ❖ **Cultural performance indicators** - Performance indicators that provide information about the key characteristics of the culture of the community that the organization has influenced. It can also include indicators that provide information about the internal key characteristics of the culture of the organization. The limits used to define those indicators are given by the scope of management systems (e.g. - environmental, WH&S and quality) and the performance criteria.
- ❖ **Culture** - A system of collectively shared values, beliefs, tradition and behavioural norms, unique to a particular group of people (International Labour Office 1996, p.103). It is a body of knowledge that includes ideas and behaviours.
- ❖ **Culture (organizational culture)** - A pattern of assumptions that an organization has invented, discovered or developed in learning to cope with external adaptation and internal integration.
- ❖ **Eco-Efficiency** (it has a similar meaning to Cleaner Production and Sustainable Production) - Business strategy to implement sustainable development. It is the continuous application of an integrated, preventive strategy applied to processes, products and services in pursuit of economic, social, health safety and environmental benefits.
- ❖ **Economic or economic area** – Pertaining to economy where economy is the way that goods and services are produced, distributed and consumed and available resources are correctly and effectively used and managed.

- ❖ **Economic performance indicators** - Performance indicators that provides information about the economic performance of the organization.
- ❖ **Education** - The knowledge that is delivered for a group of people in one recognized area of human knowledge (e.g. Engineering).
- ❖ **Engagement** – The act of compromising someone in an activity or process. In this work there are two types of engagement. The first one is engagement in dialogue between interested parties and organizations (or consultation process) about business activities and the second one is the participation of the interested parties in the strategic plan and decision making process of organizations.
- ❖ **Emergency plan** - Set of procedures, which includes the identification of potential for and response to accidental and emergency situations, and for preventing and mitigating the impacts that may be associated with them.
- ❖ **Environmental area** - Surroundings and their interrelation.
- ❖ **Impact** - Consequence or effect of the activities of entities.
- ❖ **Information** – Emission or reception of knowledge or intelligence.
- ❖ **Integrated management systems** - The organizational structure, planning activities, responsibilities, practices and procedures for developing, implementing, achieving, reviewing and maintaining the organization’s policy related to a combined management system that would include environmental management systems, quality management systems occupational health and safety management systems and possibly other management systems implemented in an entity.
- ❖ **Interested parties or stakeholders** - Individual or group concerned with or affected by the performance of an organization.
Notes:
 - In this research, the interested parties have also been organizations. Then when the term, interested parties, is written in the thesis it means that the interested parties have been organizations that represent sectors of the community that have been interested in the activities of the commercial organizations and supply chains.
 - In this research, interested parties directly linked to the activities of organizations are called commercial interested parties and interested parties indirectly linked to the activities of organizations are called non-commercial interested parties.
- ❖ **Key characteristics** - Characteristics of the organization’s activities or of its MS that the organization wants to measure to perform an evaluation (e.g. objective/targets, process parameters indicators, aspects/impacts, activities, policy, etc).
- ❖ **Life Cycle Assessment** - Evaluation of inputs, outputs and potential impacts of a product system throughout its life cycle.
- ❖ **Management** - The attainment of organizational goals in an effective and efficient manner through planning, organizing, leading, and controlling organizational resources (Daft 1994, p.8).

- ❖ **Management performance indicators** - Performance indicators that provide information about the management's efforts to influence the organization's performance.
- ❖ **Management program/plan or action plan** - Addressed schedules, resources and responsibilities for achieving the organization's objectives and targets.
- ❖ **Management systems** - The organizational structure, planning activities, responsibilities, practices, procedures for developing, implementing, achieving, reviewing and maintaining the organization policy.
- ❖ **Network** -
 - An interconnected or interrelated chain, group, or system
 - To engage in social or professional 'networking'. Then, 'Networking' is the action of representing in a network a system of interconnected events, processes, etc., esp. in the planning of complex projects or sequences of operations.
- ❖ **Network of Interested Partners** - Close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures. Partnership needs ownership by all participants of the network. (NOTE: In this thesis the term supply chain was substituted by Network of Interested Partners because supply chain has different meanings among practitioners and academic professionals around the world).
- ❖ **Objective** - Overall goal, arising from the management system policy, that an organization sets itself to achieve.
- ❖ **Operational controls** - Set of plans in order to ensure that the organization's activities are carried out under specific conditions by establishing documented procedures to cover situations where their absence could lead to deviations from the policy and the objectives and targets.
- ❖ **Operational or technical performance indicators** - Performance indicators that provides information about the performance of the organization's operations.
- ❖ **Ownership** -
 - The state, relation, or fact of being an owner.
 - The fact or state of being an owner.
- ❖ **Partner** -
 - One who shares or one associated with another, especially in an action.
 - One who is associated in any function, act, or course of action; one who takes part with another or others in doing something; an associate, colleague or one who has a share or part with another or others; one who is associated with another or others in the enjoyment or possession of anything.
- ❖ **Partnership** -
 - The state of being a partner.
 - The fact or condition of being a partner; association or participation or an association of two or more persons for the carrying on of a business, of which they share the expenses, profit, and loss.

- ❖ **PDCA cycle** – The four-step process of plan, do, check, act cycle of Deming.
- ❖ **Performance** - Results of the organization’s management of its activities.
- ❖ **Performance criteria** - Objective, target or other intended level of performance set by the management of the organization and used for the purpose of performance evaluation.
- ❖ **Performance evaluation or performance evaluation methodology** - Process to facilitate management decisions regarding an organization’s performance by selecting indicators, collecting and analysing data, reporting and communicating, and periodically reviewing and improving process. Note that in this thesis performance evaluation for organizations also encompasses processes as consultation of interested parties and feedback to interested parties of the consultation process (both processes also called engagement of interested parties), identification of aspects and impacts of business, development of strategic plans and third part verification of some information provided to interested parties.
- ❖ **Performance indicators or KPI** - Specific expression that provides information about organization’s performance or condensed information for decision-making.
- ❖ **Procedures or documented procedures** - Documented set of actions in order to ensure that the organization’s activities are carried out under specific conditions.
- ❖ **Quality or quality area** - A product or service with quality is the one that assists perfectly, in a reliable way, in an accessible way, in a safe way and at the right time to the customer's needs. (Campos, VF /1992).
- ❖ **Risk** - A measure of the probability and severity (consequence) of an adverse effect (impact) on health, property or the environment. It is often estimated by the mathematical expectation of the consequences of an adverse event occurring.
- ❖ **Risk management** - Systematic method used to identify and evaluate risks associated with any activities, function or process in a way that will enable organizations to minimize losses, to maximize opportunities and to improve the organizational management system.
- ❖ **Social or social area** - Interaction of the individual and the group, or the welfare of human beings as members of society.
- ❖ **Social performance indicators** - Performance indicators that provide information about the key characteristics of the social situation of the community influenced by the organization’s activities. The limits used to define those indicators are given by the scope of the Integrated Management Systems (environment, WH&S and quality). In this methodology the Social Performance Indicators will be defined only to show the performance of some key characteristics that were influenced by the environment, the WH&S and the quality areas.
- ❖ **Stakeholders** - Interested parties for the purpose of this work.

- ❖ **Summary indicator** - Performance indicator (PI) that encompasses or represents many other Performance Indicators. It could be considered a summarisation of a larger range of PI.
- ❖ **Supply chain** - A network of facilities and distribution options that performs the functions of procurement of materials; transformation of these materials into intermediate and finished products; and distribution of these finished products to customers. Note that there are many different definitions for supply chain.
- ❖ **Sustainability or Sustainable Development** - Development, which meets the needs of the present without compromising the ability of future generations to meet their own needs. The three constituent parts of sustainability are social, economic and environmental.
- ❖ **Sustainability for organizations** – Attainment of objectives taking into consideration the needs of the interested parties.
- ❖ **Sustainability friendly organization** – A company that drives its activities so as to actively include taking into consideration the needs of the interested parties.
- ❖ **Sustainability indicators or KPI for organizations** – Indicators from each of the areas of sustainability - namely social, economic and environmental – that are considered to address the priority issues identified by the ‘primary’ interested parties linked to the organization/network of interested partners. Primary is taken to refer to: those interested parties who have direct links with the partners or who are directly affected by, or have impact on, the activities of any or all of the partners.
- ❖ **Systems** – A prescribed way of carrying out an activity or sets of activities.
- ❖ **Target** - Detailed performance requirement, quantified where practicable, applicable to the organization or parts thereof, that arises from the objectives and that needs to be set and met in order to achieve those objectives.
- ❖ **Training** - Specific piece of knowledge that is deliver for a group of people.
- ❖ **Workplace, Health and Safety** - Conditions and factors that affect the well-being of employees, temporary workers, contractor personnel, visitors and any other person in the workplace.

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I dedicate this work to myself due to my effort to overcome all the problems that I have had during this PhD journey; my father and mother, Rubens M. Coelho (also his actual wife Laise) and Mercês Guerra who could not see me for four years; Ernesto and Letícia M. Coelho who have decided to continue to be my brother and sister even if I have been absent in their lives for a long time; my life star and lovely niece Gabriela Coelho; my nephew and other nieces whom I do not know personally; and my friends who maybe will not recognize me when they see me again. I also dedicate this work to my two life's sons, Hugo and João.

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Note - If I have forgotten to include your name here, do not worry because you are part of my experience and life and I will never forget you. Sorry if I have been so tired that my mind has missed so many important supporters and friends like you.

STATEMENT OF ORIGINAL AUTHORSHIP

I certify that the main text of the thesis and any material contained in this thesis which has been used before is my own and original work.

José Flávio Guerra Machado Coelho

Chapter 1

1 – INTRODUCTION

1.1 – Title of the thesis

SUSTAINABILITY PERFORMANCE EVALUATION MANAGEMENT SYSTEMS
MODEL FOR INDIVIDUAL ORGANIZATIONS AND SUPPLY CHAINS

1.2 – Background

Sustainable Development is defined as development, which meets the needs of the present without compromising the ability of future societies to meet their own needs (World Commission on Environment and Development 1987). Organizations as part of human activities also have to be sustainable.

Around the world organizations are increasingly being pressed to perform in accordance with patterns established by society and in consonance with the concept of sustainability (Coelho, J.F.G.M. & Moy 2001). Triple Bottom Line – TBL (Bourne et al. 2002; Elkington 1997; Schweitzer 2005; Wilkinson, Hill & Gollan 2005) has been popularised globally since the mid-1990s by SustainAbility Pty Ltd (Bourne et al. 2002) as a framework for organisations to translate the concept of Sustainable Development - SD (World Commission on Environment and Development 1987) into the operation of the organization. TBL and Corporate Social Responsibility programs are essentially the same (Bourne et al. 2002).

Organizational Sustainability is also a new area of study and only a few authors and entities have tried to clearly define this new terminology. Most do not provide definitions but attempt to explain what companies are supposed to do to achieve sustainability (Bourne et al. 2002; Heuerman & Olson 2004; Sustainability Operating Strategies for Business 2005; Wikipedia 2004).

It is recognized that the sustainability of commercial organizations is directly linked to the continual improvement of business performance (Abdulla & Zairi 2002; Coelho, J. F. G. M., Moy & Whitwell 2002). Many organizations have found a way to improve performance through the establishment of management systems (MS) (International Organization for Standardization 2001c). A wide range of MS standards was developed worldwide (British Standards Institution 1996, 1999, 2002; International Organization for Standardization 1994, 2000a, 2001a, 2002a, 2004b; Standards Australia 2003; Standards Australia and Standards New Zealand 2001, 2004a; The Institute for Social and Ethical Accountability 2003; The Standards Institution of Israel 2001). Among these, the International Organization for Standardization (ISO) standards are recognized worldwide as reliable and efficient tools for the implementation of management systems (International Organization for Standardization 2001c). However, if the improvement of business performance is to be achieved, improved methodologies for the development and implementation of performance evaluation (PE) processes (Coelho, J. F. G. M., Moy & Whitwell 2002; International Organization for Standardization 1999a; Wilkinson, Hill & Gollan 2005) that take into consideration sustainability principles are necessary (Coelho, J. F. G. M., Moy & Whitwell 2002; Vollenbroek 2002; Wilkinson, Hill & Gollan 2005).

The most widely implemented MS standards are ISO 14001:2004 (International Organization for Standardization 2004b) and ISO 9001:2000 (International Organization

for Standardization 2000a). One trend for individual organizations in the late 1990s was the integration of those management systems. The new trend for the near future, in terms of standardization, is the development of corporate responsible management systems standards. The International Organization for Standardisation (ISO) has been studying the possibility of developing a corporate governance and responsibility management system standard that would encompass the already existing standards and guidelines in the area (International Organization for Standardization 2004c).

A number of approaches addressing PE and the sustainability of organizations has been developed and implemented. Important ones include: Balanced Scorecards (Kaplan & Norton 1996); the Baldrige Award (Hart & Bogan 1992); Intellectual Capital (Hudson, W. J. 1993); the Triple Bottom Line (Elkington 1997); the PE process created and tested by Neely *et al.* (Neely *et al.* 2000); the thesis of Sonja Lynn Odom called *The Sustainability Systems Analysis Algorithm: A Decision-Support and Evaluation Methodology* (Odom 2001); the book of Bjorn Andersen & Tom Fagerhaug called *Performance Measurement Explained* (Andersen & Fagerhaug 2002); Systems Thinking (Sterman 2000); and ISO 14031:1999 (International Organization for Standardization 1999a). A common theme of all these works is that organizations need to establish a well-structured PE process or system committed to continual improvement of organizational performance if the organization is to achieve sustainability. While some of these works identify the necessity to develop sustainability PE to encompass supply chains, no case study examples or data on their success are given.

Increasingly it is also recognized that the performance of individual business organizations is dependent on the performance of their supply chain (Blutstein 2002; Lippman 2001). In addition, improvement in overall supply chain performance is seen as

a means of adding value and competitive advantage to all businesses. It follows that new PE methodologies have to be applicable to both individual entities and supply chains.

In terms of achieving sustainability of supply chains through the use of management systems, very little has been done. *The OECD Guidelines for Multinational Enterprises* (Organisation for Economic Co-operation and Development - OECD 2003) and the GEMI document, *New Paths to Business Value: Strategic Sourcing - Environment, Health and Safety* (Global Environmental Management Initiative - GEMI 2001) have superficial references about the sustainability of supply chains through the use of the management systems approach. Meanwhile the Victorian Environmental Protection Agency (EPA) has taken a lead role within Australia in running a pilot project to promote the cleaner production principles of waste management and energy conservation in organizations that are part of a small supply chain (Blutstein 2002).

Other important works related to the management of supply chains are the SCOR Model from the Supply-Chain Council (Supply-Chain Council [SCC] 2004) and the publication from Insight Investment called *Buying Your Way Into Trouble? The Challenge of Responsible Supply Chain Management* (Acona 2004). However, little other recognized work on integrated systems for supply chain management as it affects sustainability has been reported internationally, and none of these works provide any detail as to how such a structured PE process could be developed and implemented for supply chains.

Three works addressing the PE of supply chains have been carried out. They are two PhD theses - one from Stefan Holmberg, *Supply Chain Integration Through Performance Measurement* (Holmberg 2000), another from Chris A. Miller, *The Nature and Design of Supply Chain Performance Measurement Systems – An Empirical*

Approach (Miller 2001), and the case studies presented by O'Reilly *et al.* in their paper *ISO 14031: Effective Mechanism to Environmental Performance Evaluation* (O'Reilly, Wathey & Gelber 2000). Holmberg's work defines only concepts about the PE of supply chains, while Miller concludes that his work is not conclusive in terms of PE for supply chains and he expresses the need for further research using his PE approaches. None of these PhD theses provides details on how to develop PE of supply chains taking into consideration the principles of sustainability. However the work of O'Reilly *et al.* presented positive aspects in terms of the use of the step-by-step process included in ISO 14031:1999 to manage the PE of supply chains. The case studies focused only on the environmental area. New approaches to PE of supply chains, taking into consideration the principles of sustainability, are therefore needed.

Another important aspect related to the sustainability of organizations and supply chains is the engagement through dialogue of non-commercial interested parties. This aspect has been receiving growing acknowledgement in the literature in the last few years, but through brief citations of the need to engage and communicate with some IP (Bennett & James 1999; Black & Hartel 2004; ECC Kohtes Klewes GmbH 2003; Energex 2002; Global Reporting Initiative - GRI 2002b; Hartman & Stafford 2003; International Organization for Standardization 1999a; Organisation for Economic Co-operation and Development - OECD 2003; Reddington, Withers & Williamson 2004; Social Accountability International - SAI 1998; Standards Australia and Standards New Zealand 2004a, 2004b; The Department of Industry Science and Resources - Australian Government 2001; The Global Principles Steering Group 2002; The Institute for Social and Ethical Accountability 2003; The Standards Institution of Israel 2001; Wood 2004). The only document that acknowledges the engagement through participation in business of non-commercial IP is AA 1000 (The Institute for Social and Ethical Accountability

2003). However it does not demonstrate how to proceed and it is a brief citation. Thus it is necessary to implement the development of a tool for interested party engagement beyond ‘improved communication’ as an important approach for the real sustainability of organisations and supply chains.

Experience of the researcher with a previous project in Brazil has shown that the success of the activities of a supply chain is directly linked to the level of partnership developed among participants of a supply chain. This is also supported by some other authors (Acona 2004; Briscoe, Dainty & Millet 2001; Christopher & Juttner 2000; Development Leadership Network 2001; Kumar & Bragg 2003; Li et al. 2004; Lo & Yeung 2004; Organisation for Economic Co-operation and Development - OECD 2003; Rudzki 2004; Yasenchak 2001; Zhao 2002).

Summarizing, one approach for the sustainability of organizations is the implementation of management systems. However if the improvement of business performance is to be achieved, improved methodologies for the development and implementation of performance evaluation (PE) processes, which take into consideration sustainability principles and the needs of commercial and non-commercial interested parties, are necessary. Also, improvement in overall supply chain performance is seen as a means of adding value and competitive advantage to all businesses. This leads to the need for the creation of a new PE process or model for organizations and supply chains.

1.3 – Research problem

Thus, based on the background information, organizations and their supply chains need assistance in the development of a practical performance evaluation approach /

framework. Such a framework needs to be able to be integrated with their management structure and assist them to:

- ❖ Extend the business focus from commercial issues to encompass principles of sustainability (social, environmental and economic).
- ❖ Maintain the commitment to continual improvement in relation to their individual and combined performances.
- ❖ Improve the environmental, social and economic performance of the organizations and related supply chains.
- ❖ Standardize the language used and the steps to develop performance evaluation and communication systems within the individual organizations and their supply chains.
- ❖ Standardize and agree on relevant, practical performance indicators.
- ❖ Standardize the language in terms of sustainability reporting.
- ❖ Identify and define the resources necessary for an effective performance evaluation process.
- ❖ Improve communication systems and relations with interested parties including communities.
- ❖ Effectively engage all interested parties as partners in moving towards sustainability.
- ❖ Include commercial and non-commercial interested parties' participation/consultation within business processes to achieve mutual benefits.

1.4 - The aim of the research

Develop and evaluate the practical implementation of a simple and objective sustainability performance evaluation management systems model for individual organizations, their supply chains and other key interested parties.

1.5 – Objectives of the research

- ❖ Objective 1 - Understand and evaluate current practices for performance improvement and evaluation of individual commercial organizations and supply chains.
- ❖ Objective 2 - Understand and evaluate the needs of the community-interested parties in relation to the performance, process of performance evaluation and communication systems of individual commercial organizations and supply chains.
- ❖ Objective 3 – Develop, evaluate and improve a performance evaluation systems model based on principles of sustainability for individual commercial organizations, supply chains and local interested parties.

1.6 - Justification of the research

The direct benefit of the research project is the development of a well-structured performance evaluation (PE) model to assist organizations, supply chains and related interested parties to identify and achieve agreed sustainability objectives and measure and report performance towards sustainability. The research also commences the practical process of implementation of the model within the aluminium supply chain in Gladstone. Therefore, not only is a practical model developed that is applicable to any organization – but its practical implementation is also commenced as a trial in a major industry network in Gladstone. The effective demonstration of the model and its implementation should assist other industries within Gladstone to achieve further progress towards the achievement of the ‘Gladstone – a Sustainable City’ objective.

Other specific benefits for the users of the PE model are:

- ❖ The decision makers of the companies and supply chains will have a tool that will help them to improve their analyses of performances and also help them to make better business decisions.
- ❖ Companies with or without management systems will be able to use the new PE model. This model is also suitable for any size and kind of organization and supply chain.
- ❖ The top management of the companies and supply chains will obtain more reliable information about their businesses.
- ❖ The model will help organizations and supply chains to develop more understandable and reliable reports to the interested parties because it will include methods to identify key business indicators and to measure/evaluate information using these indicators.
- ❖ The information supplied through indicators will help companies to identify problems and opportunities, which, if managed, will reduce operating costs and environmental, social and human resource liabilities.
- ❖ The PE model will help provide a common language for performance evaluation among organizations.
- ❖ Improved partnerships within a supply chain.
- ❖ Improved relations with local communities and other interested parties.

The need for a more effective PE model was identified during a project assisted by the Industrial Federation of the State of Minas Gerais – FIEMG. The author, a consultant at the time, assisted eight industries to implement ISO 14000 management systems. One of the reasons, among many, for the industries to implement management systems (MS) was the necessity to improve business performance.

The management systems were successfully implemented but it was identified that companies were not capable of effectively evaluating their performance with regard to aspects linked to the new MS. This research helps meet this need.

Similarly, many industries in Gladstone are currently considering the implementation of extended external performance evaluation and reporting for the requirements of triple bottom line initiatives. They are also looking for a way to improve relations with the local community and considering including in their reports the performance of their supply chains. A group formed by the main industries of the region, the Gladstone Area Industry Network (GAIN), has held meetings with the Environmental Protection Agency of Queensland to study a way to develop and implement this performance reporting process. The work described in this thesis provides a practical model for industries and other organisations to utilise in order to achieve the desired reporting processes.

1.7 - Scope

Some important aspects of the research project necessary to understand the boundaries of the work:

- ❖ The PE model follows ISO approaches for management systems.
- ❖ The major field of this work is linked to the environmental area, the strength of the researcher. However the work also includes knowledge related to social and economic areas.
- ❖ The work has been done with commercial organizations, supply chains and community interested parties of the Gladstone region. The major parts of the participants' commercial organisations are industries. The interested parties are organizations that represent important sectors of the community.

- ❖ The Gladstone region has been chosen for the research because it is a unique area of Central Queensland, Australia, where both tourism and industries coexist in harmony. The research focuses on developing improved practices that support this coexistence to continue harmoniously with minimal adverse impacts on the local community from ongoing major development. The area is being recognised as a strategic location for the establishment of heavy industry.
- ❖ One of the major products of the Gladstone region is aluminium. The research study is based on the analyses of organizations and supply chains that are responsible for the production of aluminium in Gladstone. Not all the organisations of the supply chains are included in the work, only the major ones.

1.8 - Structure of the thesis

NOTE: Due to confidentiality requirements, the commercial organizations and interested parties, which participated in this survey aspect of the research, are identified in this thesis by numbers (e.g. organisation 16). Numbers are also used to identify the representative of interested party organizations from the community who participate in the research (e.g. interested party 01).

Chapter 1 defines the background of the research, research problem, aim, objectives, the reasons for the research and the boundaries of the work.

Chapter 2 presents a critical review of the literature related to organizations and supply chains in the field of management systems (MS), performance evaluation (PE), organizational sustainability, communication with interested parties, performance indicators and reporting (PR).

The methodology used within the research is described and evaluated in Chapter 3.

The Results and Data Analysis Chapter (Chapter 4) is related to:

- ❖ Current and improved performance evaluation processes used by companies and supply chains;
- ❖ The needs of interested parties in relation to PE processes and performance of commercial organizations and supply chains; and,
- ❖ The implementation of partnership and a PE model in a commercial and community supply chain.

Chapter 5 presents the discussion of results and identifies the outcomes of the research.

Conclusions and recommendations for further study are addressed in Chapter 6.

Additional information and raw data are presented as Appendices.

Chapter 2

2 - LITERATURE REVIEW

2.1 – Introduction

The purpose of this Chapter is to identify and develop a critical evaluation of the existing literature about sustainability, management systems (MS) and performance evaluation (PE) of organizations and supply chains. It also demonstrates the necessity for the development of a new, simple and objective PE model based on ISO management systems approach, including communication (e.g. reports) and sets of indicators for companies that participate in supply chains and that want to develop their activities toward sustainability.

The literature review was undertaken by topic in a historical manner and using an exploratory (classic by questions) and instrumental (finding business methodologies) approach (Ticehurst & Veal 1999). It was completed using a protocol called Literature Review Protocol that has been included in Appendix 1. The protocol has been constructed based on the exploratory approach from Ticehurst.

2.2 – Organizations, MS and SD

2.2.1 - Introduction

One of the organisational challenges for today is to strive to achieve sustainable development (SD) (Coelho, J.F.G.M. & Moy 2002; Vollenbroek 2002). If a general definition for management is the attainment of organizational objectives in an efficient manner through planning, organising, leading, and controlling organizational resources

(Daft & Marcic 2001), then the main objective of organizational management should be sustainability. Sustainability or 'Sustainable Development' (World Commission on Environment and Development 1987) implies the management of organizational resources in such a way, as to meet the needs of the present without compromising the ability of future societies to meet their own needs.

However, it is not easy to apply the concept of Sustainable Development. It establishes new levels of performance for society, thus it requires a different type of human behaviour. Sustainability, according to Elkington (Elkington 1997), requires a fresh approach to subjects related to:

- ❖ Economic prosperity
- ❖ Environmental quality
- ❖ Social equity

Elkington's approach is a simplified way of translating SD concepts into social action. It has received wide acceptance and recognition by practitioners and academics around the world. Sutton (Bourne et al. 2002) and The Food and Agriculture Organization – FAO (Wikipedia 2004) and others (Refs) have tried to split the concept of SD and create/explain terms such as Environmental Sustainability, Social Sustainability and Economic Sustainability. As Sustainability is an integrated concept, this sub-division only adds to the confusion prevalent in society and does not contribute to the understanding of the holistic and integrated idea of sustainability or SD.

Over a long period of time, human development towards sustainability will continue to demand many changes in our society (Vollenbroek 2002) (i.e. changing unsustainable patterns of consumption and production; managing the natural resource base of economic

and social development; reduction of emissions of greenhouse gases; combat desertification, etc).

Around the world organizations are increasingly being pressed to perform in accordance with patterns established by society and in consonance with the concept of sustainability (Coelho, J.F.G.M. & Moy 2001). According to SusOps (Sustainability Operating Strategies for Business 2005), an organization dedicated to helping communities, organizations and individuals to operate in a more sustainable manner, “organizations are finding that it is very much in their best interests to move toward sustainable operation. This is not because it is the right thing to do but because it improves the bottom line”.

Triple Bottom Line – TBL (Bourne et al. 2002; Elkington 1997; Schweitzer 2005; Wilkinson, Hill & Gollan 2005) has been popularised globally since the mid-1990s by SustainAbility Pty. Ltd. (Bourne et al. 2002) as a framework for organizations to translate the concept of Sustainable Development (World Commission on Environment and Development 1987) into the operation of organizations. TBL and Corporate Social Responsibility programs are essentially the same (Bourne et al. 2002). However, the TBL programs are focusing only on accounting and reporting and organizations need to migrate the programs to the ‘strategy setting’ aspects of management (Bourne et al. 2002).

Organizational Sustainability is recent terminology used to characterise the achievements of organizations that have driven their activities based on the three pillars of sustainability (economic prosperity, social equity and environmental quality). Organizational Sustainability is also a new area of study. A few authors and entities have tried to explain the term by identifying what companies need to do to achieve sustainability (Bourne et al. 2002; Heuerman & Olson 2004; Sustainability Operating Strategies for Business 2005;

Wikipedia 2004). However these explanations are generally as abstract as the definition of SD (World Commission on Environment and Development 1987).

Many organizations around the world have found, in the establishment of Management Systems (MS) according to standards, a way to improve many aspects of business performance (International Organization for Standardization 2001c) toward sustainability (Abdulla & Zairi 2002; Coelho, J.F.G.M. & Moy 2002). Also, for organizations, sustainability implies maintaining their competitiveness (Abdulla & Zairi 2002; Coelho, J.F.G.M. & Moy 2002).

The evolution of organizational management has been following the changes in our society. In the early stages of the development of management systems, society was concerned about the quality of the products. Then quality standards were developed and organizations started to apply them. After that came another phase and society started to give more emphasis to the health and safety of the enterprises' employees and to aspects related to the environment. Many standards related to those areas were developed and consequently applied by organizations. Some enterprises decided to implement individual MS (ISO 14001:2004 and/or ISO 9001:2000 and/or OHSAS 18001:1999), while some decided to implement or to integrate the different MS in unique management systems.

In recent years, the international community has started to see world issues in a more holistic way. The new trend for the near future, in terms of standardization, is the development of corporate responsible management systems. The International Organization for Standardization (ISO) is studying the possibility of developing this. Even if the ISO does not succeed on its development, organizations have the opportunity to apply other standards and guides [*AA 1000:1999 – Accountability Management, Global*

Reporting Initiative (GRI), SA 8000:1997 – Social Accountability 8000, SI 10000: 2001 - Social Responsibility and Community Involvement, etc] for corporate responsibility.

One of the most widely implemented MS standards worldwide are the ISO standards. A survey conducted by the International Organization for Standardization – ISO (International Organization for Standardization 2001c), in December 2000, shows the number of organisations that have decided to implement ISO MS standards:

- ❖ Worldwide total of *ISO 9001/2/3:1994 – Quality Systems (QS)* and *ISO 9001:2000 - Quality Management Systems (QMS)* certificates = 408,631.
- ❖ Proliferation of ISO 9001/2/3 certificates = 158 countries.
- ❖ Worldwide total of *ISO 14001 - Environmental Management System (EMS)* certificates = 22,897.
- ❖ Proliferation of ISO 14001 certificates = 98 countries.

Another survey developed in Canada (International Organization for Standardization 2001b), through 3000 interviews with registered organizations that have already implemented ISO 9001 and ISO 14001, shows the benefits of MS for organizations:

- ❖ 95% of the organizations answered that ISO 14001 helped them to improve environmental practices and performance.
- ❖ 93% of the organizations answered that ISO 9000 helped them to improve management practices.
- ❖ 65% of the organizations answered that ISO 9000 and ISO 14000 helped them to improve cost savings.

2.2.2 – QMS standards

The well-known standards used in the implementation of quality management systems (QMS) are:

- ❖ *ISO 9001:2000 – Quality Management Systems – Requirements* (International Organization for Standardization 2000a).
- ❖ *ISO 9001/2/3:1994 – Quality Systems* (International Organization for Standardization 1994).
- ❖ *ISO/TS 16949:2002 – Quality Systems – Automotive Suppliers – Particular Requirements for the Application of ISO 9001:1994* (International Organization for Standardization 2002a).
- ❖ *ISO 13485:2001 – Quality Systems - Medical Devices - Particular Requirements for the Application of ISO 9001*(International Organization for Standardization 2001a).
- ❖ *QS9-3 - Quality System Requirements (QS-9000 Third Edition)* (Automotive Industry Action Group 1998).
- ❖ *AS 9100:2001 – Quality Management System Certification in the Aerospace Industry* (Society of Automotive Engineers 2001).
- ❖ *TL 9000:2001 – Quality System Requirement for the Telecommunication Industry* (Quality Excellence for Suppliers of Telecommunications 2001).

It is different from ISO 9001:1994 which is focused on quality assurance. The recently revised standard, ISO 9001:2000 focuses on the continual improvement of QMS (Canadian Standards Association 2000; Hoyle & Thompson 2001; International Organization for Standardization 2000c).

ISO 9001:2000 promotes the adoption of a process approach when developing, implementing and improving the effectiveness of a QMS to enhance customer satisfaction by meeting customer requirements. It was developed, together with the new ISO 9004:2000, as a consistent pair of quality management systems standards which have

been designed to complement each other but can also be used independently (International Organization for Standardization 2000b). However, the only standard that can be used for certification purposes is ISO 9001: 2000.

ISO 9004:2000 moves beyond the requirements of ISO 9001:2000, in pursuit of continual improvement of performance to increase the level of satisfaction of interested parties by meeting their specific requirements.

In 2002, a new ISO codified as 19011:2002 (International Organization for Standardization 2002c) was released. Named *Guidelines on Quality and Environmental Auditing*, it is a fusion of the actual auditing standards, ISO 10011(Parts 1, 2 e 3) for Quality and ISO 14010, ISO 14011 and ISO 14012 for Environment.

The other quality standards previously listed are based on or complementary to ISO 9001 and share with ISO the same PDCA (Plan-Do-Check-Act) principle (Development Leadership Network 2001). While ISO 9001 is a general standard for any kind of business, the others are very specific for particular types of business. ISO/TS 16949:1999 and QS9-3 were developed for the automotive industry, ISO 13485:2001 for medical devices, AS 9100:2001 for the aerospace industry and TL 9000:2001 for the telecommunication industry.

2.2.3 - EMS standards

ISO 14001:2004 – Environmental Management Systems – Specification with Guidance for Use (International Organization for Standardization 2004b) belongs to a family of standards called ISO 14000 series. The ISO Technical Committee, TC 207, is responsible for developing and maintaining the ISO 14000 family of standards (International

Organization for Standardization 2002b). Published documents and ongoing work address the following areas:

- ❖ Environmental management systems (EMS).
- ❖ Environmental auditing (EA) and other related environmental investigations.
- ❖ Environmental performance evaluation (EPE).
- ❖ Environmental labelling (EL).
- ❖ Life cycle assessment (LCA).
- ❖ Environmental aspects in product standards.
- ❖ Terms and definitions.

The series is made up of documents related to EMS (e.g. ISO 14001 and ISO 14004) and documents related to environmental management tools (i.e. all other ISO 14000 series documents). This approach takes the view that the establishment and implementation of an organization's EMS is of central importance in determining the organization's environmental policy, objectives, and targets. Environmental management tools exist to assist the organization in realizing its environmental policy, objectives, and targets.

ISO 14001 specifies the requirements for an EMS that may be objectively audited for certification. *ISO 14004:2004 – Environmental Management Systems – General Guidelines on Principles, Systems and Supporting Techniques* (International Organization for Standardization 2004a) only provides guidance to help an organization establish, implement and improve an EMS.

The other recognized standard in the area is the *Eco Management and Audit Scheme* (EMAS), the EMS standard of the European Commission. EMAS II (European Council 2001) is the 2001 version of EMAS. Both ISO and EMAS have the same approaches to

management, as they are based on the PDCA (Plan-Do-Check-Act) and continual improvement principles (Development Leadership Network 2001). The major differences are:

- ❖ To comply with EMAS the organizations have to undertake an initial environmental review before implementing the standard, but with ISO it is not compulsory. It is however required that an organization shall establish procedures to identify the environmental aspects of its activities, products and services.
- ❖ To comply with EMAS the organizations have to develop an environmental statement after each auditing cycle, but with ISO it is not compulsory.

2.2.4 – WH&SMS standards

The well-known documents used by organizations in the implementation of workplace (or occupational) health and safety management systems (WH&SMS) are:

- ❖ *AS/NZS 4801:2001 – Occupational Health and Safety Management Systems – Specification and Guidance for Use* (Standards Australia and Standards New Zealand 2001).
- ❖ *OHSAS 18001:1999 - Occupational Health and Safety Management Systems – Specification* (British Standards Institution 1999).

These two standards have the same approaches of management: that they are based on the PDCA (Plan-Do-Check-Act) and continual improvement principles, and they do not have any substantial differences.

A similar relation to that between ISO 14001:2004 and ISO 14004:2004 exists between AS/NZS 4801:2001 and AS/NZS 4804:2001 and between OHSAS 18001:1999 and OHSAS 18002:2000. The supplementary standards (e.g. - OHSAS 18002:2000) provide

guidance to help an organization establish, implement and improve a system to achieve 'compliance' with the relevant specification standard (e.g. - OHSAS 18001:1999).

2.2.5 - CRMS standards

This is a relatively new area in terms of standardization. Some standards have used the term 'corporate social responsibility' but as the standards sometimes address issues outside the social area, comprising environmental and/or economic areas, the term that better suits is 'corporate responsibility'.

During the last three years a series of draft standards in this area have been under development.

Some important standards, already in use, are:

- ❖ *SA 8000 – Social Accountability 8000* (Social Accountability International - SAI 1998) is the first attempt at standardizing social accountability. It is an international standard developed by Social Accountability International (SAI), a charitable human rights organization dedicated to improving workplaces and communities. It is a workplace standard that covers key labour rights. It works within the human resources area of organizations and as a complement of the occupational, health and safety management systems. It does not address any kind of issues related to the external social responsibility of organizations.
- ❖ *AA 1000 – Assurance Standard Guidance* (The Institute for Social and Ethical Accountability 2003) was developed by the Institute for Social and Ethical Accountability (ISEA), an international organization based in the UK that encourages ethical behaviour in business and is based on assessment of reports against three assurance principles: Materiality - does the sustainability report provide an account covering all the areas of performance that stakeholders need to judge the

organization's sustainability performance; Completeness - is the information complete and accurate enough to assess and understand the organization's performance in all these areas; and, Responsiveness: has the organization responded coherently and consistently to stakeholders' concerns and interests? The standard is designed to complement the GRI Reporting Guidelines (Global Reporting Initiative - GRI 2002b) and other standardized or company-specific approaches to disclosure. It is a supporting document of the AA1000 Series and Framework. The Series and Framework was developed to help users to improve accountability and performance by learning through stakeholder engagement. The two key principles underpinning AA 1000 are stakeholder engagement and embedding.

- ❖ *AS 8003: 2003 – Corporate social responsibility* (Standards Australia 2003) has the objective to provide essential elements for establishing, implementing and managing an effective Corporate Social Responsibility (CSR) Program within an entity and provides guidance in using the elements. CSR is defined as a mechanism for entities to integrate social and environmental concerns into their operations and their interaction with their stakeholders, which are over and above the entity's legal responsibilities. The standard is part of the Governance series, which comprises: *AS 8000 – Good governance principles; AS 8001 – Fraud and corruption control; AS 8002 – Organizational codes of conduct; AS 8003 – Corporate social responsibility; and, AS 8004 – Whistleblower protection programs for entities.*

2.2.6 - Other MS standards

Other important MS standards are:

- ❖ *HACCP – Hazard Analysis and Critical Control Point* (National Advisory Committee on Microbiological Criteria for foods 1997). This is a systematic methodology for analysing food processing for foreign or undesirable/hazardous inclusion of

chemicals, physical or biological agents. It is a management scheme developed for the food industry.

- ❖ *BS 7799-2:2002 – Information Security Management – Specification for Information Security Management Systems* (British Standards Institution 2002). This standard introduces a code of practice plus a list of requirements to provide a baseline of security practices for information. It is used by organizations that want to prevent information loss.
- ❖ *AS/NZS 4581:1999 – Management System Integration – Guidance to Business, Government and Community Organizations* (Standards Australia and Standards New Zealand 1999). This Australian and New Zealand Standard provides the framework and guidance for an overall management system in which the common requirements of individual systems are integrated to avoid duplication and provide a uniform basis for the unique characteristics of each of the individual systems. It also provides identification of the relationship between the clauses of AS/NZS ISO 9001:1994, AS/NZS ISO 14001:2004 and AS/NZS ISO 4804:1997. This standard was withdrawn in 2001 for revision. There is no new date to release the revised version.
- ❖ *SQMS Code: 2000 – Safe Quality Management System* (QTI Group 2000). The QTI Group in Australia developed the standard to be applied for food and catering industries with the intention to encompass HACCP, ISO 9001, ISO 14001 and AS 4801 in the same MS. It is not a standard developed by Standards Australia and it does not have even national recognition.
- ❖ *AS/NZS 4360:2004 – Risk Management* (Standards Australia and Standards New Zealand 2004a). This standard provides a generic framework for establishing the context, identification, analysis, evaluation, treatment, monitoring and communication of risk. It could be read in conjunction with other applicable or relevant standards. The risk management process can be applied to any situation where an unexpected

outcome could be significant or where opportunities are identified. Decision makers need to know about possible outcomes and take steps to control their impact. An associated Standard, *HB 203:2004, Environmental Risk Management - Principles and Process* (Standards Australia and Standards New Zealand 2004b), was developed to provide guidance on the application of AS/NZS 4360 to the environment.

2.2.7 - TQM

Total Quality Management (TQM), is an ideological, cultural based system of managerial operation that seeks to continuously improve the total organizational system that produces goods/services to satisfy customers every time (James, P. T. J. & Sterman 1996). It represents the latest phase in the evolution of the quality discipline (Hart & Bogan 1992).

The differences that previously existed between TQM and ISO 9001: 1994 have been removed with the release of the new ISO 9001: 2000. Both now share the same concepts: management responsibilities, customer satisfaction and continual improvement (Laszlo 2002). However ISO 9001: 2000 is a performing management systems standard (International Organization for Standardization 2000a) and TQM is a management theory (Lycke 2002).

2.2.8 - Proposed new MS standards

ISO's Consumer Policy Committee (COPOLCO), at its May 2001 meeting in Oslo, Norway, agreed to explore the feasibility and desirability of developing ISO Standards to benchmark corporate responsibility and governance practices (ISO Corporate Responsibility Management System Standards – ISO CRMSSs). A COPOLCO working group, called Consumer Protection in the Global Market, was given the responsibility of studying the matter and delivering its recommendations through a report, at a June 2002

COPOLCO plenary meeting held in Trinidad and Tobago. The report is called *The Desirability and Feasibility of ISO Corporate Social Responsibility Standards*.

The report (ISO COPOLCO 2002) was developed in the light of increasing worldwide consumer and public interest in this issue. It was also developed because a series of divergent corporate responsibility initiatives, with different approaches and specifications, have been developing around the world. The diversity of approaches has already started to cause confusion and discourage business from engaging in corporate responsibility (CR) activities.

The report identifies a wide number of corporate responsibility initiatives from inter-governmental bodies, individual governments, investment-driven entities, recognized standards bodies, and from various other industry, non-governmental, faith-based, and multi-stakeholder organizations. Initiatives include: *Principles for Business* (Caux Round Table 2003); *Promoting a European Framework for Corporate Social Responsibility* (European Commission 2004), *Global Reporting Initiative* from the Coalition for Environmentally Responsible Economics (CERES) (Global Reporting Initiative - GRI 2002b), *Bench Marks for Measuring Business Performance* from Interfaith Centre for Corporate Responsibility (The Global Principles Steering Group 2002), *Sustainability – Integrated Guidelines for Management Projects* from the British Standards Institution (SIGMA Project 2003), *The Global Compact* (United Nations 2000), *Making Good Business Sense* (World Business Council for Sustainable Development - WBCSD 2000a), *AA 1000 – Assurance Standard Guidance* (The Institute for Social and Ethical Accountability 2003), *The OECD Guidelines for Multinational Enterprise* (Organisation for Economic Co-operation and Development - OECD 2003), *SA 8000 – Social Accountability 8000* (Social Accountability International - SAI 1998), *The Business*

Chapter for Sustainable Development (International Chamber of Commerce 1991), *The Coalition for Environmentally Responsible Economies Principles* (The Coalition for Environmentally Responsible Economies - CERES), *ISO 9001:2000 – Quality management systems – Requirements* (International Organization for Standardization 2000a), *ISO 14001:2004 – Environmental management systems – Specification with guidance for use* (International Organization for Standardization 2004b), *OHSAS 18001:1999 - Occupational health and safety management systems – Specification* (British Standards Institution 1999), *SI 10000: 2001 - Social Responsibility and Community Involvement* draft standard from Israel (The Standards Institution of Israel 2001), *NQ 9700-950 - Corporate Social Responsibility – Human Resources, Donations and Sponsorship* certificate protocol from the Quebec – Canada (Bureau of Normalisation du Quebec - BNQ 1999), *Global Sullivan Principles of Social Responsibility* (Sullivan 2003). The report also includes the suggestion that there are five fundamental elements for an effective CR approach:

- ❖ Identification by a firm of relevant CR norms and principles.
- ❖ Techniques for engaging stakeholders.
- ❖ Process and systems to ensure effective operation of CR.
- ❖ Techniques for verification of progress.
- ❖ Techniques for stakeholders and public reporting and communication.

In summary, the advantages and benefits of the development of an ISO CRMSSs include (ISO COPOLCO 2002):

- ❖ The standard should provide globally accepted benchmarks and criteria.
- ❖ ISO has thousands of potential customers to apply the standard who could contribute to the dissemination of the corporate responsibility of institutions.
- ❖ Compatibility to integrate with other ISO standards.

- ❖ Ability to assure corporate compliance against criteria developed by society.
- ❖ Developing consensus and sharing ideas of the existing CR initiatives.
- ❖ Ensuring that stakeholders can have confidence that their interests will be protected when businesses adhere to the standard.
- ❖ Promotion of equal opportunities for organizations in cross-border trade.
- ❖ As a voluntary document, suitable for adoption by any kind of organization, but does not impede any government or business from putting in place more rigorous protection mechanisms as they see fit.
- ❖ World Trade Organization (WTO) support for the standard.
- ❖ Possibility for developing countries to incorporate their needs in the document.
- ❖ Adoption of the standards by organizations should help them to be more transparent in terms of their business actions and to engage the stakeholders in their activities.

Some possible disadvantages of the development of an ISO CR MSSs (ISO COPOLCO 2002):

- ❖ Little society participation in its creation even if the standard developed takes into consideration other CR initiatives that had public participation.
- ❖ ISO standards do not guarantee any level of compliance.
- ❖ Global ISO CR may put developing countries at competitive disadvantage.
- ❖ Global ISO CR may put some companies at competitive disadvantage because of the price to obtain and maintain certificates.
- ❖ The certification against the standard could provide false assurance of corporate responsibility of organizations to their stakeholders.

In conclusion, the report (ISO COPOLCO 2002), ISO COPOLCO recommends the development of an ISO Corporate Responsibility Management Systems Standard after balancing and analysing the advantages and disadvantages of the creation of an ISO CR MSS.

On 1 October 2004 ISO released a new work item proposal for preparation of an International Standard giving guidance on corporate social responsibility (International Organization for Standardization 2004c). The ISO reference number for this proposal is ISO/TMB N26000 and member bodies of ISO have been invited to vote on the proposal no later than 7 January 2005.

2.2.9 - Conclusions

Organizations have been implementing MS standards with the intention of improving business performance towards sustainability.

There are common and important aspects within all standards that provide guidance for organizations to establish and implement MS (i.e., ISO 9001:2000, ISO 14001:2004, OHSAS 18001:1999 and also the possible ISO CR standard and TQM). They are performance standards of MS, based on the principle of continual improvement, and they address in the requirements the necessity for performance improvement, but none of them specify how to develop performance evaluation (British Standards Institution 1999; International Organization for Standardization 2000a, 2004b). It has also been recognized that the implementation of MS is not enough to improve performance. Within MS, it is necessary to develop and implement a well-structured PE methodology if the business and objectives of the interested parties are to be met (Coelho, J. F. G. M., Moy & Whitwell 2002; International Organization for Standardization 1999a; Wilkinson, Hill & Gollan

2005) in a sustainable way (Coelho, J. F. G. M., Moy & Whitwell 2002; Vollenbroek 2002; Wilkinson, Hill & Gollan 2005).

2.3 – Organizations and PE

2.3.1 - Introduction

Kaplan states that if companies cannot measure performance, they cannot manage their business. If companies are to survive and prosper in information age competition, they must use measurement and management systems derived from their strategies and capabilities (Kaplan & Norton 1996). This statement summarizes the necessity of organizations to measure, and as a direct consequence, to evaluate their performance (O'Reilly, Wathey & Gelber 2000).

Pearson (Pearson 1999) also states that a good enterprise system of measurements is the first step toward better integration and innovation and the objective is to develop a fully automated system of measurements that supports effective operations from top to bottom of the enterprise.

Performance is defined as measurable results of the level of attainment of organizational goals (Daft & Marcic 2001), or measurable results of the organization's management of its aspects (International Organization for Standardization 1999a), or a mechanism for improving the likelihood of the organization successfully implementing a strategy (Anthony 1998). Performance evaluation (International Organization for Standardization 1999a) is the process to help management decisions regarding an organization's performance by selecting indicators, collecting and analysing data, assessing information against performance criteria, reporting and communicating and periodically reviewing and improving this process.

Summarizing the ideas of many authors, it can be said that the roles of business performance evaluation are (Bennett & James 1999):

- ❖ To ensure compliance with crucial minimum standards.
- ❖ To check how well organizations are doing.
- ❖ To test strategic assumptions.

This assessment ignores the growing need for PE to also provide a reliable basis for communicating with interested parties - including public reporting.

Over many years companies have been using financial measures, to show the results. Over the past few years, though, there has been an increasing demand for measuring non-financial results - particularly in social and environmental areas interrelated with organizations' activities (Elkington 1997). These new approaches for PE are attempts at measuring and evaluating organizations' sustainability (Isaksson & Garvare 2002).

Some business performance evaluation methodologies and approaches that have been evaluated are:

- ❖ Balanced scorecard (Kaplan & Norton 1996).
- ❖ ISO 14031: 1999 (International Organization for Standardization 1999a) and other environmental performance evaluations.
- ❖ Framework for PE using business excellence awards (Edgeman 2000) such as the European Foundations for Quality Management (EFQM) Excellence Model , the Malcolm Baldrige National Quality Award (MBNQA), the Australian Business Excellence Framework (ABEF) and Deming Prize.
- ❖ Framework for PE using corporate responsible (CR) initiatives. Those initiatives have been listed in the report related to the proposal for the development of an

ISO standard for corporate responsibility developed by the group ISO COPOLCO (ISO COPOLCO 2002).

- ❖ Framework for performance evaluation using models developed by the financial sector (BASF 2001; NOKIA 2000) including indices such as the Dow Jones Sustainable Index (SAM Indexes GmbH 2001) and the FTSE4 Good Index (FTSE Group 2003).
- ❖ Framework for performance evaluation using reporting processes (Elkington 1997; Global Reporting Initiative - GRI 2002b) – some reporting processes such as triple bottom line and the Global Reporting Initiatives (GRI).
- ❖ Other performance evaluation methodologies and approaches.

Management systems standards have also been used as a framework for PE. These standards were analysed in Section 2.2.

2.3.2 - Balanced scorecard

The balanced scorecard (BSC) provides a framework for strategic performance management systems (Epstein & Wisner 2001) that enables organizations to become aligned and focused on implementing long-term strategy. The process presented by the balanced scorecard is a closed loop of an MS that (Anthony 1998; Kaplan & Norton 1996, 2000):

1. Translates strategy and vision into action (through objectives, targets and initiatives).
2. Gives feedback of the action (through integrated measures of the objectives, targets and initiatives and their evaluation).
3. Closes the loop through the maintenance or change of the strategy.

According to Kaplan and Norton (Kaplan & Norton 1996, 2000) it is more than a tactical or an operational measurement system. Innovative companies are using scorecard to manage their strategy over their long run and to develop critical management processes to:

- ❖ Clarify and gain consensus about strategy.
- ❖ Communicate strategy throughout the organization.
- ❖ Translate vision and strategy into action (plan, set objectives and targets, and align strategic initiatives).
- ❖ Link strategic objectives and measures to long-term targets and annual budget.
- ❖ Align departmental and personal goals to the strategy.
- ❖ Perform periodic and systematic strategic reviews.
- ❖ Obtain feedback to learn about and improve strategy.

In a traditional performance evaluation of companies, financial measures of corporate success show the results, in terms of profit and revenue, of past decisions the company has taken. However the balanced scorecard uses a multidimensional and integrated set of financial and non-financial performance indicators, through four perspectives seeking a long-term strategy (Daft & Marcic 2001; Kaplan & Norton 1996, 2000; Sharif 2002). The indicators used are lagging (outcome measurements) and leading (driver measurements) ones (Anthony 1998) and they are used to measure past performance and the drivers of future performance. The four perspectives and examples of measures are:

1. Customer – How should we appear to our customers or how well do we serve our customers? – Examples of measures: satisfaction, retention, market, and account share.
2. Internal business process – To satisfy our shareholders and customers, what business processes must we excel at; what core competencies do we possess, what

can be developed (from today) and does the chain of internal activities and processes add value for customers and shareholders? – Examples of measures: quality, response time, cost, and new product introductions.

3. Learning and growth – To achieve our vision, how will we sustain our ability to change and improve (into the future) and are we learning and changing? – Examples of measures: employee satisfaction and information system viability.
4. Financial – To succeed financially, how should we appear to our shareholders and do actions contribute to improving financial performance? – Examples of measures: return of investments and economic value added.

Figure 1 shows the major perspectives of the balanced scorecard based on Robert S. Kaplan and David P. Norton (1996: p. 76).

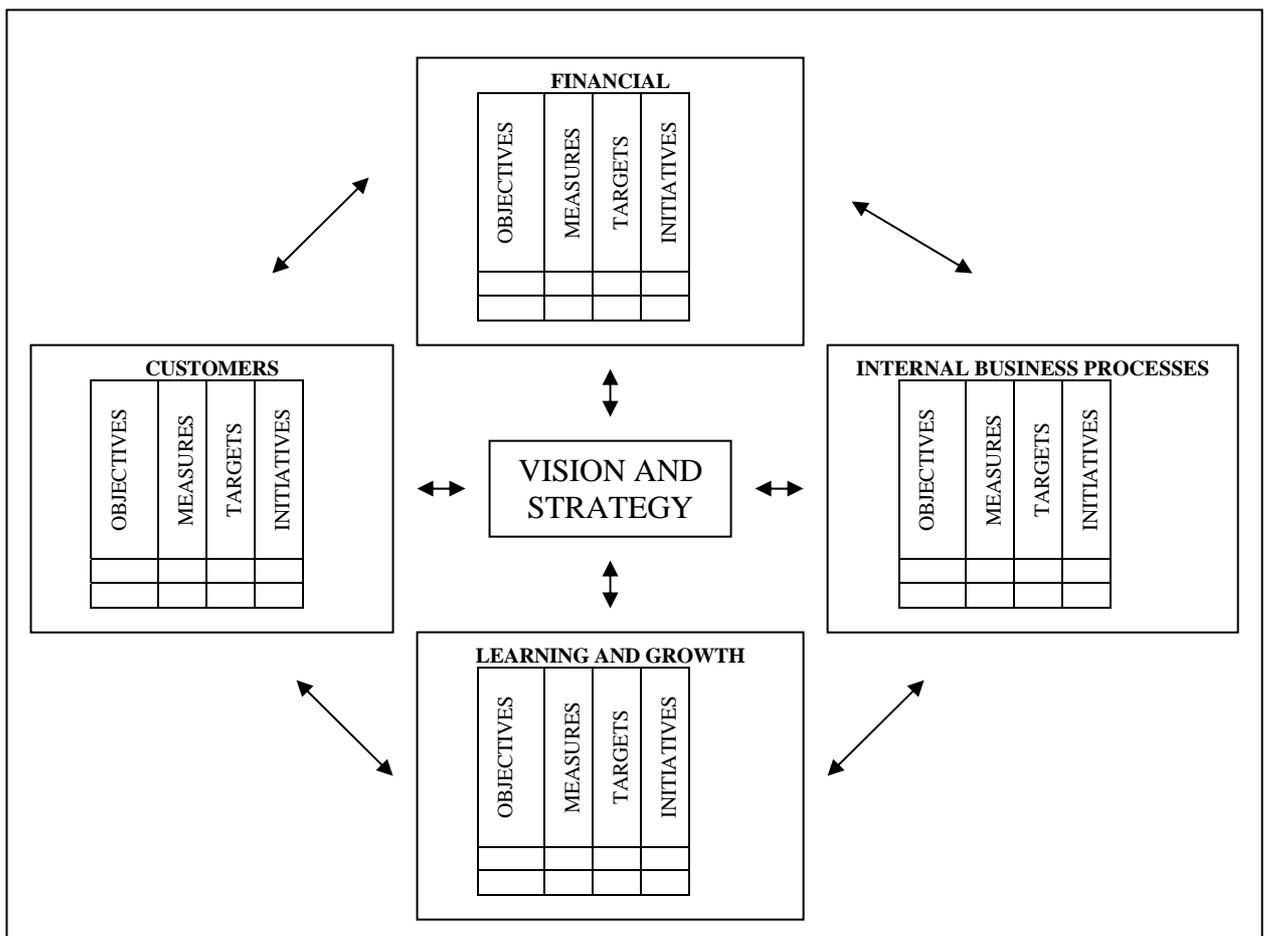


Figure 1: Major perspectives of the balanced scorecard

For many years, Kaplan and Norton (Kaplan & Norton 1996, 2000) and other authors (Daft & Marcic 2001; Epstein & Wisner 2001; Gurd 2002; Norrekit 2000; Sharif 2002; Thorne & Gurd 1995) have been studying companies that have successfully implemented the balanced scorecard. Some of the companies are: Telenor, KPMG, Mitsubishi Motors Australia, Fannie Mae, National Bank OFS, Nationwide Financial Services, Amoco Corp., Bell Canada, Rockwater, Metro Bank, Pioneer Petroleum, National Insurance, and Kenyon Stores.

Some researchers and authors have found through their studies, that other management approaches and initiatives could be integrated with BSC to obtain more powerful management tools.

Lee and Ko (Lee & Ko 2000) developed a so-called strategic MS approach by conjoining the SWOT (Strengths – Weaknesses – Opportunities – Threats) analysis with BSC and Quality Function Deployment (QFD) (Kliwer et al. 2002). QFD is a tool that can help organizations to understand the needs of the customer and then translate them into a set of design and manufacturing requirements.

Sharif (Sharif 2002) showed that the integration of BSC with some IT systems is also crucial to the ongoing development of a holistic management and decision-making activity within companies wishing to operate as world class organizations.

Gurd (Gurd 2002) has been developing a case study in Mitsubishi Motors Australia by conjoining total quality management (TQM) and BSC. The study is ongoing but early results have demonstrated that BSC may indeed fill a gap where TQM may fail – a lack of linkage between organization's strategy and organization's actions.

Case studies were presented by Epstein and Wisner in an article in 2001 (Epstein & Wisner 2001). Bristol-Myers Squibb, the multinational pharmaceutical giant, and Severn Trent, an international provider of water, waste and utility services based in the United Kingdom, have used the BSC approach for implementing sustainability. Based on those case studies, Epstein and Wisner developed an example of various metrics that companies could use to measure social and environmental impacts.

Table 1 shows some examples of balanced scorecard measures for sustainability based on Epstein & Wisner (2001: p. 07).

These initiatives show (Epstein & Wisner 2001; Gurd 2002; Lee & Ko 2000; Sharif 2002) the potential of BSC, as a powerful management tool. Kaplan and Norton (Kaplan & Norton 1996) concluded that the real power of the Balanced Scorecard occurs when it is transformed from a measurement system to an MS.

But Anthony (Anthony 1998) demonstrates, as a result of his studies, that there are many pitfalls that an organization can encounter when trying to implement a balanced scorecard:

- ❖ Poor correlation between driver and outcome measures.
- ❖ Fixation on financial results.
- ❖ No mechanism for making improvements.
- ❖ Failure to update the measures.
- ❖ Too many measures (overload of information).

	ENVIRONMENTAL	SOCIAL
FINANCIAL	<ul style="list-style-type: none"> ❖ environmental \$ saved ❖ \$ fines/penalties ❖ EH&S costs (% of sales) ❖ % proactive vs. reactive ❖ increase in relative % of proactive expenditures ❖ % environmental costs direct-traced ❖ \$ capital investments ❖ energy costs ❖ disposal costs ❖ recycling revenues ❖ revenues from green products ❖ \$ operating expenditures ❖ reduction in cost of debt ❖ cost avoidance from environmental actions 	<ul style="list-style-type: none"> ❖ philanthropic \$ contributed ❖ \$ workers compensation costs ❖ # employee lawsuits ❖ \$ employee benefits ❖ legal actions / costs ❖ training budgets ❖ reduction in hiring costs ❖ revenue from socially positioned products ❖ increased sales from improved reputation
CUSTOMER	<ul style="list-style-type: none"> ❖ \$ cause-related marketing ❖ # "green" products ❖ product safety ❖ # recalls ❖ customer returns ❖ unfavourable press coverage ❖ % products reclaimed after use ❖ # stakeholder communications ❖ product life ❖ functional product eco-efficiency (e.g. energy costs of a washing machine) 	<ul style="list-style-type: none"> ❖ customer perceptions ❖ # of cause-related events supported (e.g., breast cancer, AIDS) ❖ \$ community support (parks, safety, recreation, etc.) ❖ # community meetings ❖ customer satisfaction ❖ social report requests ❖ # product recalls ❖ customer group demographics
INTERNAL BUSINESS PROCESSES	<ul style="list-style-type: none"> ❖ # LCAs performed ❖ % materials recycled ❖ % waste to landfill ❖ # certified suppliers ❖ # accidents / spills ❖ # audits / year ❖ # truck miles ❖ % office suppliers recycled ❖ internal audit scores ❖ energy consumption ❖ % facilities certified ❖ % of product remanufactured ❖ packaging volume ❖ non-product output ❖ # supplier audits / year ❖ fresh water consumption ❖ greenhouse gas emissions ❖ air emissions ❖ water emissions ❖ hazardous material output ❖ vehicle fuel use ❖ habitat changes due to operations 	<ul style="list-style-type: none"> ❖ # employee accidents ❖ # lost workdays ❖ # days work stoppages ❖ hours overtime work ❖ average work week hours ❖ \$ warranty claims ❖ \$ minority business purchases ❖ # plant tours / visitors ❖ # non-employee accidents ❖ certifications ❖ # suppliers certified ❖ # supplier violations ❖ environmental quality of facilities ❖ observance of international labour standards ❖ # safety improvements projects
LEARNING AND GROWTH	<ul style="list-style-type: none"> ❖ % of employees trained ❖ # training programs / hours ❖ reputation per surveys ❖ inclusion in "green" funds ❖ # employee complaints ❖ # community complaints ❖ # shareholder complaints ❖ unfavourable press coverage ❖ # violations reported by employees ❖ # of employees with incentives linked to environmental goals ❖ # of functions with environmental responsibilities ❖ management attention to environmental issues ❖ % of employees using car pools 	<ul style="list-style-type: none"> ❖ workforce diversity (age, gender, race) ❖ management diversity ❖ # internal promotions ❖ employee volunteer hours ❖ average length of employment ❖ # involuntary discharges ❖ employee education \$ ❖ # family leave days ❖ \$ employee benefits ❖ salary gaps between genders / races ❖ employee satisfaction ❖ \$ "quality of life" programs ❖ % of employees owning company stock ❖ # applicants / job openings ❖ # employees with disabilities ❖ # employee grievances ❖ workforce equity

Table 1: Examples of balanced scorecard measures for sustainability

BSC works well as a tool to identify indicators, areas or pillars of sustainable management, but it does not address any specific, structured and step-by-step process for PE.

2.3.3 - Business excellence awards

Some authors such as Edgeman (Edgeman 2000), Tan (Tan 2002) and Isaksson & Garvane (Isaksson & Garvare 2002) demonstrate that organizations around the world are using business awards models as a framework for PE. Isaksson and Garvane go beyond this and state that measurements of sustainability should, to a large extent, be included in management systems such as business excellence models. According to Edgeman and Tan, some business awards already include principles related to social and environmental issues.

Numerous international business excellence models such as the European Foundations for Quality Management (EFQM) Excellence Model, the Malcolm Baldrige National Quality Award (MBNQA), the Australian Business Excellence Framework (ABEF) and Deming Prize are based on criteria that measure progress toward underlying principles (Edgeman 2000). These models, as the most recognized models around the world, have in general the following principles (Tan 2002):

- ❖ Business results
- ❖ Process management
- ❖ People management
- ❖ Customer management
- ❖ Resources management
- ❖ Strategy and policy planning
- ❖ Leadership and innovation
- ❖ Impact on society and environment
- ❖ Information management
- ❖ Performance and management of suppliers and partners

Tan (Tan 2002), in his article, *A Comparative Study of 16 National Quality Awards*, expressed the opinion that most of the awards were developed for large and successful companies that, most of the time, have their head-office in developed countries. This would be an impediment for small and medium enterprises (SME) and for organizations in developing countries. However, the business awards movement is very young and the awards criteria have always been updated following the new trends of our society (i.e. new trends are organizations' sustainability and specific award criteria for SME). Business awards are also excellent tools for internal and external benchmark processes. Business awards models also work also well as a tool to identify indicators, areas or pillars of sustainable management but they do not address any specific and structured and step-by-step process for PE.

2.3.4 - ISO 14031 and other EPE initiatives

ISO 14031:1999 (International Organization for Standardization 1999a) is an international standard that gives guidance on the design and use of Environmental Performance Evaluation (EPE) within an organization. It is an environmental management tool that exists to assist organizations in realizing their environmental policy, objectives, and targets.

The methodology described in the standard was developed to be implemented in organizations that have already implemented EMS. However, as the methodology is also a performance evaluation management system (Jasch 2000), it can be used by organizations that have not implemented any MS (O'Reilly, Wathey & Gelber 2000). It can be applied to all organizations regardless of type, size, location and complexity. A case study in Germany (O'Reilly, Wathey & Gelber 2000) concluded that ISO 14031 is especially suitable for small and medium enterprises (SME), because it can be carried out and maintained even with limited personnel and financial resources. This finding is of

particular interest as many organizations have found that the requirements of certifiable EMS can be demanding. ISO 14031 would appear to offer a cost effective methodology through which organizations can add real, tangible value, by focusing on critical areas of environmental performance. This ability to apply ISO 14031 to SME is likely to be of considerable importance when considering typical supply chains of larger industry organizations such as are found in Gladstone and other industrial cities.

EPE is an internal management process that uses indicators (Bennett & James 1999; Jasch 2000; O'Reilly, Wathey & Gelber 2000) to provide information comparing an organization's past and present environmental performance with its environmental performance criteria. Performance criteria are usually predetermined values of selected parameters or intended levels of performance set by organizations.

The indicators described in the standard are divided into two categories (Bennett & James 1999; International Organization for Standardization 1999a; O'Reilly, Wathey & Gelber 2000):

- ❖ Environmental performance indicators (EPIs) that can be divided in two types:
 - Management performance indicators (MPIs) – provide information about management effort to influence the performance of organization's operations.
 - Operational performance indicators (OPIs) – provide information about the performance of the organization's operations.
- ❖ Environmental condition indicators (ECIs) – provide information about the condition of the environment.

The selection of indicators is at the discretion of the organization but the standard suggests that indicators should address (O'Reilly, Wathey & Gelber 2000):

- ❖ Significant environmental aspects the organization can control and over which it can be expected to have an influence.
- ❖ Stated environmental performance criteria.
- ❖ The views of the interested parties.

As a performance management standard, EPE follows the ‘Plan-Do-Check-Act’ model. Figure 2 provides an outline of EPE based in ISO 14031:1999 (International Organization for Standardization 1999a).

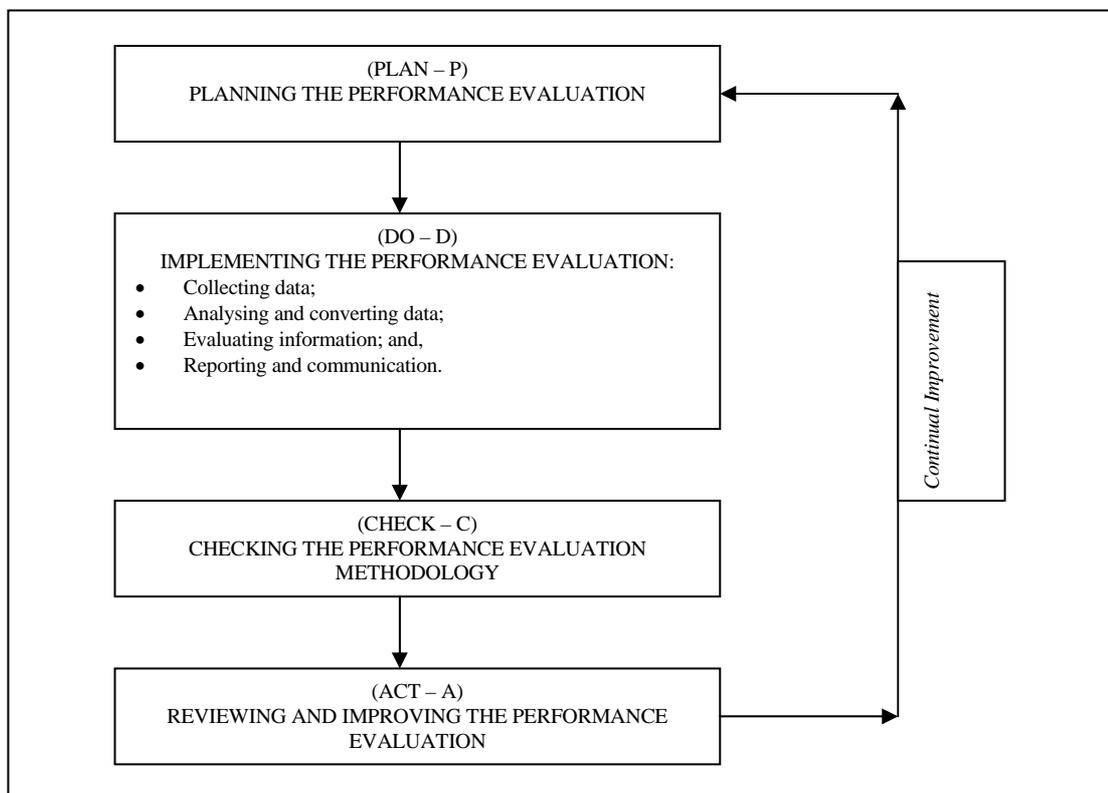


Figure 2: Environmental performance evaluation

Another case study undertaken in the UK (O'Reilly, Wathey & Gelber 2000) sponsored by the government covering 12 organizations providing products and services at differing stages of the supply chain, has shown other important benefits of the implementation of an EPE. Those companies that have had a certified EMS, struggled to know where to focus to improve performance and gain real benefit from the system. All the companies at

the end of the project had found that the implementation of an EPE system provided valuable direction for the existing EMS.

Thus, ISO 14031 can offer the potential to add value to businesses by allowing management to (O'Reilly, Wathey & Gelber 2000):

- ❖ Consider the issues in the language they understand.
- ❖ Track progress towards stated objectives and targets.
- ❖ Benchmark performance more easily.
- ❖ Assess the effectiveness and potential of environmental management initiatives or projects.
- ❖ Identify inter-relationships of different management functions and environmental performance.
- ❖ Communicate more effectively through the use of tangible data.
- ❖ Produce information for stakeholders that relates directly to their concerns and requirements.
- ❖ Focus on root causes and risks, identifying areas for action.
- ❖ Regularly provide information to support any review process.
- ❖ Appraise the significance of aspects and impacts.

The standard, however, has some limitations (Bennett & James 1999; O'Reilly, Wathey & Gelber 2000). It does not establish levels of performance; it was not developed with the intention for use as a specification standard for certification; and it does not specify requirements for external reporting. Criticism has been levelled at ISO 14031 for these reasons. However, the aspects that have been pointed out as negatives are also positives, because they give to the standard the necessary flexibility to be applied as an internal

management tool driven by the needs of the individual organization and the views of interested parties (O'Reilly, Wathey & Gelber 2000).

Bennett and James (Bennett & James 1999) also criticize the standard because it has limited linkage with the broader issues of sustainable development.

However, ISO 14031 is not the only approach for EPE. Pojasek (2001) in an article titled *How Do You Measure Environmental Performance* (Pojasek 2001) compared many approaches used by organizations to evaluate environmental performance. These are:

- ❖ The Global Reporting Initiative (GRI) (Global Reporting Initiative - GRI 2002b).
- ❖ The Balanced Scorecard (BSC) (Epstein & Wisner 2001).
- ❖ The Coalition for Environmentally Responsible Economies (CERES) principles (The Coalition for Environmentally Responsible Economies - CERES).
- ❖ The Business Chapter for Sustainable Development (International Chamber of Commerce 1991).
- ❖ The Global Sullivan Principles (Sullivan 2003).
- ❖ The Social Accountability 8000 (Social Accountability International - SAI 1998).
- ❖ The Green Zia model (New Mexico Environment Department 2001).

The State of New Mexico Environment Department (NMED) created the Green Zia model in 1998. It is based on the Baldrige model. Green Zia is a voluntary program designed to help organizations of all sizes and types achieve environmental excellence through continuous environmental improvement.

Pojasek (2001) concluded that the Green Zia model is the best approach for EPE. For him the idea behind these initiatives (GRI, BSC, CERES principles, etc.) is that if an

organization knows 'what' to do, they will figure out 'how' to do it. Unfortunately, however, there is often a large gap between 'what' and 'how'. He explains that the only approach that describes how to develop EPE is the Green Zia model. However, he also said that the other initiatives could be used to complement the Green Zia model in terms of suggestions on how to develop better reports and on how to select some specific indicators. Pojasek did not include ISO 14031: 1999 in his evaluations even though the ISO standard is a very well structured process for PE.

Another study was undertaken by Jung, Kim and Rhee (Jung, Kim & Rhee 2001). They developed an environmental performance framework called Gscore that consists of five categories, namely general environmental management (GEM), input, process, output, and outcome. Gscore is a corporate EPE based on a voluntary environment, health and safety (EHS) report and is calculated by aggregating the points of the above five categories. As a base for the Gscore framework, the authors took information from 8 major studies of environmental performance measurement and evaluation by: James (James, P. 1994), NRTEE (National Round Table on the Environment and the Economy 1997), Ditz and Ranganathan (Ditz & Ranganathan 1997), Ilinitich (Ilinitich & Soderstrom 1998), Wells (Wells, R. P. & Hochman 1994), ISO 14031: 1999 (International Organization for Standardization 1999a), KPMG (KPMG 1992), and GRI (Global Reporting Initiative - GRI 2002b).

The authors have also developed a comparison between their framework and two other frameworks, GRI and ISO 14031:1999, based on the business reports of 39 petroleum companies. In summary, their conclusions were (Jung, Kim & Rhee 2001):

- ❖ Among a number of measurement categories shown in the three frameworks, Gscore corresponds to the scope of GRI's guidelines and ISO's environmental performance indicators as well.
- ❖ Gscore uses weights to score measurement items related to environmental issues of the companies. Taking those weights and using a linear programming-based technique called data envelopment analysis (DEA), a relative calculation of the organizations' efficiency is made. However, GRI and ISO 14031 address the real measurement of environmental performance through building concrete indicators.
- ❖ No conclusion could be made that Gscore is a better tool for PE than GRI or ISO 14031. In some aspects of the three frameworks, they complement each other.
- ❖ Gscore is a valuable tool but needs to be further tested.

The University of Dresden has been working with some mechanical engineering industries on the development and implementation of a tool called EPM-KOMPAS (Technical University of Dresden 2004). The project is under development and the tool is based in EMAS II and ISO 14031:1999.

Looking closely to the Green Zia model, it can be seen that it is a management systems model that uses the Baldrige award principles as performance criteria for performance evaluation. The approach of Green Zia, if compared with ISO standards, is very close to the ISO 14001:2004 approach. It means that it emphasizes the need for organizations to continuously improve environmental performance but it does not specify a step-by-step process for EPE. Based on the applied examples from ISO 14032:1999, it has been demonstrated that ISO 14031:1999 is a structured, effective and efficient process for environmental performance evaluation.

2.3.5 - CR initiatives

As performance approaches, some corporate responsibility (CR) initiatives have been used as frameworks for PE of organizations. Around the world there have been many CR initiatives developed such as *Principles for Business* (Caux Round Table 2003); *Promoting a European Framework for Corporate Social Responsibility* (European Commission 2004); *Global Reporting Initiative* from the Coalition for Environmentally Responsible Economics (CERES) (Global Reporting Initiative - GRI 2002b); *Bench Marks for Measuring Business Performance* from Interfaith Centre for Corporate Responsibility (The Global Principles Steering Group 2002); *Sustainability – Integrated Guidelines for Management Projects* project from the British Standards Institution (SIGMA Project 2003); *The Global Compact* (United Nations 2000); *Making Good Business Sense* (World Business Council for Sustainable Development - WBCSD 2000a); AA 1000 (The Institute for Social and Ethical Accountability 2003); *The OECD Guidelines for Multinational Enterprises* (Organisation for Economic Co-operation and Development - OECD 2003); SA 8000 (Social Accountability International - SAI 1998); *The Business Chapter for Sustainable Development* (International Chamber of Commerce 1991); *The Coalition for Environmentally Responsible Economies (CERES) principles* (The Coalition for Environmentally Responsible Economies - CERES) ISO 9001:2000 (International Organization for Standardization 2000a); ISO 14001:2004 (International Organization for Standardization 2004b); OHSAS 18001:1999 (British Standards Institution 1999); *SI 10000: 2001 - Social Responsibility and Community Involvement* draft standard from Israel (The Standards Institution of Israel 2001); *NQ 9700-950 - Corporate Social Responsibility – Human Resources, Donations and Sponsorship* certificate protocol from the Quebec – Canada (Bureau of Normalisation du Quebec - BNQ 1999); *Global Sullivan Principles of Social Responsibility* (Sullivan 2003), among others.

Each of the initiatives brings a complementary vision of CR and they share the idea of implementing, 'evaluating' and improving CR practices in organizations. However the process of PE is not explained in detail in any of these cases.

2.3.6 - Financial models

Shaun Mays is the Managing Director of the Westpac Financial Services in Australia and he is a specialist on Socially Responsible Investing. During his presentation at the conference Enviro 2002, held in Melbourne in April 2002 (Mays 2002), he stated that worldwide, investors and consumers are demanding more ethical behaviour from organizations. Investors and other important interested parties such as legislators, customers and employees are attracted to corporate sustainability because it seeks to create long-term shareholder value by embracing opportunities and managing risks associated with economic, environmental and social developments (BASF 2001; ISO COPOLCO 2002; Kiernam 2001; Mays 2002; NOKIA 2000; Repetto & Austin 2001; Russo & Fouts 1997; 2000; Wells, C. 2001).

In 1999, Dow Jones & Company and Sustainable Asset Management (SAM) launched the world's first index, the Dow Jones Sustainability Index Family, to track the performance of sustainability-driven companies. With this unique corporate sustainability assessment, both organizations analyse companies in terms of economic, environmental and social criteria and identify sustainability leaders on a worldwide basis (BASF 2001; NOKIA 2000). Financial institutions such as Westpac in Australia and Unibanco in Brazil (Mays 2002; Wells, C. 2001) have been developing their own systems to assess CR of companies prior to recommending them to the banks' investor clients.. Because of this new worldwide trend in terms of ethical investment (Mays 2002; Spiller 2000), companies are using these models for corporate sustainability assessment to track performance. BASF and NOKIA (BASF 2001; NOKIA 2000) are examples of

organizations that have been selected as a component of the Dow Jones Sustainability Group Indexes (DJSGI).

The financial models are, in reality, a set of indicators or performance criteria that, if used by companies, help them to demonstrate their performance towards sustainability. They are not a structured PE process.

2.3.7 - Reporting processes

Triple bottom line approach from Elkington (Elkington 1997) and Global Reporting Initiative (GRI) (Global Reporting Initiative - GRI 2002b; Jung, Kim & Rhee 2001; Pojasek 2001) are examples of performance reporting (PR) used as a framework by organizations for PE. GRI is built over the triple bottom line approach. PR, including GRI, and is evaluated further in this Chapter.

Reporting systems also do not address a structured process for PE.

2.3.8 - Other PE approaches

Hudson, Lean & Smart (Hudson, M., Lean & Smart 2001) presented an article called *Improving Control Through Effective Performance Measurement in SME*. In this paper they presented a process for developing strategically aligned performance measures, which can help stimulate continual improvement. According to them the process differs from other approaches because it is specifically designed to accommodate the requirements of SME. The process was developed from the analysis of important reference materials in the area of PE. In summary, their conclusions about the literature review were:

- ❖ Financial performance measurement, which is required for examination by external interested parties, is generally well developed but these measurements are

failing to help managers to cope with the pressures of today's competitive environment.

- ❖ Approaches have been developed that integrate financial and operational measures according to the needs of various interested parties and company strategy. The approaches, however, are for large organizations.
- ❖ Previous approaches for PE for SME were typically financially focused, informal and unstructured.
- ❖ Current approaches for PE have proved inadequate for specific requirements of the SME.
- ❖ Some literature addresses the necessity for the development of a new process for PE for SME.

Based on these conclusions, Hudson *et al.* developed a process shown in Figure 3. The Figure is based on Hudson *et al.* (2001: p. 804-813).

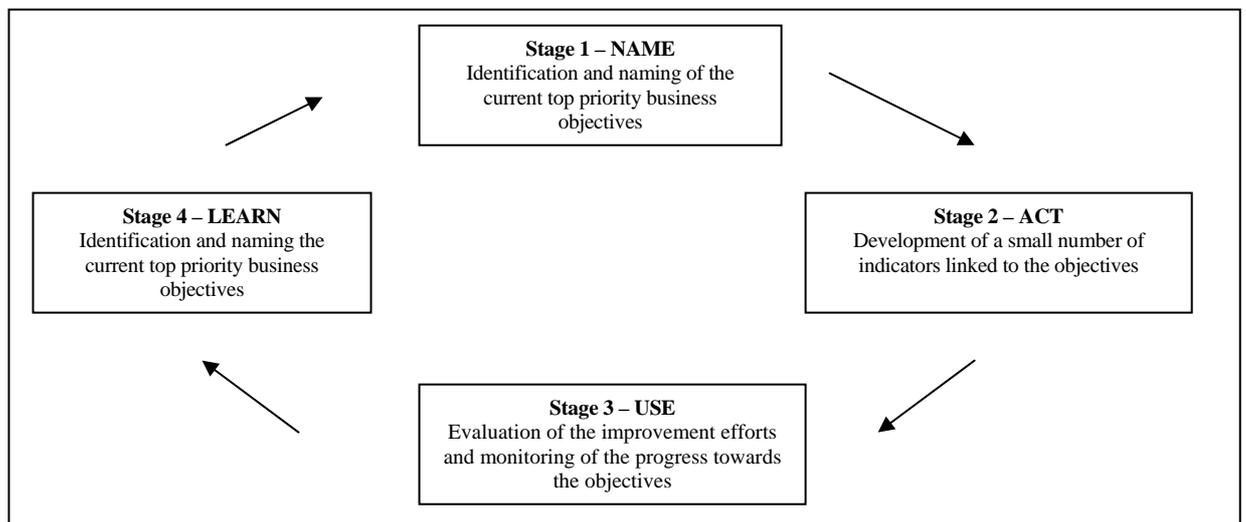


Figure 3: Performance evaluation for SME

The feedback from the case study in a company in UK was considered positive. However, the conclusion of their work was that the process needed further research to completely validate the process.

Another author, Tipping (Tipping 1998), developed a theoretical process for PE based on the analyses of the balanced scorecard, the Baldrige Award (Hart & Bogan 1992), Intellectual Capital (Hudson, W. J. 1993), Systems Thinking (Sterman 2000) and other approaches. His process of defining the scope of measurement system consists of four main stages:

1. Defining the overall context (choosing a framework such as balanced scorecard or the Baldrige model or other).
2. Identifying the top levels (key performance areas) of your performance view.
3. Selecting the measures.
4. Aligning to complete the performance view.

No applied examples using the Tipping process could be found in the literature.

A recognized professional in the business area, Dr. Rick L. Edgeman, has for many years, been developing a theoretical approach for PE called BEST (Sustainability & Business Excellence Principles) (Edgeman 2000, 2002). His approach is based on business award models such as the European Foundation for Quality Management (EFQM) Excellence Model and the Malcolm Baldrige National Quality Award (MBNQA), in the quality function deployment (QDF) and in the balance of sustainable principals: **Biophysical/Environmental**; **Economic**; and, **Societal**. He added one more principle to the well-known sustainable principles (Edgeman 2002) that he called **Technological Sustainability**. This principle addresses information about technology and the built

environment. In his opinion, BEST (BEST is a word formed by the first letter of each sustainable principle) gives to organizations and society the possibility to analyse problems at both high and detailed levels, and create solutions that are long term and for all interested parties (Edgeman 2002).

No applied examples using BEST could be found in the literature.

In April 2002, Jack and Waring presented *Value Mapping*, a case study using their methodology for performance measurement at the 7th International Conference on ISO 9000 and TQM held in Melbourne, (Jack & Waring 2002). They consider value mapping as an advanced performance management solution that can integrate performance measurement and continuous improvement activities of an organization as part of the process of value creation. The approach helps to assess the utility of intangible and tangible value drivers and will assist the process of reputation management and communication with interested parties of organizations.

Value Mapping uses the term value in the following ways:

- ❖ Value Needs - These are the highest utility needs of the stakeholder groups, which must be balanced.
- ❖ Value Drivers - These are the tangibles and intangibles relating to the activities and assets of the organization that create value.
- ❖ Value Outcomes - These are the measurable outcomes of value creation and can be both intangible and tangible. A value outcome can result from the impact of one value driver or from the impact of multiple networked value drivers
- ❖ Value Maps - These are visual representations of the Value Drivers and the Value Outcomes including links to performance measures, strategic objectives and stakeholder needs. They are computer based.

Figure 4 shows the Value Mapping based on Jack & Waring (2002).

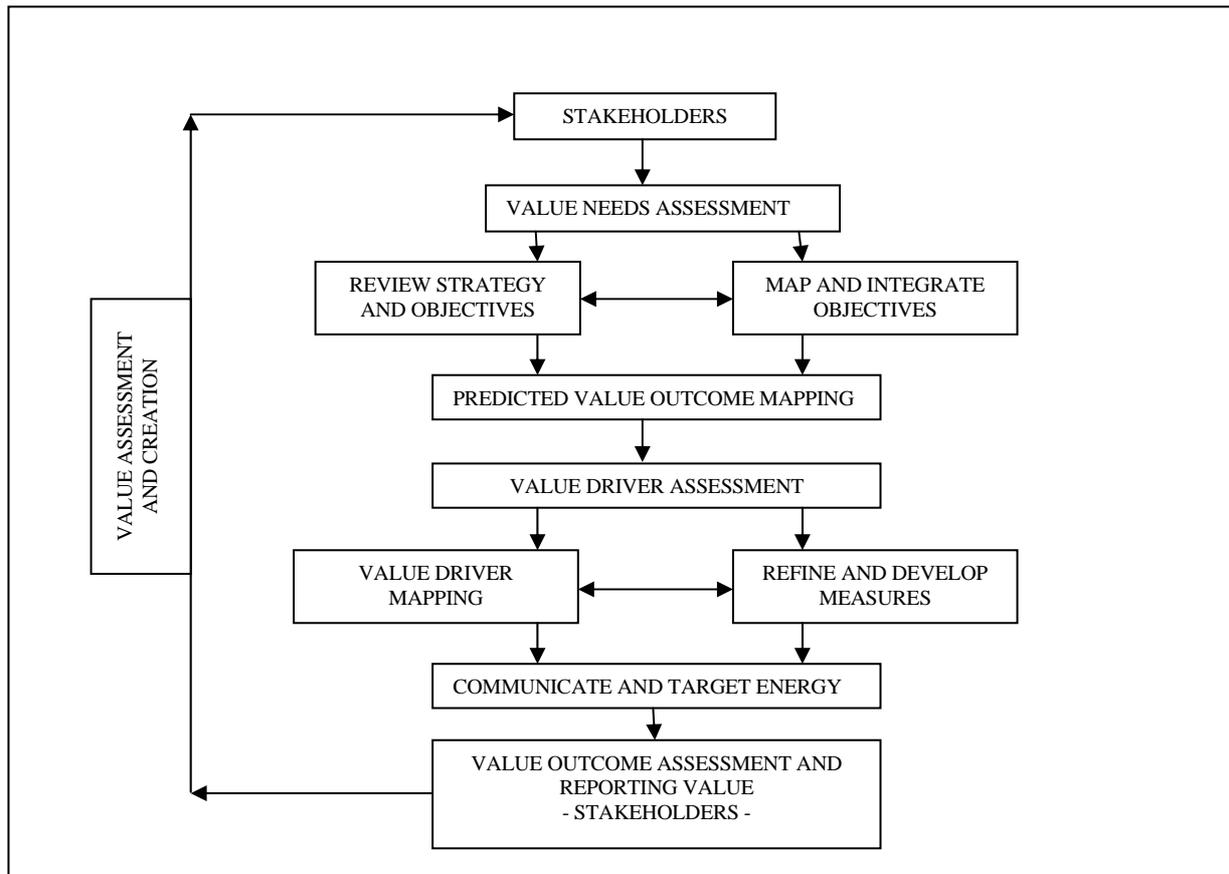


Figure 4: Value Mapping

According to the authors, Value Mapping addresses the following positive aspects:

- ❖ Focusing management on the value needs of all stakeholder groups.
- ❖ Ensuring strategy is developed based upon value needs.
- ❖ Identifying, and measuring value outcomes from the strategy that meet these needs
- ❖ Identifying and rating the most useful or highest utility value drivers to achieve the value outcomes for the organization.
- ❖ Mapping out and visually representing the utility of value drivers in value driver maps.
- ❖ Linking performance measures to value drivers and representing them in the value driver maps.

- ❖ Communicating to employees and other interested parties the value creation activities of the organization, thereby ensuring reputation management and stakeholder belief.
- ❖ Focusing continuous improvement activities and resources on the high utility value drivers rather than the needs of models.
- ❖ Ensuring that the impact of value drivers is assessed against the desired value outcomes.
- ❖ Reviewing stakeholder value needs and organizational strategy based upon value outcomes and value driver achievements.

There is no example in the literature of the successful application of Value Mapping.

Andersen and Fagerhaug (Andersen & Fagerhaug 2002) released a book in 2002, through the American Society for Quality, addressing a PE process (step-by-step) showing eight steps:

- ❖ Step 1 - Understanding and mapping business structures and processes.
- ❖ Step 2 – Developing business performance priorities.
- ❖ Step 3 – Understanding the current performance measurement systems.
- ❖ Step 4 – Developing performance indicators.
- ❖ Step 5 – Deciding how to collect required data.
- ❖ Step 6 - Designing reporting and performance data presentation formats.
- ❖ Step 7 – Testing and adjusting the performance measurement system.
- ❖ Step 8 - Implementing the performance measurement systems

The process is similar to the ISO management systems approach, principally ISO 14031:1999 that uses some quality tools and principles in the development of some steps

of the PE process. Summarizing, the process is very similar, with some minor differences, to ISO 14031:1999.

Neely *et al.* (Neely et al. 2000) reviewed the available literature and concluded that little attention had been devoted to a process-based approach to performance measurement and evaluation. Neely's group of researchers designed a PE system based in 12 phases:

- “1 – Identify what measures are required.
- 2 – Undertake a Cost-benefit analysis of each measurement.
- 3 – Purpose for measurement.
- 4 – Comprehensiveness check of areas for measurement.
- 5 – Detailed design of the performance measurement.
- 6 – Integration of measurements if necessary for each function (e.g. department).
- 7 – Check if the measurement is appropriate.
- 8 – Check if different measurement identified by different people/departments can be integrated (inter-function).
- 9 - Check if the measurement is appropriate (for inter-function).
- 10 – Identify which measurements will add value (for inter-function) and remove those that don't.
- 11 – Train people and implement the performance evaluation system in the institution.
- 12 – Revise the measures, maintain, discard or improve them.”

Based on this PE system, case studies with companies were developed (Bourne et al. 2002). The major conclusions were:

- The use of structured PE minimizes or eliminates many of the implementation and maintenance problems highlighted in the literature. However the problems are not clearly identified or stated in Bourne *et al*'s paper (Bourne et al. 2002).

- It is very important that the top management of organizations commits fully to the PE system or process.
- Changes in the top management of companies normally leads to changes in the PE process and consequently results in interruption of measurements or complete break down of the PE system.
- Important implementation factors that will influence a well structured PE system include:
 - Availability of appropriate resources and the necessary level of human input / effort
 - Information Technology (IT) support
 - The need for the PE system across subsidiary companies to be the same
 - Identification and removal of blocks to implementation (e.g. people and inadequate resources)
- Further research is necessary into the impacts of changes of top managers during the implementation and maintenance of the PE process.

As a result of a recent case study, Kennerley (Kennerley & Neely 2003) emphasizes the importance of companies having a systematic process in place to manage the continual improvement of their performance measurement systems. This includes measures to ensure that the systems continue to reflect the issues of importance to the businesses. He also suggested that a well designed PE system aimed at achieving continual improvement, needs to consider:

- Process – existence of a process for reviewing, modifying and deploying measures.
- People – the availability of the required skills to use, reflect on and deploy measures.
- Systems – the availability of flexible systems that enable the collection, analysis and reporting of appropriate data.

- Culture – the existence of a measurement culture within the organization.

Neely and Bourne & Kennerley *et al's*. PE process (Neely et al. 2000) is a detailed expansion of some of the steps included in ISO 14031:1999 that need to be taken into consideration when developing PE systems. For successful implementation of a system, it is essential that a strong measurement culture already exists within the organization.

In summary the work of Neely *et al.* is almost entirely covered within the ISO 14031:1999 standard and its associated case study handbook (ISO 14032:1999).

In a PhD research, Odom (Odom 2001) demonstrates the importance of the PE process to promote sustainable industrial development. The work includes a PE methodology and decision-making support tool based on a mathematical model for sustainability. The model called The Sustainable Systems Analysis Algorithm (SSAA) shows that, based on pre-established performance indicators, the user of the model can identify, through a mathematical model, the level of sustainability achieved by the company. The model is extremely theoretical and does not address any PE process.

2.3.9 - Conclusions

One of the organizational challenges for today is to perform and report according to sustainable principles. Thus, PE is a valuable tool that can assist modern companies do this.

Around the world many different approaches and methodologies for PE of companies have been developed. This diversity of approach has been causing confusion for the companies' decision makers because different interested parties have been asking organizations to evaluate performance according to different approaches. Also, the

available approaches have not been fulfilling the needs of the companies in terms of performance evaluation. Most of the approaches have also been developed and validated for large enterprises. If the needs of SME and supply chains are to be met, additional (or modified) methodologies will be required.

It is clear that there is a strong need for the development of a PE process that includes information on implementation (i.e. 'what' and 'how') of a complete performance evaluation, developed according to sustainable principles. It should also be a process suitable for SME.

Many authors and institutions, such as Gurd (Gurd 2002), Epstein & Wisner (Epstein & Wisner 2001), Pojasek (Pojasek 2001), Jung (Jung, Kim & Rhee 2001), Edgeman (Edgeman 2000), Isaksson (Isaksson & Garvare 2002), ISO, Hudson (Hudson, M., Lean & Smart 2001) and Odom (Odom 2001) have also seen that even if there are a number of approaches, they are incomplete and need further development.

However, there are validated processes such as ISO 14031 and Neely *et al's* modified version, balanced scorecard, EFQM or MBNQA or ABEF (business awards) and GRI that could be combined in a more holistic and integrated approach to improve PE processes.

ISO 14031:1999 is a successful tool that was developed to assist organizations to develop a well-structured PE, including guidance on the selection and use of indicators. This standard is only focused on the environmental area, but it shows an entire process on how to develop PE. The concepts of this standard can be used for the development of a new methodology for PE that should encompass aspects such as social, economic and

environmental (sustainable principles) and aggregate specific information from other validated approaches such as GRI, business awards and balanced scorecard.

The experience with the implementation of other standards also suggests that the development of such a CR standard in itself is not enough for organizations to improve sustainability performance. It needs to be complemented by a performance evaluation and reporting document to ensure that desired outcomes are achieved. Reporting on performance is also essential to assure interested parties that their requirements are being met.

2.4 – Supply chains, MS, SD and PE

2.4.1 – Introduction

Traditional representation of supply chains suggests that the supply chain consists of the leader firm and its suppliers (Aldohish 2002; Blutstein 2002; Neergaard 2002). However, the new approach for the subject is that supply chains often extend beyond the boundaries of a single organization. Effective models must represent different actors and organizations including suppliers, the firm, distribution channels, and customers (James, P. T. J. & Sterman 1996). Chandra *et al.* also provide a similar definition (Chandra & Kumar 2001).

Many companies have found, to their detriment, that the performance of their products is judged by the performance of their supply chains and most of the time it is judged by the weakest link in their supply chain. This pressure will increase in a globalized market place (Blutstein 2002). As a result, large companies that are linked to small and medium enterprises (SME) through their supply chain, have been influencing their smaller business colleagues and providing assistance to them in terms of managing performance (Blutstein 2002; Neergaard 2002).

2.4.2 – MS and SD

According to Blutstein (Blutstein 2002) from EPA Victoria, and Lippman (Lippman 2001), management of supply chains is recognized as a means of adding value to all businesses in the chain. If actively addressed, this process can deliver improved sustainability outcomes that provide a competitive advantage to all participants (Global Environmental Management Initiative - GEMI 2001; Organisation for Economic Co-operation and Development - OECD 2003; The Department of Industry Science and Resources - Australian Government 2001; Vokurka & Lummus 2003).

Smith (Smith 2000) has defined six steps to supply chain excellence:

- ❖ Break organizational barriers. Develop the ability to share information about business activities and interact on a near real-time basis across the supply chain.
- ❖ Build visibility into the supply chain. Give more people a view into the metrics of supply chain performance.
- ❖ Manage by metrics. Make your performance metrics align to cross-organizational business processes and assign them to specific individuals for monitoring.
- ❖ Reduce the decision cycle process. Respond to market or customer demand in days and hours, not weeks.
- ❖ Encourage decision-making collaboration. Make decisions collaboratively on the Internet, bringing relevant internal and external interested parties into the process.
- ❖ Reduce opportunity and problem resolution latency. Measure and monitor supply chain activities iteratively so you can respond to them more quickly.

2.4.2.1 – Management of supply chains

There are many approaches for managing supply chains. A simple one that embodies many of the others is described below. Supply chain management has been arbitrarily divided into two types by Blutstein and Neergaard (Blutstein 2002; Neergaard 2002):

- ❖ Passive – involves auditing of the suppliers’ performance, training of suppliers and mechanisms to establish criteria or qualifications for companies that want to participate in the supply chain.
- ❖ Active – involves a partnership within the supply chain in terms of sharing responsibilities and mutual rewards.

Blutstein (Blutstein 2002) concluded from his case studies, related to the implementation of cleaner production principles of waste management and energy conservation in a small supply chain, that active SC management is more likely to lead to better outcomes in terms of global performance of the chain. The idea of a partnership approach is also shared by many other authors (Acona 2004; Briscoe, Dainty & Millet 2001; Christopher & Juttner 2000; Development Leadership Network 2001; Faruk et al. 2002; Holmberg 2000; Kumar & Bragg 2003; Li et al. 2004; Lo & Yeung 2004; Organisation for Economic Co-operation and Development - OECD 2003; Rudzki 2004; Yasenchak 2001; Zhao 2002). The report from Insight Investment (Acona 2004) states that ‘sector partnership’ is the best practice in terms of supply chain management approach. However they have not indicated how such partnerships are developed and used in practice to achieve improvements in a supply chain. The current research has filled this gap.

The literature about partnership within supply chains shows academic and practical experiences that include only frameworks or requirements for partnership. None of the

experiences demonstrate a step-by-step process on how to develop partnership among participants of a SC.

Some important aspects related to partnership within a supply chain are presented below.

Briscoe et al. (Briscoe, Dainty & Millet 2001) developed a list of interesting requirements for a good partnership. The requirements are:

- ❖ Full communication with partners
- ❖ Working together (rather than trying to take advantage)
- ❖ Sharing of information and knowledge
- ❖ Straight talking with no hidden agendas
- ❖ Rapid responses to queries and requests for help
- ❖ Enabling partners to perform (providing partner training if required)
- ❖ Teamwork and interdependence
- ❖ Seeking continuous improvement through co-operation
- ❖ Willingness to change to accommodate partners
- ❖ Open accounting and making timely payments
- ❖ Profit sharing on a 'win-win' basis
- ❖ Common interest in providing client satisfaction

Lo & Yeung (Lo & Yeung 2004) have developed the following list of requirements for a good partnership:

- ❖ Total quality philosophies as customer focus, continuous improvement and total involvement
- ❖ Supplier selection (focus on the companies of selected suppliers)
- ❖ Supplier development management

- ❖ Inform suppliers of quality problems
- ❖ Supplier integration through strategic planning, buyer–supplier relations, operational improvement and alliance

Lo's & Yeung's requirements have been developed only for buyer-supplier relations but they can be expanded for the entire supply chain.

Rudzki (Rudzki 2004) has been developing a case study to test his partnership framework, but he states in his paper that the framework is in the early stages. It is based on the alignment of customers' and suppliers' viewpoints in relation to their activities.

Zhao (Zhao 2002) presented at the 7th ICIT a series of KPI to measure inter-organizational partnerships. The KPI presented are related to commitment, communication, sharing, trust, profitability, productivity, market share, corporate social responsibility, employee attitude, innovation and improvement and customer satisfaction.

Going back to MS for supply chains, Faruk presented in 2002 a model, called EcoSCAN (Faruk et al. 2002) for managing environmental issues within the supply chain using a product Life Cycle Assessment (LCA) technique. He applied his methodology and concluded that it promoted advanced corporate environmental management compared with other approaches to manage supply chains.

The Global Environmental Management Initiative (GEMI) released a report in 2001 presenting experiences of a series of companies in managing the supply chains and suppliers by helping to improve environment, health and safety performance (Global

Environmental Management Initiative - GEMI 2001). The experiences addressed did not show any management process but concepts and results of PE. The major conclusion of the case studies is that managing the environmental, health and safety issues through the supply chain brings competitive advantages for all participants.

Two other documents, *The OECD Guidelines for Multinational Enterprises* (Organisation for Economic Co-operation and Development - OECD 2003) and *Buying your way into trouble? The challenge of responsible supply chain management' from Insight Investment* (Acona 2004) present information about the management of supply chains. The first one specifies sustainability management recommendations, concepts and principles (guidelines) for a conglomerate of multinational companies that are supposed to work as a supply chain. The second one specifies management recommendations, concepts and principles for supply chains but focuses on financial issues and the flux of products, services and other resources. Nothing is related to environmental and social issues, directly.

The most advanced MS tool for supply chains is the SCOR model (Scott 2001; Supply-Chain Council [SCC] 2004) from the Supply-Chain Council (SCC). The model was developed in 1996 by academicians and practitioners linked to a broad cross-section of manufactures, distributors and retailers. SCC has over 750 members worldwide. The process within the model contains:

- ❖ Standard description of management processes for supply chains or SCM (similar language).
- ❖ A framework of relationships among the standard processes.
- ❖ Standard metrics.

It is based on five core management processes that have to be used in every step of the activities of the supply chain:

- ❖ Plan: Processes that balance aggregate demand and supply to develop a course of action that best meets sourcing, production and delivery requirements.
- ❖ Source: Processes that procure goods and services to meet planned or actual demand.
- ❖ Make: Processes that transform product to a finished state to meet planned or actual demand.
- ❖ Deliver: Processes that provide finished goods and services to meet planned or actual demand, typically including order management, transportation management and distribution management.
- ❖ Return: Processes associated with returning or receiving returned products for any reason. These processes extend into post-delivery customer support.

SCOR does not address:

- ❖ Training.
- ❖ Quality.
- ❖ Detailed process for performance evaluation.
- ❖ Information technology.
- ❖ Internal administration of companies

The process is more focused on the flux of products, services and resources through the supply chain and does not address issues outside this scope (e.g. environmental and social).

2.4.3 – PE

MS standards and guidelines or supply chain management (SCM) tools (Organisation for Economic Co-operation and Development - OECD 2003; Supply-Chain Council [SCC])

2004) have also been used as a framework for PE of supply chains. They are performance standards of MS, are based on the principle of continual improvement and address, in the requirements, the necessity of performance improvement, but none of them specify how to develop performance evaluation.

O'Reilly et al. (O'Reilly, Wathey & Gelber 2000) determined that in their experience the use of ISO 14031: 1999 and the definition of common indicators for the entire supply chain is an effective way to manage issues, but their experience was only linked to environmental issues. ISO 14031:1999 (International Organization for Standardization 1999a) including a step-by-step process for environmental performance evaluation. The idea of the use of a common set of indicators for the entire SC is also shared by other authors (Beamon 1999; Faruk et al. 2002; Lohman, Fortuin & Wouters 2004; McIntyre et al. 1998; Supply-Chain Council [SCC] 2004; Zhao 2002).

In their book released in 2002, Andersen & Fagerhaug (Andersen & Fagerhaug 2002) present a step-by-step Performance Evaluation Management Systems (PEMS). The process is detailed and joins the ISO's concepts for management systems with the concepts of ISO 14031:1999. If they did not actually take the idea of the combination of ISO 14001:2004 (International Organization for Standardization 2004b) from ISO 14031:1999, the process presented is very similar. The PE presented is a general one and not only for the environmental area, as is the PE process presented in ISO 14031. The PEMS was developed for individual organizations but in one of the chapters it raises the possibility of using it for supply chains. There is no mention of the needs for partnering with a supply chain. Neither does the process specify anything related to interested parties (IP) engagement and participation in business, communication systems with IP (only reporting) and sustainability issues.

The most prominent research theses related to performance evaluation of supply chains are *The Nature and Design of Supply Chain Performance Measurement Systems – An Empirical Study* from Miller (Miller 2001) and *Supply Chain Integration Through Performance Measurement* from Holmberg (Holmberg 2000).

Holmberg defines only concepts and frameworks to integrate supply chains through PE processes. No PE process is developed and evaluated within his research.

Miller shows in his work the necessity to develop PE processes for supply chains because most of the studies, at that time, focused on the PE for individual entities and it appears to be in its infancy. Based on the literature review and his knowledge, he created two PE models for supply chains and developed two case studies to compare the models.

The first model has the following steps:

- ❖ Identification of structural conditioners: corporate and supply chain strategies and interested parties expectations.
- ❖ Identification and validation of supply chain strategy cause-and-effect linkage.
- ❖ Derivation of objectives.
- ❖ Identification of key areas for control.
- ❖ Definition of measures.
- ❖ Definition of protocol.
- ❖ Definition and establishment of infrastructure.
- ❖ Development of prototype systems (PE).
- ❖ Implementation and testing of prototype.
- ❖ Refining and adjusting prototype.
- ❖ Finalizing systems design.

- ❖ Full system implementation.
- ❖ Refinement and updating as appropriate.

The second model has the following steps:

- ❖ Identification of key process output requirements: customer satisfaction and interested parties benefits.
- ❖ Definition of process baseline – process analysis and flowcharting: current flows of cash/information/product and system capabilities.
- ❖ Defining measurement system baseline.
- ❖ Critical assessment of current supply chain structure & processes: process efficiency and effectiveness and flow barriers.
- ❖ Redefining supply chain structure & processes.
- ❖ Defining measures.
- ❖ Defining protocol.
- ❖ Defining and establishing infrastructure.
- ❖ Development of prototype (PE).
- ❖ Implementing and testing prototype – adjust.
- ❖ Finalizing design.
- ❖ Full system implementation.
- ❖ Refinement & updating as appropriate.

However he could not take reliable conclusions from his case studies and concludes his thesis stating that his work is not conclusive in terms of PE for supply chains and he expresses the needs for further research using his approaches.

Miller's work does not provide details on how to develop PE of supply chains including partnership among participants of the chain, communication systems with IP (only reporting) and sustainability issues.

Lohman *et al.* (Lohman, Fortuin & Wouters 2004) properly summarises the difficulties in a PE process for SC, after an extensive literature review about the topic. The difficulties are:

- ❖ Reporting system is decentralised and there is always a confusion of information released.
- ❖ No cohesion between metrics.
- ❖ Uncertainty about what to measure.
- ❖ Poor communication among participants and with interested parties.
- ❖ Dispersed IT infrastructure.

2.4.4 - Conclusions

Management of supply chains is recognized as a means of adding value to all businesses in the chain. If actively addressed, this process can deliver improved sustainability outcomes that provide a competitive advantage to all participants. Some MS for supply chain have been developed in the last few years.

MS for supply chains are performance standards or guidance based on the principle of continual improvement. However none of them specify how to develop a structured PE for the entire SC.

ISO 14031:1999 has been tested by O'Reilly *et al.* (O'Reilly, Wathey & Gelber 2000) as a structured tool for PE process for supply chain. The process for SC's PE developed by

Andersen & Fagerhaug (Andersen & Fagerhaug 2002) suggests the development of a general PEMS, similar to the idea of the combination of ISO 14031 and ISO 14000.

The idea of Andersen & Fagerhaug is interesting, but it was identified that for an effective PE process for supply chains, other issues need to be taken into consideration. They are:

- ❖ The needs to establish partnership among participants of a SC (Acona 2004; Briscoe, Dainty & Millet 2001; Christopher & Juttner 2000; Development Leadership Network 2001; Holmberg 2000; Kumar & Bragg 2003; Li et al. 2004; Lo & Yeung 2004; Organisation for Economic Co-operation and Development - OECD 2003; Rudzki 2004; Yasenchak 2001; Zhao 2002).
- ❖ Establishment of a communication process, including reporting, for partners and interested parties (Briscoe, Dainty & Millet 2001; Lohman, Fortuin & Wouters 2004; Smith 2000).
- ❖ Establishment of a common language in terms of metrics (Andersen & Fagerhaug 2002; Lohman, Fortuin & Wouters 2004; Smith 2000; Supply-Chain Council [SCC] 2004).
- ❖ Establishment of a similar language in terms of PE or standardization (Supply-Chain Council [SCC] 2004).
- ❖ Establishment of decision making process based on collaboration.(Smith 2000).
- ❖ Expanding the spectrum of PE to encompass sustainability (Global Environmental Management Initiative - GEMI 2001; Organisation for Economic Co-operation and Development - OECD 2003).
- ❖ The use of LCA principally for the identification of aspects and impacts of businesses and life cycle of products, services and other resources (Faruk et al. 2002)

Thus a PE model or process based on an ISO MS approach, combined with the principles included in ISO14031: 1999 and including the issues listed above, would be an excellent approach for a PE model for supply chain.

2.5 - Other issues linked to PE

2.5.1 - Indicators

Indicators are specific expressions that provide information about key characteristics of entities' activities, products, services, actions and impacts. The expression indicates which type of information is necessary to be measurable (Canadian Standards Association 1998; Global Environmental Management Initiative - GEMI 1998; International Organization for Standardization 1999a).

According to some authors and publications, indicators express typically quantitative (numerical format) and qualitative (descriptive format) data. Within the process of performance evaluation (PE), the identification and implementation of key performance indicators (KPI) is vital for businesses because their use should (Azzone et al. 1996; Bennett & James 1999; Canadian Standards Association 1998; Global Environmental Management Initiative - GEMI 1998; Jasch 2000; Olsthoorn et al. 2001; O'Reilly, Wathey & Gelber 2000; Veleva & Ellenbecker 2001):

- ❖ Provide key information about an organization's performance through measures of the organization's progress toward established goals or criteria.
- ❖ Gather a significant quantity of relevant data about an organization in a comprehensive manner.
- ❖ Help organizations to compare performance overtime.
- ❖ Highlight the potential of organizations to assist in goal setting and in achieving improved outcomes for the organization and its interested parties.

- ❖ Show derivation and pursuit of targets.
- ❖ Help with benchmarking.
- ❖ Provide information about complex issues of organizations using simple unit measures.
- ❖ Provide information for communication and reports.
- ❖ Raise awareness.
- ❖ Help to identify opportunities and problems.
- ❖ Provide concise and reliable information for improved decision-making on complex issues.

CSA PLUS 1144 define four classes of measures that can be used through KPI (Canadian Standards Association 1998):

- ❖ Physical (e.g. litres of fuel)
- ❖ Financial (e.g. capital costs)
- ❖ Numerical (e.g. number of products)
- ❖ Attitudinal (e.g. perceptions, expectations and attitudes)

The ways to express measurable information through KPI are (Bennett & James 1999; International Organization for Standardization 1999a; Jasch 2000):

- ❖ Direct – basic data (e.g. number of products sold)
- ❖ Relative - data compared with or in relation to another parameter (e.g. tonnes of waste per tonnes of product).
- ❖ Indexed/ normalized – data converted to defined baseline or expressed as a percentage with respect to a total/parameter.
- ❖ Aggregated – data of the same type but from different sources expressed as a combined value (e.g. total revenue from all facilities).

- ❖ Weighted – data modified by applying a factor relating to its significance.

According to ISO 14031: 1999 and CSA PLUS 1144, the information demonstrated through KPI has to be (Canadian Standards Association 1998; International Organization for Standardization 1999a):

- ❖ Reliable
- ❖ Consistent according to organizational strategy and policy
- ❖ Relevant to the nature and scale of the organization's activities, products and services
- ❖ Easy to understand
- ❖ Easy and cheap to collect, when possible

Bennett and James (Bennett & James 1999) consider that indicators do not generally have intrinsic meaning: they have to be put into context by comparison against an appropriate and relevant point of reference. Three broad types of comparison can be identified:

- ❖ Over time, against earlier indicators.
- ❖ Against some other standard.
- ❖ Over space, against indicators of the same attribute.

There are many methodologies used to classify and identify KPI.

In the early stages of the development and use of performance evaluation, companies used a traditional approach for PE, through the use of financial KPI and measures, to show the results. Financial measures have been developed for many years and they have already reached a high level of sophistication. Because of that, there is extensive literature about

the subject. Therefore financial measures and indicators will not be analysed separately from the two other components of sustainability, in this Section 4.

Hart (Hart & Bogan 1992) also acknowledged in his book that the key indicators of quality excellence (including quality, health & safety, financial and other general corporative ones) can be found in the requirements of the most recognized business awards such as the European Foundations for Quality Management (EFQM) Excellence, the Australian Business Excellence Framework (ABEF), Deming Prize and principally the Malcolm Baldrige National Quality Award (MBNQA). He states that the aspects that characterize high-performing companies are called key excellence indicators. These indicators can help organizations to identify what constitutes world-class performance in each business award category.

Over the past years, organizations, governments and the public have been increasingly focusing on measurement of aspects of sustainability such as social and environmental ones (Daft & Marcic 2001; Elkington 1997; Sharif 2002). Since then, many approaches to identify and implement social and environmental KPI have been developed.

In the environmental area there are many studies related to indicators. In their work, Jung *et al.* (Jung, Kim & Rhee 2001) provide a list of major studies on environmental performance evaluation and their respective division of types of indicators:

- ❖ James (James, P. 1994) – Impact, risk, emissions/waste, input, resource, efficiency, customer, financial measures.
- ❖ NRTEE (National Round Table on the Environment and the Economy 1997) – (1) Resources productivity index; (2) toxic release index; (3) product and disposal cost to durability ratio

- ❖ Ditz and Ranganathan (Ditz & Ranganathan 1997) – (1) Material use; (2) energy consumption; (3) no product output; (4) pollutant release.
- ❖ Ilinitich et al. (Ilinitich & Soderstrom 1998) – (1) Organizational systems; (2) interested parties relations; (3) regulatory compliance; (4) environmental impact.
- ❖ Wells et al. (Wells, R. P. & Hochman 1994) – Process improvement, environmental results, and customer satisfaction.
- ❖ ISO 14031: 1999 (International Organization for Standardization 1999a) – Environmental condition indicator (ECI); environmental performance indicators (EPI): EPI is divided again into management performance indicator (MPI) and operational performance indicator (OPI).
- ❖ KPMG (1992) – Impact measure, contribute measure.
- ❖ GRI – Energy, materials, water, emissions/effluents/waste, transport, suppliers, products and services, land-use/biodiversity, compliance.
- ❖ Gscore – (1) General environmental management (GEM); (2) input; (3) process/operation; (4) output; (5) outcome.

Anthony and the GEMI initiative identify two types of indicators (Anthony 1998; Global Environmental Management Initiative - GEMI 1998): Lagging (outcome measurements or end-of-process measurements) and leading (in-process measurements or driver measurement for the future performance). Thoresen (Thoresen 1999) also defines two major types of indicators: (A) Product lifecycle performance indicators and (B) environmental performance of operations indicators. The second type can be divided into (B.1) management system performance indicators and (B.2) manufacturing operations performance indicators. Olsthoorn, Tyteca et al. (Olsthoorn et al. 2001) define the type of indicators as: Physical (e.g. Kg/year) and environmental (e.g. energy consumption).

In their book, Bennett and James (Bennett & James 1999) state that ISO 14031:1999 has brought to our society the possibility for organizations to identify and implement the third generation of indicators. These are related to: eco-efficiency, interested parties, environmental condition, life cycle of products, comparison (relative KPI) and balanced scorecard. According to them, the indicators of the first generation are: business process regulated emissions and wastes, costly resources and compliance. The indicators of the second generation are: energy and materials usage/efficiency, significant emissions and wastes, financial and implementation.

Olsthoorn *et al.* (Olsthoorn et al. 2001) have also demonstrated some initiatives to classify KPI. The first initiative is from Loew and Kottmann (Olsthoorn et al. 2001). They classify KPI according to: environmental protection areas (energy, transport, emissions, waste, packaging, production, stock-keeping and water management), system boundaries (site company, process, product) or levels of analysis/representation (level of material and energy flows, polluters, cost or effect level). The second one Bennett *et al.* (Bennett & James 1999) is described in the previous paragraph. The third one is from Fisksel (Olsthoorn et al. 2001). He classifies KPI according to: performance tracking, decision-making and external. For Olsthoorn *et al.* the modern initiatives have been trying to represent the interests of a variety of company's interested parties.

The literature review about environmental performance indicators has revealed that the perspectives promoted in various conceptual frameworks and methods for identifying and implementing KPI appear to be dependent on the professional foundation and field of interest of the individual writers. The international scientific community has not yet reached an agreement on a general set of environmental indicators (Olsthoorn et al. 2001; Thoresen 1999). Examples of KPI and initiatives on KPI can be found extensively in the

literature. Some sources are: ISO 14031:1999 (International Organization for Standardization 1999a), ISO TR 14032: 1999 (International Organization for Standardization 1999b), CSA PLUS 1144 (Canadian Standards Association 1998), *Measuring Environmental Performance* (Global Environmental Management Initiative - GEMI 1998), GRI (Global Reporting Initiative - GRI 2002b), Bennett *et al.* (Bennett & James 1999), Azzone *et al.* (Azzone et al. 1996), *Report on Environment-Related Performance Measurement* from the Association of Chartered Certified Accountants (ACCA) (Association of Chartered Certified Accountants - ACCA 2001), *EU Eco-Management and Audit Scheme* (European Council 2001), *Guide to Corporate Environmental Indicators* by German Federal Environmental Agency (Olsthoorn et al. 2001), *World Business Council for Sustainable Development Report on Eco-efficiency Metrics* (Olsthoorn et al. 2001), National Round Table on the Environment and Economy (National Round Table on the Environment and the Economy 1997), *EEA Working Paper on Eco-efficiency Indicators* (Olsthoorn et al. 2001), *World Resources Institute Report* (Olsthoorn et al. 2001), *New Paths to Business* (Global Environmental Management Initiative - GEMI 2001) and *Core Environmental Indicators for Reporting on the State of the Environment* (Australian and New Zealand Environment and Conservation Council State of the Environment Reporting Task Force - ANZECC 2000).

Based on the literature review of KPI, Olsthoorn *et al.* (Olsthoorn et al. 2001) concluded that the majority of environmental information is only being used to compare the result of one organization over time, with very little comparability offered between organizations. Based on the above statement, the authors created an approach for the development of environmental KPI [See Figure 5 that is based on Olsthoorn *et al.* (2001: p. 453-463)]. In their theoretical approach it is demonstrated that environmental data, measured using selected KPI, should be normalized and, in a separate step, aggregated or standardized to

form indicators that are suitable for the information needs of many different interested parties.

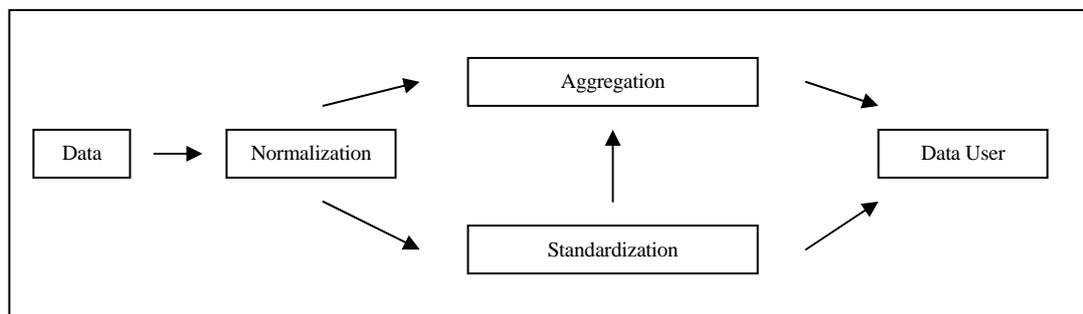


Figure 5: Steps for the development of environmental KPI

They also showed in a table their suggestion of a summary of indicators and data requirements [See Table 2 that is reproduced from Olsthoorn *et al* (2001: p. 453-463)].

CATEGORY	POSSIBLE INDICATORS	DATA REQUIREMENTS
❖ Business activity indicators	<ul style="list-style-type: none"> ❖ Physical production ❖ Financial production ❖ Operating profit ❖ Number of employees 	<ul style="list-style-type: none"> ❖ Physical quantities of inputs used and outputs produced ❖ Value added, turnover, sales, shipment values, total investment ❖ Revenues, cost of sales, selling and administrative expenses ❖ Total; engaged in production; wages
❖ Environmental impact indicators	<ul style="list-style-type: none"> ❖ Contribution to greenhouse effect ❖ Surface water pollution 	<ul style="list-style-type: none"> ❖ Annual emissions and effluents (tons / year) ❖ Potency factors
❖ Productive efficiency indicators	<ul style="list-style-type: none"> ❖ Various, depending on emphasis on inputs and / or emissions and / or impacts 	<ul style="list-style-type: none"> ❖ Any kind as requested (same as in environmental and impact indicators) ❖ Physical quantities of inputs used (including, e.g. number of employees, capital, energy, raw materials, (non-)renewable resources) and outputs produced ❖ Levels of emissions and waste production ❖ Environmental impacts ❖ Financial quantities
❖ Monetary aggregate indicators	<ul style="list-style-type: none"> ❖ Value lost and net value added 	<ul style="list-style-type: none"> ❖ Environmental costs relating to the processing or treatment of emissions ❖ Residual effects ❖ Payment to third parties, environmental taxes, environmental grants ❖ Expenditures to mitigate environmental effects ❖ Cost equivalent of environmental impacts
❖ Management (effort) indicators	<ul style="list-style-type: none"> ❖ Various (explanatory factors) 	<ul style="list-style-type: none"> ❖ Environmental investments ❖ Running costs pertaining to environmental protection (fees, personal expenses, fines, energy, maintenance)

Table 2: Summary of indicators and data requirements

However, the actual trend for the business world is to perform according to sustainable principles. In 2001, Veleva & Ellenbecker (Veleva & Ellenbecker 2001) presented a paper about indicators for sustainable production. They said that leader organizations in a number of business areas are realizing the strategic advantages of being more sustainable

and measuring their progress towards sustainability. However, a survey of fifty corporate sustainability reports revealed that companies failed to address major social and environmental impacts (SustainAbility 2000).

For Ditz & Ranganathan (Ditz & Ranganathan 1997), without general consensus on what and how to measure sustainability, the world community will be awash in a sea of confusing, contradictory, incomplete, and incomparable information. Adding more difficulty to this situation, the identification of indicators for sustainability has to reflect the interconnection of environmental, social and economic elements (Sustainable Measures 2002). For Ranganathan (Ranganathan 1998) the three components of sustainability can be represented according to Figure 6. It means that there are some issues that are only related to one component, others linked to two components and others linked to three components. Figure 6 is a representation of the interaction of the components but the figure is not to scale and it does not represent the volume of issues related to each component. According to Ranganathan, the development of indicators follows the same idea.

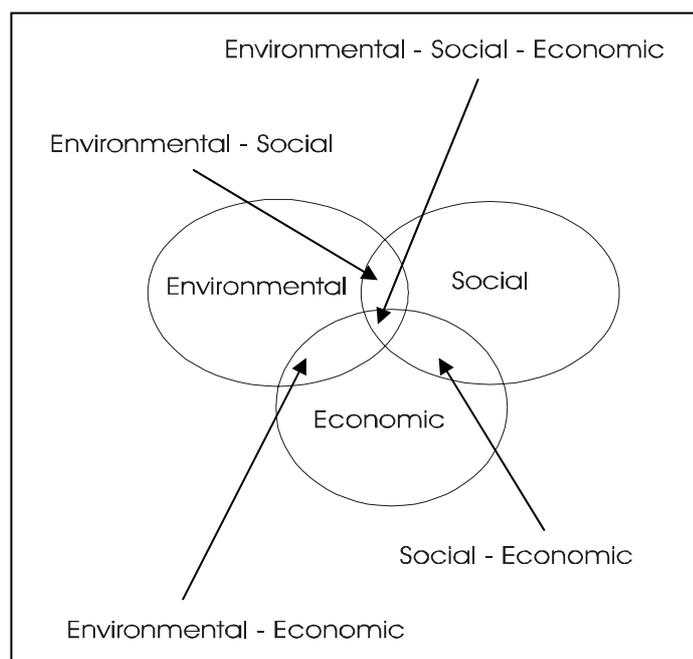


Figure 6: Interaction of the three components of sustainability

The gap that is still open in the business area is the definition of a set of sustainability indicators applicable to any organization. Even if society could standardize this set of KPI, we do not have the knowledge and technology to implement such indicators (Veleva & Ellenbecker 2001). However, Veleva & Ellenbecker (Veleva & Ellenbecker 2001) proposed a fixed set of twenty-two core indicators for sustainable production (simple and applicable to any organization) and guidance for selecting an open set of supplemental ones (specific to each organization). This approach appears useful. An eight-step model for indicator implementation has also been suggested to ensure integration of the methodology within the business decision-making system. These eight steps are also a process of continuous improvement.

The continuous loop model is based on the work of Bennett and James (Bennett & James 1999) and the nine principles of sustainable production of the Lowell Centre for Sustainable Production (LCSP) and has the following characteristics (Veleva & Ellenbecker 2001):

1. Define sustainable production goals and objectives.
2. Identify potential core and supplemental indicators.
3. Select indicators for implementation.
4. Set targets.
5. Implement indicators.
6. Monitor and communicate results.
7. Act on results.
8. Review indicators, policies and goals.
9. Close the loop redefining goals and objectives.

According to the methodology, the indicators also follow an evolutionary process. The levels of evolution according to the LCSP indicator framework are :

- ❖ Level 1: Facility Compliance/ Conformance Indicators.
- ❖ Level 2: Facility Material Use and Performance Indicators.
- ❖ Level 3: Facility Effect Indicators.
- ❖ Level 4: Supply Chain and Product Life-cycle Indicators
- ❖ Level 5: Sustainable Systems Indicators.

Veleva & Ellenbecker (Veleva & Ellenbecker 2001) conclude their paper by giving recommendations for practical application, assuming that it is impossible to develop a set of indicators that can be used for all types of organizations. However, they suggest that society has to try to develop it. While a global set of indicators may not be achievable, localised or regional sets of indicators may be because of the likely concordance of community and environmental values within the more limited spatial, cultural framework of such communities.

Around the world a growing number of initiatives are presently trying to develop sustainability indicators. Ranganathan (Ranganathan 1998) provides a summary of many such efforts. According to him the best-known indicator frameworks are: ISO 14031: 1999 (International Organization for Standardization 1999a), GRI (Global Reporting Initiative - GRI 2002b) and World Business Council for Sustainable Development (World Business Council for Sustainable Development - WBCSD 2000b). In Australia, there are two important publications in the area of sustainability indicators: *Core Environmental Indicators for Reporting on the State of the Environment* (Australian and New Zealand Environment and Conservation Council State of the Environment Reporting Task Force -

ANZECC 2000) and the *Headline Sustainability Indicators: National Report* (National Strategy for Ecological Sustainable Development - NSESD 2002).

2.5.2 – Engagement and communication with IP

There are basically two types of organizations' interested parties. The first one is formed by interested parties directly linked to the activities of organizations (also called in this work commercial interested parties) including management representatives, employees, purchasers, consumers, customers, investors, shareholders, suppliers, contractors, trade unions, financial institutions, regulatory/legislative bodies, other local/state/federal government institutions. The second one is formed by interested parties indirectly linked to the activities of organizations (also called non-commercial interested parties) such as welfare organizations, neighbouring and regional communities, general public, NGOs, opinion leaders, business/administrative/academic/research institutions, communications media. This division came from the consulting experience of the researcher.

Engagement of IP is the act of comprising IP in an activity or process of organizations (Merriam-Webster Online Dictionary 2004). The researcher also defined, based in his own experience, that there are two types of engagement of IP in business. The first one is engagement in dialogue between interested parties and organizations (or consultation process) about business activities (Black & Hartel 2004; Energex 2002; Hartman & Stafford 2003; Hoyle & Thompson 2001; International Organization for Standardization 2000a; Lycke 2002; Reddington, Withers & Williamson 2004; Tan 2002; Vollenbroek 2002; Wood 2004), and the second one is the participation of the interested parties in the strategic plan and decision making process of organizations (The Institute for Social and Ethical Accountability 2003). Communication is an important tool that has to be used in the relationship between organizations and interested parties (International Organization for Standardization 2002d). As worldwide, interested parties are demanding more ethical

and clearer behaviour of enterprises (Spiller 2000) good communication is vital in helping to maintain the transparency and good relations between interested parties and organizations (Andrews 2001; Byrne, Jones & Salmon 2002; International Organization for Standardization 2002d). Communication has two directions. This means the transmitter has to send the information, the receptor has to receive, process and give feedback. Thus, the information flows in two directions (BRI International 2000).

ISO/WD 14063.3 (International Organization for Standardization 2002d) is the only standard that deals with procedures and steps related to the communication process, but only for the environmental area. The standard defines that the process of communication builds trust, credibility, linkages and partnerships, to raise awareness, and also to be used for decision-making. The principles of communication are transparency, clarity, credibility, responsiveness and appropriateness. The approaches used in this standard can also be expanded to all areas linked to sustainability.

The engagement of commercial IP through dialogue can easily be found in the literature related to quality (Energex 2002; Hoyle & Thompson 2001; International Organization for Standardization 2000a; Lycke 2002; Tan 2002; Vollenbroek 2002) [issues linked to customers, consumers, management representatives, employees and purchasers]; financial (Acona 2004; Mays 2002; Spiller 2000) [issues linked to investors, shareholders, financial institutions and management representatives]; and legal areas (Australian Government 2000) [issues linked to regulatory/legislative bodies and, other local/state/federal government institutions]. Some of this literature also provides information about the engagement through participation in business of some commercial IP such as management representatives, investors, shareholders and regulatory/legislative bodies

The engagement of non-commercial IP through dialogue has been receiving growing acknowledgement in the literature in the last few years but through brief citations of the need to engage and communicate with some IP (Bennett & James 1999; Black & Hartel 2004; ECC Kohtes Klewes GmbH 2003; Energex 2002; Global Reporting Initiative - GRI 2002b; Hartman & Stafford 2003; International Organization for Standardization 1999a; Organisation for Economic Co-operation and Development - OECD 2003; Reddington, Withers & Williamson 2004; Social Accountability International - SAI 1998; Standards Australia and Standards New Zealand 2004a, 2004b; The Department of Industry Science and Resources - Australian Government 2001; The Global Principles Steering Group 2002; The Institute for Social and Ethical Accountability 2003; The Standards Institution of Israel 2001; Wood 2004). The only document that acknowledges the engagement through participation in business of non-commercial IP is AA 1000 (The Institute for Social and Ethical Accountability 2003). However it does not demonstrate how to do it and it is a brief citation.

2.5.3 - Reporting

Reporting is an important part of the communication process of organizations. Performance reporting (PR) is the tool used by organizations to inform interested parties of business performance (Bennett & James 1999; International Organization for Standardization 1999a).

Some other benefits of a good reporting system are (Bennett & James 1999; Byrne, Jones & Salmon 2002; International Organization for Standardization 1999a; O'Reilly, Wathey & Gelber 2000):

- ❖ Demonstrate organizations' commitment and effort with their goals.
- ❖ Improve the condition of a good dialogue with society.

- ❖ Provide a mechanism to respond to concerns and questions about the organizations.
- ❖ Growth of corporate reputation and customers because of the transparency.

According to ISO 14031:1999 (International Organization for Standardization 1999a) the information about performance may be reported, on a timely basis, to interested parties within (internal report) and outside (external report) the organization, based on the needs of the interested parties.

Even if the knowledge on financial reporting is older in terms of history, environmental and social reporting have been developing for a long time (Bennett & James 1999; Byrne, Jones & Salmon 2002). Financial reporting is more often linked to results of past decisions. Social reporting has a history of being linked to human rights and labour conditions. Environmental reporting is the one that has a great diversity of approaches, but each approach has been used by organizations to meet different and specific situations. Recently, a few authors have suggested the development of performance reporting in an integrated manner (sustainable report), including information linked to an organization's accountability with interested parties.

Bennett & James summarized in their book (Bennett & James 1999) an extensive evaluation of authors' arguments, in favour or not, on the complete integration of the three components of sustainability for business performance reporting. Balancing the authors' opinions, they concluded:

- ❖ The three components were tightly integrated.
- ❖ However, the three components had to be reported in three different reports.

The main arguments for reporting social, economic and environmental aspects in three different reports were (Bennett & James 1999):

- ❖ Business accounting and financial accounting have different ways of reporting.
- ❖ Organizations have their own reasons to report or not on some topics.
- ❖ The lack of knowledge on the interactions of the three components would generate fragmented reports.

However, there are arguments against these:

- ❖ Ranganathan (Ranganathan 1998) shows in his work that organizations develop their activities and generate results/impacts on the three components of sustainability. According to him the sustainability reports should be developed using the same approach and division of areas shown in Figure 6.
- ❖ Spiller (Spiller 2000) reveals that modern society is the one that is demanding changes in organizations. Transparency is a requirement.
- ❖ Bennett and James (Bennett & James 1999) demonstrated that financial reports have been changing because they constitute an important aspect in the forward-looking information of relevance to long-term shareholders' values. Today, shareholders' values are linked to environmental, social and economic aspects related to organizations. Regulatory authorities are also seeking to encourage companies to provide sustainability reports.

General points that emerged from many studies (Bennett & James 1999; Byrne, Jones & Salmon 2002; Jung, Kim & Rhee 2001) about environmental or social performance evaluation and reporting are:

- ❖ Reporting remains an unsystematic activity (not standardized), with a wide variation of approaches (Bennett & James 1999; Byrne, Jones & Salmon 2002).

- ❖ Many companies do not want to develop reports because they have not received pressure to do so and also because of the high cost involved (Bennett & James 1999).
- ❖ A growing number of interested parties are putting pressure on companies to have their reports verified by a third party. The reason for this is the necessity to validate the information given by companies through reports (Bennett & James 1999; Byrne, Jones & Salmon 2002; Jung, Kim & Rhee 2001). It is likely for this public pressure to mount as an outcome of the recent financial crashes of large corporations in Australia and the USA.
- ❖ Interested parties are becoming more and more confused with the amount of information included in organizations' reports (Bennett & James 1999).
- ❖ Various interested parties are asking for companies to perform according to different approaches for performance reporting. As a consequence, organizations' Directors and Managers are not sure which type of report framework to use (Bennett & James 1999).
- ❖ There is a tendency to use the Internet for delivering reports. The vision is that the audience will become users of information on real-time reporting, rather than just receivers (Bennett & James 1999).
- ❖ The necessity to see performance evaluation and reporting as a process (Bennett & James 1999).
- ❖ Standardization of indicators, measurements, reporting and processes of performance evaluation has been seen by many experts as the next step to take in terms of performance evaluation. A number of different initiatives are now seeking to achieve such standardization (Bennett & James 1999; Byrne, Jones & Salmon 2002).
- ❖ Standardization is important for comparability and benchmarking of performance (Byrne, Jones & Salmon 2002; Hussey, Kirsop & Meissen 2001).

- ❖ The necessity for entities to develop systems for data integrity and robust data collection (Bennett & James 1999).
- ❖ Balanced scorecards are valuable tools that can help companies to perform according to sustainable principles (Bennett & James 1999).

The most prominent attempt at standardizing of performance indicators, reporting and reports' verification is Global Reporting Initiative (GRI) (Byrne, Jones & Salmon 2002; Global Reporting Initiative - GRI 2002b; Hussey, Kirsop & Meissen 2001). The participants on the committee that has been developing the initiative since 1997 include: Coalition for Environmentally Responsible Economics (CERES) from the United States; Green Reporting Forum from Japan; Institute of Social and Ethical Accountability (ISEA) from the United Kingdom; ITT Flygt from Sweden; SustainAbility from the United Kingdom; United Nations Environmental Program (UNEP); World Business Council for Sustainable Development (WBCSD); World Resources Institute (WRI),

The GRI (Global Reporting Initiative - GRI 2002b) is a long-term, multi-interested parties, international undertaking whose mission is to develop and disseminate globally applicable sustainability reporting guidelines for voluntary use by organizations reporting on the economic, environmental and social dimensions of their activities, products and services. It is based on the concept developed by John Elkington (Elkington 1997)- the triple bottom line report.

Business, government, individual citizens, and civil society all share responsibility for managing impacts on humanity and the biosphere. Spurred by such tensions along with the rapid growth of global capital markets, everyone is searching for approaches to better align governance with the economic, environmental and social realities of our world. GRI

emerges as a contribution for organizations that want to develop their activities according to sustainability principles (Global Reporting Initiative - GRI 2002b; Hussey, Kirsop & Meissen 2001). The GRI guidelines can contribute to businesses and society in the following ways (Byrne, Jones & Salmon 2002; Global Reporting Initiative - GRI 2002b; Hussey, Kirsop & Meissen 2001):

- ❖ Standardize the language of sustainability performance reports.
- ❖ Harmonize rules for disclosure.
- ❖ Reduce the actual confusion in terms of business performance reporting.
- ❖ Help organizations to generate more understandable reports for the general interested parties.
- ❖ When applying the GRI report, organizations have the tools to compare and benchmark performance.
- ❖ Drive cultural changes toward sustainability.

Criticisms of GRI include:

- ❖ The approach gives conditions to organizations to know ‘what’ to do but not ‘how’ to develop reporting process (Byrne, Jones & Salmon 2002; Pojasek 2001).
- ❖ The document itself is a small part of the performance evaluation. Organizations cannot justify its use if they do not interconnect the GRI report with the rest of the performance evaluation process and management system (Bennett & James 1999).
- ❖ There are no examples of integrated metrics (Hussey, Kirsop & Meissen 2001).

It has to be emphasized that the GRI report approach has already been used by dozens of companies around the world (Andrews 2001). Hussey et al. (Hussey, Kirsop & Meissen 2001) evaluated the reports of some companies that have implemented GRI and stated

that the report is the best one available for companies that want to report according to sustainability principles.

Others important initiatives in terms of reporting for organizations are *SD Planner – A Sustainable Development Planning Tool* from Global Environmental Management Initiative (Global Environmental Management Initiative - GEMI 2002), the *Environmental, Social and Sustainability Reporting on the World Wide Web: A Guide to Best Practice* (Association of Chattered Certified Accountants - ACCA 2001), *Measuring Eco-efficiency – A Guide to Reporting Company Performance* (World Business Council for Sustainable Development - WBCSD 2000b) and a framework for public environmental reporting (PER), *Public Environmental Reporting - An Australian Approach* (Environment Australia 2000). The first two request organizations to report against the sustainable principles and the two last only the environmental area.

The Australian framework was released by Environment Australia in March 2000. It was developed to further facilitate and encourage voluntary public environmental reporting in Australia, by providing simple and effective guidance at national level. The latest version of the report is called *Triple Bottom Line Reporting in Australia* (Environment Australia 2003)

The Australian framework of 2000 goes beyond the boundaries of environmental reporting and shows an approach for establishing and implementing a performance evaluation management system, including the reporting process. The framework contains an overview of PER, steps on how to implement PER and a suggestion of elements that PER should contain.

2.5.4 - Conclusions

Worldwide interested parties are demanding that organizations perform and communicate with interested parties according to principles of sustainable development.

The review of the literature has shown that the engagement and communication with IP, including reporting activities, and definition of indicators for sustainability remain unsystematic activities (not standardized), with a wide variation of approaches. Because of this, organizations' decision makers are becoming confused about how to choose the right framework to use. Interested parties are also becoming more confused with the amount of information included in organizations' reports (or other communication tool).

Engagement and participation of commercial interested parties in business is well covered in the literature. However, in terms of organizational engagement and communication with non-commercial interested parties, even if this aspect has been receiving growing acknowledgement in the literature in the last few years, it has been addressed through brief citations. The only document that acknowledges the engagement through participation in business of non-commercial IP is AA 1000. However it does not demonstrate 'how' to do it and it is also a brief citation. Thus it is necessary for the development of a tool for interested party engagement beyond 'improved communication' as an important approach for the real sustainability of organizations and supply chains.

The most prominent attempt at standardizing performance indicators, reporting and reports' verification in the same approach is Global Reporting Initiative (GRI) (Byrne, Jones & Salmon 2002; Global Reporting Initiative - GRI 2002b; Hussey, Kirsop & Meissen 2001). However, this approach shows only part of the process of performance

evaluation and only shows WHAT is necessary in the development of a PR but not 'how' to develop it.

Performance evaluation, including the identification of KPI, and engagement and communication with IP has started to be seen as an integrated process by many experts. Standardization of indicators (principally sustainability ones), measurements, engagement and communication with IP, including performance reporting (PR), and the remaining processes within performance evaluation have also been seen by them as the next step to take in terms of improvement of performance evaluation approaches or models. A number of different initiatives are now seeking to achieve such standardization.

2.6 - General conclusion

Performance Evaluation is an integrated process. It can be seen as performance management systems.

The trend today for organizations is to perform and report according to the principles of sustainable development. Organizations have been implementing MS standards with the intention of improving business performance towards sustainability. The development of an ISO corporate responsibility management system standard should be very beneficial in terms of standardization of basic requirements for achieving sustainability. However it has been recognized that the implementation of MS is not enough to improve performance. Within the MS, it is necessary to develop and implement a well-structured PE process or model if the business and interested parties objectives are to be met in a sustainable way. A wide variation of approaches and models for PE already exist. However there is no complete model that includes 'what' and 'how' to develop a modern and complete PE. A model is required to standardize the PE process that would include

the engagement and communication with commercial and non-commercial IP, development of strategic plans according to sustainable principles and the needs of commercial and non-commercial IP, identification of sustainability KPI and verification of performance information to be released to IP.

A suggestion to fill this gap is the use of ISO 14031:1999 in combination with ISO MS approaches as a platform for the development of a new and integrated performance evaluation model that would include 'what' and 'how' to develop a modern PE of organizations. The idea inside ISO 14031:1999 has to be expanded to include the principles of sustainable development. Award criteria (EFQN or MBNQA or ABEF) could be used as pillars for the development of sustainability business plans. LCA could be used for the identification and mapping of business activities, products, services and other resources. Steps developed by Neely *et al.* in their PE process could be used as detailed explanation of some steps included in ISO 14031:1999. GRI could be used as the basis for PR. AA 1000 could be used for the development of engagements processes of IP. ISO/WD 14063.3 could be used as an example for the development of mechanisms to input information from IP.

The literature review also shows that the integrated management of a supply chain brings competitive advantages for all participants. New approaches to PE for supply chains, taking into consideration the principles of sustainability, are therefore needed. The new model, based in ISO 14031:1999, has to incorporate approaches that allow it to be used by individual organizations and supply chains as a common language for PE. The model also needs to include processes to develop and maintain partnership among participants of a SC.

Chapter 3

3 - RESEARCH METHODOLOGY

3.1 - Introduction

The ISO 14031:1999 standard applies to the Performance Evaluation of individual organizations. Some modification has been considered necessary to allow for the interdependence of organizations within the supply chain. Also there is a need to encompass principles of sustainable development (economic, social and environmental aspects of human activities) and to ensure the PE processes are suitable to be used either by individual organizations or the Supply Chain (SC). The need for integration with the general management systems of organizations has also been identified. The methodology described in this Chapter addresses these issues.

Three research approaches, namely, empirical (Buckley, Buckley & Chiang 1976), applied (Office of Research from Central Queensland University 2004) and action research (Dick 1999) have been identified and used, in a combined way, by the researcher in this study to achieve the objectives and aim.

The nature of the data collected has been empirical and the researcher has had to observe and experience phenomena individually and within small groups.

The research has involved planned experimental work focussed on achieving the aim and objectives of the project. Specific recognized approaches have been used to collect and analyse data. However, no opportunity has been available to control individuals and

organizations involved in the study. There has therefore been little direct control over the data and variables in the research. In addition it has not been possible to set up model situations with experimental controls. The researcher has developed the research using, primarily, questionnaires and a case study (Yin 1994) to provide qualitative data.

The research has had two major parts. The first one is related to creation and improvement of a PE model through the evaluation of PE data from commercial organizations and interested parties. This part also provided an opportunity to determine and evaluate current practices in relation to PE within organizations, their commercial supply chain and their local community. The data has been collected through interviews using questionnaires.

The second part is related to the implementation of an early version of the PE model in SC through workshops. The PE model was further refined using information from the evaluation of data from the workshops.

3.2 – Development of PE (version 1 model)

A ‘Just Thinking’ technique (Ticehurst & Veal 1999) has been used to develop the first version of a management systems model for PE or PE (version 1 model). This model has been based on ISO 140031:1999 (International Organization for Standardization 1999a). It has been developed to depict the integration of the PE process with a general management systems approach.

Ticehurst (Ticehurst & Veal 1999) stated in his book, *Business Research Methods*, that Just Thinking is a technique that could not be substituted by any other because it is the one that every researcher has used to evaluate information and develop new knowledge.

Just Thinking has been used in this research for the development of the PE models (version 1, 2 and 3 models).

The technique has been used in all steps of the research. In some steps it has been used in combination with other techniques and tools and in other steps the researcher has only used this one.

3.3 – Questionnaire for commercial organizations

3.3.1 – Selection of commercial supply chain

The main criteria for the selection of the commercial organizations that have participated in the first part of the research have been that they have had to form at least a basic SC. The other criteria were that the SC was chiefly located in the Gladstone region for ease of access.

Table 3 includes the reference number of the commercial organizations for the first part of the research and their main activities. The confidential list with the names of organizations and their related numbers is included in Appendix 18.

ORGANIZATION	MAIN ACTIVITY
Organization 1	Energy generation
Organization 2	Alumina production
Organization 3	Aluminium production
Organization 4	Engineering services provision
Organization 5	Aluminium recycling
Organization 6	Aluminium profiles production
Organization 7	Transportation

Table 3: List of commercial organizations for the research

Figure 7 shows the chosen SC for the first part of the research and the interaction of the participants.

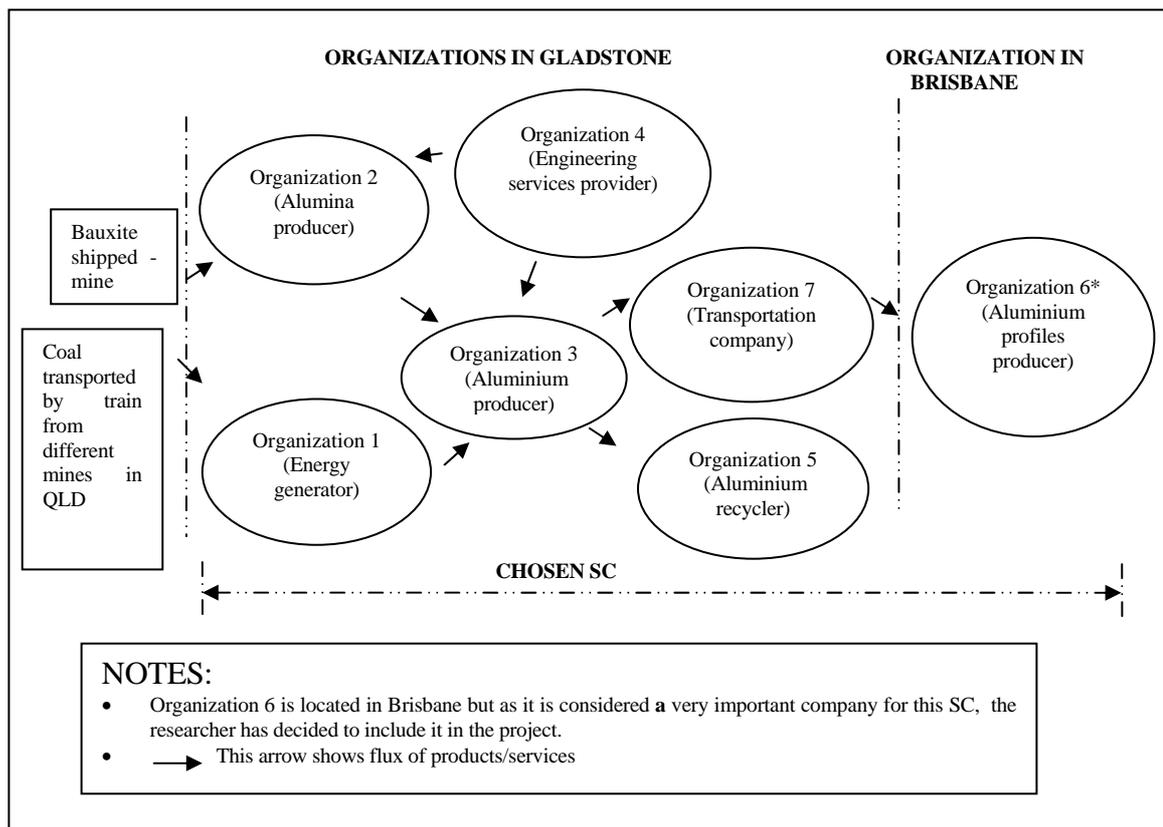


Figure 7: Chosen SC for the research

3.3.2 - Background

Objective 1 of the research was to understand and evaluate current practices for performance improvement and evaluation of individual commercial organizations and supply chains. The evaluation of the current practices focuses on comparing the performance evaluation of individual commercial organizations and their SC against the PE (version 1 model). The PE model is presented in the Chapter Discussions under the heading 'PE Model'.

The researcher identified that the best way to obtain and collect data from organizations and interested parties for this type of evaluation was through interviews based on questionnaires (Ticehurst & Veal 1999).

3.3.2.1 – Questionnaire development

The researcher developed a questionnaire taking into consideration the following important principles and study requirements in the development of the questions:

- ❖ As the researcher needed to obtain and evaluate the PE process of individual organizations and their SC against the PE (version 1 model), the questions had to be related to both types of business structure (individual organizations and SC) and the steps of PE (version 1 model). Each step of the PE (version 1 model) has had to have one or more questions related to it.
- ❖ The questionnaire design focussed on ‘how’ and ‘why’ organizations and their SC have been developing/using performance evaluation (Yin 1994). This two- question approach helped the researcher to structure the questions of each step of the PE process in a way to cover all subjects linked to it.
- ❖ If companies have not had experience with SC, the representatives of the organizations were required to visualize an SC in their minds and answer the question based on that. They have not had to think only about the Gladstone’s SC identified for the research study but about any SC they have had experience with or that they could visualize. The questionnaire had the intention of analysing their general experience and expectation with performance of an SC - not a specific experience.
- ❖ The questionnaire was developed to obtain a clear picture of the steps and procedures related to the current (real and actual) and improved (suggested and ideal) situation of PE process of organizations and SC.
- ❖ The questionnaire was filled in by the interviewer during the interview. This approach helped ensure the interviewee understood the question. It also helped ensure answers were based in the same level of understanding as the interviewer would ask (and explain where necessary) the questions and write the answers taking into consideration the same general factors in all interviews.

- ❖ The interviews were developed so that the interviewees had to give direct answers without rationalisation.
- ❖ The questionnaire consists of fifty-five questions. This has been considered the minimum number of questions that would help the research to have a clear picture of PE process of organizations and SC.
- ❖ The questionnaires were developed in such way that for each question there have been open answers and closed answers. Closed answers or multiple choices have allowed the interviewee to choose his/her answer among a series of pre-selected answers that have been developed based on the literature review and practical experience. Open answers allowed the interviewee to give his/her opinion about the subject.
- ❖ The questionnaires were developed with a crossing system of questions. This means that it was possible to evaluate if the question was answered properly because the same question has been asked in different ways, in different parts of the questionnaire. A crossing tool of answers has been developed to allow the evaluation of the answers in a combined way (crossing and comparing answers). Any inconsistencies between similar answers have led the researcher to contact companies and clarify the answers. The tool is called 'Map of the Questionnaire' and is included in the Appendix 2.
- ❖ Interview through questionnaire was used to collect qualitative data. The percentage of respondents providing similar answers to the same question has been calculated where appropriate and useful.
- ❖ All the answers of the questionnaires for the same target group were combined in a single report that has the same structural outline as the questionnaire. The answers were analysed and evaluated.

The first draft version of the questionnaire was based on a previous questionnaire that was used by the researcher to access information about management systems of companies in

an earlier project in Brazil. The questionnaire was steadily refined through five draft versions. The sixth version used during the interviews is provided as Appendix 3. The name of the questionnaire is *Questionnaire to Access Information about Performance Evaluation Management Systems or Processes of Organizations and their Supply Chains*.

The following professionals assisted with the development and testing of the questionnaire:

- ❖ Dr Stewart Lock from the Centre of Social Science Research, Central Queensland University (CQU). As this research had a strong aspect linked with social science research, his opinion in relation to questionnaires using social science tools has been very useful.
- ❖ The researcher's second supervisor, Rod Edwards, lecturer and director of Co-Op Program and Industry Liaison of the James Goldston Faculty of Engineering and Physical Systems, CQU. He has a strong background in quality management systems and has been able to suggest improvements for the questionnaire from the quality area perspective.
- ❖ Ms Jan Dark, Coordinator for the Integrated Management Systems Project within of the James Goldston Faculty of Engineering and Physical Systems, CQU. Ms Dark has considerable high-level management experience.
- ❖ Greg Baker, Quality Coordinator, Queensland Magnesium Corporation, Central Queensland.
- ❖ Professor John Rolfe, lecturer, Business Faculty, CQU has also suggested improvements to the questionnaire. John has extensive experience with business research and the use of questionnaires.

Figure 8 shows an example of the type of question used during the interviews with commercial organizations to obtain information about both their internal process of PE and their experience with, and suggestions for, an improved PE process for supply chains.

Which are the stakeholders that the organization/SC accesses for information/needs/values/views with the purpose to develop business strategic plans?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Management representatives	
	Employees	
	No stakeholders accessed	
	Other (from the Community, Government, etc):	

Figure 8: Example of question for commercial organizations

3.3.2.2 - Material for participants

A letter with explanatory documents was developed with the intention of engaging individual organizations and their representatives in the research. This formal letter to the CEO or representative of each company that had been chosen for the research includes (See Appendix 4, except where specified):

- ❖ The letter itself or letter of invitation.
- ❖ Information about the research project.
- ❖ The PE (version 1 model) used for and with the questionnaires.
- ❖ A general drawing explaining the initial idea of Supply Chain.
- ❖ A template letter of support and engagement of the organization for the project for signature.
- ❖ A template consent form showing the confidentiality of the work in relation to each participant linked to the research.

- ❖ An initial set of three questions developed to determine, before conducting interviews with organizations, whether the companies had some experience with, or interest in, evaluation of performance of SC and whether they would use successful parts of their internal performance evaluation process with their SC.
- ❖ Flow sheets for collection of data related to mass and energy flows to help the researcher and the organizations understand the companies' activities, products and services.
- ❖ A 'Table of Sustainability' – developed by the researcher to clarify to companies the issues linked to business sustainability - economic, social and environmental factors, was also attached to the questionnaire (See the discussion of the Table 20 in Chapter 5, Section 5.3).
- ❖ The questionnaire (See Appendix 3).

3.3.3 – Administration of the questionnaire

The questionnaire was delivered by the researcher during interviews with participants. He used 'Interview' (Ticehurst & Veal 1999) and 'Direct Observations' (Yin 1994) techniques in the gathering of information from organizations.

Suggestions from interviewees about improvements to the interview process and questionnaire were made during and after the interviews with the representative of each of the organizations. Where appropriate, the suggestions for improvement from an interview with one organization were used during subsequent interviews.

3.3.3.1 - Interview technique

'Interview' is related to the gathering of information from individuals using a formally designed schedule of questions or questionnaire. It is the most commonly used technique in management research (Ticehurst & Veal 1999).

Merits of the use of 'Interview':

- ❖ Provides quantitative or qualitative data for decision-making and/or research.
- ❖ It is a technique that provides transparent research procedures. Re-analysis is possible because of this.
- ❖ Can capture complex information and provide it in a succinct and easily understood form.
- ❖ Can be used as a tool to compare methodologies.

The researcher has developed the actions listed below to ensure objectivity of 'Interview' technique in the results of the research. These complement the steps in the development of the questionnaire. The list of actions is:

- ❖ With the intention of increasing the reliability of the information collected, he has carried out the interviews personally using the same procedures to ask questions and to write down the answers. The basic procedures have been (Ticehurst & Veal 1999):
 - Ask and write down the answers as precisely as possible avoiding bias.
 - Be polite, patient and persistent during the questioning and answering phase. Any doubt, repeat the question or ask the interviewee to answer the question again.
 - Observe and write down everything that is related to the topic but has not been fully/clearly addressed in the questionnaires.
 - Try to extract as much fact and reality as possible and minimize opinions using feedback approach.
 - If there is any subsequent doubt about an answer, contact the interviewee and ask the question again.

- If you realise that the interviewee is busy or distracted, stop the interview and request another interview, if this is possible.
- ❖ The interviews have been split in time to avoid tiring the interviewee. The interview has been developed in the following way:
 - At least two visits of 2 hours and 15 minutes to each organization were timed as follows:
 - First visit:
 - 30 min. for introduction
 - 30 min. for interview (through questionnaire)
 - 15 min. for a break
 - 60 min. for interview
 - Leave with the company the tables to be filled and collected in the next visit
 - Second visit:
 - 60 min. for interview
 - 15 min for a break (not included in the counting of time)
 - 30 min for interview
 - 30 min for discussion of the answers of the tables left in the last visit
- ❖ Four hours was determined as the optimal length of time for questionnaire delivery. This was identified through the pre-test development tests and allows the interviewer to ask (and explain) the questions without adversely disturbing the work of the representatives of organizations.
- ❖ Two tables were required to be left with the interviewee for them to be filled in after the interviews and subsequent collection by the researcher. The first table has

requested information about the type of KPI, linked to the three areas of sustainability, that has been used by each individual organization and the other one about suggestions for KPI for SC

3.3.3.2 – Direct Observation technique

‘Direct Observation’ (Yin 1994) has been used by the researcher to collect additional information during the site visits, interviews and general discussions with company representatives. In particular, during visits to sites to understand the activity of the organization before and during application of the questionnaire, it is possible to observe some specific characteristics of the personnel of the company. For example, two interviewees who have been answering questions together have not agreed with some answers.

Observations that have been taken by the researcher during the interviews have been written down in the questionnaire. They have subsequently been evaluated together with the data collected through questions.

Merits of the use of ‘Direct Observation’ technique:

- ❖ Covers events in real time and allows better understanding of the context of events.
- ❖ Allows insight into interpersonal behaviours and motives

Limitations of the use of observation technique:

- ❖ Bias by the observer.
- ❖ The selection of important facts is decided by the observer.
- ❖ The observer reflects the issue observed based on his/her own knowledge and experience.

The researcher has developed the actions listed below to ensure objectivity of the 'Direct Observation' technique in the results of the research. The list of actions is:

- ❖ When observing a specific subject during one interview, he tried to observe the same subject in the subsequent interviews to see if there might be similarities or differences.
- ❖ He tried to avoid bias as much as possible, writing down precisely the facts observed.
- ❖ When talking about the questionnaire, he developed in the questionnaire an area after each question to write down the observations related to each specific subject. He also included an area at the end of the questionnaire for general observations.
- ❖ He has tried to evaluate the information of the observations only in the context of the research. Other observations, such as impressions without any proof or specific grounds for inclusion as of relevance to the research, have been discarded.

3.3.4 - Data management

3.3.4.1 – Treatment and Collation of data

Seven sets of data or answers were obtained from the organizations' questionnaires, one from each organization. Each set of data was divided into two parts. The first one contains information about the internal performance evaluation of each commercial company (called 'Organization - Current Situation'). The second set contains information about the company's experience with SC plus suggestions for an improved PE for SC (called 'Supply Chain - Improved Situation'). The evaluation of each questionnaire has also been divided into the same two parts.

Next the researcher plotted the data from each organization related to the part called 'Organization - Current Situation' into one combined set of answers. Similarly, the data from each organization related to the part called 'Supply Chain - Improved Situation' was combined into another set of answers.

Where questions had a number of possible answers, the percentage of companies that marked each specific answer was calculated and tabulated for each answer. The organization of data into this combined set of answers can be seen in Appendix 5.

The researcher used the 'Map of the Questionnaire', to ensure the reliability of data or answers provided by organizations. The map is included in the Appendix 2.

Figure 9 shows the format of the summary of questionnaire data. This format is used for the combination of the answers to each question from all seven organizations into a combined set of answers. Some additional information about the tables in Figure 9 is as follows:

- ❖ The numbers 1 to 7 identify the specific organizations.
- ❖ The percentage of companies in relation to the total of companies that have chosen a specific answer is located in the column 'Total'.
- ❖ Comments made by the researcher are stated in 'Interviewer's Comments' following the tabulation of answers.
- ❖ Comments made by the interviewees are stated in 'Additional Information Provided by the Interviewees' following the tabulated answers.
- ❖ Other observations and comments are stated in 'Other Comments from Answers to the Question' following the tabulated answers.

COMBINATION OF ALL ANSWERS OF ALL QUESTIONNAIRES IN ONE SET OF ANSWERS OR DATA, CONTAINING ALL THE ANSWERS RELATED TO ORGANIZATION - CURRENT SITUATION

Question:

Which are the areas covered in your organization's performance evaluation (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS - CURRENT SITUATION	1	2	3	4	5	6	7	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Environmental									❖ Organization X: The person
Economic	X							14%	
Financial			X		X	X		43%	

INTERVIEWER'S COMMENTS

- ❖ 43% (number of companies that have marked that answer over the total number of answers) of the companies answered Financial

OTHER COMMENTS FROM ANSWERS OF THE QUESTION 10a – ORGANIZATIONS – CURRENT SITUATION

- ❖ Most of

COMBINATION OF ALL ANSWERS OF ALL QUESTIONNAIRES IN ONE SET OF ANSWERS OR DATA, CONTAINING ALL THE ANSWERS RELATED TO SC - IMPROVED SITUATION

Question:

Which would be the ideal areas covered in your supply chain's performance evaluation (mark in the column SC - IMPROVED SITUATION)?

SUPPLY CHAIN - IMPROVED SITUATION	1	2	3	4	5	6	7	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Environmental									
Economic	X	X	X		X		X	72%	
Financial				X		X		28%	

INTERVIEWER'S COMMENTS

- ❖ It is interesting

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 10b – SC - IMPROVED SITUATION

- ❖ These organizations want

Figure 9: Summary questionnaire data from IO

There have been two arrangements that have been made for the analysis and evaluation of data with the intention of providing information for the improvement of the PE (version 1 model). These are:

- ❖ The first one related to the combination of data linked to ‘Organization – Current Situation’, and;
- ❖ The second one related to the combination of data linked to ‘Supply Chain – Improved Situation’.

The combined data for both arrangements can be seen in Appendix 5. The summary of the data can be seen in Chapter 4, Section 4.2.

3.3.4.2 – Data analysis

The principle for the analysis of data and evaluation has been adapted from the explanation-building analysis tool suggested by Yin (Yin 1994). The process within the tool is the comparison of an organization’s practical way of doing things with a theoretical or expected approach. In the case of this step of the research, the questionnaire was developed as an auditing tool where the possible answers for each question are based on the steps of the PE model. The PE model has, in turn, been based in the steps of PE included in ISO 14031:1999, i.e. the expected way according to Yin. The answers from the companies have provided the actual /empirical way in which the companies have been developing performance evaluation or what they have suggested for an ideal PE for SC (or empirical way according to Yin).

The comparison and evaluation of the answers of companies against the PE (version 1 model) have provided the researcher with information to evaluate the performance evaluation of each individual organization and the suggested PE for SC. Everything has

been done to provide information to develop reports for companies about their internal PE and improve the PE (version 1 model) for individual organizations and SC.

Figure 10 shows how the analysis of the data and evaluation has been done.

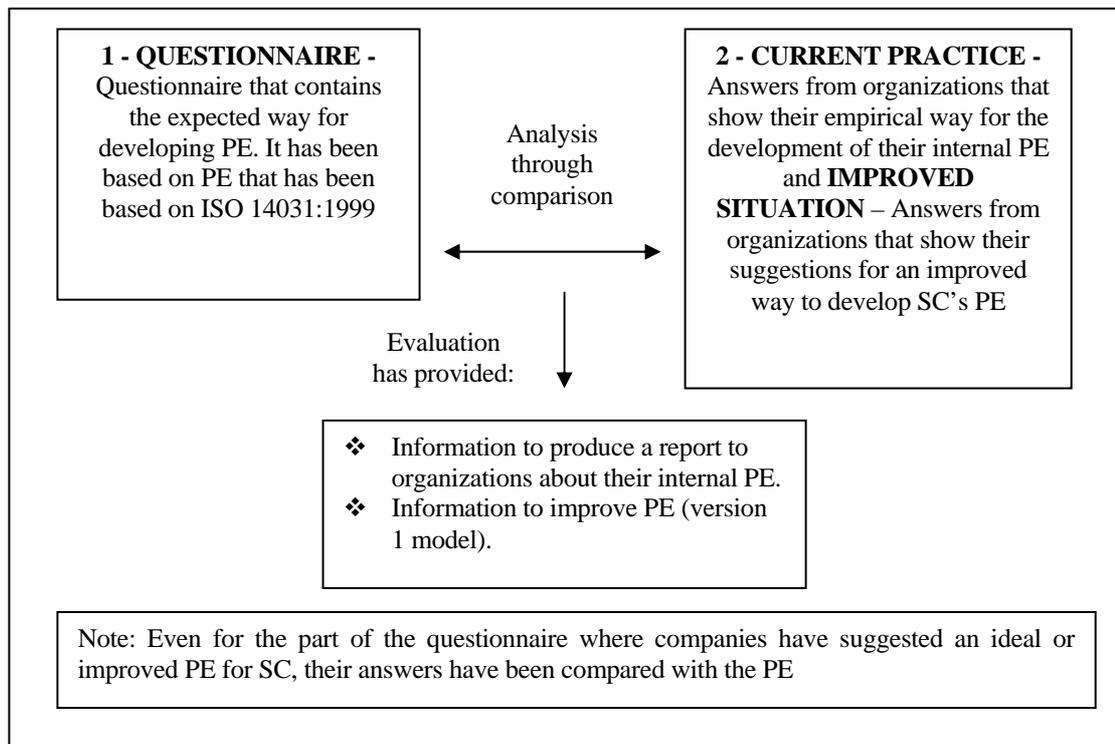


Figure 10: Framework for analysis and evaluation for IO

3.3.5 - Reporting

Individual reports evaluating the internal PE processes used by organizations 1, 3, 5 and 7 against the PE have been developed by the researcher. These reports were considered confidential.

The reports included:

- ❖ Introduction including the explanation of the research, general explanation about the PE processes of the company and executive summary.

- ❖ Comparison between the company's PE processes against the PE (version 1 model).
- ❖ Conclusions about their processes based on the comparison and suggestions for the improvement of their PE processes.

The remaining companies that participated in this stage of the research related to the questionnaire have not requested reports. However every company received a copy the thesis.

During this phase of the research, letters of thanks for the participation of the organizations in the first part of the research project were delivered to them.

3.4 – Questionnaire for interested parties

3.4.1 – Selection of community interested parties

Community interested parties that have participated in the first part of the research have been defined as those interested parties that:

- ❖ have close links with the commercial organization;
- ❖ represent important sectors of the community; and,
- ❖ have demonstrated the facility to be easy to contact and engage for the interviews

The researcher identified and participated in a group in Gladstone called Gladstone Region Sustainability Group (GRSG) with the intention of identifying the community interested parties for his research.

The GRSG was established and funded by an Environmental Protection Agency (EPA)'s pilot project for a sustainable community. This pilot project was developed with the

Gladstone community within the Gladstone region (Gladstone Area Promotion and Development LTD 2001).

EPA provided the identification of the first representatives of the community's interested parties for GRSG. After that, the group itself identified and changed these representatives with the intention of having inside the group a broader range of representatives of the interested parties from the community.

For the identification of the needs, values and goals of the local community, the GRSG identified seventeen main issues or target areas. These areas were also used as a parameter for the identification of KPI. Each participant of the group was professionally or socially linked to one or more of these areas and they have had the responsibility to coordinate forums within the local community to discuss issues, principally Key Performance Indicators (KPI), linked to the nominated areas.

The main issues or target areas were: air quality; energy consumption; water; natural ecosystems and biodiversity; waste and recycling; industry and infrastructure development; employment and the economy; agri-business; building and planning; tourism and hospitality; health; education and training; culture, sport and recreational activities; law and order; families; population; and, public well-being.

The list of interested parties that have been chosen to participate in the first part of the research is included in Table 4.

INTERESTED PARTIES (ORGANIZATIONS OR GROUPS REPRESENTING IMPORTANT AREA OR SECTOR OF THE COMMUNITY)	MAIN ACTIVITY
Interested party 1	Provision of public services for the community
Interested party 2	Provision of social entertainment for the community
Interested party 4	Provision of research services linked to sustainability for the community
Interested party 5	Provision of social support for the community
Interested party 6	Provision of social support for the community
Interested party 7	Consultancy for the environmental area
Interested party 8	Provision of business support for the business community
Interested party 9	Provision of social support for the community
Interested party 11	Development of sustainability and environmental programs for the business community

Table 4: List of interested parties for the research

Some other organizations directly or indirectly linked to GRSG's activities and local community have also been identified. They have been chosen to participate in the first part of the research because of their importance within the local community and links with commercial organizations. The list of additional interested parties, their main activities and the reasons for participating in the research is addressed in Table 5.

INTERESTED PARTIES	MAIN ACTIVITY	REASONS TO INCLUDE THE INTERESTED PARTY
Interested party 3	Provision of research linked to social issues	Organization that has inputs in the GRSG though interested party 2
Interested party 10	Enforcement of environmental legislation	Organization that has responsibility in supporting the activities of GRSG and providing information about the environmental situation of the Gladstone region
Interested party 12	Development of legislation	Organization that has all the information about state legislation in general
Interested party 13	Representation of the Aboriginal community	Organization that has information about the Aboriginal community

Table 5: Additional list of interested parties for the research

The confidential list with the names of organizations and their related number is included in Appendix 18.

3.4.2 – Background

Objective 2 of the research has been to understand and evaluate the needs of the community-interested parties in relation to the performance, process of performance evaluation and communication systems of individual commercial organizations and supply chains. The evaluation of these needs has been undertaken comparing those needs and expectation against the PE (version 1 model).

The researcher also identified that the best way to obtain and collect data from interested parties for this type of evaluation was through interviews based on questionnaires (Ticehurst & Veal 1999).

3.4.2.1 - Questionnaire development

The researcher developed the first version of the questionnaire for interested parties within the commercial organizations based on the questionnaire for commercial organizations. The questionnaire was much shorter than the one for commercial organizations because there was no necessity to ask interested parties questions related to internal aspects of the organizations. The questionnaire asks the interviewees how and why they would like to see companies performing and evaluating performance.

The questionnaire was tested and refined with the third version being used during the interviews. This version can be seen in Appendix 6. The name of the questionnaire is *Questionnaire to Access Information from Organizations'/Supply Chains' Interested Parties*.

Some characteristics of the questionnaire and its delivery were:

- ❖ The questionnaire consisted of twenty questions.
- ❖ It had to be delivered with interested parties in one hour.

An example of the type of questions and possible answers can be seen in Figure 11.

Mark in the Table (IMPROVED SITUATION FOR ORGANIZATIONS/ SUPPLY CHAINS) the list of areas that your organization intends (in your opinion) to influence or be linked to when engaged in a consultation process by organizations/supply chains

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	ACTIVITY LINKED TO THE AREAS
	Social area
	Environmental area
	Economic area
	Environmental/social areas
	No areas
	Other:

Figure 11: Example of question for interested parties

3.4.2.2 - Material for participants

A similar letter to the one developed for the representative of commercial organizations with explanatory documents has been developed for interested parties with the intention of engaging them into the research. This formal letter included the same material attached in the letter to commercial organizations. The only differences in the material provided to interested parties in comparison with the material provided to commercial organizations has been that the questionnaire for interested parties has been more specific and shorter (See Appendix 6). Also, the initial set of three questions and a sheet showing how to develop a mass and energy balance were not included.

3.4.3 – Administration of the questionnaire

The questionnaire was delivered by the researcher using the same techniques and procedures used to deliver the questionnaire for commercial organizations, ‘Interview’ (Ticehurst & Veal 1999) and ‘Direct Observation’ (Yin 1994).

3.4.4 – Data management

3.4.4.1 – Treatment and Collation of data

Thirteen sets of data or answers were obtained from interested parties’ questionnaires, one from each interested party.

The researcher plotted the data from each interested party into a combined set of answers.

As each question had many possible answers, the percentage of interested parties that marked each answer was calculated. The organization of data into this combined set of answers can be seen in Appendix 7. The summary of the data is in Chapter 4, Section 4.3.

Figure 12 shows the format of the summary of questionnaire data. This format is used for the combination of the answers to each question from all thirteen interested parties into a combined set of answers. Some additional information about the tables in Figure 12 is:

- ❖ The numbers 1 to 13 identify the specific interested parties.
- ❖ The remaining part of this tabulation is similar to the one developed for commercial organizations.

Thus the arrangement of data for analysis and evaluation has the intention of providing information on the current situation/views and for the improvement of the PE - version 1 model.

COMBINATION OF ALL ANSWERS OF ALL QUESTIONNAIRES IN ONE SET OF ANSWERS OR DATA, CONTAINING ALL THE ANSWERS FROM INTERESTED PARTIES RELATED TO THE IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS

Question:

Mark in the table the list of areas that your organization intends (in your opinion) to influence or be linked to when engaged in a consultation process by organizations/ supply chains

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Environmental															❖ Interested party X: The person
Economic	X													14%	
Financial			X						X	X				43%	

INTERVIEWER'S COMMENTS

❖ Based

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION

❖ Most

Figure 12: Summary questionnaire data from IP

3.4.4.2 - Data analysis

The principle for the analysis of data was also based on Yin (Yin 1994). In the case of this step of the research, the steps of PE have been considered to be the expected way to undertake PE. The answers from the interested parties have provided their experience or needs or suggested ways that they have considered (or empirical way according to YIN) would be the best means of developing performance evaluation for organizations and SCs.

Figure 13 shows the analysis of the data and evaluation has been completed.

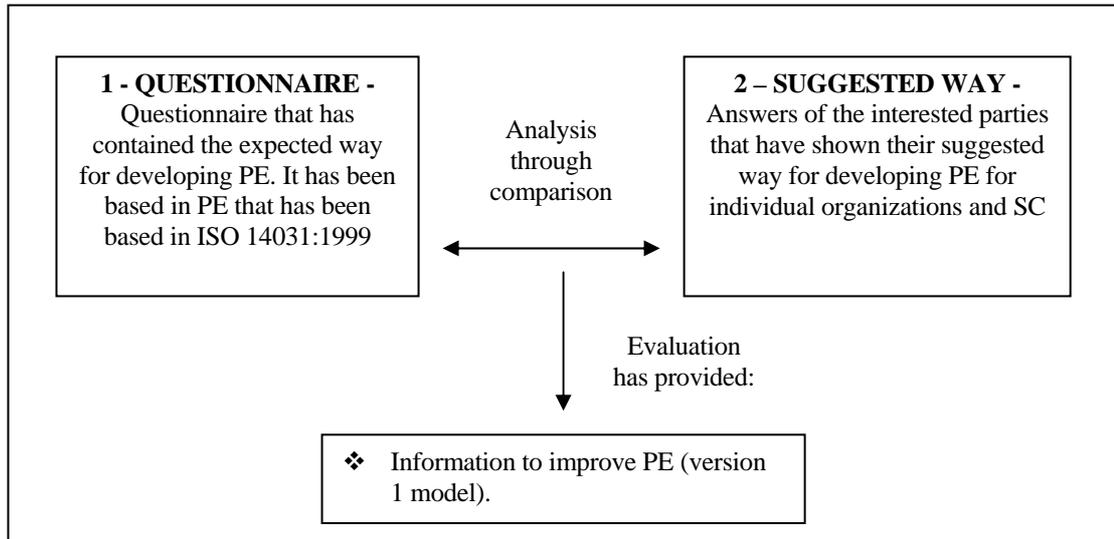


Figure 13: Framework for analysis and evaluation for IP

3.5 – Development of PE (version 2 model)

Based on the evaluation of the answers from the questionnaires from commercial organizations and interested parties, a revised version of the PE (version 1 model) was developed. To reflect the new concepts incorporated into this model it was called Sustainability Performance Evaluation Management Systems – SPEMS (version 2 model).

Coincident with this development has been the recognition by the researcher of the need to extend the concept of supply chain to encompass community interested parties and non-linear networks of relevant commercial organizations. The term that was developed is Network of Interested Partners (NIP).

3.6 – Implementation of SPEMS (version 2 model)

3.6.1- Selection of the supply chain

3.6.1.1 - Focus organization

Organization 3 that participated in the first part of the research is an important aluminium producer involved in participating in and developing the second part of the research, i.e. the development of partnerships among participants of an NIP through the implementation of SPEMS (version 2 model). The organization was chosen by the researcher as the focus or dominant organization in this second part of the research. It is considered dominant, not only because it was the organization that would lead and guide the actions and decisions of the NIP, but because it also had sufficient importance to draw in other SC participants and IP.

Organization 3 that participated in the first part of the research was renumbered as Organization 8 in this second part of the research.

3.6.1.2 – Other participants

A series of meetings occurred between the researcher and the representative of Organization 8 to identify the potential participants (other commercial organizations and interested parties) for this second part of the research. The representative of Organization 8 was keen to develop a pilot project within his organization that could act as a showroom for other similar projects.

The criteria used by the researcher and Organization 8 to define other commercial organizations and community-interested parties were:

- ❖ Organizations and interested parties that have demonstrated interest in developing long-term relationships with Organization 8.
- ❖ Organizations and interested parties that have demonstrated interest in the participation in a pilot project of the nature proposed by the researcher
- ❖ Organizations and interested parties that have shown, in the past, actions that would add value to this pilot project.
- ❖ Interested parties that have earned a good public reputation in delivering services to the community.
- ❖ Organizations that have demonstrated the delivery of good services to Organization 8 in the past.
- ❖ Organizations that have had similar commercial interests but have shown a willingness/ability to develop partnerships with competitors.
- ❖ Organizations that have been working in the environmental area (criterion selected due to the importance of the environmental area linked to Organization 8).
- ❖ Interested parties that represent important sectors of the community.

Table 6 includes the reference number of the organizations and interested parties chosen to participate in the research and their main activities.

ORGANIZATION/INTERESTED PARTY	MAIN ACTIVITY
Organization 8 (focus or dominant organization)	Aluminium production
Organization 9	Provision of waste management and industrial services
Organization 10	Provision of waste management and industrial services
Interested party 14	Publishing
Interested party 15	Consultancy for the environmental area
Interested party 16	Provision of environmental education
Interested party 17	Provision of business support
Interested party 18	Provision of higher education

Table 6: List of participants for pilot study

Figure 14 shows the NIP chosen for the second part of the research and the interaction of the participants.

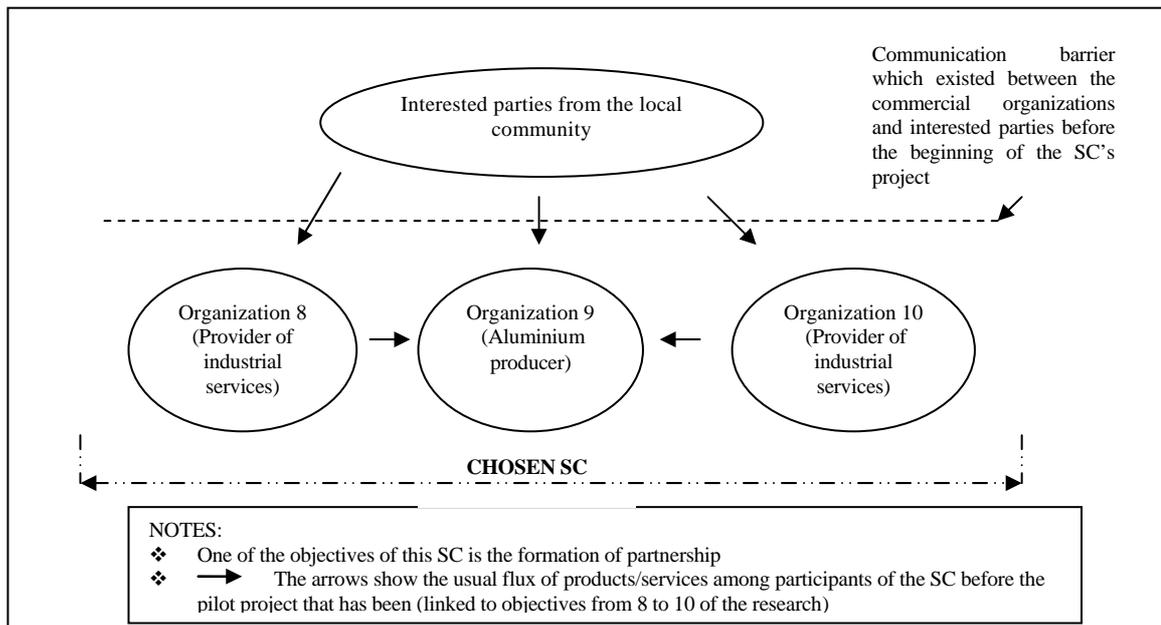


Figure 14: Chosen NIP for the research

The confidential list with the names of organizations/interested parties and their related numbers has been included in Appendix 18.

3.6.2 – Background and research approach

Objective 3 of the research was to develop, evaluate and improve a performance evaluation systems model based on principles of sustainability for individual commercial organizations, supply chains and local interested parties. This evaluation also included the evaluation of the partnership developed among participants of an NIP to implement the SPEMS model. The development of partnerships among participants of a NIP was considered a requirement for the implementation of SPEMS in a NIP.

The researcher determined that the best way to implement partnerships among participants of an NIP and SPEMS would be through workshops using ‘Study Circles’ technique (Cooperative Research Centre for Coastal Zone Estuary and Waterway

Management 2003). Three workshops, each of 8 hours length, were used because this was considered an optimum number and timeframe given the time constraints for both the researcher and the participants.

3.6.2.1 – Workshop objectives

The objectives for each workshop were:

❖ Workshop 1:

- Understand the main objectives of this second part of the research project
- Introduce all participants and their organization (brief introduction)
- Understand the activities of all participants (organizations/interested parties) represented in the NIP
- Agree about key terminologies (sustainability for organizations, sustainability KPI, NIP, etc)
- Start the process of NIP partnership development

Workshop 2:

- Understand the individual needs of participants who have participated in the NIP
- Understand the individual KIPS and performance criteria used by participants.
- Understand the needs of the participants in relation to the NIP
- Understand the KIPS and performance criteria suggested by the participants for the NIP
- Clarify and agree on KIPS and performance criteria that will be used by the NIP
- Clarify the changes in the vision, policy(ies) and the remaining strategic plan(s) of individual organizations/interested parties
- Clarify the need to develop vision, policy(ies) and the remaining strategic plan(s) for the NIP

❖ Workshop 3:

- Understand the individual needs of organizations/groups that have participated in the NIP
- Define vision, policies and basic action plans for the NIP (if necessary), including dates
- Define structure for the NIP and for the implementation of SPEMS (it would be a committee formed by representatives of each company including chairperson and secretary or one company leading the NIP)
- Define table of responsibilities within the NIP and for the implementation of SPEMS
- Define financial and other resources for the NIP and for the implementation of SPEMS
- Define the cycle of each performance evaluation of the NIP and the meetings to evaluate performance
- Define communication systems (internal and external)
- Define the necessity of training within the NIP (address the necessity of training inside each company)
- Define documentation system and its control (including records)
- Define scope and objectives of the NIP (improve the ones already defined)
- Obtain commitment from everyone to continue the development of partnership and implementation of SPEMS within the NIP.
- Establish a convenor and time for at least one further NIP meeting without facilitation.

3.6.2.2 – Action Research

The idea for the development of the workshops was that the participants of the NIP (commercial organizations and community interested parties) would go to the workshops

to learn and develop the methods that could be used to train personnel and implement SPEMS in their own organizations and in an NIP. Note that not all the organizations participating in the NIP would need to implement the entire SPEMS inside their organization. They need to at least understand the process to participate in the PE process of the entire NIP.

The workshops were considered one cycle of the 'Action Research' strategy (Dick 1999). This is because the workshops have worked as sources of data to improve SPEMS (version 2 model) into SPEMS (version 3 model).

'Action Research' is, according to Dick (Dick 1999), a family of research methods that pursue action (or change) and research (or understanding) at the same time. It is a spiral process for improvement that alternates between action and critical reflection. It continuously refines methods, data and interpretation in the light of understanding and/or improving the issue studied as defined in the early stage.

This type of research is designed and conducted by practitioners who analyse the data to improve specific issues studied and it can be used by individuals or groups (North Central Regional Educational Laboratory). It is also described as an informal, qualitative, formative, interpretive, reflective and experimental model of inquiry in which all individuals involved in the study are knowing and contributing participants (Gabel 1995).

Another distinguishing characteristic of 'Action Research' is the degree of empowerment given to all participants in a group. Involvement is of a knowing nature, with no hidden controls or pre-emption of direction by a coordinator or facilitator. All participants

negotiate meaning from the data and contribute to the selection of intervention strategies, including the coordinator or facilitator (Gabel 1995).

It is a strategy that requires researchers to participate, observe and/or experience phenomena individually or within a group.

Figure 15 clearly displays the iterative nature of action research along with the major steps of planning, action, observation and reflection before revising the plan. It is based on Gabel (Gabel 1995).

The researcher experienced one cycle of action research during the development of the workshops. He was the planner of the workshops (planning phase) and facilitator (action phase). He also observed and participated in the activities of the workshops, specifically in the groups' works (observation phase). He collected the data from the workshops and evaluated them as source of information for the improvement of SPEMS (reflection phase).

3.6.2.3 – Workshop design

During the workshops, the participants of the NIP formed circles of discussion and study, or study circles, with the intention of achieving the objectives of each workshop and of planning/implementing the SPEMS in the NIP.

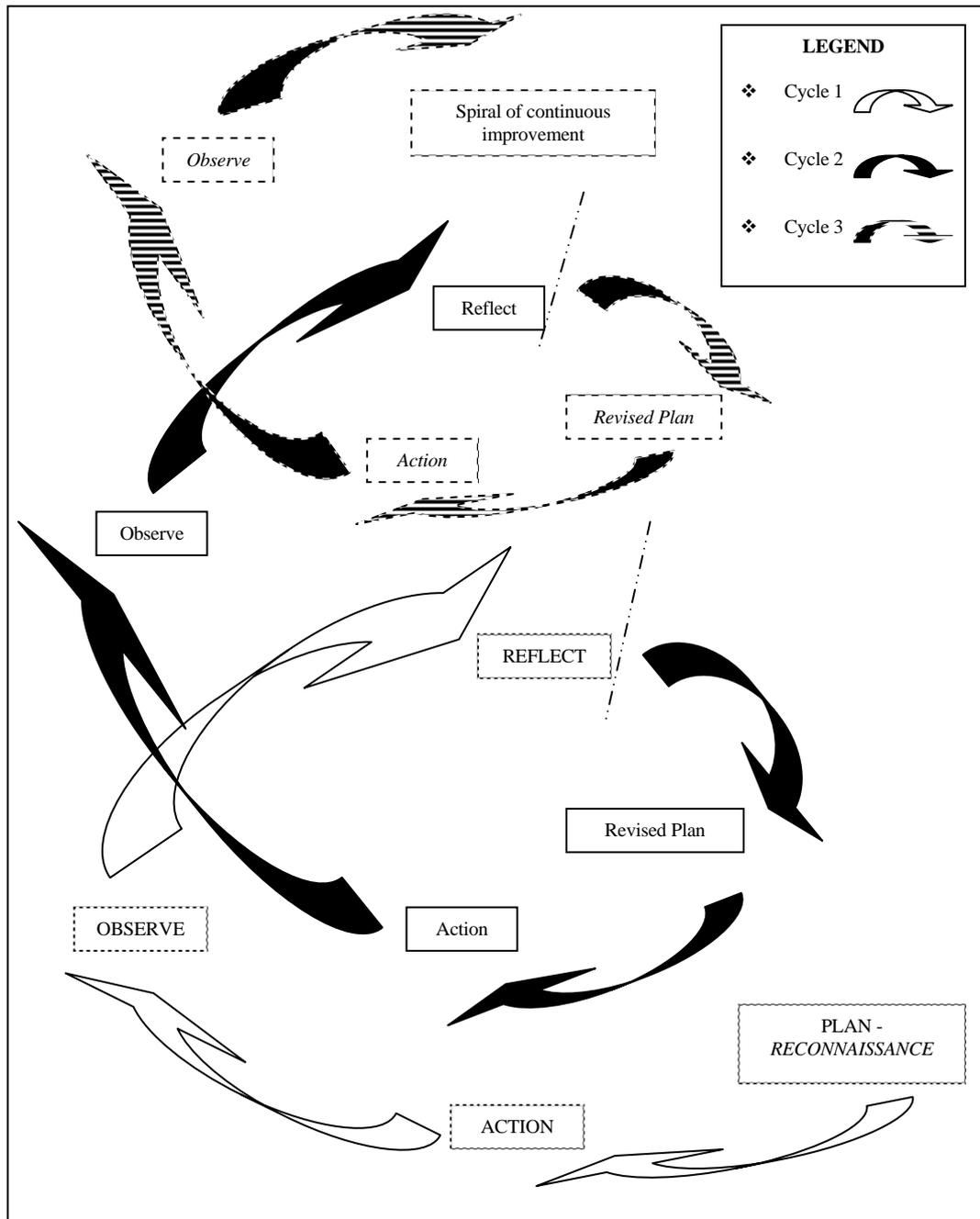


Figure 15: Action research

‘Study Circles’ technique (Cooperative Research Centre for Coastal Zone Estuary and Waterway Management 2003) is a technique well known as effective in developing activities with groups of people to improve specific subject focus. The technique (Study Circles Resource Center 2004) involves groups of people from different backgrounds and viewpoints who meet several times to talk about an issue. In a study circle, everyone has

an equal voice, and people try to understand each other's views. They do not have to agree with each other. The idea is to share concerns and look for ways to make things better.

'Study circles' are facilitated by a person/facilitator who is there, not to act as an expert on the issue, but to serve the group by keeping the discussion focused, helping the group consider a variety of views and process difficult questions (Cooperative Research Centre for Coastal Zone Estuary and Waterway Management 2003). The researcher worked as the facilitator for the three workshops.

Merits of the use study circles technique include:

- ❖ Allows participants to gain ownership of the issues, discover a connection between personal experiences and other interests, and gain a deeper understanding of their own and others' perspectives and concerns.
- ❖ Since the dialogue does not promote one particular point of view, or try to persuade people to take a specific action, potential coalition partners can usually find ways to work through ownership issues, mistrust, or genuine disagreement.
- ❖ Improves communication and partnership among participants.
- ❖ Can create new connections between the group and other parts of the community, through one or more participants of the group.

Limitations of the use of observation technique:

- ❖ Building a coalition that represents many points of view takes time and effort.
- ❖ This kind of coalition building for democratic participation requires leadership, a working knowledge of the participants of the group, and a willingness to learn by trial and error.

The researcher developed the following actions to decrease the influence of the limitations of study circles technique in the results of the research:

- ❖ The researcher developed very focused and planned workshops with the objective of developing partnerships among the participants of an NIP and to implement the steps of the SPEMS (version 2 model).
- ❖ The workshops were used as a tool to develop knowledge and train the participants of the NIP as instructors in the implementation and maintenance of SPEMS and partnerships for their companies. After the workshops, the participants would be expected to be able to return to their companies, train others and implement SPEMS and partnership (this is called learn and do approach).

As the researcher also worked as an observer during the workshops, he used the 'Participant Observation' technique (Yin 1994). It differs from 'Direct Observations' technique (Yin 1994) because using 'Participant Observation' the researcher has considerably more interaction with people being researched than in other research methods. 'Participant Observation' has the same merits and limitations as 'Direct Observations'.

3.6.2.4 - Workshop Plans

The researcher developed the plans for the three workshops based on the objectives of the workshops, in consultation with his university supervisors and two specialists in the area of action research and workshops – namely, Mrs Rachel Mackenzie, National Projects Manager of the CRC for Coastal Zone Estuary & Waterway Management and Dr Roberta E. Harreveld, Research Fellow of the Learning, Evaluation, Innovation & Development Centre of Central Queensland University. The assistance of these specialists is acknowledged.

3.6.2.5 – Material for participants

With the intention of engaging commercial organizations and interested parties to participate in this second part of the research and the formation of a NIP the following material was prepared (See Appendix 8):

- ❖ Letter of invitation for participants of the NIP other than Organization 8.
- ❖ Explanation about the research project linked to the implementation of partnership and SPEMS in an NIP.
- ❖ Paper explaining new approaches and terms that have been developed within the research.
- ❖ A schematic drawing showing the new approach that was used within the research to show the interaction and partnership between participants of a NIP.
- ❖ Table showing issues linked to the sustainability of organizations.
- ❖ Basic rules for the guidance of the activities within the workshop.
- ❖ A guide on how to develop a team of ‘committed champions’ to drive the implementation of SPEMS and training personnel within their organizations and the NIP.
- ❖ A template letter of support and engagement of the organization for the project for signature.
- ❖ A template consent form showing the confidentiality of the work in relation to each participant linked to the research.
- ❖ Letter of invitation and proposal to Organization 8.

For each workshop, the following documentation was developed:

- ❖ Workshop 1 (See Appendix 9, except where specified):
 - The plan for the workshop containing activities and steps designed to achieve the objectives of each workshop.

- The tasks that each participant was required to develop before the workshop with the intention of preparing for the workshop.
 - Invitation to the workshop.
 - List of attendance for the signature of each person who would participate in the workshop.
 - List with proposed definitions of specific terms (developed by the researcher) important for the understanding of the new concept of NIP.
 - The power point presentation prepared by the researcher to guide the workshop.
 - ‘Evaluation of the Workshop’ forms to be filled out by participants.
 - Forms to be filled out by participants of the workshop to help determine the level of partnership achieved progressively by the participants (form called ‘Evaluation of the Partnership’) within the NIP.
 - List of participants in the NIP and workshops (See Appendix 18).
- ❖ Workshop 2:
 - Similar material but specific for workshop 2 (See Appendix 10)
 - ❖ Workshop 3:
 - Similar material but specific for workshop 3 (See Appendix 11)

The ‘Evaluation of the Workshop’ form was developed to evaluate both the level of achievement of the objectives of the workshop and the performance of the facilitator (the researcher). The form was filled out at the completion of each workshop. The form contains the following questions and choices for answers:

1. Did the workshop attain its objectives?

____ 100% of its objectives

____ 75% of its objectives

____ 50% of its objectives

25% of its objectives

0% of its objectives

Comments _____

2. Was the workshop planned properly to attain its objectives?

Workshop very well planned

Workshop well planned

Workshop reasonably well planned

Workshop not well planned

Workshop badly planned

Comments _____

3. Did the facilitator assist the workshop properly to attain its objectives?

Workshop very well driven

Workshop well driven

Workshop reasonably driven

Workshop not well driven

Workshop badly driven

Comments _____

All the answers from the participants ('Evaluation of the Workshop' forms) were combined into one set of answers from the questionnaires for each workshop. The report showed the percentage of participants that would mark one answer over the total number of participants that would answer the questionnaire (See the Tables showing the evaluations in Chapter 4, Section 4.4).

The 'Evaluation of the Partnership' form was developed to assist the evaluation of the improvement of the level of partnership among the members of the SC. The form was

designed to be filled out before and after each workshop. It contained the following questions:

1. Definition of partnership: Have the participants of the NIP reached a common definition for the term partnership?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

2. Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

3. Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?

Scores

- ❖ 0 = Not prepared to commit yet
- ❖ 5 = Want to commit but needs to participate more to decide
- ❖ 10 = 100% Committed

4. Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?

Scores

- ❖ 0 = No commitment among participants
- ❖ 5 = Medium level of commitment
- ❖ 10 = 100% Committed

5. Your trust in others: What is your level of trust in other organizations/participants in the NIP

Scores

- ❖ 0 = Do not trust
- ❖ 5 = Some degrees of trust
- ❖ 10 = Trust 100%

6. Trust within the NIP: What is the level of trust among participants of the NIP?

Scores

- ❖ 0 = No trust among participants
- ❖ 5 = Medium level of trust
- ❖ 10 = Trust reached the level of 100%

7. Your transparency: What is the level of transparency that you apply when presenting information to the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

8. Transparency within the NIP: What is the level of transparency among participants of the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

9. Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?

Scores

- ❖ 0 = All information is confidential
- ❖ 5 = Some information is confidential
- ❖ 10 = There is no confidential information

10. Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

11. Structure of the NIP: Is the structure of the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

12. Resources for the NIP: Are the resources for the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

13. Scope of the NIP: is the scope of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

14. Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?

Scores

- ❖ 0 = Objectives not defined
- ❖ 5 = Objectives reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

15. Your level of communication: Do you inform other organizations/groups/ participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information is transferred, is processed and feedback is given)?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them (information flows in both directions)

16. Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided. It can also happen when other participants send information to our organization/group and our organization/group does not give any feedback to the source of information about the information provided (information flows only in one direction)

- ❖ 10 = Information flows from our organization/group to others within the NIP and our organization/group receives feedback from them. Vice versa also happens (information flows in both directions)

17. Alignment of the KPI of the NIP: Is there consensus about the KPI of the NIP among the participants?

Scores

- ❖ 0 = KPI not defined
- ❖ 5 = KPI reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

All the answers related to evaluation of the partnership were combined into one set of answers for each workshop. A graphic representation of the answers from each workshop has been plotted. The entire data collected during the workshops related to the evaluation of the partnership can be seen in Appendix 12.

For simplicity, scores for each of the parameters were set at 0, 5 and 10 and the participants of the workshop have decided that a score of 8 out of 10, as an average of the parameters, would be an ideal point for the NIP to continue to develop their activities as an NIP. It means that 8 has been considered by the participants of the workshop the ideal minimum level to express the opinion that an effective partnership would be in place.

3.6.3 – Conduct of workshops

The workshops within the research project were held on 1st, 8th and 15th of June 2004. The participants were representatives of: Interested parties 14 to 18; organizations 8 to 10; the principal supervisor of the researcher as an observer; and, the researcher.

The researcher acted as planner, facilitator, participant and observer during these activities. The participants formed groups, based on study circles technique, to achieve the objectives of the workshops. Each activity was undertaken in small groups. Agreed outcomes/conclusions from each small group were reported and discussed to achieve a set of outcomes agreed by the majority of participants in a reconvened single workshop mode.

Through the use of the 'Evaluation of the Workshop' form, both the performance of the researcher as a facilitator and the achievement of the objectives of the workshops were evaluated. Through the use of the form 'Evaluation of the Partnership' the level of attainment of partnership among participants of the NIP was evaluated.

3.6.4 – Data management

3.6.4.1 – Collation of data

The data of the workshops were presented in the 3 reports that were developed for each workshop. The main parts of the three reports have been addressed in Chapter 4, Section 4.4. The entire reports have been placed in Appendices 13, 14 and 15.

The arrangement of data for analysis and evaluation also had the intention of providing information for the improvement of the SPEMS (version 2 model).

3.6.4.2 – Data analysis

The principle for the analysis of data and evaluation related to the implementation of SPEMS (version 2 model) was adapted from the explanation-building analysis tool suggested by Yin (Yin 1994). The process within the tool is the comparison of an empirical based way of proceeding with the expected way. In the case of the research, SPEMS (version 2 model) is the expected way of implementation. The reports of each

workshop summarize the empirical way or experience in implementing SPEMS in the NIP. .

The comparison and evaluation of the experience in implementing the SPEMS in the NIP against the SPEMS (version 2 model) provided the researcher with information to evaluate the model. Everything was done to provide information to improve SPEMS (version 2 model) for individual organizations and NIP.

Figure 16 shows how the analysis of the data and evaluation has been done.

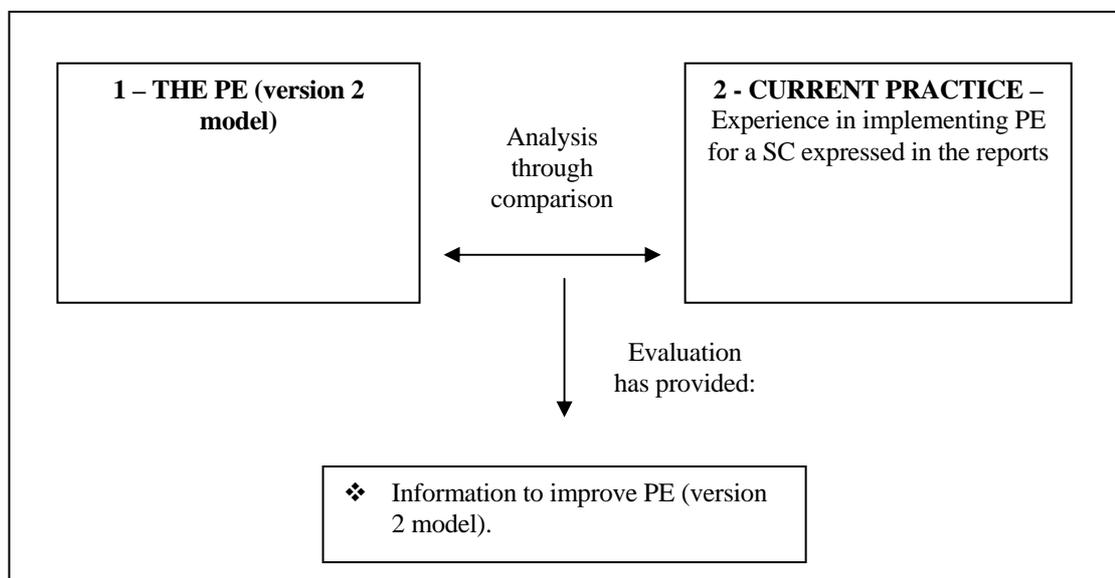


Figure 16: Framework for the analysis and evaluation

3.6.5 - Reporting

A specific final report for Organization 8 (See Appendix 16) was developed and delivered by the researcher and has addressed the success of the workshop in achieving its objectives. The achieved objectives were:

- ❖ Implementation of SPEMS (version 2 model).
- ❖ Development of partnership among participants of the NIP.

- ❖ Formation of a committee to manage the continuation of the project (chair + secretary + table of responsibilities) and identification of funds and other resources.
- ❖ Action plan for the continuation of the implementation of SPEMS and partnership among participants of the NIP.

Some other comments were also included in this final report to Organization 8 by the researcher. They were:

- ❖ “In the view of the researcher, companies would manage three areas: day-by-day activities, improvements and risks/emergencies. The KPI have to address important issues for the organizations/NIP in all of those areas. The major KPI that have been developed within the workshops have addressed improvements”.
- ❖ “There is one company that is not really engaged in the partnership. This information has to be taken with the intention of improving the partnership with this company, not the opposite. At least they were honest about it”.
- ❖ “I expected to see a broader approach/system in terms of KPI for this NIP; an NIP where other companies (from other areas) could start to participate in the partnership without any problem. Another issue is the engagement of interested parties from the community to become partners. If we define very specific NIPs, they cannot participate in all of them. The suggestion is to have a major NIP addressing general issues where the community participates and a very specific NIP for each specific aspect of business (but linked to the major NIP. Remember that each partner can be seen as a department of your company”.

3.7 – Development of SPEMS (version 3 model)

Based on the evaluation of the outcomes and data from the workshops, a revised version of SPEMS (version 2 model) has been developed. The new and final model that was developed has been called SPEMS (version 3 model).

Chapter 4

4 - RESULTS AND DATA ANALYSIS

4.1 – Introduction

The questionnaire used to interview commercial organizations has two sets of answers. One set is related to the internal PE process of the organizations; the other is related to the PE process of supply chains. Summarised information about both sets of answers is presented in this Chapter.

This Chapter also includes the summary of the results and analysis of the information collected from interested parties about views of performance evaluation of the same supply chain organizations.

A third set of data from the reports from the workshops used for implementation of SPEMS (version 2 model) in the aluminium supply chain is also provided.

4.2 – Questionnaire for commercial organizations

This section provides a summary of the results and analysis of the information collected from organizations about their existing internal performance evaluation processes and the performance evaluation of their supply chains. The complete set of data has been included in Appendix 5.

The headings used in the summary follow the steps of the PE model developed within this research. The percentages included in the summary indicate the proportion of companies that use the specified approach and selected a specific answer.

4.2.1 – Individual organizations

Step 1 - Identification of aspects (key characteristics of the business including activities, products and services) and impacts of the organization/supply chain

- ❖ Organizations 14, 15 and 16 have the highest relative local environmental, social and economic impacts (positive and negative) compared with the other companies involved in the research. Some of the environmental impacts are potentially very serious (e.g. emissions containing fluoride and SO_x compounds and caustic soda).
- ❖ The approaches most used by the companies, to identify key characteristics of the businesses, are:
 - Regulatory track (100% of the companies with the intention to comply with the legislation);
 - General cause and effect (43%);
 - Risk-based using cause and effect (57%);
 - Life cycle assessment (57%);
 - Flowchart of the processes and activities (72%); and
 - Description of the activities (57%).
- ❖ The most important sources of information that help companies to identify the key characteristics are:
 - Internal knowledge (100% based on people knowledge, documents, etc);
 - Laws and permits from government agencies (100%); and
 - Information exchanged with other organizations (100%).
- ❖ 57% of the companies concluded that they needed to improve the identification of key characteristics of their business.

Step 2 - Consultation and assessment of the needs and requirements of the interested parties

- ❖ Organization 15 is the only company to run public community consultation (structured process).
- ❖ The most important interested parties for the companies (for engagement and consultation) are investors/shareholders (100%), management representatives (100%) and regulatory organizations (100%). In a second level of importance for the companies come customers and suppliers (72%).
- ❖ Consultation with interested parties is as follows:
 - Employees (43% of the companies);
 - Indigenous people (0%);
 - Welfare organizations (0%);
 - Neighbouring and regional communities (14%);
 - Trade unions (43%);
 - NGOs (0%);
 - Media (14%); and
 - Opinion leaders (14%).
- ❖ 43% of the companies do not take into consideration suggestions given by interested parties to improve relations with them even though all the companies have quality systems in place.

Step 3 - Combination and assessment of the previous information

- ❖ 72% of the companies combine both sources of information (engagement and key characteristics).

Steps 4, 5 and 6 - Development of vision and policy, identification of priorities to develop action plans and development of action plans (for day-to-day activities and/or improvements and/or risks)

- ❖ 57% of the companies answered that they use the combination of the identification of the key characteristics of business and the information from the engagement of interested parties to develop vision, policies and action plans.
- ❖ Only two of seven companies surveyed have a structured process to translate vision and policies into actions.

Steps 7 and 8 - Identification of the priorities (key characteristics for control and/or monitor) for the development of KPI and performance criteria and the development of KPI and performance criteria

- ❖ 72% of the companies have KPI that address only financial and quality issues.
- ❖ Organization 16 was the only company to provide both their KPI and the data related to them. Organization 14 provided only a list of KPI. The other companies could provide neither their list of KPI nor the associated data.
- ❖ In all companies the macro KPI are defined by the top management. None of the representatives of the companies could explain in any detail the processes used by their top management to identify KPI.
- ❖ KPI used by middle management and operations are based on:
 - The experience of the personnel (57% but no specific method);
 - Internal brainstorm meetings/workshops (57%); and
 - Top-down definition (57%).
- ❖ To identify KPI, companies mostly use information from consultation with interested parties (72% and the information includes regulatory or voluntary sources) and information from risk-based analysis (86%).

- ❖ None of the companies use an approach to define types of characteristics of KPI similar to that used in the PE process developed within this research. The characteristics are: consistent with policy; reliable because there are fewer assumptions when presenting information; easy to understand; easy to obtain data; able to provide information on current and future trends; sensitive to changes; useful for measuring performance against criteria; and appropriate to management or operational efforts or the condition of the society/environment
- ❖ 57% of the companies use a combination of quantitative and qualitative data to express performance.
- ❖ None of the companies have formal definitions for types of KPI. The types of KPI can be according to ISO 14031 (operational indicators, management indicators, condition indicators); OECD (pressure indicators, response indicators, state indicators); general literature (lead indicators, lag indicators); and a new approach developed by the researcher (aspect indicators and impact indicators).
- ❖ 43% of the companies use operational indicators [See ISO 14031 (International Organization for Standardization 1999a)] as a type of KPI.
- ❖ The KPI and data provided show that:
 - For the environmental area the companies are only complying with legislation;
 - Social information is only linked to WH&S; and,
 - For the economic area all the information is linked to financial and quality data.

Steps 9 and 10 - Collection of data and analysis and conversion of data

- ❖ None of the companies have more than two years of historical data linked to their KPI. Available historical data relate only to KPI linked to top and middle management issues.

- ❖ Most of the companies (57%) do not have specific procedures showing how to collect and evaluate data.
- ❖ 72% of the companies said that they convert performance data (complex internal data using KPI) to a simple form of data for reporting. However, none of the companies could provide information showing the transformation of complex data into simple data.

Step 11 - Checking/auditing (performance improvement of the organization against performance criteria and the performance evaluation management systems or process)

- ❖ 43% of the companies stated that they needed to improve the identification of performance criteria and 86% the process of evaluation of their data against the performance criteria.

Step 12 and 14 - Internal report and/or other types of information systems and external report and/or other types of information systems

- ❖ The three more important approaches used by companies to give feedback information about performance are direct answers to questions from external interested parties (100%), internal statements to employees (100%) and direct answers to questions from internal interested parties (100%).
- ❖ All the companies have compulsory external reports for regulatory agencies (environment and WH&S) and shareholders. 3 companies that are listed develop financial reports for the Australian Stock Exchange.
- ❖ Specific internal and external reports (and other types of information systems) are developed by all companies when required. However many important interested parties do not receive any kind of performance information (e.g. indigenous people,

welfare organizations and NGOs). Some receive information only from some companies (neighbouring and regional communities – 43%, trade unions – 28%, contractors – 43% and, opinion leaders – 14%).

- ❖ 57% of the companies use external media (e.g. local newspaper) to report.
- ❖ 14% of the companies do not report PE to employees.
- ❖ 86% of the companies report on financial, quality, WH&S and environment areas separately. These are either internal or external reports.
- ❖ Only one company (14%) considers that they have a sustainability report. However this company only reports the environmental data that show compliance with the legislation. Similarly, their social information is only linked to WH&S and all economic information is linked to financial and quality data.
- ❖ None of the companies could provide graphic data for the research but all of them stated they use graphic representation in reports.

Step 13 - Management review (evaluation of performance improvement, decision-making process to improve performance, evaluation and improvement of the performance evaluation management systems or process)

- ❖ 57% of the companies continue to use staff ‘perceptions’ and intuition to make decisions. 86% of companies said they needed to improve the method used to compare their performance against benchmarking performance of other companies (or their chosen performance criteria). 100% of the companies considered that they base their decisions on reliable data and personal experience.
- ❖ Despite companies talking about the participation of interested parties and sustainability, 72% of the companies use a top-down approach without participation of other important internal and external interested parties when making business

decisions. The companies do not take into consideration various aspects linked to sustainability when making decisions.

- ❖ 100% of the companies use the following steps to take decisions:
 - Recognition that a decision is required;
 - Evaluation of the causes for the development of the decision;
 - Identification of alternatives;
 - Selection of preferred option; and,
 - Implementation of chosen option.
- ❖ 57% of the organizations answered that they use cost-benefit analysis [evaluation of the monetary value of costs and total benefits (technical, environmental, social and economic)] to assist decision-making. 28% of the companies know and use the Kepner-Tregoe methodology.
- ❖ Every company determines the frequency of management review based on their needs. No common or specific period could be identified.

Step 15 - Verification of external reports

- ❖ 72% of the companies have their report verified by a third party. However they only have their financial report verified.

General information about the organizations interviewed and their internal PE process(es)

a - Questionnaire information

- ❖ All the companies involved in the research belong to a major conglomerate of companies. However some of the companies are represented only by small and medium size units/branches/companies in Gladstone.

- ❖ All the companies have different types of management systems in place. However only Organizations 1 and 3 have a formal (with procedures) and quite complete PE management system in place compared with the research model. The process used by both companies includes some aspects of sustainability (WH&S, environment, quality and company's finance). All the other companies that participated in the research have only a financial and quality based PE process(es) and the process(es) is/are not complete compared with the research model.
- ❖ Comparing the PE model of the research with the internal PE process(es) of all companies, it was identified that there are several gaps in their process(es) of PE.
- ❖ Organization 1 has a structured performance evaluation process (formal) that has been used by all levels inside the company. It helps to cascade the strategy along the levels of work. The process includes a tool that helps to identify requirements and measurements between, for example, a focus group and their internal customers and suppliers. It is called Supplier Input Process Output Customer – SIPOC (See Figure 17). The tool helps to identify requirements and measurements between for example a focus group (and its activities) and internal customers and suppliers linked to the group (and its activities).

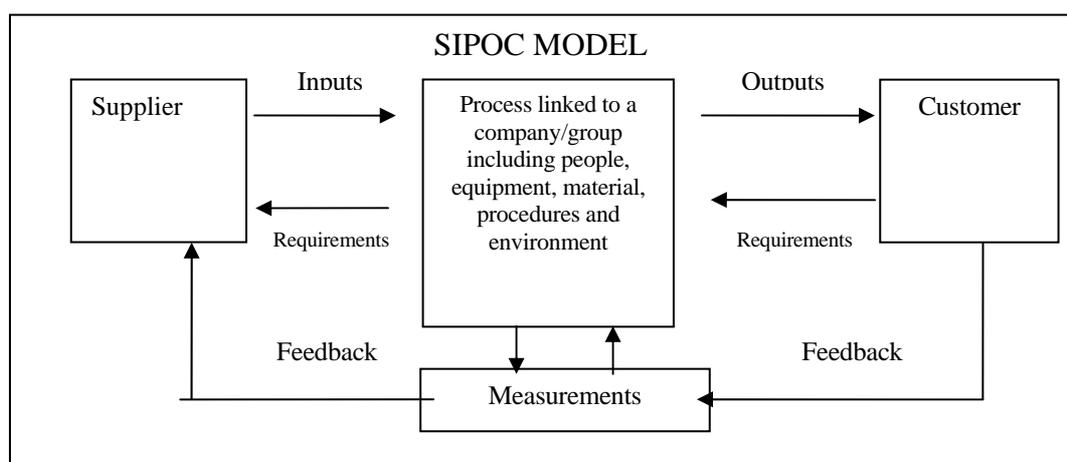


Figure 17: The SIPOC

- ❖ Organization 1 also has a tool that helps to identify the gaps between the map of activities of the company and the requirements from interested parties. Their PE process has many steps but some steps are suitable for top management and not for group work and vice versa. There are shifts of steps in some specific circumstances. However the procedures about the process do not define which one would be suppressed and shifted in specific cases.
- ❖ Organization 3 has a partially structured performance evaluation process based on a scorecard system. It includes six pillars that address sustainability. However the sustainability vision and policies are not well translated into actions. The process is different from the research model even though there are some similar steps. The PE process of the company needs some formalisation (development of procedures) and clarification for everyone involved with it.
- ❖ Organization 7's PE process is financial and quality oriented and it is carried out by the manager of each unit of the company. There is a formal process (with procedures) for that.
- ❖ Organization 2's PE process is financial and quality oriented and is completed by top management. There is no formal process for that. However Organization 2 has a structured community consultation program. The system is based on monthly meetings to talk about important issues agreed previously between the organization and interested parties from the community
- ❖ Organization 4's PE process is financial and quality oriented and is completed by top management. There is no formal process for this.
- ❖ The PE process of Organization 5 is based on project approach (by each individual project that they deliver). It is financial and quality orientated. The process is partially formal.

- ❖ Organization 6 has a simplified PE process based on some indicators pre-selected to measure and report periodically. Top management use them to make decisions. The process is heavily financial and quality orientated. There is no formal process.
- ❖ All the staff of companies interviewed stated that they would like to have a very well structured process for performance evaluation.
- ❖ All the companies use financial planning and periodical financial forecasting to correct the plans.
- ❖ None of the organizations interviewed know how to identify all social and economic issues related to their business. Under economic issues they take into consideration only financial and quality aspects of their business. For social issues they take into consideration only internal human resources and WH&S matters. In all companies interviewed environmental and WH&S issues are dealt with only to comply with the legislation.
- ❖ In the management systems of all companies there are only very few objectives/action plans linked to continual improvement of social, environmental and economic aspects of their business.
- ❖ 28% of the organizations are still planning to develop PE but not in an integrated form. Instead they are looking at a separate PE for each area - quality, environment and finance.
- ❖ 57% of the companies answered that they have only a few procedures for PE but most of the procedures are linked to financial and quality issues. All the companies expressed the opinion that they need to improve the procedures (written or not written) showing how to develop a business performance evaluation process.
- ❖ 72% of the companies answered that the scope for PE of their companies is not clear and needs improvement.

- ❖ All organizations want to have a structured team to deal with performance evaluation. They currently have no individuals specifically nominated as responsible for PE.
- ❖ 57% of companies use a monthly PE cycle followed by an annual one.
- ❖ 57% of the companies are already using life cycles to understand their business and the interaction with other businesses in terms of the production of some products. However they have only a superficial idea about the tool (life cycle assessment).
- ❖ None of the companies have clear definitions for the terms ‘Sustainability’ and ‘Sustainability KPI’.
- ❖ Only organizations 1 and 3 have provided KPI and some sustainability data (only WH&S, environment, quality and company’s finance data) linked to it. None of the rest could provide information about KPI and data. The researcher could extract financial data through the WebPages of 3 companies (not Organizations 1 and 3 because they provided some data).
- ❖ 57% of the organizations have the intention of developing PE according to sustainable principles.
- ❖ All the questionnaires have been filled in.
- ❖ Some ideas and experiences that can be used to improve the research model for PE for individual organizations were expressed:
 - A PE that could be cascaded to all levels of the company, translating interested parties’ directions and needs into actions through top management down to the floor of the company;
 - A PE that would use a sustainability scorecard as pillars for business planning and performance evaluation;
 - The community consultation system based on the experience of Organization 2;
 - Use of an improved tool based on the tool called Supplier Input Process Output Customer – SIPOC from Organization 1;

- Add to the research model for PE the gap analysis between the interested parties' requirements/needs and the map of the business;
- PE being planned together with a five-year business plan (divided by year) and periodical forecasts;
- The representative of Organization 1 stated that: "Everyone inside the organization has to understand and be committed to the performance evaluation process. Ownership of the process is important for a good evaluation and improvement of performance";
- Data expressed through KPI could show the numeric value of the numerator and denominator of some ratios; and,
- It is important to develop a process to follow-up of the decisions taken.

b - Interviewer's Comment

- ❖ All companies have an incomplete (parts of the process) PE compared with the model. However the companies wanted to show that those parts of the PE processes are effective so they answered in the questionnaire that their PE processes are structured.
- ❖ Organization 2 provided very poor quality answers because the representative of the organization does not appear to understand the PE process of the organization. He belongs to middle management. He has expressed the view that the PE process of the company has not been clear for the middle management of the organization.

4.2.2 – Supply chains

Step 1 - Identification of aspects (key characteristics of the business including activities, products and services) and impacts of the organization/supply chain

- ❖ Companies suggested that the following tools could be used for the identification of key characteristics of the SC: risk assessment based on cause and effect (100%);

regulatory or voluntary initiative (100%); and flowcharting of the processes and activities (100%).

- ❖ Some important sources of information to identify key characteristics had very low scores. They are: publications from welfare organizations (0%), media (43%), publications from financial institutions (28%), publications from NGOs (14%) and publications included in databases (43%).

Step 2 - Consultation and assessment of the needs and requirements of the interested parties

- ❖ When answering questions about the supply chain, the companies amplified the range of interested parties to be consulted compared with those for individual organizations. However, even when they are talking about sustainability principles, less than 50% of companies included the following as ‘SC interested parties’: indigenous people (43%); welfare organizations (28%); neighbouring and regional communities (43%); NGOs (43%); opinion leaders (43%); and, a strategic and important interested party, communications media (43%).
- ❖ All the companies suggested that it is necessary to collect as much information as possible related to the needs and requirements from interested parties in relation to companies’ activities with the purpose of developing business plans.

Step 3 - Combination and assessment of the previous information

- ❖ For the supply chain 100% of the companies agreed that the combination of the previous information is very important as the basis for the development of vision, policies and action plans of the individual companies participating in the SC and for the entire supply chain.

Steps 4, 5 and 6 - Development of vision and policy, identification of priorities to develop action plans and development of action plans (for day-to-day activities and/or improvements and/or risks)

- ❖ 100% of participants agreed that ‘companies that work within a supply chain need to improve or implement vision and/or policy and/or strategy addressing issues related to participation in supply chains.

Steps 7 and 8 - Identification of the priorities (key characteristics for control and/or monitoring) for the development of KPI and performance criteria and development of KPI and performance criteria

- ❖ The companies answered that the categories of KPI that can be used by the supply chain are as follows: operational indicators – 86%; management indicators – 72%; condition indicators – 86%; pressure indicators – 72%; response indicators – 57%; state indicators – 57%; lead indicators – 57%; lag indicators – 86%; aspect indicators – 57%; and impact indicators – 57%). However, it became clear during the interviews that not all of them properly understand each category.
- ❖ Only Organizations 14 and 16 provided some suggestions for KPI for the supply chain.
- ❖ 57% of the companies suggested for the supply chain, the use of similar KPI along the supply chain but believed that some specific ones were still necessary for specific situations of each company.
- ❖ The most suggested approaches that the supply chain would like to use to identify KPI and performance criteria are: direct questions/answers from top management to employees (72%); consultation meetings with interested parties (86%); and internal brainstorm (86%).

- ❖ Companies suggested that the main factors that should be taken into consideration when selecting KPI for the supply chain are: consistent with policy (score 100%); reliable because there are fewer assumptions when presenting information (score 100%); easy to understand (score 100%); data easy to obtain (score 100%); able to provide information on current and future trends (score 86%); sensitive to changes (score 86%); useful for comparing performance against criteria (score 100%); and appropriate to management or operational efforts or the condition of the society/environment(score 100%).
- ❖ In general all the suggested units for KPI (direct unit, relative unit, indexed and weighted) received more than 56% of approval by companies for the supply chain.
- ❖ In the presentation of data 100% of the companies suggested that the supply chain should use a combination of quantitative and qualitative data.
- ❖ Only two companies could identify their organization's KPI. KPI: for the environmental area relate only to compliance with the legislation; for social areas, the KPI are only linked to compliance with WH&S; and for the economic area all the information is linked to financial and quality data.

A Summary of the information provided by companies as a suggestion for similar KPI and evaluation criteria for the supply chain is provided in Table 7:

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking) – e.g.
Environmental	❖ Number of significant environment incidents per month	❖ Data not available
	❖ Oil spills per month	❖ Data not available
	❖ Site licensing violations	❖ Data not available
	❖ Environmental actions completed	❖ Data not available
	❖ License violations (number)	❖ Less than 10 by 2004 (0 by 2006 and 0 by 2008)
	❖ Non-conformance to ISO 14001 (number)	❖ 8 by 2004 (4 by 2006 and 2 by 2008)
	❖ Water usage (mega litres/ kilo tons)	❖ 1.3 by 2004 (1.3 by 2006 and 1.3 by 2008)
	❖ Energy use	❖ Data not available
	❖ Raw material use	❖ Data not available
	❖ Solid waste (tons)	❖ Data not available
	❖ Greenhouse emissions	❖ Data not available
	❖ Other atmospheric and waste water emissions	❖ Data not available
	❖ Regulatory non-compliance	❖ Data not available

	❖ Environmental incidents	❖ Data not available
	❖ Efficiency of use (water, energy, raw material, etc)	❖ Data not available
	❖ Recycling	❖ Data not available
	❖ Noise	❖ Data not available
Social	❖ Lost time injuries severity rate	❖ 0 by 2006
	❖ Lost time injuries (LTI) frequency rate	❖ 50% reduction year over year (0 by 2006)
	❖ Overtime as % of total hours	❖ Data not available
	❖ Unscheduled non-productive time %	❖ Data not available
	❖ Employee numbers *	❖ Data not available
	❖ Formal workplace health & safety (WH&S) directions (description of the directions)	❖ Data not available
	❖ Safety activities completed	❖ Data not available
	❖ Number of equity (discrimination) incidents per month	❖ Data not available
	❖ Short-term sick leave	❖ Data not available
	❖ Industrial action lost time	❖ Data not available
	❖ Employee turnover	❖ 5% reduction by 2008
	❖ Community Support (\$)	❖ Data not available
	❖ Medical treatment cases	❖ Data not available
	❖ Recordable injuries	❖ 50% reduction year over year (1 by 2008)
	❖ Occupational illnesses	❖ 0 by 2006
	❖ NOSA audit raking (WH&S management systems)	❖ Achieve 5 stars by 2008
	❖ Donations and contributions	❖ Data not available
	❖ Participation in social events	❖ Data not available
	❖ Workforce numbers	❖ Data not available
	❖ Unplanned maintenance (number of hours of unplanned maintenance over number of total hours used for maintenance) *	❖ Data not available
❖ Operational + maintenance (O&M) costs cumulative year to date (YTD) *	❖ Data not available	
❖ Total capital expenditure YTD with the operation of the power plant *	❖ Data not available	
Economic	❖ Coal stocks (tons of coal in stock) *	❖ Data not available
	❖ Total revenue	❖ Data not available
	❖ Tax paid	❖ Data not available
	❖ Salary paid	❖ Data not available
	❖ Amount spent buying locally	❖ Data not available
	❖ Amount spent with qualified contractors (\$)	❖ 80% reduction by 2005
	❖ Reduction in contracting firms (number)	❖ 30% reduction by 2005
	❖ Emergency breakdowns (number)	❖ Data not available
	❖ % schedule maintenance completed (in hours)	❖ 90% by 2006
	❖ % value-added to product	❖ 54% by 2008
	❖ % work schedule (hours)	❖ Data not available
	❖ Cost/ton	❖ \$975/ton by Jan 2004
	❖ Total cost of production	❖ Data not available
	❖ Production (tons) or monthly saleable metal (\$)	❖ 550,000 by Jan 2004
	❖ Stocks of aluminium (tons)	❖ Data not available
	❖ Production efficiency	❖ Data not available
	❖ Current efficiency (%)	❖ 93% by Jan 2004
	❖ Power efficiency (KWh/Kg Al)	❖ 13.9 KWh/Kg Al by Jan 2004
	❖ Workforce productivity (tons per person)	❖ 382 tons/person by Jan 2004
	❖ % off-specification metal	❖ 2.5% by Jan 2004
	❖ Capital expenditure	❖ Data not available

Table 7: Suggestions similar KPI for supply chains

Steps 9 and 10 - Collection of data and analysis and conversion of data

- ❖ 100% of the companies want the supply chain (or all participants of the SC) to have procedures showing how to collect, evaluate and convert data.
- ❖ 86% of the companies want to see the supply chain converting performance data (complex internal data using KPI) to a simple form of data for reporting

Step 11 - Checking/auditing (performance improvement of the organization against performance criteria and the performance evaluation management systems or process)

- ❖ 100% of the companies expressed the view that the supply chain needs to have processes for the identification of KPI and related performance criteria and for the evaluation of the collected data through comparison with the performance criteria.

Step 12 and 14 - Internal report and/or other types of information systems and external report and/or other types of information systems

- ❖ When answering for the supply chain about external information systems (including reporting), the companies extended the range of interested parties to give feedback compared with their answers for internal PE for individual organizations. However, even when they are talking about sustainable principles, there is little consideration of the following groups: indigenous people (28%); welfare organizations (28%); NGOs (28%); opinion leaders (28%); trade unions (28%); communication media (43%); and business administrative, academic and research institutions (28%).
- ❖ The most commonly suggested approaches for a supply chain to give feedback to interested parties: direct answers to target external interested parties (100%); general internal meetings (86%); and direct answers to internal target interested parties

(100%). 86% of the companies want the SC to develop external reporting and internal focus groups.

- ❖ Companies agree that the supply chain needs to report internally to: management representatives (100%); employees (86%); shareholders (100%); contractors (72%); and other companies of the supply chain (100%).
- ❖ 100% of the companies want the supply chain to adopt triple bottom line (sustainability) reporting.
- ❖ 72% of the companies suggest sustainability communication (other than reports) should be provided by the supply chain only when required by interested parties.
- ❖ 86% of the companies suggested sustainability external reporting for the supply chain.
- ❖ Even if they did not know the reporting system, when the researcher showed them the report 'GRI 2002', 43% answered that they would like to see the supply chain using it.
- ❖ All the companies want to see the supply chain presenting PE data in graphic or visual format

Step 13 - Management review (evaluation of performance improvement, decision-making process to improve performance, evaluation and improvement of the performance evaluation management systems or process)

- ❖ 72% of the companies believe that intuition would be a suitable approach to be used for the decision-making process.
- ❖ 43% of companies want their supply chain to use a top-down decision-making system.
- ❖ 86% of the companies want to see the supply chain using focus group meetings with the purpose of discussing and making business decisions for the supply chain.

- ❖ 100% of the companies want to see the supply chain base the decisions on reliable data.
- ❖ 100% of the companies want the supply chain to use all the following steps to make a decision: recognition of decision required; evaluation of the causes of a problem or issue to be dealt with; development of alternatives; selection of desired alternatives; and implementation of a chosen alternative.

Step 15 - Verification of the external

- ❖ All the companies want to see the PE external reports of the supply chain verified by a third party.

General information about the organizations' experience and suggestions in relation to the performance evaluation process(es) of supply chains

a - Questionnaire information

- ❖ The companies have different definitions for supply chain:
 - some understand supply chain as their company and suppliers;
 - some understand a straight line of indirect and direct supplier, a focus company and direct and indirect customers who participate in the life cycle of one specific product or service; and,
 - some understand a supply chain as a network of companies working towards the same objectives.
- ❖ All the companies want to have a structured process for PE that can be used along the supply chain (similar language in terms of PE). 100% of the companies agreed with the statement: "It is important for every organization participating in a specific supply chain to speak the same language in terms of performance evaluation process".

- ❖ 42% of companies clearly expressed the notion that the research model should encompass steps they find important for an SC PE process. All the companies marked all the steps of PE suggested by the research in the PE (version 1 model) as important or very important PE steps and their suggestions in terms of addition to this PE were minimal.
- ❖ 86% of the companies demonstrated that umbrella performance evaluation management systems would be a good approach to manage the PE of an SC. Umbrella means one PE management system for the entire supply chain (not one similar PE management system implemented in each company).
- ❖ All the companies would take successful internal experiences with PE as a basis for the development of a PE process for their supply chain.
- ❖ Organization 7 has an informal process to deal with their supply chain but it is linked to their specific business interests only, i.e. transport and logistics.
- ❖ Organization 6 has an informal process to deal with their supply chain but it is related only to the tracking of products inside their SC.
- ❖ All organizations have some experience with performance evaluation of suppliers, principally organizations 1, 3, 6 and 7. However their experience is not rich in details. None of the companies have a good example of the evaluation of PE of the entire supply chain when compared with the research model. The experiences have been linked to the imposition of requirements on suppliers through contracts. The contracts include requirements linked to: quality achievements; WH&S; environment compliance with relevant legislation; and financial aspects. None of the companies could provide specific procedures showing how to evaluate performance of suppliers.
- ❖ Organization 4 did not provide information about the PE of suppliers.
- ❖ Organization 2 has some experience with PE of suppliers but it is only linked to quality aspects.

- ❖ The relations between/among 100% of the companies and their customers are also dependent on imposed contractual or shareholders' requirements. The contracts include requirements linked to quality achievements, WH&S and environment compliance with the legislation and financial aspects.
- ❖ 100% of interviewees agreed that the financial success and failure of customers have a cascade affect on companies involved with them. It was also stated that the image of the companies is affected when they sell products that have adverse environmental or health impacts on customers.
- ❖ All companies interviewed want to develop relations with suppliers and customers using more voluntary approaches and transparency. However, none want to completely stop using a contract-based approach (imposition) because of their past and negative experiences with suppliers and customers. It is also because they do not know how to do it.
- ❖ 86% of the companies stated they would like to see their supply chain having collaborative approaches with customers. The companies feel that they are prepared to develop this approach with customers. However three companies expressed the view that they do not feel that the suppliers have the ability to develop collaborative approach with them. They think it is necessary to impose some requirements on suppliers.
- ❖ None of the companies provided precise suggestions for sustainability KPI for SC.
- ❖ 100% of the companies could not clarify how transparent they are in providing information to other companies within a supply chain. They were also unable to define the term transparency.
- ❖ None of the companies have a clear definition and understanding of the term sustainability.

- ❖ 100% of the companies agreed it was necessary to develop PE procedures at least for the most important steps of PE for SC.
- ❖ All the companies stated it was necessary to define clear scope for the PE of supply chain.
- ❖ All the companies stated the necessity for a well-structured team to deal with performance evaluation of the supply chain.
- ❖ All the organizations want to see their supply chain develop PE according to sustainable principles. 72% want to see combined analysis of environmental, economic and social issues. 28% want to see the SC evaluating the three issues separately.
- ❖ Questionnaire responses identified two key elements for a management structure for a supply chain: (1) a committee formed by the top management of the organizations involved that coordinates the performance evaluation process of the supply chain (72% responses); and (2) implementation of performance evaluation management systems for the entire supply chain (100%).
- ❖ 100% of the companies want to see their supply chain using life cycle assessment to help to identify the key characteristics of the SC.
- ❖ 43% of the companies indicated their preference among a list of definitions for sustainability KPI. The one given most support is: “Indicators of one area but they are important to the most important interested parties linked to the organization/supply chain”. It is not a consensus but it is the one with the highest level of acceptance.
- ❖ No companies consider community as a possible partner in a supply chain. They consider them as an external interested party.
- ❖ No common and specific period can be defined for the cycle of management review. It was stated by companies that the supply chain needed to determine timing based on the needs of each SC.

- ❖ Some ideas and experiences that can be used to improve the research model for PE for supply chain were expressed. These are collected together and listed below:
 - The performance evaluation management system needs to support the operation of the supply chain and its organizations and should not ‘tie them up’.
 - The management systems need to be owned by the people who are supported by the management systems, and ownership has to be developed in such way that it can be easily improved or changed.
 - The PE has an important role in enhancing similar PE culture among companies participating in SC.
 - In SC it is important to have the commitment of the top management of each participant.
 - In SC it is important to speak the same language in terms of PE and also to have common reporting structures, communication systems and KPI.
 - It is necessary at the beginning of the relationship within a supply chain that all parties sit down to define scope, objectives and targets, resources, exchange of resources among participants, needs and limitations of the participants, requirements for everyone, scheduled meetings to evaluate and improve performance and relations, etc.
 - SC has to utilise democratic processes to manage its activities (among participants).
 - The PE process for the SC needs to have clear procedures to collect data and report performance.
 - Organization 7 stated that it is difficult to develop procedure for everything. Their comment is that it is important to identify the necessary SC’ PE steps for the development of procedures.
 - The length of each cycle of performance evaluation depends on the SC and the participating companies.

- It is important to develop more collaborative approaches within an SC because this helps each company to fulfil their own needs.
- Organization 14 stated that it is important “for everyone inside the organization’s participants in the supply chain to have good understanding and commitment with the performance evaluation process. Ownership of the process is important for the success of the PE of the SC”.
- Develops a PE process that is based on a collaborative approach among the participants of the supply chain but that also considers a step that shows how to introduce some impositions in specific situations.
- Treat participants of the supply chain as departments of your own company.
- Define steps for the PE process for supply chain that would include issues to be dealt with by the participants such as: scope, objectives and targets, resources, exchange of resources among participants, needs and limitations of the participants, requirements for everyone; schedule meetings to evaluate and improve performance and relations.
- Define tools inside the PE process that would help participants of the network to track products and services. Maybe risk management approach.
- Participants of an SC need to be more transparent.
- Companies need to be real partners in an SC.
- Participants of an SC need to share technical support and marketing (collaborative approach).
- The PE process needs to encompass a step to ask other companies inside the SC and also customers and suppliers outside the SC what they want and need from the SC.
- The PE process for SC needs to help to integrate different cultures (i.e. avoid clashes of points of view).

- Further studies in managing supply chains using collaboration as an approach is important.

b - Interviewer's Comment

- ❖ Interviewer's Comment: Even if other companies could not provide KPI and data, from the data to which I had access during the interviews, it could be seen that their data follow the same pattern, i.e. data from the environmental area are only linked with compliance with the legislation etc.

4.3 - Questionnaire for interested parties

This Section presents the summary of the results and data analysis of the information collected from interested parties about performance evaluation of organizations and supply chains. The complete set of data has been included in Appendix 7. The headings used reflect each of the steps of the PE version 1 model developed within this research. The percentages that have been included in this summary show the number of organizations that marked one answer over the total number of companies that have participated in the research.

Step 2 - Consultation and assessment of the needs and requirements of the interested parties

- ❖ 100% of the interested parties think that the engagement of interested parties, as used by some organizations/supply chains for the purpose of developing policies and strategies, is an important step in the process of performance evaluation of organizations/supply chain.
- ❖ 69% of the interviewees want their entities/groups to influence organizations/supply chains according to sustainable principles (social, environmental and economic areas).

- ❖ All the interviewees expressed the view that organizations/supply chains need to engage as many interested parties as possible during their engagement and assessment of the needs of interested parties.
- ❖ The media and financial institutions were considered important for the engagement and assessment of their needs by only 43% of the interviewees. Shareholders were considered important for only 61% of them.
- ❖ Interested party 8 provided two important comments:
 - Organizations do not like to mix commercial/financial and social/environmental issues. This means that they will develop two different consultation processes for the two target areas (commercial/financial and social/environmental).
 - Consultation depends on the type of project – it needs to weigh up the importance of social, environmental and economic considerations for each project. The target group for the consultation then depends on the weighting given to each area (environmental and/or social and/or economic) for each project.
- ❖ 69% of the interested parties from the community want to have their views/needs/concerns assessed through direct contact with the companies/SC i.e. through personal interaction.
- ❖ Only 31% of the interviewees find regulatory track (access and assess legal requirements) an important method to identify the needs of interested parties.
- ❖ 39% of interviewees suggested that the frequency of engagement of interested parties should be one year. This leads also to a cycle of performance evaluation of one year.

Steps 7 and 8 - Identification of the priorities (key characteristics for control and/or monitor) for the development of KPI and performance criteria and development of KIP and performance criteria

- ❖ 85% of the interested parties want to see organizations/supply chains developing KPI according to sustainability principles.
- ❖ 54% of interested parties or more want to see KPI have the following properties:
 - Consistent with policy
 - Reliable with few assumptions when presenting data.
 - Easy to understand
 - Easy to obtain data
 - Able to provide information on current and future trends
 - Sensitive to changes
 - Useful for measuring performance against criteria
 - Appropriate to management, operational efforts or the condition of the society/environment
- ❖ 77% of the interested parties think that the best definition for sustainability KPI is: “single KPI that encompass information about the three sustainable principles (environmental, social and economic) at the same time”.
- ❖ The suggestions of KPI developed by interested parties to be used by organizations/SC are very basic.
- ❖ Important information provided by interested parties about KPI are:
 - The major part of the values/needs identified by interested parties in the research is linked to so-called condition indicators according to ISO 14031:1999. Only one representative of one interested party showed interest in management indicators (according ISO 14031:1999) in the reports. However in his suggestion for indicators, 69% of them were actually condition indicators.
 - The indicators presented by organizations/supply chains have to have meaning for the community (not indicators only understandable by the organizations/supply chains)

- The indicators provided by all interested parties are according to the following definition: “Indicators of one area but they are important to the most important interested parties linked to the organization/network of interested partners”.
- Interested parties could not provide any indicator according to the following definition: “Indicators that give information about all the areas (environmental, social and economic) at the same time”.
- 92% of the interested parties want to see use of accepted worldwide benchmarking performance criteria. One interested party suggested that: “Performance criteria have to be based on community values”. These 92% also want previous performance and information from organizations’ licences to operate used as a basis for performance criteria.
- One interested party expressed the view that indicators and criteria need to be based on a Life Cycle approach. He could not present an example.

Steps 12 and 14 - Internal report and/or other types of information systems and external report and/or other types of information systems

- ❖ 96% of the interested parties expressed the opinion that they would prefer to see a supply chain evaluating and reporting performance as a supply chain but also wanted information about individual organizations presented.
- ❖ Interested parties would prefer that the companies/SC give feedback of performance through personal answers (77%) and/or public reports (92%).
- ❖ 77% of the interested parties want to see the performance data provided in reports compared with an appropriate criterion for them to understand the level of attainment.
- ❖ 69% want to see present and future actions and results in SC’s reports - not only statements about the SC’s commitment to actions.

- ❖ Only 31% of interested parties demonstrated interest in the financial health of the supply chain.
- ❖ Only 23% of the interviewees answered that they would like to understand the supply chain's activity/products/services through reports.
- ❖ Other important information that the interested parties want to see in reports:
 - Trends in SC's performance (69% request it)
 - Legislative, regulatory and other interested parties' requirements for compliance (54% request it)
 - KPI (85% request it)
- ❖ 85% of the interested parties want to see the supply chain presenting data according to sustainable principles.
- ❖ 61% of interested parties want to see information presented in a simple and understandable way through direct units or ratios (while 85% want a combination of quantitative and qualitative data).
- ❖ All interested parties want data presented in a visual way, through graphs for example. 46% want to see the graphs with easily readable and understandable textual explanations.

General information about the interested parties interviewed, their experience and suggestions in relation to the performance evaluation process(es) of organizations and supply chains

a - Questionnaire information

- ❖ Information provided by interested parties about organizations'/supply chains' activities and links with the community:
 - Two welfare organizations stated that organizations do not consider the social impacts of their activities (e.g. new constructions like the alumina refinery in

town) on the community. They only use the community for their interests and they do not look after it. Due to this fact the welfare organizations have faced an overload of work (social problems such as a lack of houses for ordinary people). Because of this 13 welfare organizations of the region formed a group called the Getting Real About Social Partnerships Network (GRASP) with the purpose of addressing the social impacts linked with new or current plans related to organizations' activities in the social area.

- Only 31% of interested parties demonstrated interest in the financial health of the organizations/supply chain.
 - The representatives of GRASP expressed the view that the welfare organizations do not believe that top management of the organizations has any intention of helping the community.
 - One interested party stated that organizations/supply chains are not very transparent and they do not engage interested parties and report properly.
 - One interested party stated that healthy organizations/supply chains have the potential to generate healthier communities.
 - One interested party expressed the view that it is also necessary for organizations/supply chains to provide more support to their community.
 - Another interested party stated that for our contemporary society, the key driver for change is economic.
- ❖ Some suggestions from interested parties related to an improved performance evaluations process for supply chain:
- It is necessary for supply chains to develop improved communication systems with interested parties.
 - The use of similar language in terms of performance evaluation process, KPI, performance criteria among participants of the SC and with interested parties.

- The use of LCA for evaluation of the activities within the SC
- Enhance process to give ownership of the KPI to interested parties
- One report for the whole SC.

4.4 – Implementation of SPEMS (version 2 model)

The implementation of SPEMS has been effected through the 3 workshops. The entire reports for each workshop have been placed in Appendices 13, 14 and 15. The summaries of the 3 reports are provided in this Section. The same headings are used as for the full versions of the reports of the workshops.

Note:

- The results related to the implementation of the PE model use the new terminology that has been created within the PhD. In particular, the term Sustainability Performance Evaluation Management Systems (SPEMS) substitutes for Performance Evaluation (PE) systems, while Network of Interested Partners (NIP) replaces Supply Chain – SC. The rationale behind these changes will be discussed in Chapter 5.
- Organizations participating in the workshops formally authorized the author to publish the names of their corporations.

4.4.1 – Workshop 1

a - Project: *The Development of Partnership within a Network of Interested Partners (NIP) to Improve Performance.*

b - Location: Central Queensland University, Gladstone Marina

c - Workshop 1 participants:

Representatives related to Organizations 8 to 10 and interested parties 14 to 18.

d - Objectives of workshop 1:

- 1) Understand the main objectives of the project
- 2) Introduce all participants and their organizations (brief introduction)
- 3) Understand the activities of all organizations/groups represented in the NIP
- 4) Agree about key terminologies
- 5) Probably start the process of NIP partnership development

e - Answers to survey questions - workshop 1 – At start

The answers are included in Table 8.

f - Answers to survey questions - Workshop 1 - At end

The answers are included in Table 9.

g - Workshop 1 outputs

Some terms and definitions have been developed within a task in workshop 1 and provided and discussed in Chapter 5, Section 5.5.

h - Evaluation of the workshop 1 by the participants

The results of the evaluation of workshop 1 are presented in Table 10.

Explanation of the Table:

❖ In relation to question 1, for example, 11 participants have answered the question.

Where 5 participants have answered that 100% of the objectives have been met and 6 participants have answered that 75% of the objectives have been met, then an average has been drawn and comments by the participants have been described about the attainment of the objectives.

- The number of people who have answered the evaluation form varies from workshop to workshop because: each workshop has had different numbers of participants and not everyone inside the workshops has answered the forms.

QUESTIONS ORGANIZATIONS	a) What does your organization/ group do?	b) Why is this project important for your organization/ group?	c) What would be the major objectives of this NIP?	d) What do you expect from this project and the future Network of Interested Parties?	e) Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
STATE DEVELOPMENT	<ul style="list-style-type: none"> ❖ Implement State Govt policies on Business and Industry ❖ Seek business intelligence and feedback ❖ Facilitate development of business networks 	<ul style="list-style-type: none"> ❖ The organization has identified that the current relationship between major industry and suppliers in Gladstone is a barrier to efficiency and potential business growth (e.g. export opportunities) 	<ul style="list-style-type: none"> ❖ Develop KPI and performance criteria that are relevant and meet best practice. 	<ul style="list-style-type: none"> ❖ First stage in developing a template as the basis of better business cooperation in the region 	<ul style="list-style-type: none"> ❖ yes
WATERWATCH	<ul style="list-style-type: none"> ❖ Waterwatch Queensland is a community based network who focus on: <ul style="list-style-type: none"> ○ Waterway monitoring through collaborative partnerships ○ Community learning about the health of waterways and catchments ○ Informed and responsible action and involvement to achieve healthy waterways. 	<ul style="list-style-type: none"> ❖ Often the source of supply is forgotten when assessing environmental impact from a particular industry or business. We need to consider both upstream and downstream effects of any activity. 	<ul style="list-style-type: none"> ❖ Ensure the long-term environmental sustainability of BSL's network of interested parties. Ensure BSL's good work isn't undermined by using environmentally unfriendly products. 	<ul style="list-style-type: none"> ❖ Better understanding of BSL's industrial processes. 	<ul style="list-style-type: none"> ❖ This may not be achievable as we all have such different focuses. Not necessarily helpful to understanding to force inappropriate terminology, or try to measure immeasurable.
BOYNE SMELTERS	<ul style="list-style-type: none"> ❖ Ownership <ul style="list-style-type: none"> ○ Consortium of companies - including Comalco (59%), Sumitomo Light Metals, YKK, Mitsubishi, Sumitomo Chemicals ❖ Personnel <ul style="list-style-type: none"> ○ Employees & Contractors 1450 ❖ Production <ul style="list-style-type: none"> ○ 540,000tpa - 22kg Ingot (70%), Billet & T-bar ❖ Markets <ul style="list-style-type: none"> ○ Thailand, Indonesia, Malaysia, Hong Kong, Taiwan, Japan, USA, Australia ❖ History <ul style="list-style-type: none"> ○ Plant commissioned 1982 ○ Major Expansion 1997 	<ul style="list-style-type: none"> ❖ Builds sustainable relationships ❖ Aligns objectives of all partners leading to better outcomes ❖ Helps to prevent problems from occurring eg: environmental, community, etc ❖ Accurate information known to all ❖ Better understanding of full network of interested parties 	<ul style="list-style-type: none"> ❖ All partners contribute & add value ❖ Value added to all participants ❖ Trust between partners ❖ Accurate and timely communication ❖ Focus on prevention of problems not just treatment ❖ Identify & utilise opportunities ❖ Reduce rework and waste eg: efficiency gains 	<ul style="list-style-type: none"> ❖ Sustainable relationships ❖ A model to be used with other supply chains that supports sustainability goals ❖ To better understand opportunities that exist ❖ Provide economies of scale ❖ To learn – how to get it right ❖ Reduce rework and waste (i.e.: Lean manufacturing principles) 	<ul style="list-style-type: none"> ❖ YES - this is critical for understanding
CLEANAWAY	<ul style="list-style-type: none"> ❖ Cleanaway is Australia's largest and most experienced waste management organization. 	<ul style="list-style-type: none"> ❖ We are in a unique position in performing our services at the end of the network of interested parties. ❖ Our business partners, industry watch dogs and community groups closely observe our performance. ❖ Brings BSL & Cleanaway. 	<ul style="list-style-type: none"> ❖ Broad base economic progress of the region without loss of quality of life and environment. 	<ul style="list-style-type: none"> ❖ A closer working relationship with BSL, Comalco, Rio Tinto and the network of interested parties (NIP). ❖ Cleaner communications with other interested parties. 	<ul style="list-style-type: none"> ❖ We believe a common language is critical for our understanding.

<p>COLLEX</p>	<ul style="list-style-type: none"> ❖ The company is one of Australia’s leading Environmental Services companies providing services in the fields of waste management and industrial services. 	<ul style="list-style-type: none"> ❖ Collex is convinced that partnerships to improve performance is the preferred way of achieving the common business objectives and when chartered and implemented effectively, such an arrangement will produce outstanding results for all participants. We totally embrace this opportunity of working on a broader base with BSL (Comalco) because: <ul style="list-style-type: none"> ○ all efforts will be focused on common goals + achievement of what is traditionally considered not possible, ○ together we can set new benchmarks for safety, cost effectiveness, environmental management, community involvement and employee empowerment ○ jointly we will utilise breakthrough thinking to identify and incorporate innovation to the maximum extent possible ○ we will have an opportunity to achieve an exceptional reward for exceptional performance ○ our management’s focus will be directed at continual improvement in relationships, the existing prospect of ongoing business opportunities. 	<ul style="list-style-type: none"> ❖ Identify the outcomes that each stakeholder/business unit is seeking to achieve. ❖ What products/services are they able to provide. ❖ What systems/ management structure do they have in place to support existing services and expanded services? ❖ To identify the vision/strategies from the NIP to establish priorities and to develop and implement action plans to identify risks and favourable outcomes. ❖ Develop control measurement through KPI ❖ Develop a partnership for the implementation of SPEMS 	<ul style="list-style-type: none"> ❖ Derive a comprehensive understanding of the social, community and environmental aspects and concerns from the NIP. This will enable us to introduce performance evaluation measures that address any concerns that they may have. ❖ Derive a comprehensive understanding of the economic conditions that impact on the plant such as material cost, fluctuations in the commodity market and production interruptions. ❖ Develop good relationships within the NIP with a view to becoming partners in performance. ❖ Establish a systematic documented action plan approach to enhancing performance associated with existing contract work and applying the same measurement methodology to any expanded roles that may be agreed. 	<ul style="list-style-type: none"> ❖ It is imperative in the nature of this endeavour that the use of a common language be employed where there is a variety of experience and expertise. For communication to be effective, the common lingo should be employed at the outset of this project and be used, not only to the end, but as an ongoing initiative of all parties. This will ensure that any miscommunication or misunderstanding will be minimised. A common language will also ensure that all parties are on a level playing field and will have excellent understanding of what is being measured and how it is being measured.
<p>COMALCO</p>	<ul style="list-style-type: none"> ❖ Fully owned subsidiary of Rio Tinto ❖ Manages Rio Tinto’s interests in bauxite, alumina, and aluminium. 	<ul style="list-style-type: none"> ❖ Strategic commitment to sustainable development (Rio Tinto is sector leader of Dow 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖

	<ul style="list-style-type: none"> ❖ Australian HQ, but Global operations and markets 	<p>Jones Sustainability Index)</p> <ul style="list-style-type: none"> ❖ Success depends on performance in meeting expectations ❖ Comalco processes are resource intensive and generate significant 'by products'. ❖ Suppliers are part of our business ❖ Easy to engage and agree on principles, difficult to find common and consistent language and measures that are meaningful across all locations but maintains local flexibility. ❖ Is this the project to deliver that? 			
BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE	<ul style="list-style-type: none"> ❖ The Centre offers innovative and dynamic programs tailored to the unique needs of each school group. It provides educational leadership in environmental education and develops environmentally responsible attributes and attitudes in the citizens of tomorrows' society. 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ Yes, on the proviso that that language would 'have meaning' to parties outside the NIP. This would facilitate expedient reporting and accountability processes for members required to report to other authorities. This is also essential to ensure that the community understands the functions of the NIP.

Table 8: Workshop 1 questions – at start

a) What are the benefits of partnership inside an NIP?	b) What are the impediments for partnership inside an NIP?	c) Any suggestion for the improvement of the implementation of partnership?	d) Are you committed to continue the workshops and the development of partnership?	e) Any one missing in this NIP?
<ol style="list-style-type: none"> 1. Equality 2. Work within an NIP will improve individual outcomes 3. New and currently unidentified outcomes/opportunities will erase from the NIP (e.g. economies of scale) 4. Access to specialist resources 5. Better community 6. Improved relations 7. Continuous environmental, social and economic improvements. 	<ul style="list-style-type: none"> ❖ Competition among NIP members ❖ Willingness to change ❖ Perceptions of community ❖ Time to stay involved ❖ Management of process 	<ul style="list-style-type: none"> ❖ No suggestions 	<ul style="list-style-type: none"> ❖ Everyone said “yes” 	<ul style="list-style-type: none"> ❖ Councils (were invited but could not come) ❖ EPA (was invited but could not come) ❖ WH&S representatives ❖ Welfare organizations ❖ BSL noise and odour committee members (were invited but could not come) ❖ Aboriginal people (will be invited in a more advanced stage of the project)

Table 9: Workshop 1 questions – at end

INFORMATION QUESTIONS	ANSWERS					NUMBER OF ANSWERS	AVERAGE	COMMENTS
	100%	75%	50%	25%	0%			
1 - Did the workshop attain its objectives?	5 people	6	-	-	-	11	100% of the participants answered that the workshop attained between 75% and 100% of its objectives (86% of its objectives as an average)	<ul style="list-style-type: none"> ❖ Still working towards our objective ❖ Went a long way towards achieving them. I'm sure as barriers come down, outputs will improve. New concept to many ❖ Relationship developing very well ❖ Common language also ❖ NIP a process understood ❖ Set high expectations and almost met them ❖ I saw the objective as establishing relationship
2 - Was the workshop planned properly to attain its objectives?	6	5	-	-	-	11	100% of the participants answered that the planning for the workshop was between well planned and very well planned (there was an tendency in the direction of very well planned)	<ul style="list-style-type: none"> ❖ Yes, well planed ❖ Key factor was that participants allowed to develop understanding of issues or a path that enables understanding ❖ Extensive notes – good explanations ❖ Good – went smoothly ❖ Enjoyed debates ❖ Instructions for the groups (study groups) were not very clear to all
3 - Did the facilitator assist the workshop properly to attain its objectives?	5	6	-	-	-	11	100% of the participants answered that the assistance given by the facilitator for the	<ul style="list-style-type: none"> ❖ Would have been helpful to have an overview of the three workshops

							<p>success of the workshop was between well driven and very well driven (there was an tendency in the direction of well driven)</p>	<ul style="list-style-type: none"> ❖ High level of interest and participation ❖ Difficult to drive diverse group – well done ❖ Open, clear communication
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Table 10: Evaluations of workshop 1

i - Evaluation of the partnership

The specific table with the evaluation of the partnership related to workshop 1 is included in Appendix 12. The combined information, expressed through a table, related to all workshops’ evaluations, is included in this Chapter under the Section 4.4.3: Workshop 3 - Evaluation of the partnership.

4.4.2 – Workshop 2

a - Objectives of workshop 2

- 1) Understand the individual needs of organizations/groups that have participated in the NIP
- 2) Understand the individual KIPS and performance criteria used by organizations/groups.
- 3) Understand the needs of the organizations/groups in relation to the NIP
- 4) Understand the KIPS and performance criteria suggested by the organizations/groups for the NIP
- 5) Clarify and agree on KIPS and performance criteria that will be used by the NIP
- 6) Clarify the changes in an individual organization’s vision, policy(ies) and the rest of strategic plan(s)
- 7) Clarify the need to develop vision, policy(ies) and the rest of strategic plan(s) for the NIP

b - Answers to survey questions - Workshop 2

The answers are included in Table 11.

c - Workshop 2 outputs

These are the consolidated outputs of the workshop:

❖ *Objectives of the NIP:*

- 1) Help organizations within the NIP to achieve sustainable business (this achievement has to be done taking into consideration the alignment of the objectives of all interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community)
- 2) Improve partnership among participants of the NIP
- 3) Implement and maintain Sustainability Performance Evaluation Management System for the NIP
- 4) Contribution and addition of value to the NIP by all partners of the NIP
- 5) Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste)
- 6) Community acceptance of the organizations and activities involved
- 7) Keep community informed about NIP's activities (through good communication processes)
- 8) Dynamic and measurable improvement of performance of the NIP and individual organizations (this will benefit as long-term employment for the community and long-term benefit for all participants of the NIP)
- 9) The NIP is a proactive entity, not a reactive one
- 10) Identify and define use of opportunities

<p>QUESTIONS</p> <p>COMPANIES</p>	<p>a) Which changes do you think will be necessary in the vision, policy(ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within an NIP?</p>	<p>b) Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles?</p>	<p>c) Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)?</p>
WATERWATCH	❖ None, Waterwatch already serves on similar committees to promote good outcomes for waterways. It also increases our involvement with local industry, which supplies operating funds.	❖ None, we already work towards this goal.	❖ Yes, because without it, the meetings will not achieve anything, and the group will lose members.
BOYNE SMELTERS	❖ Yes, some	❖ Yes, some	❖ Yes, these should have targets, KPI and key activities
CLEANAWAY	<ul style="list-style-type: none"> ❖ We believe that existing visions, policies and strategic plans of our organization are consistent with the pre-requisites of an NIP. ❖ Our SP at a local level may need to include a definition of goals from the NIP if they differ largely from the National outlook. 	<ul style="list-style-type: none"> ❖ Visions and Policies need to be continually scrutinised. ❖ Through consultation we will continue to develop strategies that enhance existing outlooks and practices. 	❖ Each party needs to define their own goals, but areas may exist within these goals that would remain confidential/ not relevant to members of the NIP.
COLLEX	❖ It is our belief that there is a reasonable degree of alignment in vision, policies and strategic objectives evidenced in the responses provided by (NIP) in workshop one. Therefore we believe that there is insignificant change required to address the issues as a partner within an NIP.	❖ As in previous response, due to the commonality that has already been demonstrated we believe that it is simply a matter of the partners reaching agreement on the strategic objectives, policies and the desired outcomes of the NIP.	❖ For the NIP to be effective and sustainable there must be a common set of objectives. Without that the development, implementation and maintenance of the SPEMS will be less effective.
BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE	❖ No changes – perhaps some reconsideration and reprioritization to better reflect our role as a partner	❖ No changes – we believe we are the partner best placed to support the NIP in addressing an issue not linked to sustainability in the <i>Global Reporting Initiative</i> table – the issue of educating the community about sustainability	❖ Yes – we believe all partners probably have these developed in the context of themselves as their own corporate entity. Further, we foresee a possible need for the development of a parallel set of definitions that define themselves in the context of the NIP(i.e. – as a partner not an individual.
CQU	❖ None – our role as a partner within an NIP would require us to contribute to the work of the NIP based on our expertise and to be informed from the work of the NIP so that we can continuously improve our course materials and, where appropriate, work with other NIP partners or the NIP itself on research projects where we have the skills. This is entirely consistent with the strategic approach of the James Goldston Faculty of Engineering and Physical Systems.	❖ None – CQU Engineering Faculty is already committed to integrating sustainability practices into our teaching, research and community involvement.	❖ Each NIP will require an agreed approach to achieving the goals set by the members. While resources will most probably come from the partners the setting of goals and actions plans will require a strategic planning process for the NIP as an entity.

Table 11: Workshop 2 questions

11) Recognize innovations and manage them (the management will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business)

12) Develop appropriate levels of trust among all partners

❖ ***Scope of the NIP***

The participants during the Workshop reached the following conclusions:

- 1) The focus of the NIP is BSL and its commercial and community partners.
- 2) Initially, the NIP will look at (a) waste management and resource recovery and (b) the identification of individual and NIP KPI.

❖ ***KPI and Performance Criteria***

The identified KPI and Performance Criteria are included in Tables 12, 13, 14 and 15 for the three areas of sustainability and the NIP respectively

NOTE:

- Performance criteria = objectives, target, or intended level of performance set by the management of the organization and used for the purpose of performance evaluation (ISO 14031:1999)
- Key performance indicator (KPI) = specific expression that provides information about an organization's performance (ISO 14031:1999).

KPI for the environmental area

AREA	LINKED TO OBJECTIVE(s)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Regulation	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole, including the development of better use of resources and reduction of emissions/waste (objective 5) ❖ The NIP is a proactive entity, not a reactive one (objective 9) 	a) Licence non-compliance	a) "0"	
2) Internal environmental management	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole, including the development of better use of resources and reduction of emissions/waste (objective 5) ❖ The NIP is a proactive entity, not a reactive one (objective 9) 	a) Incidents b) Contamination of soil, air and water c) Number of audits d) Environmental culture	a) Severity and numbers b) Severity and numbers c) ? d) ?	<ul style="list-style-type: none"> ❖ Driven by maintenance ❖ Contaminants in recycling ❖ LCA
3) Training and policy enforcement	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ The NIP is a proactive entity, not a reactive one (objective 9) 	a) Number of employee incidents b) Training program evaluation c) Survey of staff d) % of staff trained	a) "0" b) ? c) ? d) ?	
4) Communication	<ul style="list-style-type: none"> ❖ Help organizations within the NIP to achieve sustainable business (this achievement has to be done taking into consideration the alignment of the objectives of all interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community) - (objective 1) ❖ Improve partnership among participants of the NIP (objective 2) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 4) ❖ Community acceptance of the organizations and activities involved (objective 6) ❖ Keep community informed about NIP's activities (through good communication processes) - (objective 7) 	a) Participation in ECOFEST and Clean-up Australia b) Information distributed c) Survey		

Table 12: KPI for the environmental area - workshop 2

KPI for the social area

AREA	LINKED TO OBJECTIVE(S)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Workplace people	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole, including the development of better use of resources and reduction of emissions/waste (objective 5) 	a) People leaving from budget position (staff turnover)	a) < 8% (2004)	<ul style="list-style-type: none"> ❖ Impacts on families ❖ Community interaction/involvement ❖ Measures job satisfaction ❖ Impacts SME ❖ Pay rates relativity ❖ Hope NIP helps to increase turnover ❖ Loss of skills
2) Impact on community	<ul style="list-style-type: none"> ❖ Community acceptance of the organizations and activities involved (objective 6) ❖ Keep community informed about NIP's activities through good communication processes) - (objective 7) 	<ul style="list-style-type: none"> a) Involvement and participation b) Well-being c) Community complaints d) Survey data 	<ul style="list-style-type: none"> a) ? b) ? c) 70% resolved (towards zero in 2008) d) % > baseline 	<ul style="list-style-type: none"> ❖ Complaints from vexatious, perception and prior employees ❖ Involve community
3) Community awareness	<ul style="list-style-type: none"> ❖ Improve partnerships among participants of the NIP (objective 2) ❖ Keep community informed about NIP's activities (through good communication processes) - (objective 7) 	<ul style="list-style-type: none"> a) Survey data b) Focus group c) Information distributed 	<ul style="list-style-type: none"> a) ? (do a baseline assessment) b) ? c) ? 	
4) WH&S	<ul style="list-style-type: none"> ❖ Help organizations within the NIP to achieve sustainable business (this achievement has to be done taking into consideration the alignment of the objectives of all interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community) - (objective 1) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 4) ❖ Improve efficiency and productivity of the participants of the NIP and as a whole, including the development of better use of resources and reduction of emissions/waste (objective 5) 	<ul style="list-style-type: none"> a) Lost time injuries b) Reportable injuries c) Near misses 	<ul style="list-style-type: none"> a) Frequency rates b) Frequency rates c) Frequency rates 	
5) Community contribution	<ul style="list-style-type: none"> ❖ Community acceptance of the organizations and activities involved (objective 6) ❖ Keep community informed about NIP's activities (through good communication processes) - (objective 7) ❖ Dynamic and measurable improvement of performance of the NIP and individual organizations (this will benefit as long-term employment for the community and long term benefit for all participants pf the NIP) - (objective 8) 	<ul style="list-style-type: none"> a) Rehabilitation process b) Sponsorship c) Educational programs 	<ul style="list-style-type: none"> a) ? b) ? c) ? 	

Table 13: KPI for the social area - workshop 2

KPI for the economic area

AREA	LINKED TO OBJECTIVE(S)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Market growth	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste) (objective 5) 	a) Increase of business due to NIP participation	a) Yes/no	<ul style="list-style-type: none"> ❖ Spin-offs due to community acceptance
2) Efficiency and productivity (cost control)	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste) (objective 5) 	a) \$ spent on waste management services	a) decrease in 6% per year	<ul style="list-style-type: none"> ❖ Better packaging ❖ Diversion from landfill ❖ Schedule maintenance to reduce cost opportunities
3) Continuity of business	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Dynamic and measurable improvement of performance of the NIP and individual organizations (this will benefit as long term employment for the community and long term benefit for all participants pf the NIP) - (objective 8) ❖ Recognize innovations and manage them (the management will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business) - (objective 11) 	<ul style="list-style-type: none"> a) Proportion of contracts renewed b) Average contract duration 	<ul style="list-style-type: none"> a) 100% renewed (normal is 2 years contract + 1 year renewed) b) > 3 years 	<ul style="list-style-type: none"> ❖ Capital investment (has to match contract duration which for sustainability has to be 7 years contract + 3 year renewed) ❖ Security services for community ❖ Safety performance ❖ Secure jobs ❖ Knowledge retention ❖ New technology
4) Resource recovery	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste) - (objective 5) ❖ Recognize innovations and manage them (the management will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business) - (objective 11) 	<ul style="list-style-type: none"> a) % diverted from disposal b) Tons to landfill 	<ul style="list-style-type: none"> a) ? b) ? 	<ul style="list-style-type: none"> ❖ NIP goal not just BSL ❖ Properly segregated can make diversion and recovery better ❖ Either source or transfer station segregation
5) Total waste	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste) (objective 5) 	a) Quantity per ton Aluminium produced	a) ?	
6) Profitability	<ul style="list-style-type: none"> ❖ Help organizations within the NIP to achieve sustainable business (this achievement has to be done taking into consideration the alignment of the objectives of all interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community) - (objective 1) ❖ Improve partnership among participants of the NIP (objective 2) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 4) 	a) Return on investment	a) ?	<ul style="list-style-type: none"> ❖ Profitable cost sustainable economically – important for the NIP

Table 14: KPI for the economic area - workshop 2

General KPI

AREA	LINKED TO OBJECTIVE(s)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Trust within NIP	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Develop appropriate levels of trust among all partners (objective 12) 	<ul style="list-style-type: none"> a) NIP self evaluation b) Achievement of NIP goals 	<ul style="list-style-type: none"> a) ? b) ? 	
2) Identify opportunities	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Implement and maintain Sustainability Performance Evaluation Management System for the NIP (objective 3) ❖ Identify and define use of opportunities (objective 10) 	<ul style="list-style-type: none"> a) Description 	<ul style="list-style-type: none"> a) ? 	

Table 15: General KPI - workshop 2

d - Evaluation of the workshop 2 by the participants

The results of the evaluation of workshop 2 are presented in Table 16.

INFORMATION QUESTIONS	ANSWERS					NUMBER OF ANSWERS	AVERAGE	COMMENTS
	100%	75%	50%	25%	0%			
1 - Did the workshop attain its objectives?	2	10	0	0	0	12	100% of the participants answered that the workshop attained between 75% and 100% of its objectives (79% of its objectives as an average)	<ul style="list-style-type: none"> ❖ Good ❖ NIP objectives were not planned but completed anyway for Workshop 2 ❖ KPI need to be refined but we made a good start
2 - Was the workshop planned properly to attain its objectives?	5	5	2	0	0	12	83% of the participants answered that the planning for the workshop was between well planned and very well planned (there was an equal number of answers for well planned and very well planned)	<ul style="list-style-type: none"> ❖ Good
3 - Did the facilitator assist the workshop properly to attain its objectives?	7	4	1	0	0	12	92% of the participants answered that the assistance given by the facilitator for the success of the workshop was between well driven and very well driven (there was an tendency in the direction of very well driven)	<ul style="list-style-type: none"> ❖ Good

Table 16: Evaluations of workshop 2

e - Evaluation of the partnership by the participants

The specific table with the evaluation of the partnership related to workshop 2 is included in Appendix 12. The combined information, expressed through a table, related to all workshops' evaluations is included in this Chapter under the Section 4.4.3: Workshop 3 - Evaluation of the partnership.

4.4.3 – Workshop 3

a - Objectives of workshop 3:

- 1) Define vision, policies and basic action plans for the NIP (if necessary), including dates
- 2) Define structure for the NIP and for the implementation of SPEMS (it will be a committee formed by representatives of each company with chairperson and secretary or one company leading the NIP?)
- 3) Define table of responsibilities within the NIP and for the implementation of SPEMS
- 4) Define financial and other resources for the NIP and for the implementation of SPEMS
- 5) Define the cycle of each performance evaluation of the NIP and the meetings to evaluate performance
- 6) Define communication systems (internal and external)
- 7) Define the necessity of training within the NIP (address the necessity of training inside each company)
- 8) Define documentation system and its control (including records)
- 9) Define scope and objectives of the NIP (improve the ones already defined)
- 10) Get commitment from everyone to continue the development of partnership and implementation of SPEMS within the NIP.

b - Workshop 3 outputs

The participants have developed the following structure for the NIP:

❖ *Committee*

The committee that will manage the NIP is formed by at least 1 representative of each organization/group participant in the NIP. Each organization/group will define the

representative for each situation or event (NOTE: Invitations to other interested parties would be done by any organization/group at their discretion).

❖ ***Committee executive***

The position of Chairperson and Secretary of the committee will rotate for every meeting among the participants of the committee. BSL will support the activities of the Chairperson and Secretary.

The length of each cycle of performance evaluation (cycle using SPEMS), review of the performance of the NIP and decision making process for the NIP will be at least every six months.

❖ ***Basic structure of the NIP - Documentation system and records***

Flavio Coelho will pass the three reports related to the workshops to Peter Budd from BSL. At this stage there is no defined system for documentation and records but Peter Budd will be responsible for it. Further definition in terms of document control and records needs to be defined by the NIP.

❖ ***Basic structure of the NIP - Communication system***

At this stage there is no defined system for communication among participants of the NIP. Email is the actual tool and manner used to exchange information among participants of the NIP (there is a list of participants in the Appendix 18 of this report). Further definition in terms of communication system within the NIP is required. Further definition in terms of external communication system about NIP's issues is required.

❖ ***Vision***

Leaders in partnership for sustainability of our business, community and environment

❖ ***Mission***

Engage partners to add value while conserving resources

❖ ***Scope and objectives of the NIP***

Defined in workshop 1

❖ ***Agreed operational guidelines for NIP:***

Partners will/are:

- 1) Always act with integrity and respect for each other, community and environment
- 2) Equal
- 3) Have transparency in communication and actions based on agreed levels of confidentiality
- 4) Be mindful of corporate and community responsibilities
- 5) Be active participants and add value
- 6) Promote and use innovative ideas
- 7) Seek consensus/accept compromise
- 8) Include, by invitation, other interested parties
- 9) Review membership of NIP as required
- 10) Attend meetings to be convened to reflect the needs of the NIP
- 11) Ensure the NIP remains a proactive entity

❖ ***Table of Sustainability***

The participants approved the 'Table of Sustainability' provided by the researcher to clarify issues linked to sustainability of organizations. The information included in this item has been included and discussed in the Chapter 5, Section 5.3 (See also Table 20).

❖ ***Action plans agreed by NIP***

Table 17 outlines the actions proposed by Workshop as the next steps to continue implementation of SPEMS Version 2 Model and the development of the NIP.

KRA (in this Table it is considered a PROGRAM)	INTERMEDIATE STEPS OR PROJECTS	LINKED TO OBJECTIVE OF THE NIP	WHEN	RESPONSIBLE	COSTS AND BENEFITS	OTHER RESOURCES	KPI (expression that provides information about performance)	PERFORMANCE CRITERIA (objectives, target, or intended level of performance)	KEY POINTS AND NOTES
1) Continue to implement the SPEMS within the NIP	1.1) Review the KPI and KRAs developed during workshop 2 and 3	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ Now	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ Need to be revised in the next meeting of the NIP
	1.2) Implement KPI	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.3) Collect data (based on the KPI)	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 to 6 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.4) Evaluate data against performance criteria	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 to 6 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.5) Review the performance and the process of performance evaluation and decision-making process for the NIP	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 6 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.6) Communicate results (internally and externally)	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 months (internally) and 6 months (externally)	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.7) Identify other NIP's programs and projects	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ Now	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
2) General education/ awareness about "Industry &	2.1) Info board	❖ Objectives 2, 3, 4, 6, 8, 9, 12 and 14	❖ 3 months	❖ Terry (BIEEC) + Jo (BSL) + Teresa (BIEEC)	❖ Time cost ❖ Quantify the resource value	❖ Nil	❖ Chosen media ❖ Community feedback	❖ ?	❖ ?

The Environment	2.2) Review NIP: ❖ Participants ❖ Current programs ❖ What media work best ❖ Other opportunities	❖ Objectives 2, 3, 4, 6, 8, 9, 12 and 14	❖ Now	❖ All	❖ Time cost ❖ Use of current communications	❖ Nil	❖ Group consensus (NIP)	❖ ?	❖ ?
3) Waste minimisation as a diversion from landfill	3.1) Paper products	❖ All objectives	❖ Now	❖ Chris O (CLEANAWAY) + all	❖ Time cost ❖ Community PR benefits ❖ Industry knowledge/network ❖ \$ benefits	❖ Councils (Gladstone and Calliope) ❖ CQ Local Government Association	❖ % diverted from landfill ❖ \$ income from recycled paper	❖ ?	❖ ?
	3.2) Timber products	❖ All objectives	❖ 3 months	❖ Glen (BSL) + Chris O (CLEANAWAY) + Chris T (COLLEX)	❖ Time cost ❖ Community PR benefits ❖ Resource management benefits ❖ \$ benefits	❖ Cheap pallets ❖ Toll transport	❖ % diverted from landfill ❖ Reduction in stockpile ❖ Tonnes beneficially Reused	❖ ?	❖ ?
	3.3) Identify value adding opportunities for waste	❖ All objectives	❖ 6 months	❖ Les Salter (SD) + Glen (BSL)	❖ Time cost ❖ Community PR benefits ❖ Environment benefits ❖ \$ benefits	❖ CRC Transpacific	❖ Identify opportunities	❖ ?	❖ ?
4) Review and improve service contracts	4.1) Review current arrangements	❖ Objectives 1, 2, 4, 5, 6, 7, 10, 11, 13 and 14	❖ 6 months	❖ BSL and BSL's commercial partners	❖ Enhanced relationship ❖ Improved transparency ❖ Time cost	❖ Nil	❖ % of contracts renewed ❖ Cost reduction commitment ❖ Average duration of contract	❖ ?	❖ ?
5) Enhance processes and practices in industrial cleaning	5.1) Water use and quality	❖ All objectives	❖ 3 months	❖ Glen (BSL) + Chris T (COLLEX) + Anna (WATERWATCH)	❖ Time cost ❖ \$ benefit for BSL ❖ Better quality water	❖ R & D ❖ Veolia ❖ EPA	❖ Reduced consumption ❖ Recyclable	❖ ?	❖ ?
	5.2) Planning/ scheduling of services	❖ All objectives	❖ Now	❖ BSL and BSL's commercial partners	❖ Time cost ❖ Reduce \$ costs ❖ Benefits for workforce	❖ BSL's Other contracts	❖ Reduction in labour costs ❖ Reduction in Full Time Equivalent Employees (FTES) ❖ Reduction in inductions ❖ Improved safety performance	❖ ?	❖ ?

Table 17: Action plans of the NIP - workshop 3

c - Evaluation of the workshop 3 by the participants

The results of the evaluation of workshop 3 are presented in Table 18.

INFORMATION QUESTIONS	ANSWERS					NUMBER OF ANSWERS	AVERAGE	COMMENTS
	100%	75%	50%	25%	0%			
1 - Did the workshop attain its objectives?	6	3	1	1	0	11	82% of the participants answered that the workshop attained between 75% and 100% of its objectives (82% of its objectives as an average)	<ul style="list-style-type: none"> ❖ Time an issue ❖ The workshop may even exceeded these
2 - Was the workshop planned properly to attain its objectives?	4	7	0	0	0	11	100% of the participants answered that the planning for the workshop was between well planned and very well planned (there was an tendency in the direction very well planned)	<ul style="list-style-type: none"> ❖ Great facility at CQU ❖ Material very good
3 - Did the facilitator assist the workshop properly to attain its objectives?	5	6	0	0	0	11	100% of the participants answered that the assistance given by the facilitator for the success of the workshop was between well driven and very well driven (there was an tendency in the direction of well driven)	<ul style="list-style-type: none"> ❖ Facilitator removing himself from NIP and sharing authority ❖ Kept the group moving ❖ Effective handover to the group meant the facilitation well reduced in this workshop

Table 18: Evaluations of workshop 3

d - Evaluation of the partnership by the participants

The specific table with the evaluation of the partnership related to workshop 3 is included in Appendix 12.

The combined information related to all workshop evaluations is included in Table 19

(See also Appendix 12). For each workshop, the table provides the average score for each parameter and a general average score for each workshop.

WHEN FILLED OUT PARAMETER	WORKSHOP 1 (at the beginning)	WORKSHOP 1 (at the end)	WORKSHOP 2 (at the end)	WORKSHOP 3 (at the end)	MEETING 8 (5 months after workshop 3)
1 - Definition of partnership	1.47	9.54	8.33	10	9.44
2 - Definition of NIP	5	8.63	10	10	10
3 - Your level of commitment to develop the partnership	6.47	9.54	7.91	8.63	8.88
4 - Level of commitment to develop the partnership within the NIP	5.88	7.27	6.25	8.63	8.88
5 - Your trust in others	5.58	6.36	5	8.18	8.33
6 - Trust within the NIP	5	5.45	5	7.27	7.77
7 - Your transparency	5.29	7.72	7.5	8.18	8.33
8 - Transparency within the NIP	4.11	5	7.08	7.27	6.66
9 - Your confidentiality	4.41	6.81	6.25	6.36	7.22
10 - Identification of the leadership	1.47	0.90	3.33	8.18	7.77
11 - Structure of the NIP	1.17	3.63	5	8.18	10
12 - Resources for the NIP	0.29	2.27	4.16	7.72	7.22
13 - Scope of the NIP	2.35	3.18	7.5	8.18	8.88
14 - Alignment of the objectives of the NIP	2.64	3.63	7.08	8.63	8.88
15 - Your level of communication	1.76	3.18	5.41	7.27	8.88
16 - Level of communication within the NIP	1.17	3.63	5.83	6.81	8.88
17 - Alignment of the KPI of the NIP	0	0	6.66	7.27	6.11
AVERAGE	3.18	5.10	6.37	8.04	8.36

Table 19: Partnership evaluation (summary of all Tables)

Chapter 5

5 - DISCUSSION

5.1 – Introduction

In this Chapter the researcher discusses the following:

- a) Activities prior to research and other relevant background studies.
- b) New terms, definitions and concepts.
- c) Current status of PE within individual organizations, their SC and their interested parties.
- d) Data related to the methodology used to develop performance evaluation by companies.
- e) Data related to suggested methodologies for use in developing performance evaluation of supply chains.
- f) Data collected from companies' interested parties containing information about their needs in terms of individual organizations' and supply chains' PE processes.
- g) Development of PE models.
- h) Data collected from the implementation of partnerships and SPEMS in an NIP.
- i) Evaluation of workshops and facilitator.
- j) Things that did and did not work well during the research.
- k) Developments after the workshops.

5.2 – Activities prior to research

5.2.1 – Case studies in Brazil

The researcher worked for the last 8 years as a management consultant for a number of different industry organizations, through the Industrial Federation of Minas Gerais (FIEMG), Brazil.

From January 2000 until January 2001 eight companies from the State of Minas Gerais, in Brazil, implemented environmental management systems (EMS) and integrated management systems (IMS) using the consultancy of the researcher through FIEMG. FIEMG is a non-profit organization in Brazil and has 128 owners' unions associated with it, with 80,000 industries being represented.

The basic objective of these implementation projects of management systems (MS), among others, was to establish the systems in the companies with the purpose of improving their business's performance and their general management systems, to comply with environmental law and obtain certification according to ISO standards. The companies involved were six manufacturers of automobile parts and two paper mills.

The implementations of management systems in the companies were completed by January 2001. The companies that participated in the projects considered them a great success.

The author considered that, even when MS projects have been implemented successfully, in the long term, those organizations' MS would fail or would not be as effective as could be expected. It has been observed that the organizations have not been prepared to

develop an efficient performance evaluation of their MS. Some companies have showed that they have not known how to identify the key characteristics, to be monitored, of their activities and of their MS and KPI, in order to develop a performance evaluation. Some companies that could develop a basic system to measure and monitor the key characteristics of their business have become lost with the huge amount of information that they could extract from their MS. It follows that they have not been capable of properly evaluating their performance with the objective of continual improvement of the businesses' performances and of the environmental/integrated management systems.

Consequently the researcher decided to develop a performance evaluation tool or model to assist companies to achieve, measure and communicate, progress towards sustainability through a PhD study. He has found Gladstone, in Queensland, Australia, a suitable environment to develop the PE model through a PhD project at Central Queensland University, under the supervision of Professor David Moy and Mr. Rod Edwards with the partnership of Central Queensland organizations.

5.2.2 – Gladstone region

The Gladstone Region is a unique area of Central Queensland, Australia, where both tourism and industries coexist in harmony. The area is recognized as a strategic place for industries because it has:

- ❖ International class harbour.
- ❖ Abundant land close to the port facilities.
- ❖ Water, power and natural gas at competitive prices.
- ❖ Extensive raw material deposits within economic transport distance.
- ❖ Community support for industrial development.
- ❖ Multi-skilled workforce.

Gladstone has hosted a number of heavy industry organizations, which include major mineral processors, services such as power and engineering and a range of trade, commerce and supporting educational institutions such as: Gladstone Power Station (NRG), Queensland Alumina Ltd (QAL), Boyne Smelter Ltd (BSL), Queensland Cement Ltd (QCL), Stuart Oil Shale Project, Ticor Chemical Company, Comalco Alumina Refinery (CAR), Gladstone Port Authority (GPA), Central Queensland University (CQU) and Orica Australia. The region represents a key area of the national and state economic development, generating approximately 35% of Queensland's total volume of exports and around 9% of Australia's total volume of exports (Gladstone Area Promotion and Development LTD 2001).

Gladstone has also been a pilot project in Queensland for a sustainable community. This project was managed by EPA Queensland (Gladstone Area Promotion and Development LTD 2001).

The researcher chose the region because Gladstone has all the characteristics explained above, including a well established industrial park. Also, CQU has a campus in the region and the University has the facility to establish projects within the region.

5.2.3 – Contacts and participations

5.2.3.1 – GRSG

The researcher also participated in a group in Gladstone, Queensland, called Gladstone Region Sustainability Group (GRSG).

The objectives for his participation in the group were to interact with and identify organizations and community interested parties that could participate in the research. It

was also considered important to understand how this type of group could develop their activities as a voluntary community group.

The group was established in January 2000 and was formed by representatives of the local community and organizations. GRSG comprised local councils, educational institutions, industrial conglomerates, NGOs, welfare organizations, tourism providers and other community groups within the region. The main objective of the group was to help the community to transform Gladstone into a sustainable city.

The researcher participated in meetings of the group during the years 2002 and 2003. During his participation he established links with representatives of local organizations and community groups. Some of these were later interviewed within the research as representatives of interested parties from the community and commercial organizations.

The group tried during these two years to develop the vision, policies, objectives and action plans for its work and to identify KPI for the region. During the first meetings the participation by the representatives of local organizations in the group appeared effective. However, the group finalised its activities at the end of 2003 without developing effective vision, policies, objectives or action plans. This was because there was a lack of leadership within the group and real support from the local organizations. The project was a failure and demonstrated how not to develop a partnership among organizations and community groups to target sustainability of local communities.

5.2.3.2 – GAPDL

The researcher used another strategy to establish connections with professionals from the local community. He had the opportunity to open a small business called Grandma's Cheese to produce unique home made finger food. He registered the business in the

Gladstone Area Promotion and Development Ltd (GAPDL or ‘The Bureau’). GAPDL is an organization with a charter to promote and develop the Gladstone Region and represents authorities, industries, large and small firms, businesses and community organizations. The researcher was invited to participate in events coordinated by GAPDL with representatives of private and public organizations and members of the community, because of his affiliation to the entity. This action helped him to develop contacts with the representatives of various potential participants of the research.

5.3 – Table of Sustainability

During his first contacts with organizations in Gladstone, the researcher identified that the representatives of organizations and community could not properly articulate the issues linked to the three pillars of sustainable development (environmental, social and economic issues).

Subsequently, the researcher studied a reference list addressing elements of organizational sustainability from the draft document *GRI - Sustainability Reporting Guidelines on Economic, Environmental, and Social Performance* (Global Reporting Initiative - GRI 2002a) and developed a revised reference table linked to business sustainability. It was used as a consultation list to clarify the major issues linked to each pillar of sustainable development of organizations in every stage of the PhD. The users were the research participants and the researcher.

Table 20 shows the issues linked to the sustainability of organizations or Table of Sustainability that has been developed by the researcher.

During the workshops the participants found it important to modify the Table of Sustainability. The major difference arises through the addition of ‘community education and awareness’ as a common issue for all of the areas linked to sustainability. This improvement was important because it emphasised the need to educate people as a tool to enhance knowledge and culture of sustainability as the basis of modern organizations and society. It is seen as an important issue linked to organizational sustainability.

5.4 – Questionnaires

As described earlier (Chapter 3, Section 3.2) the research commenced with a proposed conceptual PE (version 1 model). This model was used to develop questionnaires to determine the current status of performance evaluation within organizations and their supply chains. The Questionnaires were structured to reflect the 15 steps of the basic PE model used essentially as a checklist of requirements for best practice performance evaluation in organizations. The steps are:

- ❖ Step 1 - Identification of key characteristics of the business including aspects and impacts of activities, products and services of the organization/supply chain
- ❖ Step 2 - Consultation and assessment of the needs and requirements of the interested parties
- ❖ Step 3 - Combination and assessment of the previous information
- ❖ Steps 4 - Development of vision and policy
- ❖ Steps 5 - Identification of priorities to develop action plans
- ❖ Steps 6 - Development of action plans (for day-to-day activities and/or improvements and/or risks)
- ❖ Steps 7 - Identification of the priorities (key characteristics for control and/or monitor) for the development of KPI and performance criteria
- ❖ Steps 8 - Development of KPI and performance criteria

TABLE OF SUSTAINABILITY - ISSUES LINKED TO THE SUSTAINABILITY OF ORGANIZATIONS		
Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)	Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)	Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)
<ul style="list-style-type: none"> ❖ Environmental conditions ❖ Environmental and risk management ❖ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ❖ Biodiversity ❖ Emissions, effluents and waste ❖ Soil, air and water contamination, protection and conservation ❖ Environmental design ❖ Life cycle 	<ul style="list-style-type: none"> ❖ Social conditions ❖ Social and risk management ❖ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Workplace, Health and Safety (WH&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment ❖ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ❖ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption 	<ul style="list-style-type: none"> ❖ Economic conditions ❖ Economic and risk management ❖ Quality (product quality and customer satisfaction) ❖ Financial ❖ Market ❖ Growth ❖ Customers/ Purchasers/ Consumers ❖ Suppliers ❖ Employees ❖ Founders ❖ Public Sector ❖ Shareholders/ Investors
ISSUES COMMON TO THE THREE AREAS		
<ul style="list-style-type: none"> ❖ Focus organization/supply chain activities, products and services ❖ Suppliers' activities, products and services ❖ Consumers'/customers' activities, products and services ❖ Transporters' activities ❖ Other interested parties ❖ CSR (business ethics) ❖ Corporate citizenship and governance ❖ Sustainable mechanisms ❖ Legislation ❖ Non-regulatory guidelines ❖ Compliance ❖ Interested parties' satisfaction and well-being ❖ Other issues 		

Table 20: Table of Sustainability

- ❖ Steps 9 - Collection of data
- ❖ Steps 10 - Analysis and conversion of data

- ❖ Step 11 - Checking/auditing (performance improvement of the organization/SC against performance criteria and the performance evaluation management systems or process)
- ❖ Steps 12 - Internal report and/or other types of information systems
- ❖ Step 13 - Management review (evaluation of performance improvement and decision-making process) to improve the performance and evaluation of organizations/SC, and improvement of the performance evaluation management systems or process
- ❖ Step 14 - External report and/or other types of information systems
- ❖ Step 15 – External verification of the reports and/or information to release

Note: The PE steps are common to all the three versions of PE / SPEMS, versions 1 to and 3, developed within the research.

As described in Chapter 3, the questionnaires were administered to obtain information about:

- ❖ Individual organizations;
- ❖ Associated supply chains; and
- ❖ Interested parties associated with the organizations.

The relevant summary data and complete sets are presented in Chapter 4, Sections 4.2/4.3 and relevant Appendices 5 and 7.

5.4.1 – Individual organizations

5.4.1.1 - Existing PE processes

Only two companies have a reasonably well-structured PE process. Where some performance evaluation is undertaken, the processes are poorly structured and communicated. Essential systems steps are frequently omitted. Most interviewees agreed that the proposed PE (version 1 model) could assist their organizations achieve a more structured PE process.

Only two companies have structured procedures to assist them translate vision and policies into action plans.

5.4.1.2 - Communication and Reporting

Communication involves the flux of information in both directions (from companies to interested parties and vice versa). Interviewees agreed that good communication with interested parties is a strategically important tool that needed to be further developed in their organizations. They also agreed that the information has to be presented so it can be understood by everyone internal and external to the organizations. The GRI (Global Reporting Initiative - GRI 2002b) provides a suitable reporting framework as it is used internationally for performance reporting.

It was also agreed that all companies needed procedures that included third party verification of reports and other forms of information systems used to release performance data. Such external report verification helps increase trust between companies and interested parties.

5.4.1.3 - Sustainability

Interviewees acknowledged that, if organizations want to progress in accordance with sustainable principles, they have to start to take into consideration information from a larger range of interested parties. They also have to include other social, environmental and economic issues. The questionnaires showed that currently these three areas of sustainability are addressed only narrowly through human resources and WH&S; regulatory environmental compliance; and the financial and quality aspects of business respectively.

It was also identified that all companies interviewed needed to consider the community as a partner in business if they wanted to drive their activities in accordance with sustainability principles

5.4.1.4 - Data and KPI

Strategic steps in performance evaluation are the evaluation of data involving pre-determined KPI being compared with performance criteria. All companies needed to define sustainability and sustainability KPI more clearly as a prerequisite for them to drive their activities toward sustainability. A definition developed during this research is provided in this Chapter in Section 5.5.

None of the organizations has kept historical data based on pre-established KPI data for more than two years. It is important for all companies to start to store historical data expressed through key performance indicators so that clear trends in their business data can be determined. Interviewees acknowledged that well-defined procedures and relevant, reliable data are essential to support good decisions and improved management within the companies. It is clear that these elements needed to be improved for all companies.

5.4.1.5 - Suggested PE (version 1 model) enhancements

Most of the suggested improvements for PE derived from the questionnaire responses have not been related to possible changes of the PE Model. Instead, possible changes to concepts, requirements or activities within steps or through the full process were identified:

- ❖ The PE process needs to be cascaded to all levels of the company.
- ❖ The PE process should be able to use a sustainability scorecard as pillars for business planning and performance evaluation.
- ❖ An improved tool based in SIPOC, can help identify requirements and measurements between company/department/group (and its activities) and customers and suppliers linked to them. SIPOC (Figure 17) is a tool used by organization 1.
- ❖ The PE process needs to be integrated with a five-year business plan (divided by year) and periodical forecasts.
- ❖ The Model needs to facilitate the development of PE culture inside companies.
- ❖ Where KPI are provided as ratios, there is a need to also provide numeric value of the numerator and denominator i.e. absolute measures as well as the relative values.
- ❖ The PE process needs to facilitate follow-up of business decisions and subsequent actions.

5.4.2 – Supply chains

The questionnaire data confirm the reported conclusions associated with different understandings and use of the terms ‘supply chain’ and ‘sustainability’ among organizations internationally and nationally. The research identified a clear need to define ‘Sustainability of Organizations’. The research confirmed an inherent difference in the perception of ‘Sustainability’ by people within and outside organizations. It appears that the differences may arise through the different emphasis on, and weighting applied to,

each of the three components of sustainability (economic, social and environmental). There is a similar need to consider the sustainability of supply chains and impacts on the understanding of this term when it is applied as a goal for a supply chain.

One of the interviewees suggested that a procedural document was needed, to clarify the areas and provide a method to identify sustainability issues. The researcher has developed a Table of Sustainability (See Table 20) to help companies and SC to identify organizational and SC elements linked to sustainability.

Individual organizations will have different views as to the importance of engagement with some interested parties. This may determine whether they support an invitation to these IP to participate in consultation processes and other activities of the SC. This issue can be partially resolved by negotiation and through consideration of the importance of participation of a wide range of interested parties in achieving sustainability. It is clear that IP should not be excluded because they hold negative views of some or all of the organizations within an SC.

The PE model was considered by the companies to provide a good approach to PE of SC. The need to develop a 'common language' for all participants was recognized. The PE is seen as a useful 'umbrella process' that imposes democratic practices and requires partnership development among participants of an SC.

Again SC recognised the need to develop agreed procedures and common KPI for the SC. However it is considered important to allow individual companies to develop their own specific KPI.

Of considerable significance is the common theme discerned from the questionnaires that there is always a dominant organization within an SC. Interviewees acknowledged that such an organization would provide leadership and have greater and broader influence than the other participants of an SC. It is possibly this recognition that leads respondents to highlight the need for democratic processes and agreed procedures within an SC.

All the companies interviewed have internal strategic plans (vision, policies and action plans) already developed. However, for an SC to achieve sustainability, the researcher suggests that a supply chain needs to develop a strategic plan based on a combined (or common) vision with agreed and/or common policies and action plans for all IO participants. It follows that each company's strategic plans need to be modified to encompass its activities and role within the relevant SC.

5.4.2.1 - PE (version 1 model) SC enhancement

Again, most of the suggestions from interviewees have been related to changes to concepts, requirements or activities proposed within the steps of the PE (version 1 model) rather than the steps themselves. Suggestions related to the application of the PE model to supply chains include:

- ❖ The performance evaluation model (PE) needs to support the normal operations of the supply chain and its organizations and should not 'tie them up' or unnecessarily impede business activity.
- ❖ It is important that there is commitment by top management from each of the participating organizations.
- ❖ The PE has to have ownership by the people who are supported by the management systems (developed by them and for them) and the management system has to be developed in such a way that it can easily be adapted to changes.

- ❖ The PE needs to support integration of different cultures and lead to the development of similar (or even a common) culture among companies participating in an SC.
- ❖ It is necessary when developing relationships within a supply chain that all partners contribute to scope definition, determination of common objectives and targets and provision of adequate resources.
- ❖ Provision for exchange of resources among participants and recognition of the individual needs and limitations of each participant is essential. It is important that meetings are scheduled to evaluate and improve performance and provide networking opportunities to help develop relationships between participants.
- ❖ An SC has to operate using democratic processes.
- ❖ In an SC it is important to speak the same language in terms of PE and also to have common/compatible reporting structures, communication systems and KPI.
- ❖ The PE process for the SC needs to have clearly documented procedures to collect data and report performance. However, only the most important steps of PE for SC may need formal written procedures and these should be defined by the SC members.
- ❖ The length of each cycle of performance evaluation should be determined by the SC and its participating companies.
- ❖ It is important to develop a more collaborative approach within an SC because this helps each company to fulfil their own needs.
- ❖ It is important for everyone inside the organizations participating in the supply chain to have good understanding and commitment with the performance evaluation process. Ownership of the process is important for the success of the PE of the SC.
- ❖ The PE process has to be based on a collaborative approach but requires a step that allows some imposition in specific situations.
- ❖ A potentially useful approach is to treat participants of the supply chain as departments of your own company.

- ❖ Define tools inside the PE process that would help participants of the network to track products and services to minimise adverse risks.
- ❖ Use the performance evaluation process to identify and help remove potential and actual ‘bottle necks’ within the supply chain.
- ❖ Participants need to be transparent in their communication and commercial dealings within the SC.
- ❖ Participants need to share technical support and marketing (collaborative approach).
- ❖ The PE process needs to encompass a step to ask other companies inside the SC and also customers and suppliers outside the SC what they want and need from the SC.

The interviews led to a hypothesis that all companies want to develop relations with suppliers and customers using a more voluntary approach and greater transparency in their dealings. However, it is equally clear that they have difficulty in discarding the current contractual (imposition) approach because of their past and negative experiences with suppliers and customers. To overcome this resistance, this research proposes the general use of a collaborative approach among participants of the supply chain. However, it also recognizes the need for a capability to implement some form of imposition in specific situations to underpin SC activities. This approach can be likened to the ‘carrot and stick’ approach use by Australian governments in implementing the largely voluntary National Packaging Covenant and its associated National Environment Protection Measure.

5.4.3 – Interested parties

As with organizational interviews, most of the proposed changes to the PE (version 1 model) relate to concepts, requirements or activities within individual steps or apply to the steps as an integrated set.

The use of an improved Performance Evaluation model to provide a ‘common language’ and as a driver to enhance partnerships between companies and interested parties within an SC was strongly supported by all the community interested parties. In particular, despite their limited experience with the subject, these community-based IP considered that the PE (version 1 model) would help all the parties to:

- ❖ Open dialogue;
- ❖ Break the business barriers within an SC;
- ❖ Enhance communication;
- ❖ Define and balance common economic, environmental and social goals; and
- ❖ Develop sustainable, healthy communities and organizations/SC.

It was agreed that it is very important for the process of PE for organizations and SC to include the consultation and assessment of needs/values/information from a wider range of interested parties.

There was general agreement that the process has also to take into consideration that interested parties want a more personal interaction with organizations/SC in the communication process of PE. General discussion indicated that there is a ‘barrier’ between companies and community interested parties. Even if this is only a perception, it is clear that companies and community interested parties need to develop better communication systems. The formation of partnerships between business and community IP could help break such barriers or change the perceptions.

Public reports are also considered to be important by the respondents. They have to be simple, clear and transparent with honest and reliable information, including present and future action plans, and take account of sustainability principles. There was consensus

that data has to be presented in a visual form with some text explanation. There is also a need to have performance data compared with benchmarking criteria.

Participants considered the approaches to developing KPI described in this research could be followed by the SC members. They also stated that Life Cycle Assessment (LCA) should be used to help the identification of activities/products/services and KPI/performance criteria for SC and IO.

5.4.4 – Comparison of responses

All organizations provided information in relation to all the steps of the PE (version 1 model). By contrast, the interested parties provided information only about:

- ❖ Consultation with interested parties;
- ❖ Identification and development of KPI and performance criteria; and
- ❖ Internal and external reports.

Further, there is little difference between response related to individual organizations and SC. The results are therefore discussed together.

5.4.4.1 - Consultation

All interested parties want to see the consultation about business activities and performance undertaken with as wide a range of interested parties as possible. However, currently only Organization 14 has a consultation process with external interested parties to develop business plans. Further, the suggestions from organizations do not include a number of IP that are generally considered important. Omissions include: indigenous people, welfare organizations, neighbouring and regional communities, NGOs, opinion leaders and communications media. It should be noted that ISO 14031:1999 (International Organization for Standardization 1999a) suggests in its Annex A that the consultation

process should be done with a wide range of interested parties. ISO TR 14032:1999 (International Organization for Standardization 1999b) describes case studies that support the idea of consultation with a wider range of interested parties that is normally used.

Practical case studies have been described in ISO TR 14032:1999 (International Organization for Standardization 1999b). In some of the reported cases, the indicators selected by IP are very different from those determined by the organizations without consultation. The studies presented in ISO 14032 support the conclusion that wide consultation with IP has benefits for the organization.

5.4.4.2 - KPI

Interested parties want to see companies and SC performing against sustainability KPI. However, nowadays, companies only evaluate their performance against financial, WH&S and environmental KPI. By contrast, IP and individual organizations wants to see SC developing KPI encompassing the following characteristics:

- ❖ Consistent with policy;
- ❖ Reliable because there are fewer assumptions when presenting information;
- ❖ Easy to understand;
- ❖ Easy to obtain data;
- ❖ Able to provide information on current and future trends;
- ❖ Sensitive to changes;
- ❖ Useful for measuring performance against criteria; and appropriate to management, operational efforts and the condition of the society/environment.

This is the approach that has been suggested in ISO 14031:1999. ISO 14031:1999 offers a framework for the development of environmental KPI. This framework can be used, without change, for the development of Sustainability KPI.

5.4.4.3 - Reporting

Interested parties want to receive information from companies through personal and direct contacts and simple standardised reports. While all companies currently provide information to IP through personal contacts, there is no standard reporting system for any of the companies surveyed. Not all of the companies have external reporting of their sustainability performance. In addition, organizations do not want to give performance information to the following interested parties: indigenous people, welfare organizations, neighbouring and regional communities, NGOs, opinion leaders and communications media. This is consistent with the conclusion presented earlier that SC do not consider many of these organizations important as IP.

Overall, it appears that companies are centred on themselves and not concerned about the issues of the regional communities. On the other hand, communities are not concerned about the financial health of the organizations. These observations are supported by the case studies reported in ISO TR 14032:1999.

In summary, the questionnaires highlight the current lack of formal, effective processes for evaluating and communicating performance among organizations and their interested parties. However, the study also provides a comprehensive checklist of the perceived and real deficiencies that need to be addressed if these organizations and their SC are to move towards sustainability in harmony with a broad communion of their interested parties. In addition, the study identified a significant need for a common language that can effectively improve communication among all and by all IP. The remainder of this research addresses a new systems approach to resolving these problems.

5.5 – Terms and definitions

5.5.1 – Initial ones

During his first contacts with organizations in Gladstone, the researcher identified that the representatives of organizations and community did not have a clear understanding of the terms sustainability, sustainability for organizations and sustainability KPI. The researcher considered that the general definition for the term sustainable development or sustainability: development, which meets the needs of the present without compromising the ability of future societies to meet their own needs, is very clear and easy to understand (World Commission on Environment and Development 1987). Based on this definition, two new terms and definitions were developed and used initially in the research. These are:

- ❖ Organizational sustainability: *Attain objectives taking into consideration the needs of the interested parties*
- ❖ Sustainability indicators (KPI) for organizations: *Indicators of one area (economic or social or environmental) but they are important to the most important interested parties linked to organizations/NIP*

These concepts reflect an attempt to define sustainability and sustainability indicators for contemporary organizations. They represent an important step in the process of developing a performance evaluation model to assist the move of modern industrial organizations towards sustainability. Note however, that the research allowed for the ongoing development and refining of essential terms. For completeness and better understanding of the systems development processes of the research, all the relevant terms and concepts are defined here rather than sequentially as they were developed.

5.5.1.1 - Network of Interested Partners

One of the conclusions from the questionnaires, applied to organizations and interested parties, has been that, in general, organizations and professionals have had different understandings of the concept of supply chain (SC). Some have understood supply chain as their company and suppliers. Some have understood a straight line of indirect and direct supplier - a focus company with direct and indirect customers who would participate in the life cycle of one specific product or service. Others have considered SC as a network of companies working towards the same objectives (Aldohish 2002; Blutstein 2002; Chandra & Kumar 2001; Neergaard 2002; Sterman 2000). To avoid the misunderstanding of the use of the term supply chain, the researcher developed a new term to encompass companies working together with interested parties to attain some specific and similar business goals. The term developed was initially called Network of Interested Parties (NIP). It was subsequently modified and improved as 'Network of Interested Partners (NIP)'. The researcher defines the term as *close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures*. This definition recognizes that not only is there a need to include interested parties, but sustainable programs also require that the organizations and people involved need to form partnerships. In turn, partnerships require ownership by all participants of the network.

Figure 18 expresses the concept of NIP developed for the development of SPEMS (version 2 model). The researcher used some ideas from different authors to develop the concept (Acona 2004; Briscoe, Dainty & Millet 2001; Christopher & Juttner 2000; Development Leadership Network 2001; Holmberg 2000; Kumar & Bragg 2003; Li et al. 2004; Lo & Yeung 2004; Organisation for Economic Co-operation and Development - OECD 2003; Rudzki 2004; Yassenchak 2001; Zhao 2002)

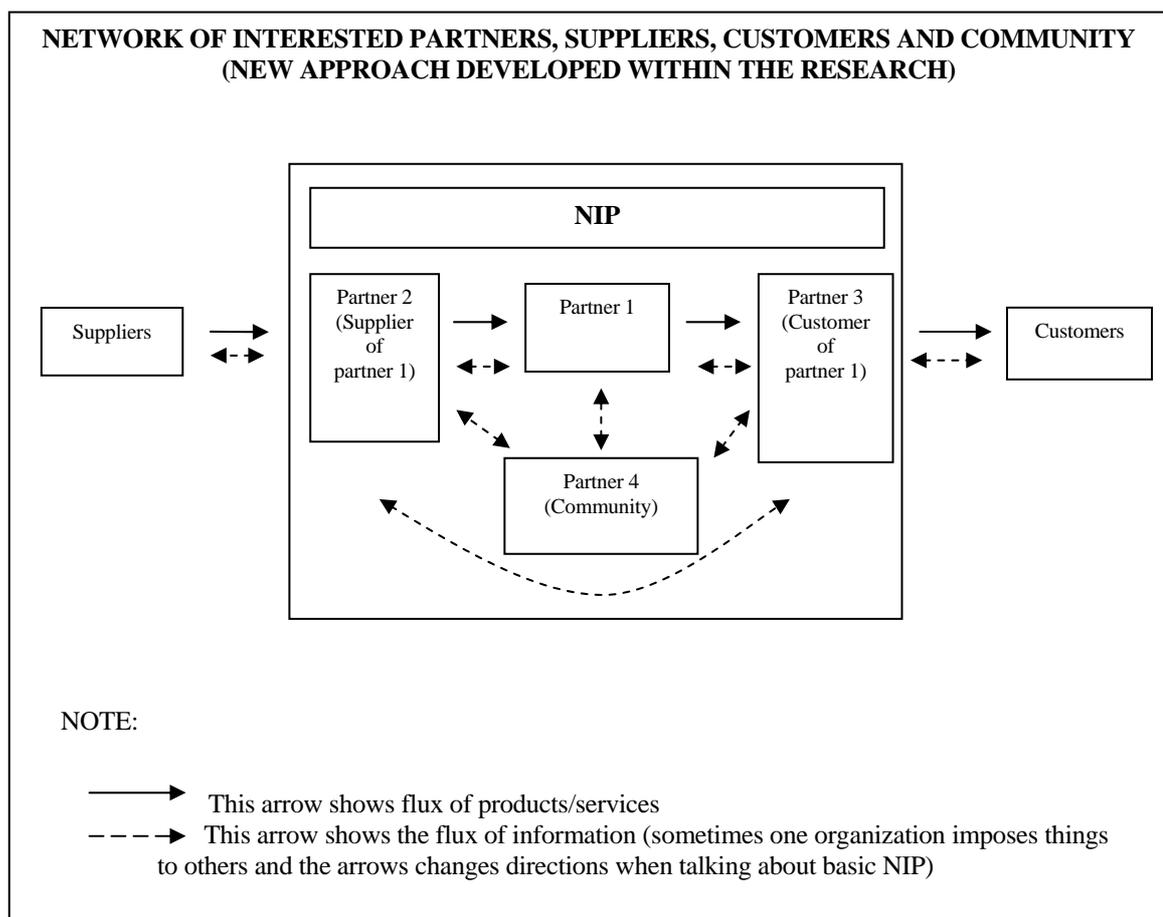


Figure 18: New concept of NIP for SPEMS

The definition of NIP has been based on ‘new’ concepts arising during the research, the literature review and some other terms as follows:

- ❖ Network:
 - An interconnected or interrelated chain, group, or system (Merriam-Webster Online Dictionary)
 - To engage in social or professional ‘networking’. Thus ‘networking’ is the action of representing in a network a system of interconnected events, processes, etc., esp. in the planning of complex projects or sequences of operations (Oxford English Dictionary 2004).
- ❖ Interested parties:

- Individual or group concerned with or affected by the performance of an organization (International Organization for Standardization 2004b)
- Person or group having an interest in the performance or success of an organization. A group can comprise an organization, a part thereof, or more than one organization (International Organization for Standardization 2000c)
- ❖ Partnership:
 - The state of being a partner (Merriam-Webster Online Dictionary).
 - The fact or condition of being a partner; association or participation or an association of two or more persons for the carrying on of a business, of which they share the expenses, profit, and loss (Oxford English Dictionary 2004).
- ❖ Partner:
 - One who shares or one associated with another especially in an action (Merriam-Webster Online Dictionary)
 - One who is associated in any function, act, or course of action; one who takes part with another or others in doing something; an associate, colleague or one who has a share or part with another or others; one who is associated with another or others in the enjoyment or possession of anything (Oxford English Dictionary 2004)
- ❖ Ownership:
 - The state, relation, or fact of being an owner (Merriam-Webster Online Dictionary)
 - The fact or state of being an owner (Oxford English Dictionary 2004)

5.5.2 – Relation between SC, NIP and IP

Figure 19 expresses the idea of supply chain that the researcher held before the development of PE (version 1 model). The researcher used some ideas from different authors to develop the concept (Aldohish 2002; Blutstein 2002; Chandra & Kumar 2001;

Neergaard 2002; Sterman 2000). This model is used as the concept for supply chain included in the questionnaires for organizations and interested parties.

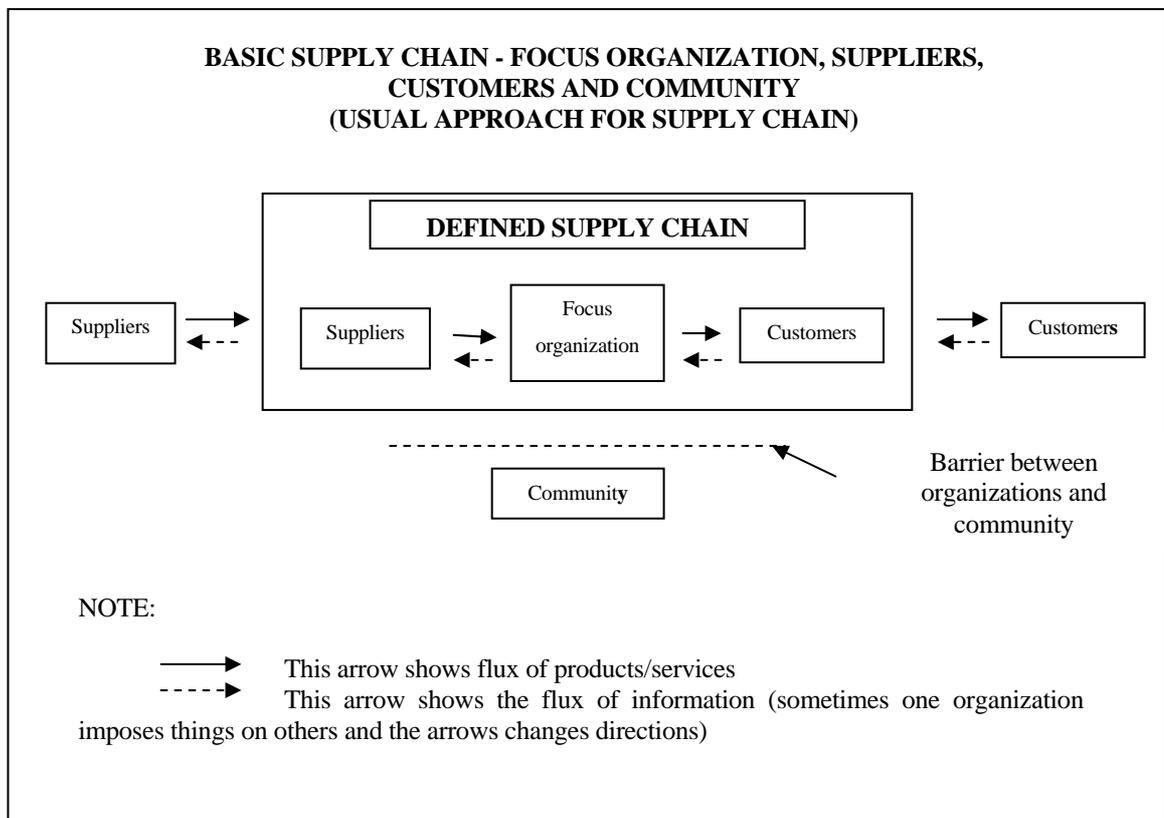


Figure 19: Basic supply chain

In the context of a NIP, a supply chain:

- ❖ Is a linear subset of NIP; and
- ❖ Has a principally commercial focus

Interested Parties include:

- ❖ Individual(s) or group(s) concerned with or affected by the performance of an organization (International Organization for Standardization 2004b)
- ❖ Person or group having an interest in the performance or success of an organization. A group can comprise an organization, a part thereof, or more than one organization (International Organization for Standardization 2000a).

The workshop participants also found it useful to develop a scheme showing the relations between NIP, supply chain and interested parties. The scheme is depicted in Figure 20.

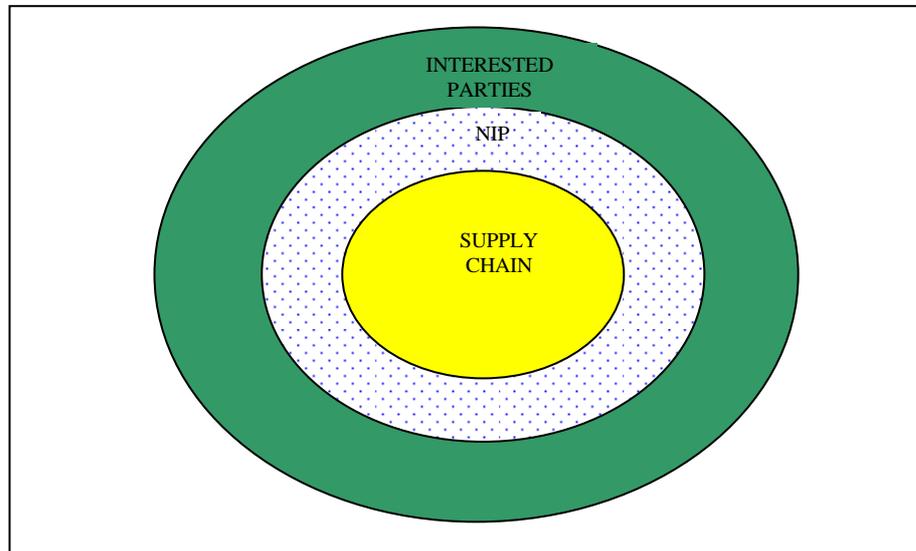


Figure 20: Relationship between NIP, SC and IP

5.5.2.1 - SPEMS

In keeping with these new definitions and to reflect the underlying systems approach to using PE to achieve sustainability, the PE (Version 1 Model) was renamed for the remainder of the research. The Version numbering has been retained to reflect that all systems models discussed have a common framework, which remained effectively unchanged throughout the research. The new concepts have been incorporated into the Sustainability Performance Evaluation Management System model – SPEMS (version 2 model). This model is based on the ISO approach for management systems and performance evaluation.

5.5.3 – Workshop Revision of Definitions

The researcher provided the participants of the workshops with the new terms and definitions as outlined above. However, during the workshops, the participants of the NIP further modified some of the terms and definitions as outlined below:

5.5.3.1 - Network of interested partners (NIP)

An NIP is a partnership among interested parties where there are common goals and the partners share risks, responsibilities, resources and rewards.

5.5.3.2 - Partnership

Active participation in sharing risks, responsibilities, rewards and resources and achieving common goals based on trust and value adding.

5.5.3.3 - Transparency

It is based on trust, honesty, accuracy, relevance and timeliness in sharing information.

NOTE: This is more of an explanation than a definition but it helped participants develop a common understanding of some of the issues perceived as fundamental to the development of a successful NIP.

5.5.3.4 - Confidentiality

Containing information whose unauthorized disclosure could be prejudicial to the interest of the partners of the NIP. Issues directly related to confidentiality within the NIP:

- ❖ Quantity of data provided
- ❖ Clear flagging of what is ‘confidential’
- ❖ Advance release of information
- ❖ Privacy.

This impacts strongly on how much and what information will be shared among the partners of a NIP.

5.5.3.5 - Sustainability (for NIP)

The attainment of NIP goals, now and in the future, taking into consideration the needs of current and future interested and affected parties.

5.5.3.6 - Sustainability

Development, which meets the needs of the present without compromising the ability of future societies to meet their own needs (World Commission on Environment and Development 1987)

5.5.3.7 - Sustainability indicators

Indicators of one area of sustainability (social or environmental or economic) but they are important to the most important interested parties linked to the organization/NIP.

The information from those definitions, parameters and concepts has provided the researcher with information to improve the PE model.

5.5.4 – SPEMS model terms and definitions

The aim of the research is to produce a PE model that can be adapted for use by any organization and its interested parties – both commercial and community. To meet this objective, further refining of the definitions based on all the inputs described previously is presented as follows:

- ❖ Sustainability for organizations: *Attainment of objectives taking into consideration the needs of the interested parties.*
- ❖ Sustainability indicators (KPI) for organizations: *Indicators from each of the areas of sustainability - namely social, economic and environmental – that are considered to*

address the priority issues identified by the ‘primary’ interested parties linked to the organization/network of interested partners. Primary is taken to refer to: those interested parties who have direct links with the partners or who are directly affected by, or have impact on, the activities of any or all of the partners.

- ❖ Network of interested partners (NIP): *Close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures. Partnership needs ownership by all participants of the network.*
- ❖ Sustainability performance evaluation management systems or sustainability performance evaluation management system model (SPEMS): *A management system with a focus on performance evaluation where sustainability means that organizations want to drive their activities to become sustainability friendly. SPEMS can assist companies and their supply chains to enhance business performance and evaluation.*
- ❖ A ‘sustainability friendly’ company is defined by the researchers as: *a company that drives its activities so as to actively include taking into consideration the needs of the interested parties.*

5.6 – PE models

5.6.1 – PE (version 1 model)

5.6.1.1 – Sustainability

The concept of ‘Sustainable Development’ establishes new levels of performance for society and companies. It requires a different type of human behaviour. According to Elkington (Elkington 1997) Sustainability is a vision for our contemporary society and requires us to face differently subjects related to:

- ❖ Economic prosperity

- ❖ Environmental quality
- ❖ Social equity.

While society has been developing some steps in the direction of this vision, few new tools have been developed to assist modern organizations achieve progress towards sustainability. This research attempts to address this need by developing systems tools for application at the operational levels of organizations.

This task is made more complicated when consideration is given to the growing interdependence of organizations in a global environment. While a company's financial failure clearly impacts on other businesses in its supply chain, there is less recognition of the similar situation arising from adverse social and environmental impacts within a supply chain. If an SC is to be sustainable, therefore, the supply chain must be considered.

In addition Agenda 21 and its follow-up at the World Summit on Sustainable Development - WSSD in Johannesburg in 2002 (Bigg 2003) highlighted the need to consider also a broader range of non-commercial interested parties if sustainability is to be achieved. It follows that any new tool aimed at making organizations more sustainable must encompass all these elements.

It is noted that continuous improvement is a well-recognized path to the practical achievement of sustainability. It follows that a model based on this concept applied across the three foci of sustainability provides a base from which to consider the development of a new tool for achieving sustainable organizations. The ISO 14301 Performance Evaluation Standard provides a systems approach for measuring and

evaluating performance. Its adoption in sustainability and supply chains can therefore underpin development of a new approach to achieving sustainability through the measurement, evaluation and communication of environmental, social and economic performance at an operational level.

This then is the basis for the second part of this research project.

5.6.1.2 - Concepts of the new PE process

The development of the new performance evaluation process or model for organizations requires the application of ISO 14031:1999 to be expanded to include principles of sustainable development – not just environment. It also needs to be suitable for use either by individual organizations or SC. Furthermore it has to be simple and objective so that practitioners can use it in their own company. Few authors have considered these extensions to ISO 14031:1999. O'Reilly *et al.* (O'Reilly, Wathey & Gelber 2000) considered SC but only in terms of environmental performance evaluation.

Andersen & Fagerhaug (Andersen & Fagerhaug 2002) discuss many of the issues related to performance measurement and evaluation for organizations. They look at some of the performance issues related to stakeholder – organization interactions. Despite a strong focus on business mapping and organizational structures, they mainly link these as part of performance measurement. They have not looked closely at the management processes and their integration. In contrast, this research adopts ISO 14031 as a starting point because it has been written to link closely with current organizational management systems. The focus of this research is therefore on a performance evaluation (PE) model that can be integrated with the general management systems of organizations.

Anderson and Fagerhaug also briefly discuss the extension of their measurement approach to supply chains and note that competition between SC is becoming as important as between individual organizations. In the same way, this research recognizes the potential for a supply chain to impact on the individual organizations within it and *vice versa*. The Model generated within this study therefore addresses individual organizations and their performance as an integral part of the SC performance. It also acknowledges the increasing importance of sustainability rather than just commercial considerations in a competitive global environment.

Another key issue identified by Anderson & Fagerhaug is the relationship between organizations and their stakeholders (a subset of interested parties' according to the document Standards Australia, 2004). This research considers stakeholders to be the same as interested parties because of the translation problems of some languages. However, interested parties are also inherently considered to be relatively 'local' and therefore likely to be interacting with, or directly affected by, an organization at the operational level.

A focus on 'relationships' immediately requires consideration of essential communication and consultation processes that facilitate relationship development. To date, little attention has been directed at the communication processes. In contrast, the PE model developed in this study is driven by the intention that it will provide a similar language in terms of performance evaluation for use among the organizations and individuals within an SC.

The first version of the performance evaluation (PE) model developed by the researcher is shown in Figure 21. This Figure also depicts conceptually the proposed integration of the performance evaluation system with general management systems based on ISO

14001:2004 (International Organization for Standardization 2004b) and 14031:1999 (International Organization for Standardization 1999a). This integration of ISO 14031 is not currently covered by ISO standards.

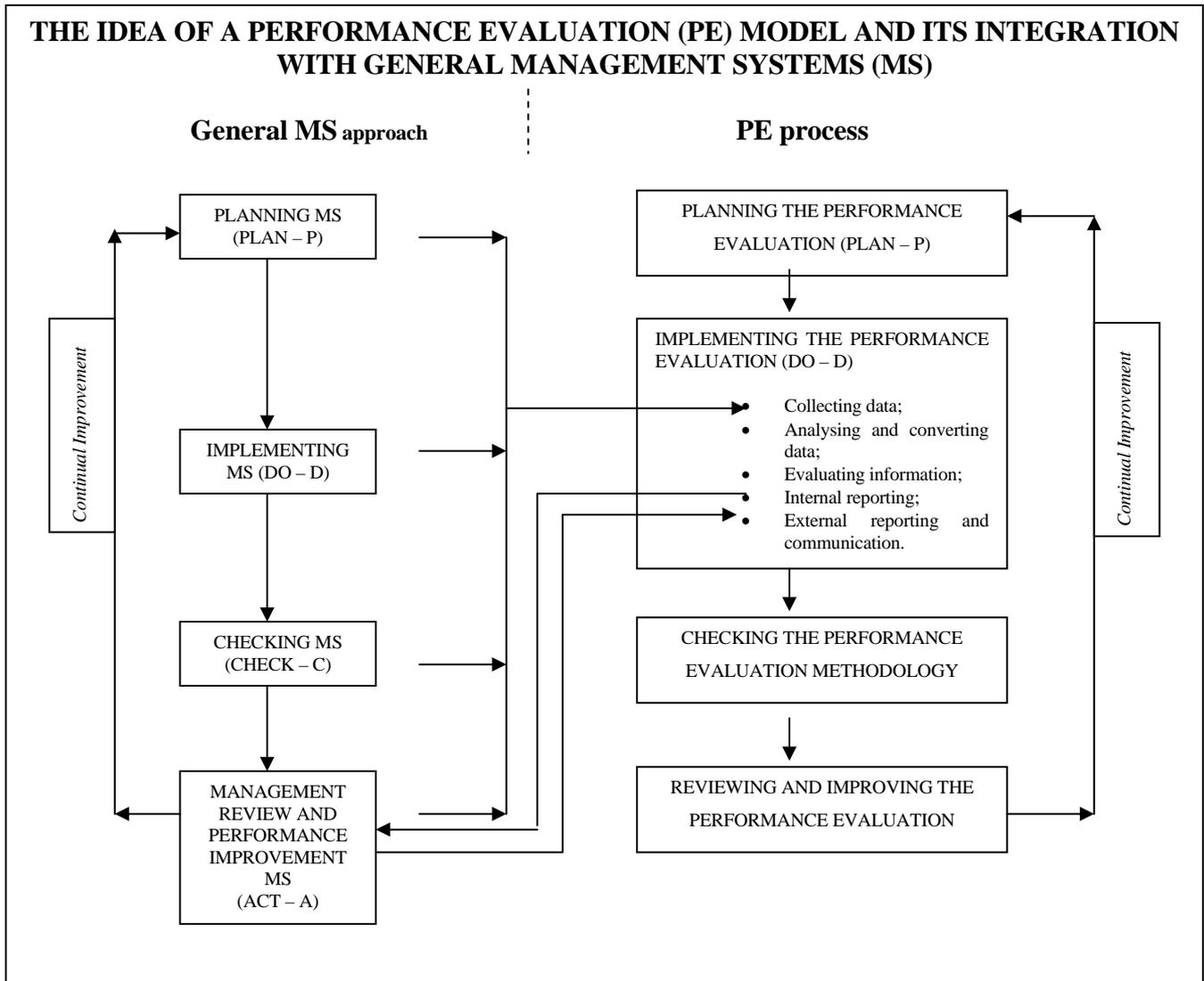


Figure 21: The idea of the performance evaluation model

5.6.1.3 - The PE (version 1 model)

Figure 22 shows the PE (version 1 model) for individual organizations and SC formed by multi-commercial organizations.

In practice, when organizations establish and maintain management systems (MS) tools based on the ISO approach, the steps of the process can change in order or be suppressed,

depending on the needs of the organization. However, the specific steps within the MS do provide the essential requirements for a well-structured process.

Summarizing, this first PE model contains the following ideas, concepts and practical requirements:

a. - General issues

The PE model has to be applicable to any size and kind of organization.

b. - PDCA

It adopts the approach used in the ISO standards, the ‘Plan – Do – Check – Act’ (PDCA) approach or tool.

c. - Sustainability

The research is based initially on the environment as the author’s major area of knowledge and expertise. However, issues linked to sustainability i.e. social and economic are included in the PE. These issues have, however, been restricted to coverage of the following in the PE (version 1 model):

- ❖ Environment: all issues but only linked with compliance with legal requirements.
- ❖ Social: WH&S issues.
- ❖ Economic: financial & quality issues.

This approach is compatible with current practices as indicated by the questionnaire responses for organizations in Gladstone.

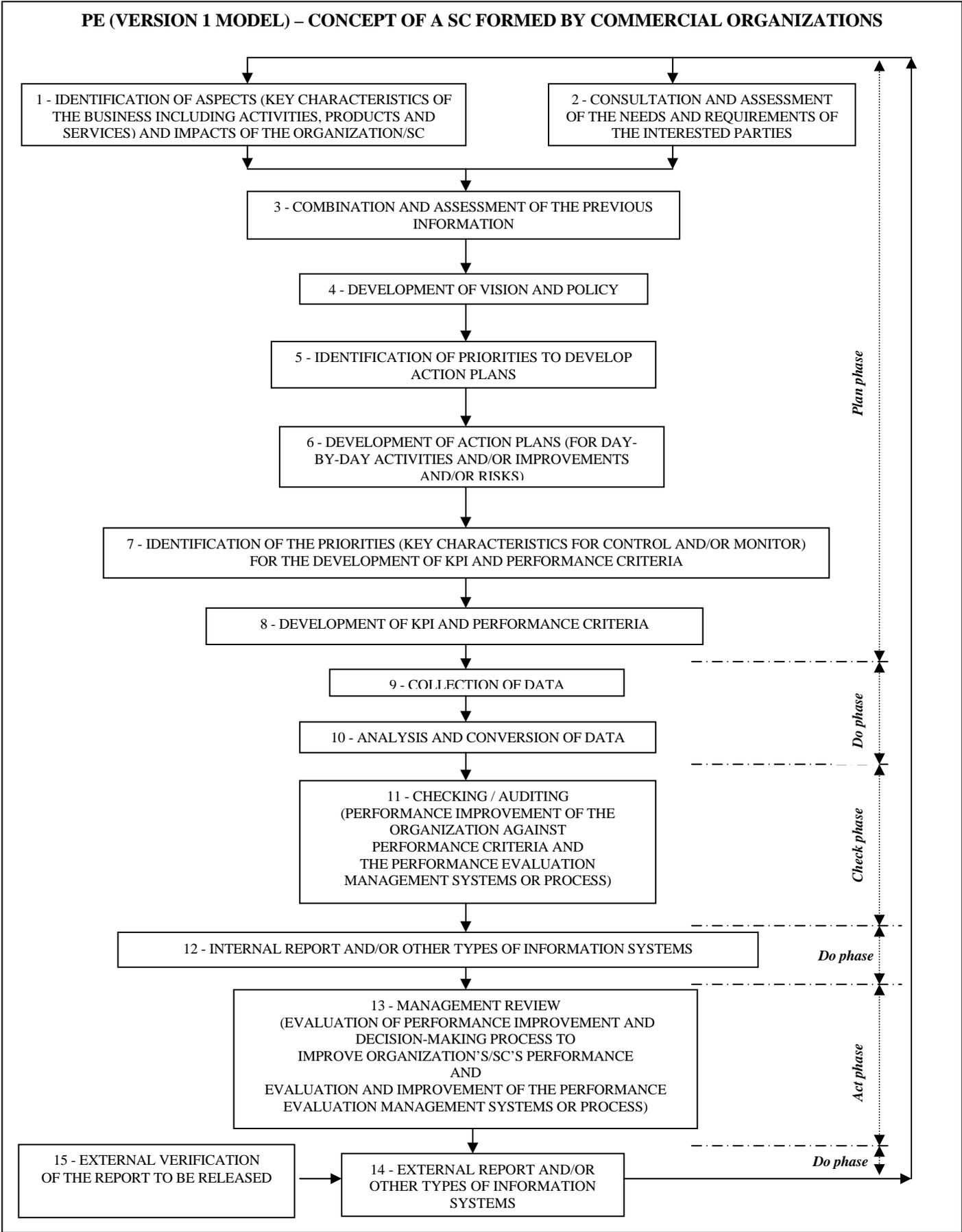


Figure 22: Steps of the PE (version 1 model)

d. - Management systems

The PE Model is designed to be compatible with management systems already implemented within companies. However it can also be implemented in companies without management systems in place.

It includes the approach that if implemented in companies without management systems in place, the new model would help organizations to upgrade the PE model for it to become a management system with emphasis on performance.

e. - Similar language and able to cascade

It includes the idea that companies in an SC would not always have to implement the full PE model but at least to understand each step of the model to interact with other participants of the SC.

It includes the concept that it can provide a similar language for commercial organizations working within an SC. This means that organizations would implement it in their companies and they would be able to understand the PE model and performance data of other companies. Ultimately, the system could lead to a standardized language for performance evaluation and communication to a wide range of interested parties.

f. - Voluntary, collaborative and imposition approach

It incorporates the idea that the participation of organizations in an SC has to be voluntary. This is applicable to, and consistent with, the degree of voluntary commitment in entering into contractual relationships.

It needs to be developed to be used as a collaborative approach by participants of an SC. The current company-suppliers and company-customers relationships based solely on impositions (e.g. contracts) would cease to exist.

g. - Management structure

It includes the idea that a committee formed by representatives of the commercial organizations of the SC would manage the PE model of the entire SC. Every commercial

company would have the same importance within the SC and power in terms of decisions of the SC. Note however that this does not imply individual organizations lose their own rights in terms of decision making for their organization.

h. - Strategic plan

It includes the procedures to develop operational vision, policy and action plans during the early stages of the formation of a SC.

i. - KPI and performance criteria

It is designed to provide management of individual organizations or NIP with reliable and verifiable performance focussed information on an ongoing basis. The objective is to determine whether an organization's or SC's performance has been meeting the criteria set by management and help them attain the business goals in a more objective way.

j. - Partnership and community interaction

At the PE model stage of the research, the model had only a superficial view of partnership among participants within an SC. It was anticipated that the partnerships would be formed by commercial organizations and the communities would only be considered as SC's external interested parties.

It includes communication, consultation and direct engagement with interested parties from the community.

k. - Verification of information released

Finally, the PE (version 1 model) includes the requirement for third party verification of external reports.

5.6.2 – PE (version 2 model)

As previously discussed, this PE model was used as the basis for the questionnaires. The data from the questionnaires then guided the development of the second version of the model renamed as the Sustainability Performance Evaluation Management System model – SPEMS (version 2 model). This name was chosen to reflect the sustainability goal, the

ISO approach for management systems and the dependence on performance improvement.

Coincident with this development has been recognition by the researcher of the need to extend the concept of supply chain to encompass community-interested parties and highlight the non-linear network of relevant commercial organizations. The term that has been developed has been Network of Interested Partners (NIP).

5.6.2.1 – Questionnaires’ discussions and SPEMS improvements

The results from the questionnaires have demonstrated that the PE (version 1 model) and its steps were considered to provide a well-structured PE process for individual organization and an expected/ideal PE model and common language for participants of an NIP. 72% of the commercial companies interviewed identified a need to better structure the steps of their internal PE processes. 100% of them agreed that they needed to document their processes through procedures.

The answers collected from the interested parties’ questionnaires could not demonstrate that the PE (version 1 model) is a well-structured model because very few of the interested parties had knowledge of, or experience with, PE systems processes. However, the data do identify a requirement for consultation with interested parties and improved reporting. The data also identify their needs and expectations in terms of the activities and performance of individual organizations or supply chains. 100% of the interested parties agreed that the proposed PE model could be a solution for the PE process for IO and SC and also provide a common language in terms of PE for them.

The questionnaire data did not point to major changes in the number or nature of the 15 steps in the process. Instead, the focus was on the overall model and the detail in terms of concept, requirements and activities within each step.

This second model continues the approach that a committee formed by representatives of all participants of the NIP would ‘manage’ the PE process of the entire NIP. However, it also recognizes that every network of interested partners will have a major or dominant organization that would provide the initial focus and leadership for the NIP. This is supported by the questionnaires, which demonstrates that one company has more interests and tends to drive NIP activities and performance requirements and consequently the performance evaluation.

The version 2 model therefore allows one company to lead and have a major influence in the PE process of an NIP even with a committee formed by representatives of all participants of the NIP managing the PE process. In this second model the participant companies in the committee of the NIP would base their actions primarily on guidance from the PE process of the NIP rather than take decisions themselves. The SPEMS (version 2 model) recognizes that most of the participants of an NIP have already developed their individual vision, policies and action plans. There is, therefore, little need to emphasise the steps related to the development of new vision, policies and action plans for the NIP. Instead, the approach is to interpret and combine all of the companies’ vision, policies and action plans into one set for the NIP and then improve those of the individual organizations to reflect the NIP. These changes to reflect NIP requirements have the intention of promoting and demonstrating participation within an NIP.

The necessary improvements to the PE (version 1 model) incorporated within SPEMS (version 2 model) for IO and NIP have been divided by subjects:

a. - Sustainability

The expanded concept of the areas of sustainability according to the Table of Sustainability (See Table 20) is incorporated. This is important because all of the organizations interviewed have only addressed sustainability as those issues linked to financial, quality and environmental/WH&S compliance. The SPEMS (version 2 model) considers combined sustainability of IO in an NIP. This concept is only being related to commercial organizations, not to interested parties. The sustainability of IO has been emphasized in the literature by many authors (Elkington 1997; Kaplan & Norton 2000; Odom 2001). In contrast, the importance of the sustainability of SC has only been briefly recognized and discussed by other authors (Global Environmental Management Initiative - GEMI 2001; Organisation for Economic Co-operation and Development - OECD 2003)

b. - Similar language and ability to cascade

It incorporates the idea that the SPEMS (version 2 model) would also be implemented as an umbrella operational management system for an entire NIP. PE (version 1 model) focussed on the PE providing a basic framework with similar/common language for performance evaluation within the NIP. SPEMS (version 2 model) incorporates both ideas i.e. a common language and one PE management system for the entire NIP.

It includes procedures to allow the SPEMS model to be cascaded inside organizations and/or within an NIP. This has been the process used by one of the organizations interviewed and is recommended for use by other organizations and the NIP.

c. - Voluntary, collaborative and imposition approach

The SPEMS model incorporates the idea of the use of imposition, and not only the collaborative approach, between company-suppliers (or NIP-suppliers) and company-customers (or NIP-customers) in some specific relationship situations. The PE (version 1

model) included the idea of an ideal process of relationship between company-suppliers and company-customers using only a collaborative approach and no imposition (e.g. contract). The answers from the questionnaires of all companies have demonstrated SPEMS (version 2 model) would have to include imposition as an essential component in some specific relationship situations. It has therefore been adopted as a necessary, but practical step back in terms of concepts of relationship between company-suppliers and company-customers based on the practical experience of companies.

d. - Management structure

As discussed above, the SPEMS model accepts that every NIP has a dominant and focus company with major interest within the NIP that would drive the activities of the NIP.

e. - General management issues

The revised model includes procedures to help the engagement of top management in the formation and development of activities of NIP. This has been the suggestion of one company and is supported by the researcher based on his experience and the literature (International Organization for Standardization 2004b, 2004a).

f. - Strategic plan

Procedures for the development of NIP-focussed vision, policies and action plans are incorporated into the early stages of the formation of an NIP. SPEMS therefore includes procedures to include the combination and fusion of those relevant components from IO into a common vision, and agreed policies and action plans for the entire NIP.

The model allows for the use of the sustainability scorecard as pillars for business planning and performance evaluation. This is the process used by one company interviewed and the idea is supported by Bennett & James (Bennett & James 1999).

It accommodates the use of tools such as SIPOC (See Figure 17) to help organizations and NIP to identify requirements and measurements between company/department/group

(and its activities) and customers and suppliers linked to them i.e. a tool to help organizations identify key characteristics of the businesses. This has been the approach used by one company that has been suggested for the NIP.

The model promotes the development of PE plans in line with a five years general business plan (divided by year) and a requirement for periodical forecasts. This is the approach used by all companies. They have different time scales and work only with financial issues but the idea has been expanded to be used to develop business plans and periodical forecasts, taking into consideration all aspects linked to sustainability.

The SPEMS model includes a requirement for documented procedures for the important steps of SPEMS for IO and NIP. The definition of which areas or issues need to be documented by the procedures has to be determined by organizations/NIP using the PE model. Only two companies interviewed have used a partially structured PE process but they have acknowledged the gaps in their process. All of the companies have emphasized the need to develop a structured PE process for IO and NIP and to document the process through procedures.

f. - KPI and performance criteria

It includes procedures to help IO and NIP to develop sets of similar sustainability indicators or KPI and performance criteria within the SPEMS model that would work as similar language for the participants of an NIP. It is also important to emphasize in the procedures the importance of keeping historical data for the evaluation of performance. This approach is supported by some authors (Azzone et al. 1996; Bennett & James 1999; Canadian Standards Association 1998; Global Environmental Management Initiative - GEMI 1998; Jasch 2000; Olsthoorn et al. 2001; O'Reilly, Wathey & Gelber 2000; Veleva & Ellenbecker 2001). While all of the companies surveyed have historical data for the financial area, none of the companies has kept historical data related to other sustainability issues.

The SPEMS model includes procedures for KPI expressing the importance of the use of relative values (ratios) but including the absolute values also. The interested parties have suggested in their answers from the questionnaire that they need to have simple and understandable KPI. In the experience of the researcher and based in the answers from the companies the use of ratios is a clear way for them to address and understand performance. However when the data is presented so as to include values for the numerator and denominator, the information becomes clearer.

g. - Partnership and community interaction

The SPEMS (version 2 model) includes some interested parties as partners in the PE processes of NIP. It is expected that the community-interested parties that have been chosen to participate in the NIP will become partners in the NIP's activities. This has the intention of helping to break down any barriers that exist between organizations and related community-interested parties. The researcher has drawn a hypothesis, based on the answers from IO and IP, that interested parties and commercial organizations are centred on themselves and not really concerned with each other. Thus the researcher has suggested the partnership between communities' interested parties and organizations, within an NIP, as a way to break the existing barrier. Some authors support the idea of partnership among IO within a NIP (Acona 2004; Briscoe, Dainty & Millet 2001; Christopher & Juttner 2000; Development Leadership Network 2001; Kumar & Bragg 2003; Li et al. 2004; Lo & Yeung 2004; Organisation for Economic Co-operation and Development - OECD 2003; Rudzki 2004; Yasenchak 2001; Zhao 2002) but none of them talk about partnership among IP and IO within a NIP.

The development of a communication system (not only reports) within the SPEMS model was requested by all interested parties and agreed to by all companies. A suggestion for a reporting tool framework, for external performance reporting and also as a parameter for

internal ones (for IO and NIP), is the use of a international and recognized tool for performance reporting called GRI (Global Reporting Initiative - GRI 2002b). The information provided has to be objective, simple and easily understood by all interested parties.

The model includes procedures related to engagement of and consultation with a wide range of interested parties (in addition to the NIP partners) in subjects related to the activities, products, services and performance of IO/NIP and feedback process (e.g. reports) of the engagement and performance of NIP and IO. The idea is supported within AA 1000 (The Institute for Social and Ethical Accountability 2003) and is a need identified by all IP questionnaires. Only one company uses some consultation process with external interested parties so the need for change is clearly demonstrated.

h. - New terms and definitions

Some terms and respective definitions are incorporated in SPEMS with the intention of providing a common language for communication among the users of the SPEMS. A new term that has been developed is ‘Network of Interested Parties’ and subsequently ‘Network of Interested Partners – NIP’ has been introduced.

i. - Verification of information released

Third party verification of the most important feedback systems within SPEMS helps ensure the reliability of the information provided for external interested parties. In this model the verification is not only related to external reports. Instead it is applied to every important information component relevant to the evaluation of the company performance that would be released to interested parties. While this is generally supported by the new ISO 14001 and 14004:2004 (International Organization for Standardization 2004b, 2004a), it is recognised that industry will have some concerns about the costs of such third party verification processes.

j - Resources and responsibilities

As with most ISO standards (International Organization for Standardization 2004b, 2004a), SPEMS includes procedures for the identification of resource requirements and for specific allocation of responsibilities among the participants in the early stages of the formation of NIP. Surprisingly only one company identified that this was needed within the SPEMS.

k. - LCA

As with the ISO 14000 series, SPEMS includes the use of Life Cycle Assessment (LCA) for the identification of key characteristics of the businesses. This idea was suggested by one company and supported by Faruk (Faruk et al. 2002).

l. - Ownership

The model incorporates the idea that the participants of the organizations/NIP need to construct their SPEMS with the intention of having ‘ownership’ of the SPEMS. Again only one company identified this as a need. However, the researcher’s own extensive practical experience with implementing management systems supports the value of the tool being included.

j - Decision making

It includes procedures to follow-up on actions expected from the decisions taken for IO and NIP. Again only one of the organizations surveyed identified this as important.

5.6.2.5– The SPEMS (version 2 model)

Figure 23 shows SPEMS (version 2 model) for individual organizations and SC formed through partnership of commercial organizations and community interested parties and led by a dominant organization.

SPEMS (VERSION 2 MODEL) – CONCEPT OF AN NIP FORMED THROUGH PARTNERSHIP OF COMMERCIAL ORGANIZATIONS AND COMMUNITY INTERESTED PARTIES AND LEAD BY DOMINANT ORGANIZATION

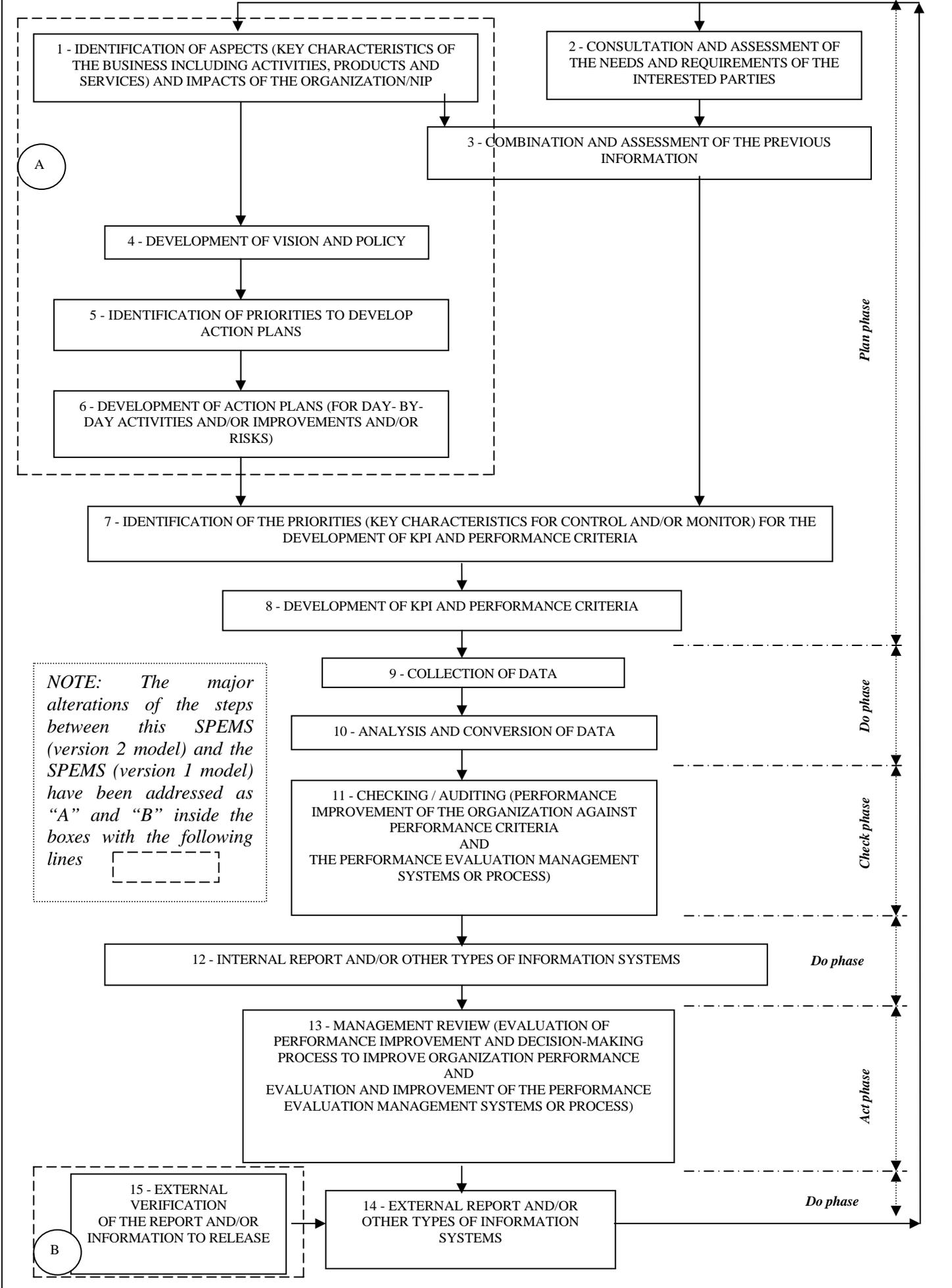


Figure 23: Steps of the SPEMS (version 2 model)

5.6.3 – Implementation of SPEMS (version 2 model)

Following the development of SPEMS (version 2 model), the next stage of the research was initiated. The lead organization agreed to the trial implementation of SPEMS with a selection of organizations from their supply chain. They also agreed to inclusion of community and government interested parties.

The following discussions are related to the data collected during the workshops used to commence the SPEMS implementation and parallel partnership (NIP) formation. The data collected was available through the reports of the three workshops (See Appendix 13, 14 and 15 and Chapter 4, Section 4.4).

5.6.3.1 - Development and evaluation of partnership

One of the objectives of the workshops was to evaluate the implementation of SPEMS (version 2 model). As this relies on the transformation of the network of interested parties into a network within which collaborative partnerships are formed, such partnership formation can be used as an evaluation tool for the project's success.

Figure 24 shows participants' evaluation of the evolution of the partnership during the workshops and 5 months after workshop 3 (See also Appendix 12) . The same evaluation form was used for all surveys.

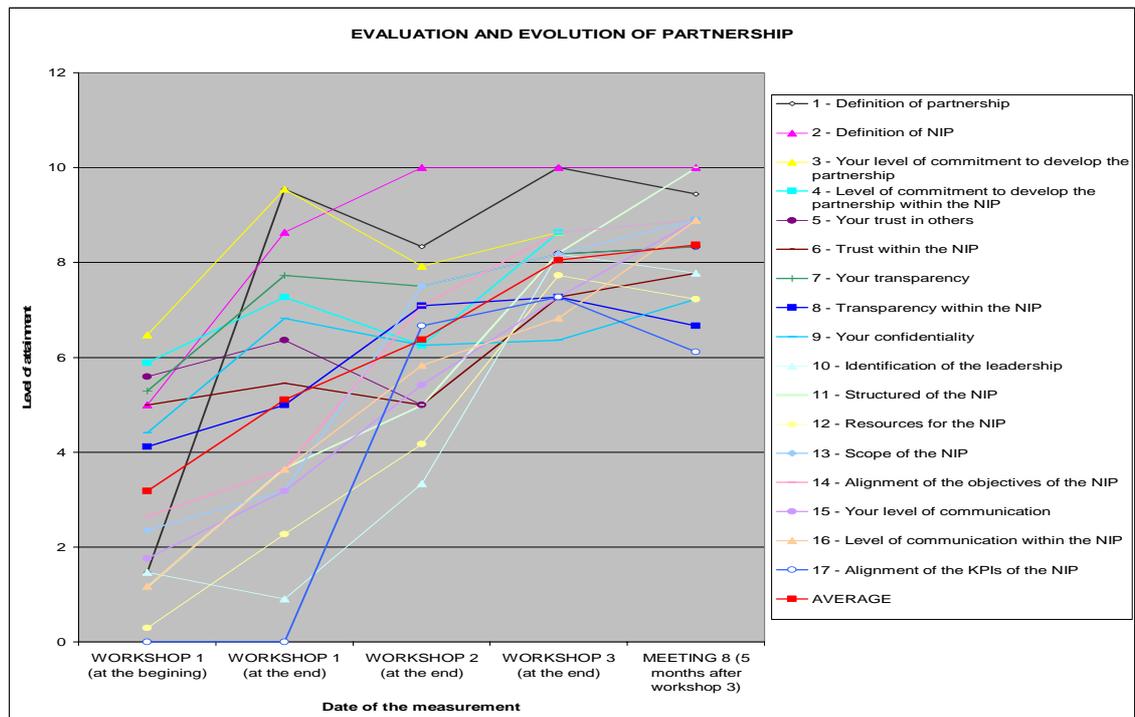


Figure 24: Evolution of the partnership

The graph shows that at the end of workshop 3, the participants of the NIP have reached an average score of 8. Based on the enthusiasm of the participants with the project and the fact that the NIP has continued the implementation of the remaining steps of the SPEMS after facilitation ceased, it can be concluded that the score 8 was a suitable level to be considered to express that effective partnerships had developed and were being maintained. It can also be seen through the graph that in this pilot test, the average improvement of partnership follows a constant growth until the end of the workshops.

Comparing the data collected at the start and end of Workshop 1, it can be concluded that 16 parameters have shown growth. This demonstrates that even the first workshop was effective in developing partnerships. The only parameter that did not improve was leadership because the researcher was the facilitator of the workshop overshadowing the leadership of the NIP by organization 8.

At the end of the second workshop the average has shown further general improvement in partnership. However, some parameters (such as ‘Your level of commitment to develop the partnership’, ‘Your trust in others’, ‘Trust within the NIP’, ‘Definition of partnership’, ‘Your confidentiality’, ‘Your transparency’, ‘Level of commitment to develop partnership within the NIP’) have shown a slight decrease in value. There are two reasons for that:

- ❖ Firstly, organizations 9 and 10 are national business competitors and in the NIP they were trying to work together.
- ❖ Secondly, representation for both companies changed from workshop 1 to 2. This meant that the mutual understanding of SPEMS and NIP was not as clear. This fact and the competition issue, addressed by them verbally, are reflected in some of their answers in terms of the parameters, which showed doubts about the success of the partnership.

The decrease in value may also simply reflect the different viewpoints of the individuals involved. However, this does highlight the importance of having the same representatives in the workshop for at least the initial stages of SPEMS development and NIP formation.

The analysis of the data at the end of workshop 3 shows that the partnerships have continued to evolve and strengthen. This, in turn, has shown that the workshops have been able to overcome the competition issues and establish an effective partnership for the implementation and maintenance of SPEMS.

One measurement has been completed 5 months after the end of the workshops. It shows that the partnership is still in place and the average is relatively the same. It demonstrates the success of the partnership process even when the researcher/facilitator is not present.

The NIP has achieved an average of 8 and the tool has proved effective as a general measurement tool for the evaluation of the improvement of partnership among participants of an NIP. The tool is now being used by organization 9 to evaluate their partnership with other companies.

5.6.3.2 - Implementation of the steps

Implementation the entire process of SPEMS in an NIP is expected to take a significant period of time. The actual implementation depends on the participants of each NIP and the time their workloads allow to commit to the process. The prediction of the researcher, based on his experience, is that the implementation of the entire process within SPEMS, would take a minimum of from 6 months to 1 year. In fact progress identified in Meeting 4 suggests that at least one year will be necessary. However, it should be noted that the researcher experienced some limitations in terms of resources and time to develop the entire implementation. This required the facilitation of the process to cease after workshop 3 i.e. with the completion of the 'Plan Phase' of SPEMS (version 2 model). The results support the conclusion that a well-implemented Plan Phase is however, adequate to reach a stage where the NIP is able to manage the further stages of SPEMS implementation and maintenance. Had facilitation been able to continue, progress might have been faster. However, a well-facilitated implementation of the plan phase would lead to easier future steps and actions.

Figure 25 shows the plan phase, or the eight first steps, of SPEMS (version 2 model) that has been used in the second part of the research.

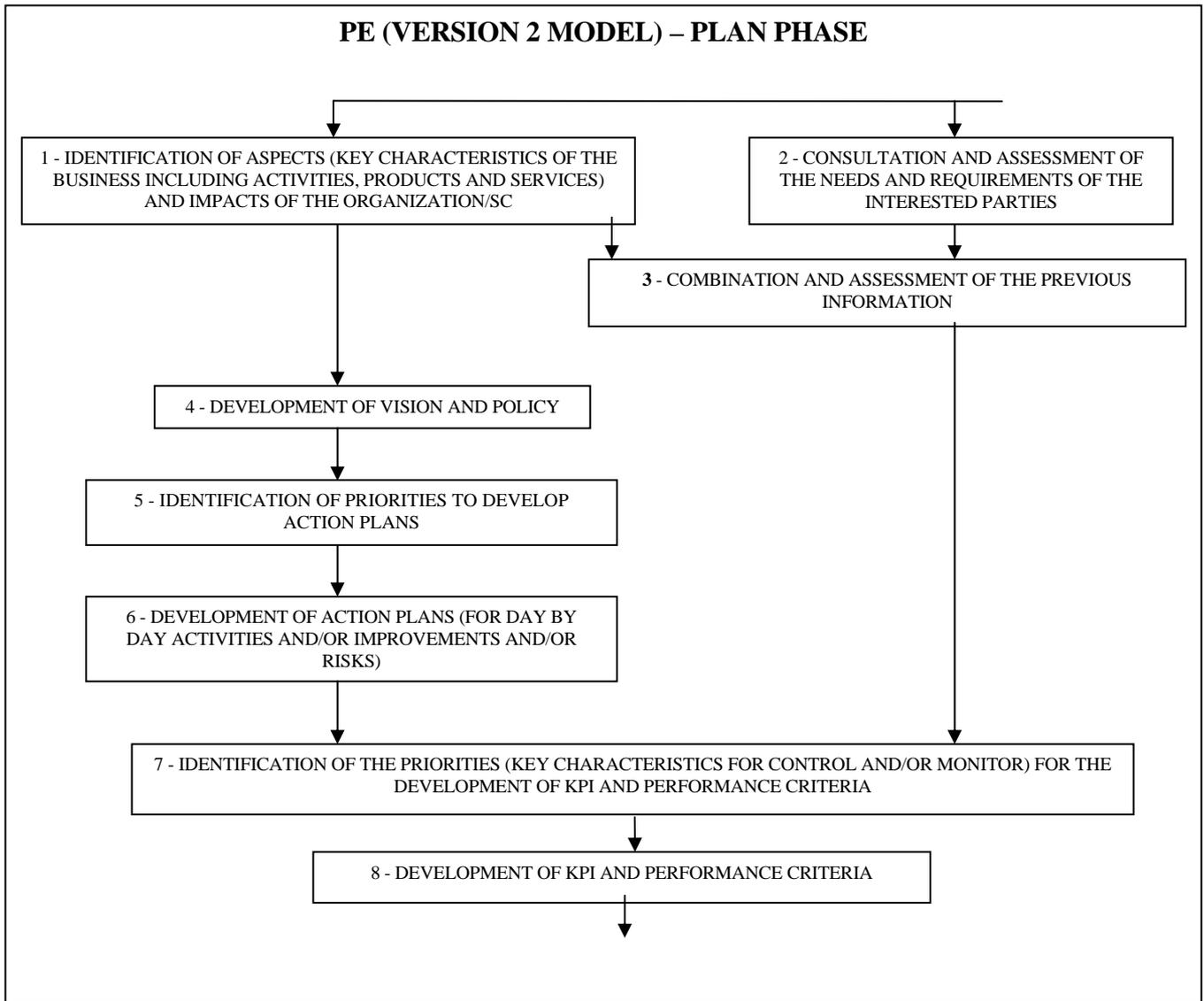


Figure 25: SPEMS (version 2 model) – plan phase

The questionnaires applied during the workshops have shown that organizations considered that they did not need to develop a specific strategic plan (vision, mission and action plans) for the NIP. They considered that every possible organization that would enter an NIP would have its own strategic plan. Because of this, each organization working in an NIP would need only to improve its own strategic plan to include the work within the NIP. It was further considered that all companies' strategic plans could be combined into one for the NIP. Thus the strategic plan for the NIP would be a combination and summary of all strategic plans of the commercial organizations'

participants. The success or otherwise of this approach could not be determined in this research as the SPEMS implementation is continuing at the time of writing.

It is also relevant to emphasise that the step of the SPEMS of 'Identification of aspects and impacts of the organization/NIP' is a step required for the development of strategic plans. The companies considered that they had already developed this step within their own organizations. They therefore considered that the identification of aspects and impacts of the organization/NIP and development of strategic plan would be undertaken in parallel in the early stages of the implementation of the SPEMS. It follows that the organizations would only use these steps if they considered them to be necessary after assessing the relevant information from each organization.

However the experience during the workshops has shown that commercial organizations and interested parties have felt that it was necessary for the NIP to develop its own specific aspects and impacts register. They also considered it necessary to develop an NIP strategic plan (vision, mission and action plans). They also considered that each organization and interested party would need to improve its own strategic plan to include the work occurring within the NIP. It has subsequently become clear that the optimum approach is to analyse each individual strategic plan and use the analysis for the development of aligned strategic plans for the NIP rather than a combined one.

These experiential considerations necessitated a change in SPEMS (version 2 model) to allow it to express the need for these steps through a logical sequence of implementation. The solution has been to go back and use the same sequence of the eight first steps as provided in PE (version 1 model). This version 1 model accepts that companies and NIP would need to develop their own aspects and impacts registers and strategic plan.

Therefore, in SPEMS, (version 3 model), the first 8 steps are the same as the SPEMS (version 1 model).

At the beginning of the workshop the researcher provided the basic scope and objectives for the formed NIP. However the participants of the NIP requested the development of their own scope and objectives for their NIP. The researcher has decided to add the formulation of scope and objectives in step 4 of SPEMS.

The major difference between the workshops' plans and development of the activities occurred at the beginning of workshop 2. The development of a strategic plan for the NIP had been scheduled for the beginning of the third workshop i.e. after every organization and interested party had been familiarized with the research project, the activities of other participants and the needs and requirements of other participants in relation to the NIP (objectives of the first and second workshops). However the participants of the workshop requested the facilitator to facilitate the development of objectives and scope of the NIP at the beginning of workshop 2. This approach proved beneficial and resulted in a positive outcome from all workshops. Note that the process of implementation of SPEMS has been a spiral of improvement for the SPEMS process. It means that every procedure or action within SPEMS can be subject to improvement at any stage of the cycle of the management system. In the case of this project, the participants decided to clarify and improve the objectives and scope of the NIP at the beginning of workshop 2.

Another difference that occurred between the plan and the real development of the workshops has been that the participants have developed a more detailed strategic plan for the NIP than had been planned.

This engagement of participants in the workshops, the outcomes and the variations described demonstrate the level of engagement and commitment of the organizations with the project to establish an NIP and implement SPEMS. They further support the perceived value of SPEMS and NIP to the performance of their own organizations.

5.6.3.3 – Performance indicators

Veleva & Ellenbecker (Veleva & Ellenbecker 2001) stated in one of their papers that leading organizations in a number of business areas are realizing the strategic advantages of being more sustainable and measuring their progress towards sustainability. However, a survey of fifty corporate sustainability reports revealed that companies failed to address major social and environmental impacts (SustainAbility 2000).

For Ditz & Ranganathan (Ditz & Ranganathan 1997), without general consensus on what and how to measure sustainability, they see the world community will be in a sea of confusing, contradictory, incomplete, and incomparable information. To add more difficulty to this situation, the identification of indicators for sustainability has to reflect the interconnection of environmental, social and economic elements (Sustainable Measures 2002).

Within the research, the researcher has not been able to develop sustainability indicators. However, as a step of SPEMS and within the workshops, the NIP has developed a set of indicators that, in their opinion, would address the performance of the NIP based on sustainable principles. For that the NIP has used the Table of Sustainability (See Table 20). The participants have also acknowledged at the end of the workshops that they would need to improve the indicators.

The indicators developed by and for the NIP are provided in n Table 21.

KPI RELATED TO THE ACTION PLAN OF THE NIP		
ACTIONS	INTERMEDIATE STEPS OR PROJECTS	KPI OR INDICATORS
1) General education/awareness about “Industry & The Environment”	1.1) Info board	a) Chosen media b) Community feedback
	1.2) Review NIP: ❖ Participants ❖ Current programs ❖ What media work best ❖ Other opportunities	a) Group consensus (NIP)
2) Waste minimisation as a diversion from landfill	2.1) Paper products	a) % diverted from landfill b) \$ income from recycled paper
	2.2) Timber products	a) % diverted from landfill b) Reduction in stockpile c) Tonnes beneficially d) Reused
	2.3) Identify value adding opportunities for waste	a) Identify opportunities
3) Review and improve service contracts	3.1) Review current arrangements	a) % of contracts renewed b) Cost reduction commitment c) Average duration of contract
4) Enhance processes and practices in industrial cleaning	4.1) Water use and quality	a) Reduced consumption b) Recyclable
	4.2) Planning/ scheduling of services	a) Reduction in labour costs b) Reduction in Full Time Equivalent Employees (FTES) c) Reduction in inductions d) Improved safety performance
KPI FOR THE ENVIRONMENTAL AREA		
KEY RELATED AREA	KPI OR INDICATORS	
1) Regulation	a) Licence non-compliance	
2) Internal environmental management	a) Incidents b) Contamination of soil, air and water c) Number of audits d) Environmental culture	
3) Training and policy enforcement	a) Number of employee incidents b) Training program evaluation c) Survey of staff d) % of staff trained	
4) Communication	a) Participation in ECOFEST and	

	Clean-up Australia b) Information distributed c) Survey
KPI FOR THE SOCIAL AREA	
KEY RELATED AREA	KPI OR INDICATORS
1) Workplace people	a) People leaving from budget position (staff turnover)
2) Impact on community	a) Involvement and participation b) Well-being c) Community complaints d) Survey data
3) Community awareness	a) Survey data b) Focus group c) Information distributed
4) WH&S	a) Lost time injuries b) Reportable injuries c) Near misses
5) Community contribution	a) Rehabilitation process b) Sponsorship c) Educational programs
KPI FOR THE ECONOMIC AREA	
KEY RELATED AREA	KPI OR INDICATORS
1) Market growth	a) Increase of business due to NIP participation
2) Efficiency and productivity (cost control)	a) \$ spent on waste management services
3) Continuity of business	a) Proportion of contracts renewed b) Average contract duration
4) Resource recovery	a) % diverted from disposal b) Tons to landfill
5) Total waste	a) Quantity per ton Aluminium produced
6) Profitability	a) Return on investment
GENERAL KPI	
KEY RELATED AREA	KPI OR INDICATORS
1) Trust within NIP	a) NIP self evaluation b) Achievement of NIP goals
2) Identify opportunities	a) Description

Table 21: Sustainability KPI by the NIP

The indicators follow the NIP's own definition of sustainability KPI that has been taken from the definition provided by the researcher, "indicators of one area of sustainability (social or environmental or economic) but they are important to the most important interested parties linked to the organization/network of interested parties". Note, also, that the KPI reflect the specific activities of some of the partners that occur through

existing contractual arrangements with the lead organization. The researcher acknowledges that this definition of sustainability KPI needs further improvement but this was not possible within the time frame of this research.

5.6.3.4 - Other important workshop issues

In SPEMS (version 2 model), the idea was that every commercial organization would drive their activities towards sustainability. One of the positive outcomes of the workshops was that the participants of the NIP expressed the necessity for the entire NIP, including the interested parties, to drive the activities towards sustainability. This consensus is seen as a real step on the way to sustainability.

Another aspect included in SPEMS (version 2 model) was that in every NIP there is a dominant organization driving the NIP. The participants agreed that there would be a major focus organization in an NIP but that every participant must have the same level of responsibility and authority within the NIP.

Workshop participants identified the need to involve a greater variety of interested parties in the NIP.

One excellent achievement of the NIP within the workshops was that the participants developed a more detailed list of actions for the NIP and identified more KPI for the NIP than was expected by the researcher. It follows that in future workshops for NIP it is advisable to drive the participants to develop more detailed action plans and KPI for the NIP.

The NIP included two national competitors who each have a major share of the market. In fact they each have contracts with the lead organization and are keen to increase that

market share. Despite these apparent constraints, they have been participating together in the NIP. A potential source of benefit to them arises from the recognition by the entire NIP that these competitors can develop collaborative partnerships for the benefit of the NIP without immediately realising any specific beneficial commercial outcome for their own organizations.

Of significance to this research and its aims is that the NIP continued the project of the implementation and maintenance of SPEMS after the end of the workshops. Meetings are continuing with partners acting as Chair and providing secretariat services in turn. Two partners have contributed in this and the rotation has been arranged to continue in the year ahead.

5.6.3.5 – Evaluation of the workshop and facilitator

The participants of the NIP have evaluated the performance of the researcher as a workshop planner and facilitator and the attainment of the objectives of the workshops through filling out an evaluation form related to each workshop.

The surveys confirm the view that the workshops have been well planned and facilitated and that the researcher effectively facilitated the workshops to attain their objectives. The facilitator was also able to transfer administrative leadership of the NIP to the participants of the NIP. This has helped the NIP to continue its activities after the end of the 3 workshops as discussed previously.

The structure of the workshops has also proved to be effective in establishing an NIP and implementing SPEMS. Therefore the research has provided communities, organizations and NIP with a PE process that is effective, objective and focussed on achieving sustainability through continued improvement in performance.

5.6.3.6 – Summary

The NIP has achieved a high level of partnership for the continuation of the implementation and maintenance of SPEMS within the NIP.

The eight steps of the NIP have been successfully implemented and minor improvements have been identified by the NIP.

The evaluation by participants of the workshops and the level of partnership development has helped to engage people in the process of partnership and implementation of SPEMS and has made them think about and improve the partnership. Also the active involvement and interactive participation and flexibility of the facilitator helped the development of partnership and implementation of SPEMS during the workshops.

It has been demonstrated that the development of partnerships does not depend on the full implementation of SPEMS.

5.6.4 – Development of SPEMS (version 3 model)

From the foregoing discussions, there are a number of enhancements/changes that are recognized as being able to contribute to an improved SPEMS (Version 3 model) as outlined in this section.

Even if there is a major focus or dominant organization in an NIP, every commercial organization can be expected to have the same level of interest, influence and performance in the actions and decisions of the NIP. The workshops have shown that the interested parties will also have a similar level of interest, influence and performance in the actions and decisions of the NIP.

From these observations, it is concluded that a committee, formed by representatives of all participants of the NIP and with each exercising the same level of power in the committee, would provide a means to manage the entire PE process of the NIP.

The development and improvement of the scope and main objectives of the activities of individual organizations and NIP have been included in step 4 of SPEMS (version 3 model)

Participation of organizations in an NIP has to be not only voluntary and collaborative but also fully democratic. All the participants have to become fully integrated as partners in the supply chain and all of them need to participate in the construction/ review of the action plans for the NIP and in the decision-making process.

All participants of the NIP (including community representatives) need the opportunity to exercise the same level of power within the committee (NIP). There is also some need for a greater number of organizations and interested parties, to expand the representation of community-interested parties to be included as partners in the NIP. However, this could lead to an overly large, unwieldy committee structure so extension of the number of participants has to be guided by the originating partners. The NIP has to objectively evaluate all proposed nominations and identify the benefits and contributions that nominees could be expected to bring to the NIP. One possible approach, identified by the researcher, is to allow interested parties from the community to initially participate as interested parties/observers. Based on their subsequent demonstrated commitment to the NIP they could become partners within the NIP.

Figure 26 shows the SPEMS (version 3 model). It relates to an NIP formed through partnerships between multi-commercial organizations and community interested parties and managed by shared power.

Clearly, the research has progressed the evolution of SPEMS from a process for performance evaluation based on ISO 14031 to the SPEMS (version 3 model) described in Figure 26. A full comparison of the evolving models and concepts is provided in Appendix 17. The wording in italics shows the changes and the stage of their incorporation into the model.

5.7 - Constraints on research

In the part of the research where organizations and interested parties have been interviewed, the major difficulty has been the engagement of the organizations. It has taken longer than was planned and different strategies have had to be developed and applied to engage them.

Another difficulty encountered has been obtaining KPI and respective performance data from the organizations that participated in the interviews. Because of the lack of specific information, the researcher could not develop some examples of KPI based on the experience of local organizations. The development of the KPI has therefore not been achieved within this project.

In the part of the research where organizations and interested parties have formed an NIP to develop partnerships and implement SPEMS, again the major difficulty has been the engagement of the organizations. It has taken longer than planned to engage them.

SPEMS (VERSION 3 MODEL) – CONCEPT OF AN NIP FORMED THROUGH PARTNERSHIP OF MULTI COMMERCIAL ORGANIZATIONS AND COMMUNITY INTERESTED PARTIES AND MANAGED BY SHARED POWER

DEVELOPMENT AND ENHANCEMENT OF PARTNERSHIP AMONG PARTICIPANTS OF A NIP THAT WOULD INCLUDE A VARIETY OF COMERCIAL ORGANISATIONS AND INTERESTED PARTIES. THE PARTNERSHIP COULD ALSO BE USED FOR DEVELOPMENT AND ENHANCEMENT OF PARTNERSHIP AMONG DEPARTMENTS WHEN TALKING ABOUT INDIVIDUAL ORGANISATIONS – PROCESS THAT PERMEATS ALL THE STEPS OF THE SPEMS

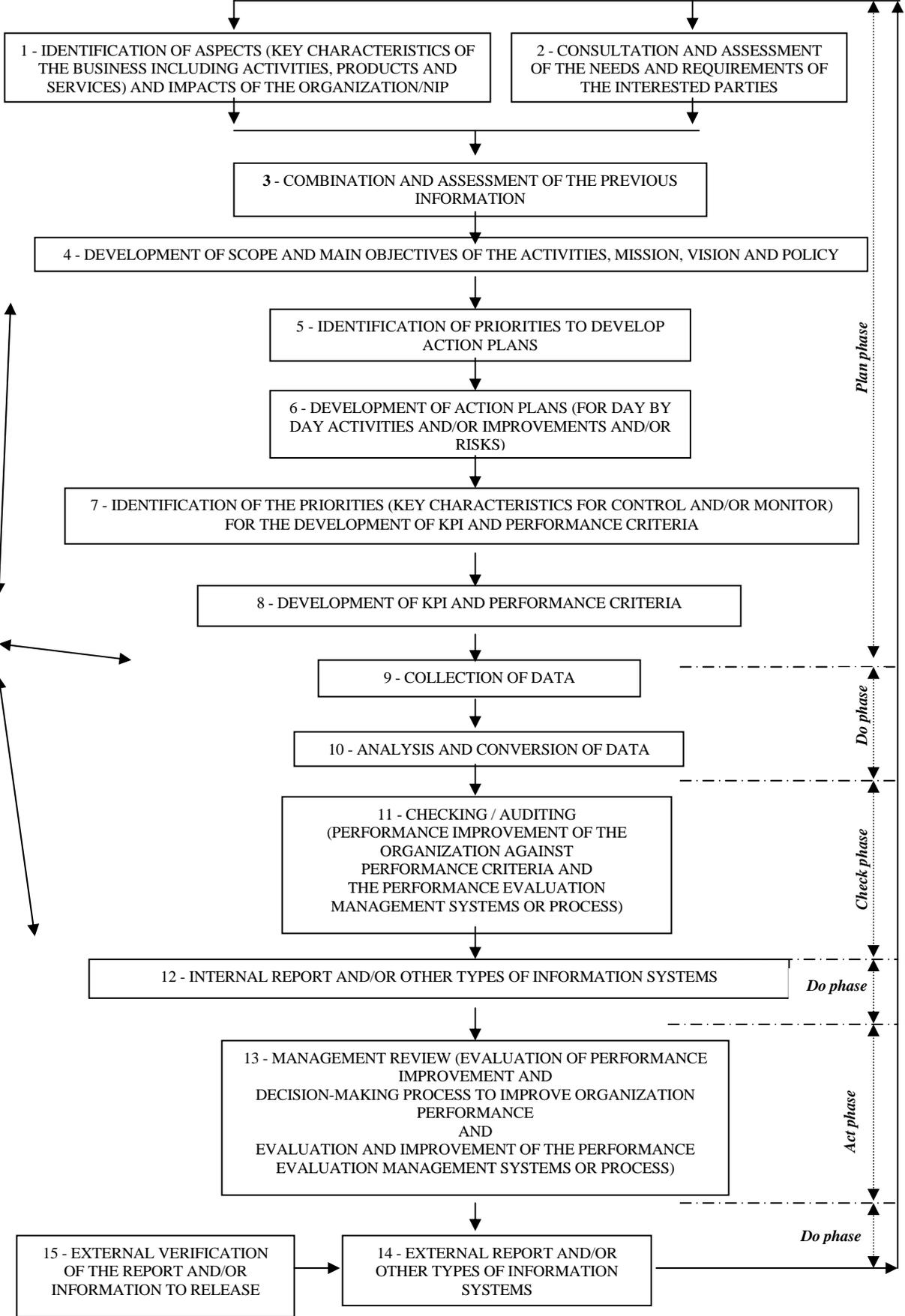


Figure 26: Steps of the SPEMS (version 3 model)

5.8 - On-going SPEMS implementation

The project to implement SPEMS in the NIP has been continued by the companies without the facilitation of the researcher. Five meetings have been held since the end of the workshops i.e. one per month. The meetings were developed following the advice from the researcher given in the final report to Organization 8. The actions of the NIP in these meetings were:

- ❖ Evaluation of the action plan that has been defined in the workshops for the NIP with the intention of aligning the NIP's action plan with the action plans of each company.
- ❖ Evaluation of the number of programs and projects that have been planned for the NIP with the intention of having a small number of projects developed and successfully completed as quickly as practicable. This approach recognizes the limited resources available to develop NIP's activities at this stage of the project. It is therefore better for the success of the project to have a small number of programs.
- ❖ Identification and invitations to new commercial organizations and interested parties to join the NIP.
- ❖ Maintenance of the partnerships.

The researcher participated in the last meeting of the NIP for 2004, meeting eight, and he could observe and conclude the following:

- ❖ The NIP is growing in numbers of participants (companies and community's interested parties) and the partnership continues to be in place at the same level as for workshop 3.
- ❖ The implementation of SPEMS has been slowed down because the participants have been more focussed in some practical action plans for the participation of the NIP. However they have acknowledged the need to continue to implement the SPEMS model in the near future. They also acknowledge the importance and difficulties in

improving the appropriate KPI for the NIP. Another point is that, based on their experience with this process, partnership can be implemented without the implementation of the SPEMS model for it to be in place. However the implementation of SPEMS has helped the growth and maintenance of the partnership among the participants of the NIP.

- ❖ The NIP has been rotating the chairperson among the participants and this has been adding value to all participants and maintaining the success of the NIP.
- ❖ Partnership development is very important for the success of the activities of the NIP and implementation of the SPEMS model.

Chapter 6

6 – CONCLUSIONS

6.1 – Overview and achievements

This research recognizes the immediate need among industry organizations for an operational level approach to achieving sustainability. It identifies the ‘continuous improvement in environmental performance’ approach enunciated in the ISO 14000 series of environmental management systems standards as a good starting point. The research further recognizes that such continual improvement can only be achieved if performance is routinely measured, evaluated and communicated openly and objectively, internally within the organization and its management hierarchy and externally to a wide range of interested parties. The research is based on the identification of the ISO 14031 performance evaluation standard as a useful, widely recognized starting point for improving performance towards sustainability.

Global applications of ISO 14000 have demonstrated that, provided there is ‘top management commitment and policy drivers’ to provide an organizational framework, performance improvement can be achieved. It has also demonstrated that the operational outcomes will need to be interpreted and reported to top management as well as an increasingly wide range of interested parties.

The first stage of this research involved the development of a systems model that conceptually integrated performance evaluation (PE) with general organizational management. ISO 14031 was adapted to provide a 15-step model for organizational PE. The model was used as a ‘check list’ to develop a questionnaire to collect information on

current practices and views on potential improvements in PE for both individual organizations and for their supply chains. The evaluation of this data provided the necessary information to improve the PE (version 1 model) into the SPEMS (version 2 model).

The same approach was used to evaluate the needs of the community-interested parties in relation to the performance, process of performance evaluation and communication systems of individual commercial organizations and their supply chains. This complementary information identified further improvements of the PE (version 1 model) for incorporation into the SPEMS (version 2 model). This model was extended to encompass all three elements of sustainability in addition to consideration of normal commercial interactions between an organization and the members of its supply chain.

This improved model was then trailed through its partial implementation within an industry supply chain centred round Boyne Smelters P/L, Gladstone, Queensland, Australia. Based on this case study, a final version - SPEMS (version 3 model) - was developed.

The research also acknowledges that supply chains for a large organization are seldom linear. The term 'Network of Interested Parties' was introduced and later extended to 'Network of Interested Partners' or NIP. In fact, in the implementation process, a network of interested parties is first identified and a broad cross-section of representatives brought together in workshops. These workshops and subsequent meetings were designed to promote the formation of collaborative partnerships.

The NIP is not intended to take over the commercial decision-making responsibilities of the organizations involved. Instead they are established to allow input from local interested parties and supply chains into all decisions that may impact on other partners as well as on an individual's own organization. The goal is to ensure that the needs of all parties are identified and considered. There is an expectation that, at least at an operational level, potential adverse impacts on environment and non-commercial interested parties are taken into account. Furthermore, the model recognizes the interdependence of a business, its supply chain, government and the local community that may be impacted on by these business entities.

However it has to be emphasized that one of the management approaches of an NIP is that every participant or partner, including commercial organizations and interested parties, would exercise democratic power in driving the activities of the NIP. It also means that individual organizations continue to guide their activities based in their own decisions, but the decisions of the NIP could influence the individual companies' decisions and vice versa.

The partial implementation of the model highlights the benefits that can be achieved by all parties involved in the network partnerships. It is noted that the 'benefits' will not usually be equal for all parties – this is not the nature or expectation of a commercial enterprise. Instead, the NIP provides for all interested parties of a local area to have an equal opportunity to voice their concerns and needs. This leads to improved mutual understanding and equity of opportunity to present and listen to all views and data interpretations. There is also an expectation that all partners will eventually benefit at some level from participation. The presence of environmental, social and economic interests in the NIP ensures that improved environmental, social and economic

outcomes can be expected. Such benefits have been reported by the Gladstone trial NIP after only 5 months of operation.

The steps of SPEMS have been tested and evaluated and the model is considered a well-structured PE model for individual organizations and NIP. It also provides an effective common language for improved communication between community-interested parties and relevant organizations as well as between the commercially linked organizations themselves.

The SPEMS model also includes steps to ensure organizations:

- ❖ Communicate effectively with their interested parties;
- ❖ Consult with and engage in joint activities with their interested parties; and,
- ❖ Provide feedback information (e.g. internal and external reports) of performance to interested parties.

The key factor in the implementation of a well-structured SPEMS for a successful NIP is the development and maintenance of partnerships among the participants of the NIP. The facilitated workshop-based process for the development of effective partnership has proved to be effective. The NIP formed within the research has continued their activities in the implementation of the SPEMS after facilitation ceased. In addition to commencing some small projects immediately, the NIP is developing action plans to progress its own activities while supporting improved individual organizations' performance in relation to the elements of sustainability. Implementation of specific projects – although relatively small – by the NIP has allowed it to gain confidence in its ability to improve environmental and social performance. There are also early signs of commercial benefits accruing to the business members of the partnership.

The development of workshops as a mechanism for establishing an NIP and initiating the implementation of SPEMS in the NIP has proved to be effective. The establishment of an NIP has occurred without perceived or actual loss of capacity to act individually and utilise existing commercial practices.

It should be noted that the evaluation required of participants of the workshops and partnership development has helped to engage people in the processes of partnership and implementation of SPEMS. This, in turn, has made them think about and improve the partnerships. The active involvement and interactive participation and flexibility of the facilitator helped the development of partnerships and implementation of SPEMS during the workshops. However, the research demonstrated that effective partnerships could be developed, and useful outcomes achieved collaboratively, without the need to fully implement the SPEMS.

Now, communities, organizations and NIP have available a PE process to fill the gap that has existed in the world knowledge in terms of an effective, objective and simple sustainability PE model to help communities, organizations and interested parties to enhance sustainability performance

Communities, organizations and NIP also have in their hands a process to form partnerships and simultaneously implement SPEMS within an NIP.

It is well recognized that performance indicators are an essential part of the measurement of performance. While this issue was not considered in detail in this research, the author attempted to develop a common set of sustainability indicators that could be used in

sustainability performance evaluation of organizations and NIP. No set of common indicators for supply chain could be developed. However, the workshops participants commenced to develop their own set of common KPI utilising the Map of Sustainability and KPI.

6.2 - Contribution of the research

A major contribution from this research is that it extends the practical application of the ISO 14031 model for performance evaluation and reporting to apply the same principles to economic and social elements of sustainability.

Furthermore, it identifies that an organization's performance is not solely determined by internal factors – particularly when sustainability is considered. In fact, the sustainability concept ensures that the internal operations, products and services are partially determined by external interested parties. In particular, an organization's performance is dependent on its supply chain. Poor supply chain performance can impact directly on an organization's sustainability.

The research provides a practical systems methodology that can be adapted to any organization. It demonstrates this broad applicability by using a case study that involves a major company, commercially competitive service providers and a broad range of interested parties. No previous reports were identified that described how such an extensive range of interested parties could be deliberately brought together with the clear objective of forming partnerships to improve overall performance with respect to achieving economic, social and environmental benefits for all. More importantly, initial results and the continuing activity of the case study NIP illustrate the effectiveness of the processes developed and applied.

The literature search identified no well-defined process for achieving supply-chain sustainability. This deficiency has been rectified by the model and processes outlined in the thesis. In addition, many current approaches to 'supply chains' have involved a linear model. Even when a network is identified, this network has been confined almost exclusively to commercial entities. These approaches have generally failed to recognize the relevance of non-commercial interested parties. This research outlines a systems approach that can be used by any organization to acknowledge the critical importance of such non-commercial entities and involve them practically with the commercial parties.

The research goes further. It addresses the need to not only recognize interested parties but also to develop effective partnerships along a supply chain. Such a need has been identified by numerous authors including, for example, OECD (2003). This research has filled this gap in systems literature and practice. It also provides an approach that encompasses the formation of useful, mutually beneficial partnerships within supply networks that include non-commercial entities i.e. the formation of NIPS as defined in this research.

It is therefore clear that there are a number of broadly useful contributions associated with this work in addition to the actual structure of the systems model itself. It identifies that for an organization to achieve sustainability, it is not sufficient to deliver triple bottom line reports. Instead, sustainability can only be achieved by involving a wide range of commercial, government and community interested parties directly in collaborative partnerships. SPEMS demonstrates practically how to achieve interested party engagement beyond 'improved communication' i.e. to form partnerships. A 'check list' process for achieving engagement as partners is demonstrated as a means of meeting the

increasingly recognized, critically important process of achieving real sustainability of organizations and their NIP (ref).

The research has also demonstrated how operational outcomes can be interpreted and reported to top management as well as an increasingly wide range of interested parties. It does this through defining and implementing improved NIP communication processes and a 'common language' that can be understood and used by all partners.

Finally, the research provides a 'check list' approach to the development of a questionnaire to collect information on current practices and views on potential improvements in PE for both individual organizations and for their supply chains.

The research acknowledges the eventual need for a higher-level strategic policy and management-planning tool to overlay the operations approach. While there is some movement towards providing such a strategic approach (ISO COPOLCO 2002; Standards Australia 2004), details and documentation are not yet available. This provides an opportunity for further research.

6.3 - Generalization of the research

One of the key objectives was to develop a model that would have general use. That the findings of this research have wider applicability is supported by the questionnaire results. Most interviewees agreed that the concepts and steps of the PE (version 1 model) as presented would be applicable to their organization and its interested parties. The approach and steps that have been used within this research can be repeated in other organizations and supply chains. The SPEMS model is a management system based on ISO 14031, which has already been implemented in a wide range of organizational size

and type. It is therefore concluded that the model and the concepts of NIP sustainability have general applicability to a wide range of organizations.

6.4 - Recommendations for further work

The implementation and evaluation of SPEMS have been completed until step eight of the PE model. It is necessary to complete and evaluate the entire implementation of the SPEMS and also its maintenance for an extended period of time. Only then will it be possible to evaluate fully its effectiveness as a tool to help organizations to develop and maintain an NIP over a longer time frame. The case study involved an NIP with a relatively small number of members. It would be useful to develop and implement a SPEMS in a larger NIP that would include more organizations and interested parties. Perhaps application of the model to a region (e.g. the entire Gladstone region including all major organizations and their interested parties) merits investigation with a view to its role within a sustainable cities project.

Further work on the Table of Sustainability would be useful in more comprehensively developing the concept of, and contributions to, sustainability of organizations and their communities. This could extend to the development and evaluation of organizational communication systems that would include simple and understandable information for interested parties. This work would include the development of sustainability KPI. It is important that a practical, simple language guideline be written to assist others to implement a SPEMS. Given that the work is based in ISO, consideration should be given to the transfer of these guidelines into an appropriate ISO format. Such a standard would relate to corporate responsibility management systems standards as ISO 14031:1999 relates to ISO 14001:2004.

It is concluded that the development of further workshops with participants of the NIP would substantially improve the quality of the design, implementation, maintenance and improvement processes used in developing a successful SPEMS for NIP. Such workshops could include information and knowledge about sustainable development, supply chain management, steps of SPEMS and other approaches to achieve effective communication and engagement of non-commercial interested parties in businesses.

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APPENDICES

The appendices are in the enclosed CD, *PhD Thesis - Flavio Coelho – CQU 2005*. The list of appendices is:

Appendix 1 - Literature review protocol

Appendix 2 - Map of the questionnaire

Appendix 3 – Questionnaire for IO/SC

Appendix 4 - Material for participants - Questionnaire part

Appendix 5 - Combination of data from questionnaires (IO/SC)

Appendix 6 – Questionnaire for IP

Appendix 7 - Combination of data from questionnaires (IP)

Appendix 8 - Material for participants - Workshop part

Appendix 9 - Material for workshop 1

Appendix 10 - Material for workshop 2

Appendix 11- Material for workshop 3

Appendix 12 - Evaluation of partnership

Appendix 13 - Report of workshop 1

Appendix 14 - Report of workshop 2

Appendix 15 - Report of workshop 3

Appendix 16 - Report for organization 8

Appendix 17 – Comparison and evolution of SPEMS

Appendix 18 - List of participants of the research (The list with the names of organizations is confidential and not available for the public. However the author has authorisation from some entities and their professionals to identify them in this thesis. That's why some names of organisations and professionals have been included in some parts of the thesis).

APPENDIX 1 - LITERATURE REVIEW PROTOCOL

1. Name of Literature: _____
_____;
2. Author: _____
_____;
3. Date of publication: _____
_____;
4. Topic: _____
_____;
5. Scope: _____
_____;
6. Relationship with my research: _____

_____;
7. Type of literature/style: _____
_____;
8. Date when the Literature Abstract was developed _____;
9. Other related disciplines: _____

_____;
10. Identified areas for a new search _____

_____;
11. Other linked Authors/Literatures/Bibliographies linked that can be contacted/searched _____

_____;
12. Gaps found that can lead to a new research topic: _____

APPENDIX 2 - MAP OF THE QUESTIONNAIRE

GENERAL INFO ABOUT ORGANISATIONS

GENERAL

1. Developed PE process for supply chains - SC
2. PE of supply chains
3. Use internal PE experience for supply chains
- 4a. Internal PE process (explanation of the company) – cross with 4b, entire 5 and general info – do it at the end of the evaluation
- 4b. Improved PE process for supply chains (suggestion of the company) - cross with 4a, entire 5 and general info – do it at the end of the evaluation
5. Elements PE process - cross with the entire document but starting at the Engagement of Interested Parties – cross with 4 and general info at the end of the evaluation (take care with 5.17, 5.18 and 5.19)
6. Procedures PE process
7. Scope PE
8. PE process or management systems (tool includes training/record/documentation)
9. PE team
10. Areas covered by PE - cross with 20, 23, 36, 37, 38, 39, 40, 5.7, 5.8, 5.12, 5.14 and 5.15
11. PE length - cross with 51
12. Visions and policies addressing supply chains - cross with 5.4 and 27
13. Relations with suppliers
14. Relations with customers
15. Impact P of suppliers on company
16. Impact P of customers on Company
17. Management structure of supply chains - cross with 53
18. Life cycle user

ENGAGEMENT OF INTERESTED PARTIES

19. Interested parties consulted - cross with 5.1
20. Interested parties reported - cross with 10, 37,38,39, 40, 5.12, 5.14 and 5.15
21. Methods of consulting with interested parties - cross with 5.1
22. Information for consultation with interested parties - cross with 5.1
23. Methods of reporting to interested parties - cross with 10, 37,38,39, 40, 5.12, 5.14 and 5.15

MAP OF THE BUSINESS

24. Methods to map business - cross with 5.2
25. Information to help map business - cross with 5.2

GAP ANALYSIS

26. Existing gap analysis (cross information interested parties and map of the business) - cross with 5.3

DEVELOPMENT VISION AND POLICIES

27. Policies and plans based in the gap analysis - cross with 5.4, 5.5 and 5.6

KPIS AND PERFORMANCE ANALYSIS

28. KPI types for supply chains - cross with 5.7 and 5..8
29. Approach to develop KPIS - cross with 5.7 and 5..8
30. Information used to develop KPIS - cross with 5.7 and 5..8
31. Characteristics of KPIS- cross with 5.7 and 5..8
32. Types of KPIS (unit, quantitative, etc) - cross with 5.7 and 5..8
33. Categories of KPIS (management, operational, etc) - cross with 5.7 and 5..8

34. Procedures to collect, evaluate and convert data to KPIs - cross with 5.9, 5.10 and 5.11
35. Sustainability of KPIs - cross with 5.7 and 5.8
36. Demonstration of KPIs - cross with 10, 5.7 and 5.8
37. Internal report - cross with 20, 23, 5.12, 5.14 and 5.15
38. Internal communication - cross with 20, 23, 5.12, 5.14 and 5.15
39. External report - cross with 20, 23, 5.12, 5.14 and 5.15
40. External communication - cross with 20, 23, 5.12, 5.14 and 5.15
41. GRI 2002 use - cross with 20, 23, 5.12, 5.14 and 5.15
42. Translate information from internal to external report - cross with 20, 23, 5.12, 5.14 and 5.15
43. Example item 42 - cross with 20, 23, 5.12, 5.14 and 5.15
44. Graph reporting- cross with 20, 23, 5.12, 5.14 and 5.15
45. Verification of information to release for external report- cross with 20, 23, 5.12, 5.14 and 5.15

DECISION MAKING PROCESS

46. Approach for management review – cross with 5.11 and 5.13
47. Basis for decisions – cross with 5.11 and 5.13
48. Steps towards decision making – cross with 5.11 and 5.13
49. Methods used for decision making – cross with 5.11 and 5.13
50. Purpose of the decisions taken – cross with 5.11 and 5.13
51. Frequency of management review – cross with 11, 5.11 and 5.13
52. Statement of to “speak same language PE”
53. Opinion “umbrella performance evaluation” - cross with 17
54. Suggestion to integrate PE Interested parties network
55. Other issues related PE

QUESTION 5 (Elements PE) - cross with the entire document but starting at Engagement of Interested parties – cross with 4 and general info at the end (take care with 5.17, 5.18 and 5.19)

- 5.1. Engagement and assessment of the needs of the interested parties (consultation process)
- 5.2. Identification of aspects (key characteristics of the business including activities, products and services) and impacts of the organisation/interested parties network.
- 5.3. Combination and assessment of the previous information
- 5.4. Development of vision and policy
- 5.5. Identification of priorities to develop action plans
- 5.6. Development of action plans (for day-to-day activities and/or improvements and/or risks)
- 5.7. Identification of the priorities (key characteristics for control and/or monitoring) for the development of KPIs and performance criteria
- 5.8. Development of KPIs and performance criteria
- 5.9. Collection of data
- 5.10. Analysis and conversion of data
- 5.11. Checking/auditing (performance improvement of the organisation against performance criteria and the performance evaluation management systems or process)
- 5.12. Internal reports (one general and one for specific target groups)
- 5.13. Management review (evaluation of performance improvement, decision-making process to improve performance, evaluation and improvement of PEMS of organisations/supply chains)
- 5.14. External reports (public and specific target groups)
- 5.15. Verification of external reports
- 5.16. No (?) elements and performance evaluation process
- 5.17. Other: Gap analysis between the interested parties’ requirements and our business
- 5.18. Other: Cascade strategy inside the organisation using the same process for performance evaluation
- 5.19. Other: Clients auditing our management systems

ITEM	INDIVIDUAL ANALYSIS	OBSERVATION INDIVIDUAL ANALYSIS	SUPPLY CHAINS ANALYSIS	OBSERVATION SUPPLY CHAINS ANALYSIS
GENERAL INFO ABOUT ORGANISATION	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
Information				
GENERAL	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
1. Developed PE process for interested parties' network				
2. PE of interested parties' network				
3. Use internal PE experience for interested parties' network				
4a. Internal PE process (explanation of the company) – cross with 4b, the entire 5 and general info – do it at the end of the evaluation				
4b. Improved supply chains PE process (suggestion of the company) - cross with 4a, the entire 5 and general info – do it at the end of the evaluation				
5. Elements PE process - cross with the entire document starting at the Engagement of Interested parties – cross with 4 and general info at the end of the evaluation (take care with 5.17, 5.18 and 5.19)				
6. Procedures PE process				
7. Scope PE				
8. PE process or management systems (tool includes training/record/documentation)				
9. PE team				
10. Areas covered by PE - cross with 20, 23, 36, 37, 38, 39, 40, 5.7, 5.8,				

5.12, 5.14 and 5.15				
11. PE length - cross with 51				
12. Visions and policies addressing supply work of supply chains - cross with 5.4 and 27				
13. Relations with suppliers				
14. Relations with customers				
15. Impact P of suppliers on company				
16. Impact P of customers on company				
17. Management structure of supply chains - cross with 53				
18. Life cycle user				
ENGAGEMENT INTERESTED PARTIES	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
19. Interested parties consulted - cross with 5.1				
20. Interested parties reported - cross with 10, 37,38,39, 40, 5.12, 5.14 and 5.15				
21. Methods of consulting with interested parties - cross with 5.1				
22. Information on consultation with interested parties - cross with 5.1				
23. Methods of reporting with interested parties - cross with 10, 37,38,39, 40, 5.12, 5.14 and 5.15				
MAP OF THE BUSINESS	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
24. Methods to map business - cross				

with 5.2				
25. Information to help map business - cross with 5.2				
GAP ANALYSIS	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
26. Gap analysis exist (?) (cross information for interested parties and map of the business) - cross with 5.3				
DEVELOPMENT VISION AND POLICIES	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
27. Policies and plans based on the gap analysis - cross with 12, 5.4, 5.5 and 5.6				
KPIS AND PERFORMANCE ANALYSIS	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
28. KPI types for supply chains - cross with 5.7 and 5.8				
29. Approach to develop KPI supply chains- cross with 5.7 and 5.8				
30. Information used to develop KPIS - cross with 5.7 and 5.8				
31. Characteristics of KPIS - cross with 5.7 and 5.8				
32. Types of KPIS (unit, quantitative, etc) - cross with 5.7 and 5.8				
33. Categories of KPIS (management, operational, etc) - cross with 5.7 and 5.8				
34. Procedures to collect, evaluate and convert data to KPIS - cross with 5.9, 5.10 and 5.11				
35. Sustainability of KPIS - cross with 5.7 and 5.8				
36. Demonstration of KPIS - cross with 10, 5.7 and 5.8				
37. Internal report - cross with 10, 20,				

23, 5.12, 5.14 and 5.15				
38. Internal communication - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
39. External report - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
40. External communication - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
41. GRI 2002 use - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
42. Translate information from internal to external report - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
43. Example item 42 - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
44. Graph reporting - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
45. Verification of information to release for external process (?) - cross with 10, 20, 23, 5.12, 5.14 and 5.15				
DECISION MAKING PROCESS	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
46. Approach for management review – cross with 5.11 and 5.13				
47. Basis for decisions – cross with 5.11 and 5.13				
48. Steps of decision making – cross with 5.11 and 5.13				
49. Methods used for decision making – cross with 5.11 and 5.13				
50. Purpose of the decisions taken – cross with 5.11 and 5.13				
51. Frequency of management review				

- cross with 11, 5.11 and 5.13				
52. Statement to “speak same language PE”				
53. Opinion “umbrella performance evaluation” - cross with 17				
54. Suggestion to integrate PE interested parties network				
55. Other issues related PE				
QUESTION 5 (Elements PE) - cross with the entire document starting at the Engagement of interested parties – cross with 4 and general info at the end of the evaluation (take care with 5.17, 5.18 and 5.19)	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
5.1 Engagement and assessment of the needs of the interested parties (consultation process)				
5.2 Identification of aspects (key characteristics of the business including activities, products and services) and impacts of the organisation/interested parties network.				
5.3 Combination and assessment of the previous information				
5.4 Development of vision and policy				
5.5 Identification of priorities to develop action plans				
5.6 Development of action plans (for day-to-day activities and/or improvements and/or risks)				
5.7 Identification of the priorities (key characteristics for control and/or monitor) for the development of KPIs and performance criteria				

5.8 Development of KPIs and performance criteria				
5.9 Collection of data				
5.10 Analysis and conversion of data				
5.11 Checking/auditing (performance improvement of the organisation against performance criteria and performance evaluation management systems or process)				
5.12 Internal reports (one general and one for specific target groups)				
5.13 Management review (evaluation of performance improvement, decision-making process to improve organisation/supply chains' performance, evaluation and improvement of the performance evaluation management systems or process)				
5.14 External reports (public and specific target groups)				
5.15 Verification of the external reports				
5.16 New (?) elements and performance evaluation process				
5.17 Other: Gap analysis between the interested parties' requirements and our business				
5.18 Other: Cascade strategy inside the organisation using the same process for performance evaluation				
5.19 Other: Clients auditing our management systems				

**APPENDIX 3 – QUESTIONNAIRE FOR IO/SC -
QUESTIONNAIRE TO ACCESS INFORMATION ABOUT
PERFORMANCE EVALUATION MANAGEMENT SYSTEMS
(PROCESS) OF ORGANIZATIONS AND THEIR SUPPLY CHAINS**

ORGANIZATION NUMBER: _____

GENERAL INFORMATION ABOUT THE ORGANIZATION AND SUPPLY CHAINS

1) Every organization participates in many different supply chains. The supply chains can have formal or informal scope (defined boundaries) and structured or unstructured performance evaluation process. Think now about the supply chains in which your organization participates or has participated. Have any of these supply chains developed a clear process, formal (with procedures) or informal (without procedures), to evaluate performance (complete process including communication with interested parties, development of a common set of key performance indicators – KPIs and reporting) for the entire supply chain?

POSSIBLE ANSWERS	ANSWER
Yes	
No	

2) Think again about the supply chains in which your organization participates or has participated. Have any of these supply chains developed evaluation of the performance for the entire supply chain?

POSSIBLE ANSWERS	ANSWER
Yes	
No	

3) Every organization has in place some form of business performance evaluation process(es) (e.g. financial, environmental, quality, Workplace Health & Safety), formal (with procedures) or informal (without procedures), well structured or not well structured. Performance evaluation processes can include steps such as communication with interested parties, development of set of KPIs, collection of data based on KPIs, organization’s performance reporting and decision-making. It can also be said that every organization participates in many supply chains. Imagine now that the top management of your organization decides to develop or improve the process of performance evaluation for one of its supply chains. Would your organization want to use its own internal experience with performance evaluation process as the basis or example for the development of the performance evaluation process for the entire supply chain?

POSSIBLE ANSWERS	ANSWER
Yes	
No	

- 4) Information about individual organizations' and supply chains' performance evaluation process (record the answers).
- Explain the steps (give details of each step) of the performance evaluation process for your organization (for ORGANIZATION - CURRENT SITUATION).
 - Think about one supply chain in which your organization participates or has participated. Explain, in the view of your organization, the steps (give details of each step) of an improved performance evaluation process for the entire supply chain (for SUPPLY CHAIN - IMPROVED SITUATION).
- 5) Which are the elements included in the performance evaluation management systems (process) of your organization (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the elements included in an improved performance evaluation process for an entire supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)? After marking the answers in both columns, please score the importance of each element within the performance evaluation process, first for the organization and second for the supply chain. The scores are:
- “0” for not important element (Note: not included in our PE – this statement is only for PE process of individual organisations)
 - “1” for important element (Note: needs improvement in our PE – this statement is only for PE process of individual organisations)
 - “2” for very important element (Note: well developed in our PE – this statement is only for PE process of individual organisations)

ORGANIZATION		POSSIBLE ANSWERS (*)	SUPPLY CHAIN	
CURRENT SITUATION	IMPORTANCE		IMPROVED SITUATION	IMPORTANCE
		Engagement and assessment of the needs of the interested parties (consultation process)		
		Identification of aspects (key characteristics of the business including activities, products and services) and impacts of the organization/supply chain.		
		Combination and assessment of the previous information		
		Development of vision and policy		
		Identification of priorities to develop action plans		
		Development of action plans (for day-to-day activities		

		and/or improvements and/or risks)		
		Identification of the priorities (key characteristics for control and/or monitor) for the development of KPIs and performance criteria		
		Development of KPIs and performance criteria		
		Collection of data		
		Analysis and conversion of data		
		Checking/Auditing (performance improvement of the organization against performance criteria and the performance evaluation management systems or process)		
		Internal reports (one general and one for specific target groups)		
		Management review (evaluation of performance improvement, decision-making process to improve organization/supply chain performance, evaluation and improvement of the performance evaluation management systems or process)		
		External reports (public and specific target groups)		
		Verification of the external reports		
		No elements and performance evaluation process		
		Other:		
		Other:		
		Other:		

Note (*):

- I. The answers are in the right sequence according to the performance evaluation model

- 6) Does your organization have procedures (written or not written) showing how to develop business performance evaluation process (the steps) - mark in the column ORGANIZATION - CURRENT SITUATION? Then, what would be the ideal situation for a supply chain in which your organization would like to participate (to have procedures explaining how to develop performance evaluation for the supply chain) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes (complete set)	
	Yes (only a few)	
	No	
	Other:	

- 7) Does your organization have clearly defined boundaries (scope) for the performance evaluation management systems (or process) - mark in the column ORGANIZATION - CURRENT SITUATION? Then, what would be the ideal situation for a supply chain in which your organization would like to participate (to have clearly defined boundaries (scope) for the performance evaluation management systems of the supply chain) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes	
	No	

- 8) Does your organization have in place structured performance evaluation management systems or process (not only the steps of the process but also responsibilities addressed and training/record/documentation systems) - mark in the column ORGANIZATION - CURRENT SITUATION? Then, what would be the ideal situation for a supply chain that your organization would like to participate in (to have in place structured performance evaluation management systems for the supply chain) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes	
	No	

- 9) Does your organization have a team that is responsible for the operation and improvement of the performance evaluation management systems (or process) of the organization (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for a supply chain in which your organization would like to participate (to have a team that would be responsible for the operation and improvement of the performance evaluation management systems of the supply chain) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes (structured team)	
	Yes (not structured team)	
	No	
	Other:	

- 10) Which are the areas covered in your organization's performance evaluation (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal areas covered in your supply chain's performance evaluation (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS ¹	SUPPLY CHAIN IMPROVED SITUATION
	Environmental, Workplace Health & Safety and Quality combined	
	Environmental, Economic and Social combined	
	Financial separately	
	Economic separately	
	Environmental separately	
	Social separately	
	Workplace Health & Safety separately	
	Quality separately	
	No areas	
	Other:	
	Other:	
	Other:	

11) Indicate the length of one complete cycle of the performance evaluation process of your organization (mark in the column ORGANIZATION - CURRENT SITUATION). Then, indicate the ideal length of one complete cycle of the performance evaluation process of your supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION).

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS ¹ (*)	SUPPLY CHAIN IMPROVED SITUATION
	Monthly	
	Three months	
	Six months	
	One year	
	No specific period	
	No length	
	Other:	

Note (*):

- I. First tick the boxes. Then if you have different answers for different areas evaluated (or to be evaluated) you can write down in each box the first letter of the area(s) evaluated (or to be evaluated). Areas covered and the respective letter/symbol to be included in the boxes are:
- ❖ Environmental - E
 - ❖ Workplace Health & Safety - W
 - ❖ Quality – Q
 - ❖ Economic – \$
 - ❖ Social - S

12) Does your organization's corporate vision and/or policy and/or strategy address issues related to the participation in supply chains (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for a supply chain in which your organization would like to participate (to have each organization that participates in the supply chain addressing in their corporate vision and/or policy and/or strategy issues related to the participation in the supply chain) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes	
	No	

15) How does the performance of your suppliers affect your organization? What activities or aspects of your suppliers affect the performance of your organization?

❖ Environmental area:

❖ Social area:

❖ Economic area:

16) How does the performance of your customers affect your organization? What activities or aspects of your customers affect the performance of your organization?

❖ Environmental area:

❖ Social area:

❖ Economic area:

17) Indicate which management structure (the concept) in terms of performance evaluation process is likely to be best for your supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION).

POSSIBLE ANSWERS	SUPPLY CHAIN
	IMPROVED SITUATION
PART A: One organization leading and managing the performance evaluation process of the supply chain	
PART A: Committee formed by the top management of the organizations involved that coordinates the performance evaluation process of the supply chain	
PART A - Other:	
PART A - Other:	
PART B: General management systems (including the performance evaluation process) for the entire supply chain	
PART B: Performance evaluation management systems for the entire supply chain (including KPIs)	
PART B: Only exchange of information among organizations	
PART B: No structure/concept	
PART B - Other:	
PART B - Other:	

18) Does your organization use a life cycle (*) approach to understand its activities, the flux products/services and their impacts on the environment and society (mark in the column ORGANIZATION - CURRENT SITUATION)? Do you think that it is important for your supply chain to use a life cycle (*) approach to understand its activities, the flux products/services and their impacts on the environment and society (mark in the column SUPPLY CHAIN – IMPROVED SITUATION)?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Yes	
	No	

Note (*):

I. Interviewer will explain what a life cycle assessment is.

ENGAGEMENT AND ASSESSMENT OF THE NEEDS OF THE INTERESTED PARTIES (CONSULTATION PROCESS)

19) From which interested party does your organization access information/needs/values/views (consultation process/engagement) to develop business strategic plans (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal interested parties that your supply chain would like to access for information/needs/values/views to develop strategic plans (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Management representatives	
	Employees	
	Purchasers/ Consumers/Customers	
	Investors/Shareholders	
	Suppliers	
	Contractors	
	Indigenous people	
	Welfare organizations	
	Neighbouring and regional communities	
	General public	
	Trade unions	
	NGOs	
	Opinion leaders	
	Business, administrative, academic and research institutions	
	Communications media	
	Financial institutions (insurers, lending institutions, etc)	
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	
	Local, State and Federal Government	
	Other organizations from your supply chain	
	No interested parties accessed	
	Other (from the Community, Government, etc):	
	Other (from the Community, Government, etc):	
	Other (from the Community, Government, etc):	

20) To which interested parties does your organization give feedback about the consultation process/engagement (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal interested parties to which your supply chain would like to give feedback about the consultation process/engagement (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Management representatives	
	Employees	
	Purchasers/ Consumers/Customers	
	Investors/Shareholders	
	Suppliers	
	Contractors	
	Indigenous people	
	Welfare organizations	
	Neighbouring and regional communities	
	General public	
	Trade unions	
	NGOs	
	Opinion leaders	
	Business, administrative, academic and research institutions	
	Communications media	
	Financial institutions (insurers, lending institutions, etc)	
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	
	Local, State and Federal Government	
	Other organizations from your supply chain	
	No feedback given	
	Other (from the Community, Government, etc):	
	Other (from the Community, Government, etc):	
	Other (from the Community, Government, etc):	

21) Which are the methods that your organization uses to engage and obtain information/needs/values/views (consultation process/engagement) from interested parties to develop business strategic plans (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal methods that your supply chain would like to use to engage and obtain information/needs/values/views (consultation process/engagement) from interested parties to develop supply chain strategic plans (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS ⁴	SUPPLY CHAIN IMPROVED SITUATION
	General internal meetings and workshops	
	General external meetings and workshops	
	Internal focus group meetings and workshops	
	External focus group meetings and workshops	
	Specific community advisory group	
	Specific internal advisory group	
	Internal surveys/questionnaires	
	External surveys/questionnaires	
	Direct questions to target external interested parties (neighbours, regulatory bodies, customers, suppliers, etc.)	
	Direct questions to target internal interested parties (employees, etc.)	
	Employee suggestions program	
	External suggestions program	
	Market research	
	Regulatory tracking and trending	
	Participation in interest groups	
	Information from media and other sources of public information	
	Review of public reports from other institutions	
	Review of non-public reports from other institutions	
	Specific internal activities and programmes to obtain data	
	Initiatives of interested parties in providing information	
	External expert or consultancy firm	
	Knowledge of internal expert	
	No methods	
	Other:	

22) Which type of information does your organization obtain from interested parties (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal type of information that your supply chain would like to obtain from interested parties (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Their needs/values	
	Their requirements	
	Complaints	
	Suggestions to improve relations	
	Suggestions to improve products/services	
	No information obtained	
	Other suggestions:	
	Other:	
	Other:	
	Other:	

23) Which methods does your organization use to give feedback (*) to the interested parties of the consultation process (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal methods that your supply chain would like to use to give feedback (*) to the interested parties of the consultation process (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS ⁴	SUPPLY CHAIN IMPROVED SITUATION
	Internal statements (brochures, newspapers, magazines, etc)	
	External statements (brochures, newspapers, magazines, etc)	
	Internal information through TV or radio	
	External information through TV or radio	
	Direct answers to target internal interested parties (employees, etc.)	
	Direct answers to target external interested parties (neighbours, regulatory bodies, customers, suppliers, etc)	
	General internal meetings	

	General external meetings	
	Focus internal group meetings	
	Focus external group meetings	
	Speeches during internal events	
	Speeches during external events	
	General internal report	
	Target group internal report	
	General external (public) report	
	Target group external report	
	No feedback	
	Other:	
	Other:	
	Other:	

Note (*):

- I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one-way (e.g. if Person “A” sends a message to person “B” and then there is no answer or feedback).

IDENTIFICATION OF ASPECTS (KEY CHARACTERISTICS OF THE BUSINESS INCLUDING ACTIVITIES, PRODUCTS AND SERVICES) AND IMPACTS OF THE ORGANIZATION/SUPPLY CHAIN

24) Which type of approach does the organization use to identify the key characteristics of its activities, products and services and their impact on the environment, society and economy (map or description of the business and the interaction with environment, society and economy – WHERE THE BUSINESS IS?) for the purpose of developing business strategic plans (and also to manage and control activities, products and services and their impact) - mark in the column ORGANIZATION - CURRENT SITUATION? Then, which would be the ideal type of approach that your supply chain would like to use to identify the key characteristics of its activities, products and services and their impact on the environment, society and economy for the purpose of developing the chain’s strategic plans (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION	POSSIBLE ANSWERS (*)	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	General cause and effect	
	General risk-based	
	Risk-based using cause and effect	
	Life cycle	

	Regulatory or voluntary initiative	
	Flowchart of the processes and activities	
	Description of the activities	
	No approach	
	Other:	
	Other:	

If the answer is no for both columns, please explain your methodology

Note (*):

- I. The list of approaches is based on the International Organization for Standardization, “ISO 14031:1999 - Environmental management - Environmental performance evaluation – Guidelines”. 1999, International Organization for Standardization: Geneva, Switzerland.

25) Which sources of information does your organization use to help identify the key characteristics and impacts of the organization (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal sources of information that your supply chain would like to use to help identify the key characteristics and impacts of the supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Reports of the interested parties' consultation process	
	Internal knowledge (people, documents, etc)	
	Impact assessments (Reports)	
	Laws and permits from government agencies	
	Publications from local or regional libraries and databases	
	Information exchanged with other organizations/supply chains	

	Benchmark (business performance) reports	
	Professional help	
	Historical data	
	Publications from other organizations and associations	
	Publications from welfare organizations	
	Media	
	Publications from NGOs	
	Publications on corporate responsibility initiatives from financial institutions	
	No sources	
	Other:	
	Other:	
	Other:	

COMBINATION AND ASSESSMENT OF THE PREVIOUS INFORMATION - FROM THE IDENTIFICATION OF ASPECTS (KEY CHARACTERISTICS OF THE BUSINESS INCLUDING ACTIVITIES, PRODUCTS AND SERVICES) AND IMPACTS OF THE ORGANIZATION/SUPPLY CHAIN + ENGAGEMENT/ASSESSMENT OF THE NEEDS OF THE INTERESTED PARTIES)

26) Does your organization combine and assess the previous information (from the identification of the key characteristics and aspects/impacts of the organization and consultation with the interested parties) - mark in the column ORGANIZATION - CURRENT SITUATION? Then, what would be the ideal situation for a supply chain in which your organization would like to participate (to combine and assess the previous information) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes	
	No	

If yes for ORGANIZATION - CURRENT SITUATION, please explain:

If yes for SUPPLY CHAIN - IMPROVED SITUATION, please explain:

DEVELOPMENT OF THE ORGANIZATION'S/SUPPLY CHAIN'S VISION, POLICY AND ACTION PLANS

27) Does your organization develop vision, policies and action plans based on the combination of the identification of the key characteristics and aspects/impacts of the organization and consultation with the interested parties (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for a supply chain that your organization would like to participate in (to develop vision, policies and action plans for the chain based on the combination of the identification of the key characteristics and aspects/impacts of the organization and consultation with the interested parties) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes	
	No	

If the answer is no for both columns, please explain your methodology:

DEVELOPMENT OF KPIs, PERFORMANCE CRITERIA, DATA COLLECTION SYSTEM AND ASSESSMENT OF THE PERFORMANCE

28) Which type of characteristics in terms of KPIs would you like to develop for your supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

POSSIBLE ANSWERS	SUPPLY CHAIN
	IMPROVED SITUATION
Each company uses their own KPIs (different ones)	
The KPIs are used along supply chain	
No characteristics	
Other	

29) Which type of approach does your organization use to identify priorities to develop KPIs and the KPIs/performance criteria (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal type of approach that your supply chain would like to use to identify priorities to develop KPIs and the KPIs/performance criteria for the chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION	POSSIBLE ANSWERS ⁴	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Top-down definition	
	External help	
	Choices made by the organization/supply chain based on the experience of the personnel (no specific method)	
	Internal brainstorm meetings and workshops	
	Internal surveys/questionnaires	
	Direct questions/answers from top management to employees	
	Employee suggestions program	
	Consultation meetings with interested parties	
	No approach	
	Other:	
	Other:	
	Other:	

If answered “Top-down definition”, please explain the process

30) Which type of information does your organization use to identify priorities to develop KPIs and the KPIs/performance criteria (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal type of information that your supply chain would like to use to identify priorities to develop KPIs and the KPIs/performance criteria for the chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN CURRENT SITUATION
	Information from the identification of the key characteristics of its activities, products and services and their impact on the environment and society (cause and effect analysis)	
	Information from the consultation of interested parties (including information from regulatory or voluntary initiative)	
	Information from policy and action plans	
	Information from risk-based analysis	
	Information from life cycle analysis	
	Information from historical data	
	Perceptions	
	Benchmark information from other organization/supply chain	
	Use examples from technical tools such as ISO 14031, SA 8000, ISO 9001, ISO 14001, etc.	
	Use examples from technical tools such as Global Reporting Initiatives – GRI	
	Legislation and other requirements	
	No information	
	Use example from other publications:	
	Use example from other publications:	
	Use example from other publications:	
	Other:	

	Other:	

31) Which type of characteristics of KPIs does your organization takes into consideration to select KPIs (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal type of characteristics of KPIs that the supply chain would like to take into consideration to select KPIs for the chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Consistent with policy	
	Reliable because there are fewer assumptions when presenting information	
	Easy to understand	
	Easy to obtain data	
	Able to provide information on current and future trends	
	Sensitive to changes	
	Useful for measuring performance against criteria	
	Appropriate to management or operational efforts or the condition of the society/environment	
	No characteristics	
	Other:	

32) Which type of unit and data for KPIs does your organization use (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal type of unit and data for KPIs that your supply chain would like to use for the chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	PART A: Direct unit (such as tonnes of contaminant emitted)	
	PART A: Relative unit (such as tonnes of contaminant emitted per tonnes of product manufactured)	
	PART A: Indexed (convert data to different unit)	
	PART A: Aggregated (combined value of data of the same type)	
	PART A: Weighted	
	PART B: Only qualitative data	
	PART B: Only quantitative data	

	PART B: Qualitative and quantitative data	
	No unit/characteristic	
	Other:	
	Other:	

33) Which categories of KPIs does your organization define (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal categories of KPIs that your supply chain would like to define for the chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Operational indicators	
	Management indicators	
	Condition indicators	
	Pressure indicators	
	Response indicators	
	State indicators	
	Lead indicators	
	Lag indicators	
	Aspect indicators	
	Impact indicators	
	No categories	
	Other:	
	Other:	
	Other:	

34) Does your organization have specific procedures showing how to collect, evaluate and convert data (to the unit of KPIs) - mark in the column ORGANIZATION - CURRENT SITUATION (*)? Then, what would be the ideal situation for a supply chain in which your organization would like to participate {to have specific procedures showing how to collect, evaluate and convert data (to the unit of KPIs) for your supply chain} - mark in the column SUPPLY CHAIN - IMPROVED SITUATION (*)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Yes	
	No	

Note (*):

- I. The data collected has to have the quality, adequacy and completeness necessary to produce reliable information, etc.

- II. The conversions used to translate data in KPIs could be calculations, estimations, statistical methods, graphical techniques, indexation, aggregation, weighting, direct reading and no data conversion, etc.

35) Which approach does your organization use to define sustainability KPIs (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal approach that your supply chain would like to use to define sustainability KPIs for the chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Indicators that give information about all the areas (environmental, social and economic) at the same time	
	Indicators that give information about at least two areas (environmental, social or economic) at the same time	
	Indicators of one area but they are important to all types of interested parties linked to the organization/supply chain	
	Indicators of one area but they are important to the most important interested parties linked to the organization/supply chain	
	No approach	
	Other:	
	Other:	

36) Complete enclosed tables (*)

- a) Show me some KPIs and their respective performance criteria for the environmental, social and economic areas – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS
- b) Show me some KPIs and their respective performance criteria for the environmental, social and economic areas – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (please suggest common indicators that can be used by most of the organization’s participants in a supply chain)

Note (*):

- I. Request data of at least five already defined indicators for each area (environmental, social and economic) for the last three years

INTERNAL COMMUNICATION (INCLUDING INTERNAL REPORT)

37) Complete enclosed tables

- a) Complete the table considering target groups of internal reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)
- b) Complete the table considering target groups of internal reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23)

38) Complete enclosed tables

- a) Complete the table considering other types of internal communication (*) to interested parties than internal reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)
- b) Complete the table considering other types of internal communication (*) to interested parties than internal reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23)

Note (*):

- I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one-way (e.g. when Person “A” send a message to person “B” and then there is no answer or feedback).

EXTERNAL COMMUNICATION (INCLUDING EXTERNAL REPORT)

39) Complete enclosed tables

- a) Complete the table considering target groups of external reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)
- b) Complete the table considering target groups of external reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23)

40) Complete enclosed tables

- a) Complete the table considering other types of external communication (*) to interested parties than external reporting, areas covered by each report, frequency

and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)

- b) Complete the table considering other types of external communication (*) to interested parties than external reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23)

Note (*):

- I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one-way (e.g. when Person “A” send a message to person “B” and then there is no answer or feedback).

- 41) Does your organization use the GRI 2002 to report performance (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for a supply chain that your organization would like to participate in (for your supply chain to use the GRI 2002 to report performance) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	No	
	Yes	
	Other:	

- 42) Does your organization convert performance data (complex internal data using KPIs) to a simple form of data for reporting or other forms of communication (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for a supply chain in which your organization would like to participate (for your supply chain to convert performance data to a simple form of data for public reporting) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	No	
	Yes	

- 43) Show me the following information: performance indicator, respective performance criteria, respective data presented in the internal report and respective data presented in the public report

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)
Environmental				
Social				
Economic				

Explanation if necessary

44) Does your organization present the data for reporting or other forms of communication in any graphic or visual format (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for a supply chain in which your organization would like to participate (for your supply chain to present the data for public reporting in any graphic format) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	No	
	Yes	

If you answered yes in ORGANIZATION - CURRENT SITUATION, please show me some examples based on your experience.

45) Do third party auditors verify your organization's public report (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for a supply chain in which your organization would like to

participate (to have your supply chain's public report verified by third party auditors) - mark in the column SUPPLY CHAIN - IMPROVED SITUATION?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Yes	
	No	

MANAGEMENT REVIEW (EVALUATION OF PERFORMANCE IMPROVEMENT, DECISION-MAKING PROCESS TO IMPROVE PERFORMANCE OF THE ORGANIZATION/SUPPLY CHAIN, EVALUATION AND IMPROVEMENT OF THE PERFORMANCE EVALUATION MANAGEMENT SYSTEMS OR PROCESS)

46) Which type of approach does your organization use to develop management review and business decisions to improve performance and the management systems (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal type of approach that your supply chain would like to use to develop management review and business decisions to improve performance and the management systems (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Top-down definition (process not known)	
	External help	
	Internal brainstorm meetings and workshops	
	Focus group meetings and workshops	
	No approach	
	Other:	

47) On what do you base your business decisions (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the basis for business decisions for your supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	General information	
	Experience	
	Reliable information (data)	
	Intuition	
	No approach	
	Other:	

	Other:	
	Other:	

48) Which steps are included in the current process of decision-making in your organization (the following information is in a logical sequence) - mark in the column ORGANIZATION - CURRENT SITUATION? Then, which would be the ideal steps that would be included in the process of decision-making in your supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Recognition of decision required	
	Evaluation of the causes	
	Development of alternatives	
	Selection of desired alternatives	
	Implementation of chosen alternative	
	No steps	
	Other:	
	Other:	
	Other:	

49) Which methods does your organization use to assist decision-making (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal type of methods that your supply chain would like to use to assist decision-making (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION	POSSIBLE ANSWERS	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Cost-benefit analysis (evaluation of the monetary value of costs and technical benefits linked to actions – quantitative method)	
	Cost-benefit analysis (evaluation of the monetary value of costs and total benefits (technical, environmental, social and economic) linked to actions – qualitative and quantitative method)	
	Cost analysis (evaluation of the monetary value of costs linked	

	to actions – quantitative method)	
	Risk-benefit analysis {evaluation of cause (actions) and effect (impacts of the action – qualitative method)}	
	Checklists {evaluation of a list of aspects related to the decision to be taken and impacts – qualitative method}	
	Composite systems or the Kepner-Tregoe process (composition of all the methods presented before)	
	No method	
	Other:	
	Other:	
	Other:	

50) What are the purposes for the decisions taken by your organization (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal purposes for the decisions taken by your supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

ORGANIZATION CURRENT SITUATION	POSSIBLE ANSWERS	SUPPLY CHAIN IMPROVED SITUATION
	Maintain business performance (linked to operational and management issues)	
	Improve business performance (linked to operational and management issues)	
	Control and/or avoid business risks (linked to operational and management issues)	
	No purpose	
	Other:	
	Other:	
	Other:	

51) Indicate which is the frequency of management review used by your organization (mark in the column ORGANIZATION - CURRENT SITUATION). Then, indicate which would be frequency of management review that would be used by

your supply chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION):

ORGANIZATION	POSSIBLE ANSWERS (*)	SUPPLY CHAIN
CURRENT SITUATION		IMPROVED SITUATION
	Monthly	
	Three months	
	Six months	
	One year	
	No specific period	
	No frequency	

Note (*):

I. First tick the boxes. Then if you have different answers for different areas evaluated (or to be evaluated) you can write down in each box the first letter of the area(s) evaluated (or to be evaluated). Areas covered and the respective letter/symbol to be included in the boxes are:

- ❖ Environmental - E
- ❖ Workplace Health & Safety - W
- ❖ Quality – Q
- ❖ Economic – \$
- ❖ Social – S

52) Do you agree with this statement: “It is important for every organization participating in a specific supply chain to speak the same language in terms of performance evaluation process” (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

POSSIBLE ANSWERS	SUPPLY CHAIN
	IMPROVED SITUATION
No	
Yes	

53) Do you think that the implementation of an umbrella performance evaluation management system (or process) for the entire supply chain would be a good approach to the management of the performance of the entire chain (mark in the column SUPPLY CHAIN - IMPROVED SITUATION)?

POSSIBLE ANSWERS	SUPPLY CHAIN
	IMPROVED SITUATION
No	
Yes	

54) What suggestions could you give to integrate the performance evaluation of organizations participating in a supply chain (management structure, KPIs, reporting, engagement of interested parties, etc)? Please give examples.

**QUESTIONNAIRE TO ACCESS INFORMATION ABOUT
PERFORMANCE EVALUATION MANAGEMENT SYSTEMS
(PROCESS) OF ORGANIZATIONS AND THEIR SUPPLY CHAINS**

INSTRUCTIONS FOR THE INTERVIEWER

- This questionnaire was developed to be filled by the interviewer. In some questions the interviewer will ask the organization's personnel for information about the situation of the organization as an individual entity and as part of a supply chain.
- The interviewer has to access the information/situation of the organization today. (He will mark in the ORGANIZATION - CURRENT SITUATION column only what the organization is doing today). The interviewee has to give a direct answer without rationalization. The interviewee has to try to give the point of view of his/her organization in relation to the questions.
- The interviewee will also give his/her point of view (as a member of the organization) about future expectations/improvement about the subject asked. (The interviewer will mark in the SUPPLY CHAIN - IMPROVED SITUATION column only what the top management of the organization intends to do or thinks is the ideal action to take or thinks is an improved action to be taken in relation to the question for the supply chain).
- Ask them to answer the questions related to supply chain based on a supply chain in which they participate or a supply chain that they have in mind.
- The answers for individual organizations have to be marked on the left hand side of the tables and the answers for the supply chain have to be marked on the right hand side of the tables.
- If there is any other information about each question that the interviewee wants/needs to add, write down on a parallel answer sheet using the same item numbers (e.g. if the organization/supply chain applies a different methodology or approach on how to develop some steps of business performance evaluation).
- This symbol, (*), means that there is a note just after the question. Numbers superscripted (¹ or ²) are addressing issues that are described in the "Observations" section that is enclosed to the questionnaire.
- The tables to be completed are in the "Tables" section that is enclosed with the questionnaire.
- If the interviewee marks all the answers, ask the person to identify the most important ones.
- Open questions can be recorded.

- If the answers for the IMPROVED SITUATION – SUPPLY CHAIN are all the answers that were given to the organization/supply chain, try to select the 2 or 3 most important answers for them.
- Use pencil or pen to complete this questionnaire.
- Some questions can have different answers depending on the areas that are in focus. If one question has different answers for different areas, please write down in the answering boxes the following letters to address issues related to the respective area. The areas and the letters to be used are:
 - ❖ Environmental - E
 - ❖ Workplace Health & Safety - W
 - ❖ Quality – Q
 - ❖ Economic – \$
 - ❖ Social - S
- If there are many answers for one question, try to focus on the answer that gives the average impression about the organization interviewed.
- This questionnaire is based on an expanded model (for performance evaluation of organizations according to sustainable principles) based in ISO 14031:1999 (show basic model).
- Explain your concept of performance evaluation management systems and that every organization has a performance evaluation management system.
- Explain your concept of supply chain and that every organization participates in a supply chain.
- Explain your concept of performance evaluation management systems (process) for supply chain.
- The major field of this work is linked to the environmental area (the strength of the researcher and supervisors). However the work also includes knowledge related to social and economic areas.
- This questionnaire is based in 5W (what, why, when, who and where) 2H (how and how much) and 2S (show me procedures and data).
- Ask the professional of the organization at the end of the questionnaire if there is any question related to the subject that you should have asked that you did not.

OBSERVATIONS

Observation ¹

A. Use the table below to characterize the issues related to the three sustainable principles (This table is based on Global Reporting Initiative, “Global Reporting Initiative - Draft 2002 Sustainability reporting guidelines - 02 April 2002”. 2002, Amsterdam: Global Reporting Initiative, improved by the researcher).

B. See also the documents: ISO 14031, GRI, GEMI, among others related to sustainable principles and indicators.

C. The following table also shows areas and the respective issues that the organization/supply chain can use to develop KPIs:

ISSUES RELATED TO THE SUSTAINABLE PRINCIPLES AND BUSINESS ENVIRONMENT		
Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)	Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)	Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)
<ul style="list-style-type: none"> • Environmental conditions • Environmental and risk management • Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water • Biodiversity • Emissions, effluents and waste • Soil, air and water contamination, protection and conservation • Environmental design • Life cycle 	<ul style="list-style-type: none"> • Social conditions • Social and risk management • Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Health and safety (H&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment / leisure • Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy 	<ul style="list-style-type: none"> • Economic conditions • Economic and risk management • Quality (product quality and customer satisfaction) • Financial • Market • Growth • Customers/Purchasers/Consumers • Suppliers • Employees • Founders • Public Sector • Shareholders/Investors

	<ul style="list-style-type: none"> ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ● Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption ○ General 	
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COMMON ISSUES: FOR THE THREE AREAS

- Focus **on** organization/supply chain activities, products and services
- Suppliers’ activities, products and services
- Consumers’/customers’ activities, products and services
- Transporters’ activities
- Other interested parties
- CSR (business ethics)
- Corporate citizenship and governance
- Sustainable mechanisms
- Legislation
- Non-regulatory guidelines
- Compliance
- Interested parties’ satisfaction and well-being
- Other issues

Observation ²

INTERESTED PARTY	
2.1.	Management representatives
2.2.	Employees
2.3.	Purchasers/ Consumers/Customers
2.4.	Investors/Shareholders
2.5.	Suppliers
2.6.	Contractors
2.7.	Indigenous people
2.8.	Welfare organizations
2.9.	Neighbouring and regional communities
2.10.	General public
2.11.	Trade unions
2.12.	NGOs
2.13.	Opinion leaders
2.14.	Business, administrative, academic and research institutions
2.15.	Communications media
2.16.	Financial institutions (insurers, lending institutions, etc)
2.17.	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)
2.18.	Local, State and Federal Government
2.20.	Other organizations from your supply chain

Observation³

Imposition	Collaboration (voluntary)
<ul style="list-style-type: none"> ○ Contracts ○ Procurement requirements ○ Other requirements ○ Implementation of general management systems ○ Implementation of performance evaluation management systems (including KPIs) ○ Audit of suppliers ○ Product requirements 	<ul style="list-style-type: none"> ○ Establishment of similar management systems in each organization ○ Establishment of umbrella management systems for the supply chain ○ Shared information ○ Product stewardship ○ Design and combined plan ○ Training ○ Programs of assistance ○ Meetings ○ Joint research ○ Joint problem solving

Observation⁴

- A. Some methods can be used together with: web pages, emails, personal contacts, written forms, etc.
- B. Some methods can be used together with: closed or open agenda/scope or both approaches together.

Observation ⁵

AREAS COVERED BY THE REPORT
5.1.Environmental, Workplace Health & Safety and Quality (integrated evaluation)
5.2.Environmental, Economic, Social (integrated evaluation)
5.3.Financial (separately)
5.4.Economic (separately)
5.5.Environmental (separately)
5.6.Social (separately)
5.7.Workplace Health & Safety (separately)
5.8.Quality (separately)

Observation⁶

A. FREQUENCY can be: monthly, quarterly, every six months, annually, etc.

TYPE OF INFORMATION PROVIDED
7.1.Organization's/supply chain's performance
7.2.Organization's/supply chain's performance against performance criteria
7.3.Trends in organization's/supply chain's performance
7.4.Legislative, regulatory and other interested parties' requirements compliance
7.5.Demonstration of organization's/supply chain's commitment and efforts to improve performance
7.6.Cost savings or other financial results
7.7.Recommendations to improve organization's/supply chain's performance
7.8.Statement of the organization's/supply chain's commitment to performance evaluation as part of the management approach
7.9.Description of organization's/supply chain's activities, products and services
7.10. Statement of organization's/supply chain's aspects and impacts
7.11. Contribution of the performance evaluation process to the overall success of the organization/supply chain

TYPE OF COMMUNICATION TOOLS *	
8.1	Internal statements (brochures, newspapers, magazines, etc)
8.2	External statements (brochures, newspapers, magazines, etc)
8.3	Internal information through TV or radio
8.4	External information through TV or radio
8.5	Direct answers to target internal interested parties (employees, etc.)
8.6	Direct answers to target external interested parties (neighbours, regulatory bodies, customers, suppliers etc)
8.7	General internal meetings
8.8	General external meetings
8.9	Focus on internal group meetings
8.10	Focus on external group meetings
8.11	Speeches during internal events
8.12	Speeches during external events
8.13	General internal report
8.14	Target group internal report
8.15	General external (public) report
8.16	Target group external report

Note (*):

- I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one-way (e.g. when Person “A” sends a message to person “B” and then there is no answer or feedback).

TABLES

36) Complete the tables

a) Please present some KPIs and their respective performance criteria for the environmental, social and economic areas – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS:

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS ¹ (*)			
INFORMATION	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	OBSERVATION
AREA			
Environmental			
Social			
Economic			

Note (*):

I. Ask data of at least five already defined indicators of each area (environmental, social and economic areas) for the last three years.

b) Please suggest a set of KPIs and their respective performance criteria for the environmental, social and economic areas – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (please suggest common indicators that can be used by most of the organizations participant in the supply chain):

IMPROVED SITUATION – FOR THE SUPPLY CHAIN¹ (*)			
INFORMATION	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	OBSERVATION
AREA			
Environmental			
Social			
Economic			

Note (*):

- I. Ask data of at least five already defined indicators of each area (environmental, social and economic) for the last three years.

37) Complete the tables

a) Complete the table considering target groups for internal reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Management representatives			
	Employees			
	Investors/Shareholders			
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

b) Complete the table considering target groups for internal reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23)

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Management representatives			
	Employees			
	Investors/Shareholders			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your supply chain			
	No internal reporting			
	Other:			
	Other:			
	Other:			

38) Complete the tables

- a) Complete the table considering other types of internal communication (*) to interested parties than internal reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23 and observation 8)

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Management representatives			
	Employees			
	Investors/Shareholders			
	Contractors			
	No internal communication			
	Other:			
	Other:			
	Other:			

Note (*):

- I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one way (e.g. when Person “A” sends a message to person “B” and then there is no answer or feedback).

- b) Complete the table considering other types of internal communication (*) to interested parties than internal reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23 and observation 8).

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Management representatives			
	Employees			
	Investors/Shareholders			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your supply chain			
	No internal communication			
	Other:			
	Other:			
	Other:			

Note (*):

- I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one-way (e.g. when Person “A” sends a message to person “B” and then there is no answer or feedback).

39) Complete the tables

- a) Complete the table considering target groups of external reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

b) Complete the table considering target groups of external reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23)

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

40) Complete enclosed tables

- a) Complete the table considering other types of external communication (*) to interested parties than external reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23 and observation 8).

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No external communication			
	Other:			
	Other:			
	Other:			

Note (*):

- I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one-way (e.g. when Person “A” sends a message to person “B” and then there is no answer or feedback).

b) Complete the table considering other types of external communication (*) to interested parties than external reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SUPPLY CHAIN (see question 23 and observation 8).

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No external communication			
	Other:			
	Other:			
	Other:			

Note (*):

I. In this model, communication means that a message is sent from person “A” to person “B”. Person “B” receives and processes the message and then sends feedback to person “A”. It means that communication is two-way. However information is only one-way (e.g. when Person “A” sends a message to person “B” and then there is no answer or feedback).

APPENDIX 4 - MATERIAL FOR PARTICIPANTS - QUESTIONNAIRE PART

LETTER OF INVITATION

From: Rod Edwards
Sent: Friday, 16 May 2003 10:23 AM
To: 'amanning@monadel.com.au'
Cc: Flavio Coelho
Subject: Business and Environment Performance Evaluation Research Project

Dear Alban

Following our discussion this morning I provide the following information. Thank you for agreeing to participate. I will ask Flavio to ensure he provides you with at least 4 or 5 days notice in arranging the interview.

CQU is currently conducting a research project looking at performance evaluation processes (for business and environment performance) of organisations and their supply chain. The focus of the research is the processes used in evaluating and not the performance data itself.

The research is proposed to be done by looking at a case study of the supply chain of the aluminium industry in Gladstone.

The following organisations have been identified as key players in the aluminium supply chain and are to be asked for their input: NRG Gladstone Power Station (energy supplier) QAL (alumina refinery) BSL (smelter) Monadelphous (engineering services) K&S (transport) Metalcorp (aluminium recycler) Capral Mill (manufacturer)

The research project team is:
Jose Flavio Coelho - PhD student
Professor David Moy - Principal Supervisor
Rod Edwards - Associate Supervisor

The input required will be collected by way of an interview conducted by Jose Flavio Coelho during which a survey questionnaire will be completed. The interview would need to involve someone in the organisation with a good knowledge of the company's business systems and their impact on other companies in the supply chain.

I attach a zip file including four documents in pdf format:

1. Research Project Information.pdf (Research aim, scope, objectives and timeframe)
2. Initial Questions.pdf (initial three questions from questionnaire, which help demonstrate the research approach being taken)
3. Draft Letter of Support.pdf (required to meet CQU internal processes)
4. Consent Form.pdf (required to meet CQU internal processes)

Please don't hesitate to call me if you would like to discuss these matters further.

Regards

Rod Edwards
Faculty of Engineering and Physical Systems
Central Queensland University
Rockhampton Queensland 4701
Phone +61 7 49306448 - Fax +61 7 49309382
<http://www.engineering.cqu.edu.au>
r.edwards@cqu.edu.au

INFORMATION ABOUT THE RESEARCH PROJECT

1 – TITLE OF THE RESEARCH

THE IMPROVEMENT OF SUPPLY CHAIN PERFORMANCE TOWARDS SUSTAINABILITY THROUGH PERFORMANCE EVALUATION MANAGEMENT SYSTEMS AND COMMUNICATION

2 – AIM OF THE RESEARCH

Develop a simple and objective performance evaluation process to assist organizations in Gladstone and their supply chains to improve business and environment performance.

3 - SCOPE

This applied research project explores current practices to help develop a model for improving business performance. Because aluminium is one of the major products of the region, the supply chain based on the aluminium industry in Gladstone has been chosen for the case study.

Only the major organizations in the supply chain are included in the work.

In addition, Capral Aluminium located in Brisbane was also included in the project because of its importance within the chosen supply chain.

The chosen supply chain is represented in Figure 1.

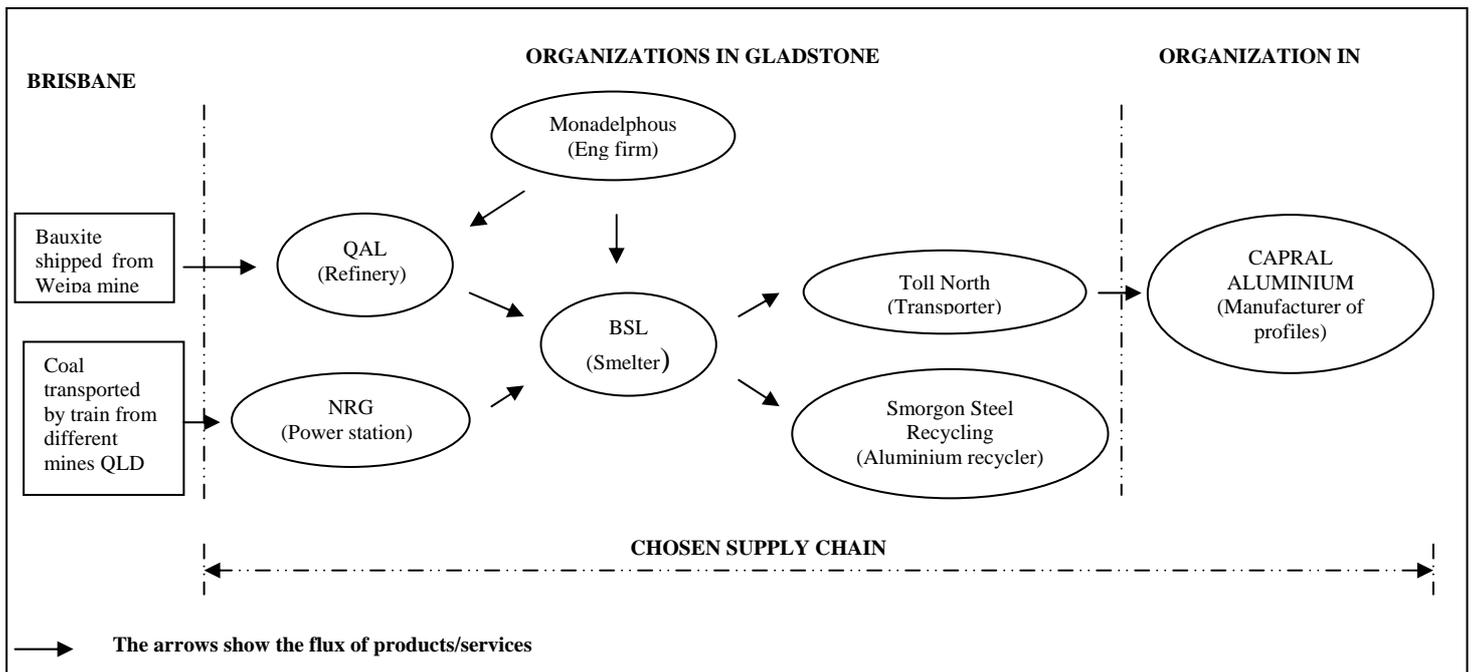


Figure 1 – Chosen Supply Chain for the research project

Note: It is not a pre-requisite that organizations participating in the project have a structured performance evaluation methodology in place.

4 - OBJECTIVES / ACTIONS

OBJECTIVES AND ACTIONS	COMMENTS
1 – Identify and assess current practices for performance improvement, evaluation and communication of individual organizations along their supply chain.	1.1 - Arrangements with the contact person of each organization for the collection of information. 1.2 - Collection of information about PE methodologies from organizations within the supply chain. 1.3 - Identification and interview of key community stakeholders.
2 – Develop a model for a simple, objective, cost effective process for performance evaluation to assist organizations and their supply chain improve business and environmental performance and communicate about their progress towards sustainability.	2.1 - The model will be based on AS/NZS ISO 14031:2000. This standard has been used internationally by a number of organizations with considerable success.
3 – Identify from the model, important factors that could be used in guidelines to assist a wide range of organization supply chains become more sustainable.	3.1 - It is proposed that a set of guidelines could be developed from this research that could have wider application to other organizations worldwide.
4 – Develop a key set of environmental and sustainability performance indicators for the supply chain to be used to help participants measure improve and communicate performance.	4.1 – The success of this is dependent on close collaboration between the research group and participant organizations within the supply chain. 4.2 – It is also important that the views of the community be considered in developing the model and guidelines. The importance of their inclusion in performance evaluation process is well demonstrated by the case studies described in AS/NZS HB 145:1999.

5 - PROJECT TIMEFRAME

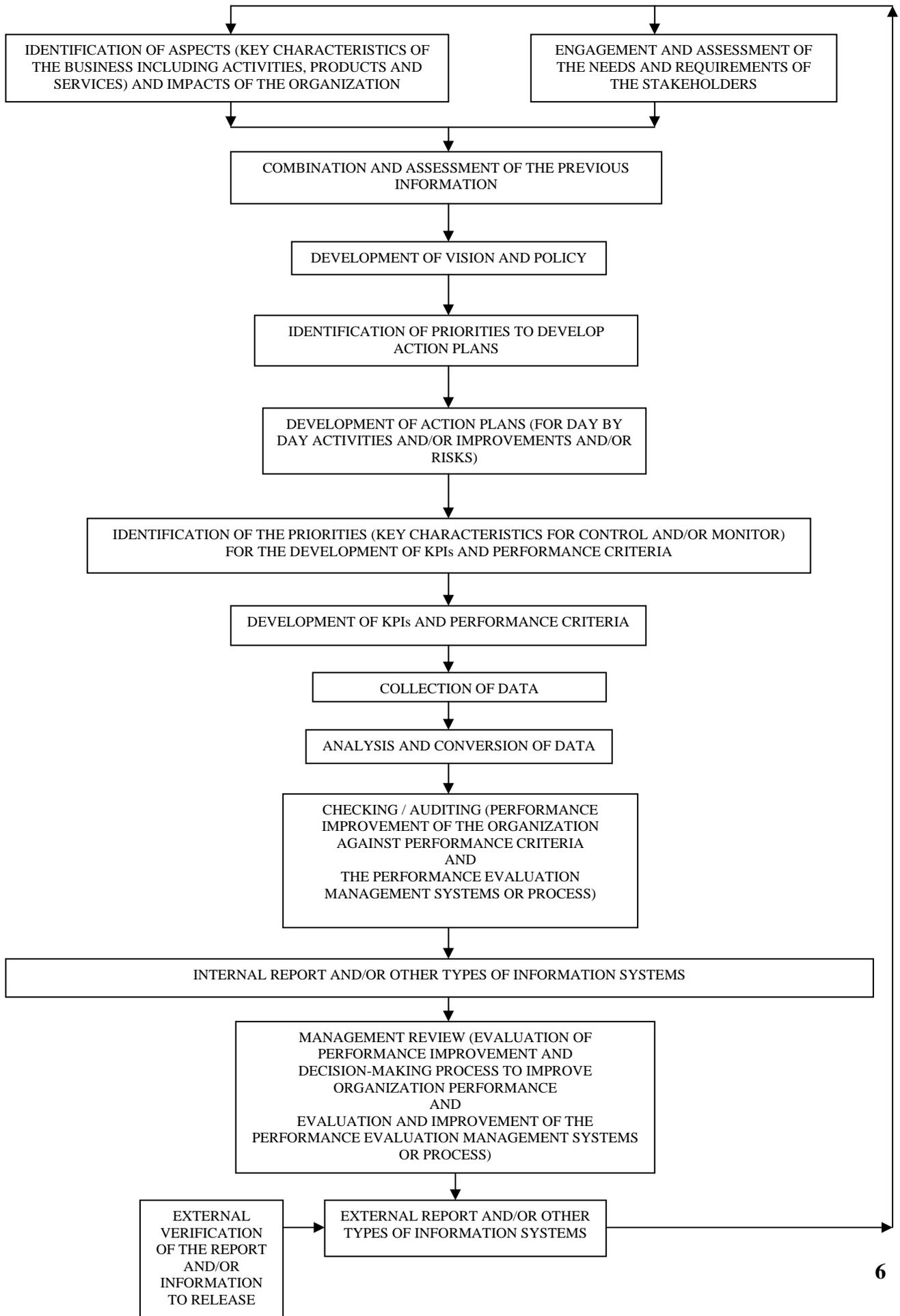
The proposed timeframe for the completion of the research is two years starting on 01 Jan 2003. The fieldwork with organizations will take place from 01 Apr 2003 until 31 Jul 2003.

**PERFORMANCE EVALUATION MANAGEMENT SYSTEMS –
MODEL DEVELOP BASED ON AS/NZS ISO 14031:2000 AND SUSTAINABLE
PRINCIPLES (PE MODEL)**

The idea of the model is based on the reunion of the concepts of AS/NZS ISO 14031:2000 and sustainable principles. The model can be used by industries as a similar language within the supply chain or as umbrella performance evaluation management systems for the entire supply chain. It is not necessary in either case that industries implement the full model but it is important for each industry within a supply chain to understand and use the basic concepts of the model.

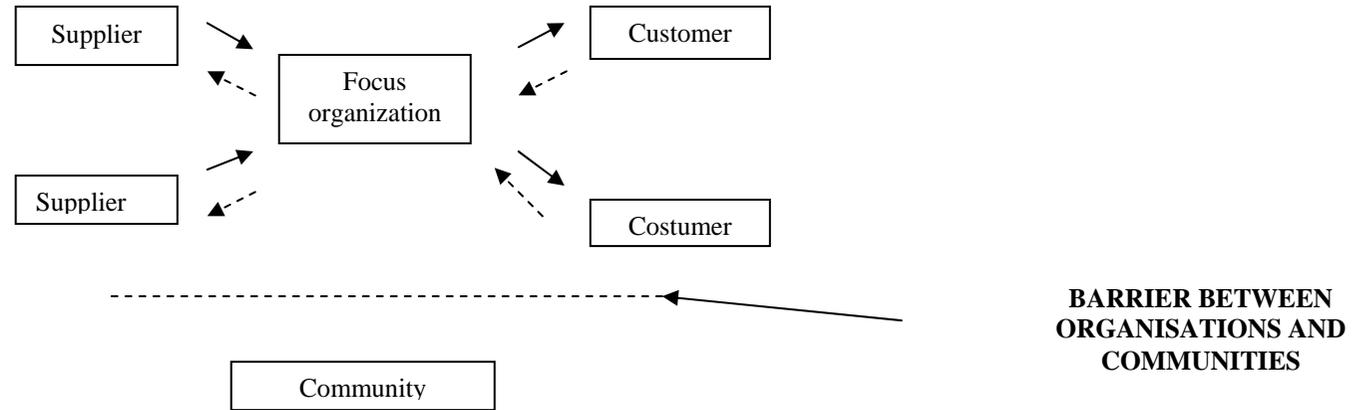
According to the model, the relations among the supply chain have to be voluntary. The performance evaluation management systems of the supply chain have to be managed by a committee formed by representatives of all participants.

**PERFORMANCE EVALUATION MANAGEMENT SYSTEMS –
MODEL DEVELOPED BASED ON AS/NZS ISO 14031:2000 AND SUSTAINABLE PRINCIPLES**

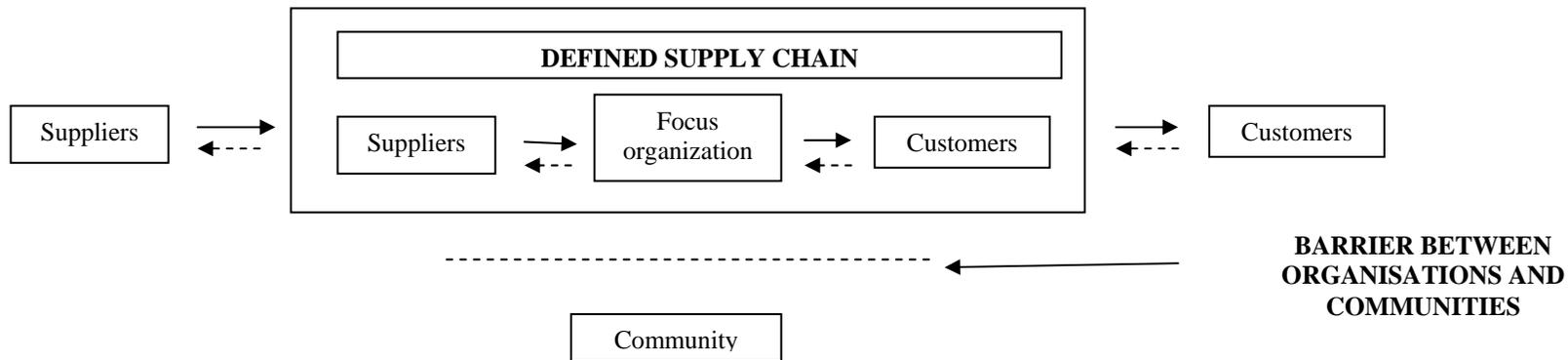


SUPPLY CHAINS AND COMMON BUSINESS RELATIONSHIPS (USUAL APPROACHES)

**BASIC ORGANIZATION AND SUPPLIERS/CUSTOMERS RELATIONSHIP – COMMON BUSINESS RELATIONSHIPS
(USUAL APPROACH)**



**BASIC SUPPLY CHAIN - FOCUS ORGANIZATION AND SUPPLIERS, CUSTOMERS AND COMMUNITY
(USUAL APPROACH FOR SUPPLY CHAIN)**



NOTE: —→ This arrow shows flux of products/services
 - - - - -→ This arrow shows the flux of information (sometimes one organisation imposes things to others and the arrows changes directions)

LETTER OF SUPPORT

Gladstone, ____ / July / 2003

José Flávio Guerra Machado Coelho - PhD Student
Central Queensland University
Gladstone Engineering Centre
PO Box 1319 - Gladstone - QLD - 4680 - AUSTRALIA
Phone +61 07 49707348
f.coelho@cqu.edu.au
<http://www.engineering.cqu.edu.au>

Ref: PhD Research Project: Jose Flavio Coelho

Mr. Jose Flavio Coelho,

I am sending this letter to confirm that our organization is happy to participate in your project according to the information provided in the documents "INFORMATION ABOUT THE RESEARCH PROJECT FOR ORGANIZATIONS" and Consent Form.

Sincerely,

Name of the person authorising cooperation:

Position:

Name of the organization:

Contact details:

CONSENT FORM

Anonymity

The confidentiality of the results of this study is assured. Under no circumstances will your name appear in publications associated with this research. Your results will be provided to you in both written and verbal form with no one else being given your results unless you request it.

THROUGHOUT THE COURSE OF THE PROPOSED RESEARCH PROGRAM, YOU ARE FREE TO WITHDRAW AT ANY TIME FOR WHATEVER REASON

Enquiries

Any enquiries or concerns about the proposed research can be directed to the researcher by ringing at work (07)4970.7348, at home (07)4972.2468, by e-mail at f.coelho@cqu.edu.au or by writing to: Jose Flavio Coelho, Central Queensland University, Gladstone Campus, PO Box 1319, GLADSTONE, QLD 4680.

Freedom to Withdraw

I have read the above information. The nature, the demands, risks and benefits of the project have been explained to me. I knowingly assume the risks involved, and understand that I may withdraw my consent and discontinue participation at any time without penalty or loss of benefit to myself. In signing this consent form I am not waiving my legal claims, rights or remedies. A copy of the consent form will be given to me.

NAME: _____

SIGNATURE: _____

DATE: _____

CONTACT DETAILS: _____

Feedback information

Please tick your choice:

I wish to receive plain English feedback of my participation

I do not wish to receive plain English feedback of my participation

Please contact Central Queensland University's Research Service Office (phone: 4923-2607) should there be any concerns about the nature and/or conduct of this research project.

INITIAL SET OF THREE QUESTIONS TO ORGANIZATIONS

ORGANIZATION NUMBER: _____

Note: The answers to these questions at the beginning of the project will guide the researcher to develop a specific questionnaire for the chosen supply chain.

- 1) Every organization participates in many different supply chains. The supply chains can have formal or informal scope (defined boundaries) and structured or unstructured performance evaluation process. Think now about the supply chains in which your organization participates or has participated. Have any of these supply chains developed a process to evaluate performance (including communication with stakeholders, development of a common set of indicators and reporting) for the entire supply chain?

POSSIBLE ANSWERS	ANSWER
Yes	
No	

- 2) Think again about the supply chains in which your organization participates or has participated. Have any of these supply chains developed evaluation of the performance for the entire supply chain?

POSSIBLE ANSWERS	ANSWER
Yes	
No	

- 3) Every organization has in place some form of business performance evaluation process(es) (e.g. financial, environmental, quality, Workplace Health & Safety), formal (with procedures) or informal (without procedures), well structured or not well structured. Performance evaluation processes can include steps such as communication with stakeholders, development of set of KPIs, collection of data based on KPIs, organization's performance reporting and decision-making. It can also be said that every organization participates in many supply chains. Imagine now that the top management of your organization decides to develop or improve the process of performance evaluation for one of its supply chains. Would your organization want to use its own internal experience with performance evaluation process as the basis for the development of the performance evaluation process for the entire supply chain?

POSSIBLE ANSWERS	ANSWER
Yes	
No	

ENERGY AND MASS BALANCE

INPUTS

- ❖ Consumption of raw material 1 (Specification: _____)/ year (2002):
- ❖ Consumption of raw material 2 (Specification: _____)/ year (2002):
- ❖ Consumption of raw material 3 (Specification: _____)/ year (2002):
- ❖ Consumption of raw material 4 (Specification: _____)/ year (2002):
- ❖ Consumption of raw material 5 (Specification: _____)/ year (2002):
- ❖ Others?
- ❖ Water consumption / year (2002):
- ❖ Energy consumption / year (2002):



PRODUCTION

- ❖ Main product:
- ❖ Installed capacity/year:



OUTPUTS

- ❖ Air emissions/year (2002):
- ❖ Water emissions (vapour and liquid)/year (2002):
- ❖ Solid waste/year (2002):
- ❖ Energy efficiency (2002):
- ❖ Others?
- ❖ Production of main product/year (2002):

(Observation: specify the volume of production designated to the major clients:
- ❖ Client 1 (Name: _____):
_____product/year
- ❖ Client 2 (Name: _____):
_____product/year
- ❖ Client 3 (Name: _____):
_____product/year
- ❖ Client 4 (Name: _____):
_____product/year
- ❖ Other clients?

TABLE OF SUSTAINABILITY - ISSUES LINKED TO THE SUSTAINABILITY OF ORGANISATIONS/COMMUNITIES - based in GRI (Global Reporting Initiative - GRI 2002)

<p>Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)</p>	<p>Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)</p>	<p>Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)</p>
<ul style="list-style-type: none"> ⌘ Environmental conditions ⌘ Environmental and risk management ⌘ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ⌘ Biodiversity ⌘ Emissions, effluents and waste ⌘ Soil, air and water contamination, protection and conservation ⌘ Environmental design ⌘ Life cycle 	<ul style="list-style-type: none"> ⌘ Social conditions ⌘ Social and risk management ⌘ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Workplace, Health and safety (WH&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment / leisure ⌘ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ⌘ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption 	<ul style="list-style-type: none"> ⌘ Economic conditions ⌘ Economic and risk management ⌘ Quality (product quality and customer satisfaction) ⌘ Financial ⌘ Market ⌘ Growth ⌘ Customers/ Purchasers/ Consumers ⌘ Suppliers ⌘ Employees ⌘ Founders ⌘ Public Sector ⌘ Shareholders/ Investors
<p>COMMON ISSUES: FOR THE THREE AREAS</p>		
<ul style="list-style-type: none"> ⌘ Focus organization/network of interested parties activities, products and services ⌘ Suppliers' activities, products and services ⌘ Consumers'/customers' activities, products and services ⌘ Transporters' activities ⌘ Other interested parties ⌘ CSR (business ethics) ⌘ Corporate citizenship and governance 		<ul style="list-style-type: none"> ⌘ Sustainable mechanisms ⌘ Legislation ⌘ Non-regulatory guidelines ⌘ Compliance ⌘ Community education and awareness ⌘ Interested parties' satisfaction and well-being ⌘ Other issues

APPENDIX 5 - COMBINATION OF DATA FROM QUESTIONNAIRES (IO/SC)

-

COMBINATION IN ONE QUESTIONNAIRE OF THE ANSWERS OF THE 7 QUESTIONNAIRES ANSWERED BY 7 ORGANISATIONS

-

**“QUESTIONNAIRE TO ACCESS INFORMATION ABOUT
PERFORMANCE EVALUATION MANAGEMENT SYSTEMS OR PROCESSES
OF ORGANIZATIONS AND THEIR SUPPLY CHAINS”**

NOTES AND INSTRUCTIONS:

- ❖ This document combines data that has the purpose to access and understand the performance evaluation processes of individual organizations, their experience with performance evaluation of SC and their opinion on to achieve an improved process for performance evaluation of SC according sustainable principles. This is not an auditing document that includes the presentation of all documents as proof. The intention is to identify the degree of culture/knowledge in relation to performance evaluation within the organizations and their SC. The discussions of this document will help the improvement of the draft model for performance evaluation process for SC.
- ❖ The answers obtained through the questionnaires contain information provided by the representatives of some focus organisations/SC. It means that the information is based in the experience of the representatives of those organizations.
- ❖ In this document the organizations have been numbered from 14 to 20. These numbers for organizations have been used during the collection of data. In the thesis, the organizations have been addressed with different numbers. The following table shows the numbers for organizations used during the collection of data and in the thesis and the areas of activities of the organization:

ORGANIZATION NUMBERS USED DURING THE COLLECTION OF DATA (USED IN THIS DOCUMENT)	THE SAME ORGANIZATION BUT WITH THE RESPECTIVE NUMBER USED IN THE THESIS	AREAS OF ACTIVITIES OF THE ORGANIZATIONS
14	1	Electricity supplier
15	2	Alumina producer
16	3	Aluminium producer
17	4	Engineering services provider
18	5	Metallic and non-metallic recycler
19	6	Aluminium profiles producer
20	7	Logistic and transport company

- ❖ Every percentage that appears in this document is related to the number of companies that have voted in one answer over the total number of companies that have participated in the research.
- ❖ Evaluation of the answers extracted from the questionnaires with organizations’/SC [Items marked with X are considered important items and items marked with X are considered very important because the interviewee stressed that this item is more important than the others even if the other items are important):

PART A – RAW DATA

GENERAL INFORMATION ABOUT ORGANISATIONS:

ORGANISATIONS	GENERAL INFORMATION ABOUT ORGANISATIONS
14	<p>GENERAL STRUCTURE, TECHNICAL INFORMATION AND LINK WITH OTHER COMPANIES</p> <ul style="list-style-type: none"> <li>❖ The Gladstone Power Station (GPS), Queensland’s largest coal-fired power station, has been operated by NRG Gladstone Operating Services Pty Ltd (NRGGOS) on behalf of the Joint Venture participants Comalco Ltd (42.125%), NRG Energy Inc (37.5%), Sumitomo Light Metal Australia (SLMA) GPS Pty Ltd (8.50%), Ryowa Development II GPS Pty Ltd 7.125%), Yoshida Kogyo KK (YKK) GPS Pty Ltd (4.75%). The power station is located in the Gladstone region. <li>❖ NRGGOS is contracted to manage the facility and the Joint Venture owns the assets of GPS. Thus GPS is a tolling operation managed by NRGGOS. <li>❖ The contracts to supply coal and provide energy are developed by the Joint Venture. The influence of NRGGOS in the contracts is only to advise the Joint Venture if it is possible to manage the facility based in the conditions and requirements of the contracts and shareholders’ requirements. <li>❖ NRGGOS/GPS has a stable condition in terms of business and the only way to obtain better business gains is through the improvement of internal performance. However the objective of the business is to satisfy the requirements of the Joint Venture that are to secure source of power and competitively-priced energy, principally to supply Boyne Smelters. The two major clients are Boyne Smelter Ltd (BSL) and Enertrade. Some of the shareholders of NRGGOS/GPS are also shareholders of BSL and Queensland Alumina (QLA). <li>❖ NRGGOS/GPS’ power output is 1,680 MW (2002). BSL consumes 800 MW, 500 MW is sold to Enertrade and 380 MW is for reserve. GPS has a contract of 28 years with BSL to supply energy. The price changes are based on the price of coal. The contracts to consume coal are developed for 5 years. <li>❖ Enertrade is the trading name of the Queensland Power Trading Corporation, a wholesale energy trader owned by the Queensland Government in Australia. <li>❖ A general energy and mass balance of the process is (The data provided can be used only as a reference for understanding the process and it is not 100% precise):

ENERGY AND MASS BALANCE – GPS/NRGGOS

INPUT

- ❖ Coal consumption: 4 million tons/year (2002)
- ❖ Water consumption (salt water for cooling): 245 million litres/hour (2002)
- ❖ Water consumption (fresh water for the boiler): 3 mega litres/day (2002)



PROCESS

- ❖ Main product: Energy
- ❖ Installed power capacity: 1,680 megawatts (MW) - 2002



OUTPUT

- ❖ 800 megawatts (2002) sold to BSL
- ❖ 500 megawatts (2002) sold to Enertrade
- ❖ 380 megawatts was for reserve
- ❖ Air emissions (see emission report within NPIs from 2001 until 2002):
 - Boron & compounds - 54 tons/year.
 - Fluoride compounds – 330 tons/year.
 - Hydrochloric acid – 2,600 tons/year.
 - Oxides of Nitrogen – 49,000 tons/year.
 - Total volatile organic compounds – 140 tons/year.
 - Sulphuric acid – 310 tons/year.
 - Sulphur dioxide – 29,000 tons/year.
 - Particulate matter (10 µm) – 1,300 tons/year.
 - Carbon monoxide – 1,300 tons/year.
- ❖ Water discharge (vapour from the boiler): 3 mega litres/day (2002)
- ❖ Water discharge (salt water for cooling): 245 million litres/hour (2002)
- ❖ Solid waste (Ash): 600,000 tons/year (2002)
- ❖ Energy efficiency (to produce energy from coal): Between 20% and 40%

REPRESENTATIVE OF THE ORGANIZATION WHO PROVIDED INFORMATION AND ASPECTS OF THE INFORMATION PROVIDED

- ❖ The representative of the company who answered the questionnaire was Jeff Mahoney, Manager – Business Services. He has good knowledge about the process of performance evaluation of the company but he could not provide technical data related to their KPIs because the information is considered confidential.

ENVIRONMENTAL ISSUES

- ❖ Environment issues are linked to waste management (fly ash), greenhouse gases and other gases (e.g. carbon oxides, sulphur dioxide, fluoride, oxides of nitrogen, etc.), water management (salt and fresh water) and the use of non-renewable raw materials.

SOCIAL ISSUES

- ❖ The company has 260 direct employees (2002) and around 80 people (2002) working on the site through contractors. It operates on a 24 hours shift system.
- ❖ Only internal social issues are managed by the company. However the company sponsors some external activities for the local community.

ECONOMIC ISSUES

- ❖ GPS is a tolling operation.
- ❖ The company buys services and products in the Gladstone region.

MANAGEMENT SYSTEMS, SC AND PERFORMANCE EVALUATION

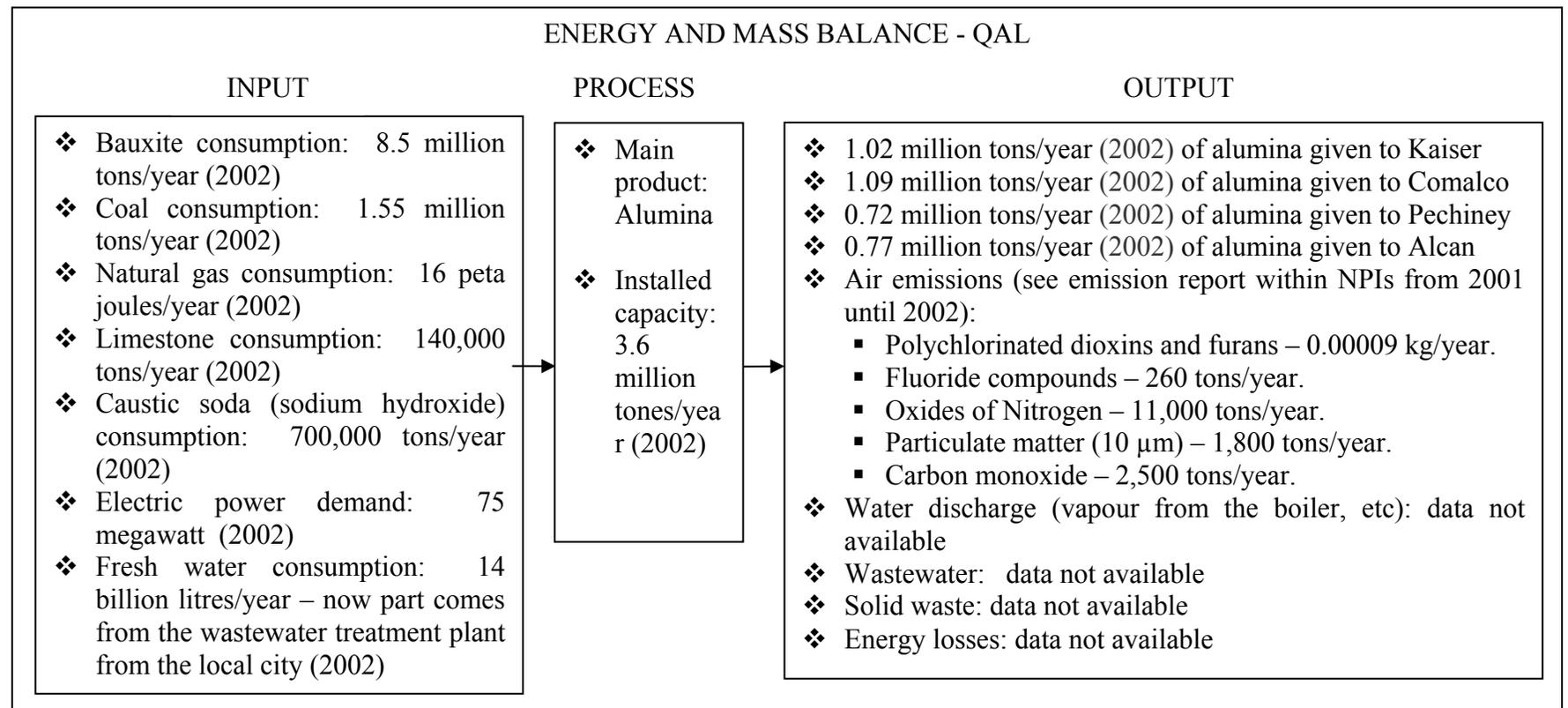
- ❖ NRGGOS/GPS has individual management systems in place for financial, environment, WH&S, quality, maintenance and contracts. They are based on internal standards and they are not certified management systems.
- ❖ The company has been developing a so-called CI system. It is a rigorous database problem solving methodology. It has similar principles like Six Sigma (i.e. a tool kit that uses process data as the foundation) but it is a different methodology and has been developed by the company.
- ❖ NRGGOS/GPS has a formula for good management systems. In their opinion, management systems that perform properly (good management systems) = ownership of the management systems (constructed by the personnel of the company and that reflects why it is important for the people) X quality of the management systems (supports people's activities but does not tie them) → $SP = O \times Q$
- ❖ The company has an internal procedure for performance evaluation. This process is cascaded inside the company and it is used in all levels. This process has some similarities when compared with the model presented by the researcher.
- ❖ The company has some experience in imposing requirements and evaluating performance of individual suppliers through contracts. The actual contracts are based on Australian Standards. The main ones are AS4000 Construct, AS4305 Minor Works, AS4902 Design & Construct, AS4910 Supply & Installation, and AS4911 Supply without installation.

NOTE

- ❖ See enclosed documents provided by the company and www.nrgenergy.com.

GENERAL STRUCTURE, TECHNICAL INFORMATION AND LINK WITH OTHER COMPANIES

- ❖ Queensland Alumina Ltd (QAL) is the world's largest alumina plant, producing 3.65 million tons of alumina a year (2002) on behalf of a consortium of four international companies (Kaiser 28.3%, Pechiney 20.0%, Alcan 21.4% and Comalco 30.3%). The Gladstone plant refines the bauxite as a tolling operation where the owners, who have contributed to the capital, are supplied with alumina in proportion to their interest in the company. It supplies all or part of the alumina for smelters at Boyne Island (Queensland), Kurri Kurri and Tomago (New South Wales), Bell Bay (Tasmania), Bluff (New Zealand) and on the west coast of the United States and Canada.
- ❖ The smelter that is located on Boyne Island is Boyne Smelters Ltd (BSL). The supply of alumina to BSL is achieved through a conveyor belt of nine kilometres that links QAL in Gladstone to BSL on Boyne Island.
- ❖ As information, 4 tons of bauxite can produce 2 tons of alumina that can produce 1 ton of aluminium. Alumina is the major material used to produce Aluminium. The bauxite used in the production comes from Weipa, Queensland. Comalco explores Weipa.
- ❖ A general energy and mass balance of the process is (The data provided can be used only as a reference for understanding the process and it is not 100% precise):



REPRESENTATIVES OF THE ORGANISATION WHO PROVIDED INFORMATION AND ASPECTS OF THE INFORMATION PROVIDED

- ❖ The representative who answered most of the questionnaire was Richard Williams. He is the Quality Assurance Controller and he expressed the view that he did not have a deep knowledge of the performance evaluation and decision making processes developed by the top management. He has knowledge in the performance evaluation of some management systems (WH&S, environment and quality, mainly) in his level of action (middle management). He was not 100% sure about many answers given in the questionnaire. However Tony Evans, the Chief Engineer completed some answers given by Richard. Tony has knowledge and participates in part of the processes of developing top management performance evaluation and decisions (processes developed by the representatives of the board of owners). Richard stated that, in his opinion, he needs to receive knowledge about the way that the company develops top management performance evaluation and business decisions because he is responsible for the quality management system of the company. The researcher developed many attempts to obtain more reliable answers for the questionnaire but the company could only provide those professionals and their limited time available to give information for the research.
- ❖ The company did not provide information about types of KPIs, data linked to those KPIs for three years, graph representation, procedure for performance evaluation and basic mass balance of the process. The information provided about SC was very poor. It seems that they have only experience through imposition.

ENVIRONMENTAL ISSUES

- ❖ Environmental issues are linked to greenhouse gases and other gases (e.g. carbon oxides, fluorides, oxides of Nitrogen etc.), waste management (e.g. new solid waste recycling facility, refractory bricks, bauxite residues, land contamination with fluoride, etc) water management (e.g. use of waste water from the waste water treatment plant of the city, water contamination with fluoride and Nitrogen, etc), energy management (e.g. consumption of coal and natural gas) and the use of non-renewable raw materials..

SOCIAL ISSUES

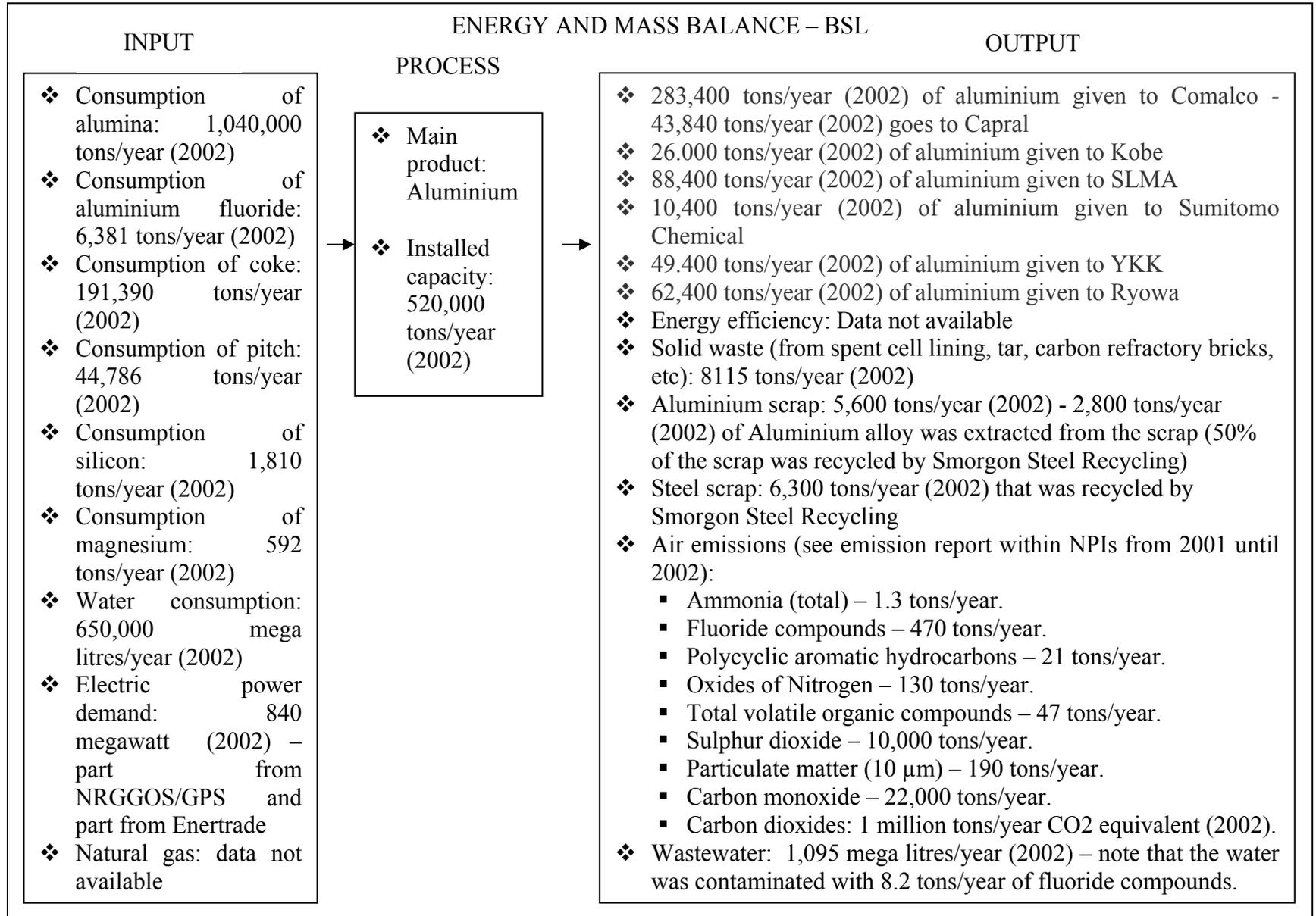
- ❖ The company has 950 direct employees (2002) and in some stages in 2002 it had 400 people working on the site through contractors. It operates in a 24 hours shift system.
- ❖ The company has been running for two years a consultation process (information and actions in both directions) with the community with the following objectives: mutual understanding of technical and environmental issues; obtaining information from the community to develop action plans to reduce the impact of the activities in the community; and satisfying both parties involved in the process (community and QAL).
- ❖ Internal social issues are also managed. The company sponsors some external activities for the community.

ECONOMIC ISSUES

- ❖ QAL is a tolling operation.

	<ul style="list-style-type: none"> ❖ The company buys services and products in the Gladstone region. <p>MANAGEMENT SYSTEMS, SC AND PERFORMANCE EVALUATION</p> <ul style="list-style-type: none"> ❖ The company has management systems in place for WH&S, Environment and Quality. Quality and environment are certified against ISO standards. WH&S is not certified. The major philosophy behind the management systems is: “do it safer, cleaner and better”. The company has been implementing SAP to integrate their management activities. ❖ The company has also adopted Six Sigma (early stages). Six Sigma is a rigorous database problem solving methodology that is being used, proven and refined by some of the world’s largest companies. Within a standard methodology (Define, Measure, Analyse, Improve and Control), Six Sigma provides a tool kit that uses process data as the foundation. ❖ The performance evaluation of the company is financial and quality oriented. There is no formal procedure for this. ❖ Most of the KPIs developed by the organisation are commercial ones (financial and related to production). The KPIs for suppliers are imposed through contract and are linked to commercial outcomes. The owners of the company (they are also the customers) develop the requirements for QAL to follow. ❖ Tony Evans, the Chief Engineer of the company, expressed the view that QAL is not interested in developing voluntary SC agreements because their situation in terms of business is stable. The owners develop the contracts for the supply of bauxite and provision of alumina to their own smelters (each owner takes the percentage of alumina produced according to the percentage of their capital invested in QAL). The experience of QAL with SC performance evaluation is related to engineering design and imposition of requirements to contractors through contract. <p>NOTE</p> <ul style="list-style-type: none"> ❖ See enclosed documents provided by the company and www.qal.com.au.
16	<p>GENERAL STRUCTURE, TECHNICAL INFORMATION AND LINK WITH OTHER COMPANIES</p> <ul style="list-style-type: none"> ❖ Boyne Smelters Ltd (BSL) is Australia’s largest Smelter, producing 520,000 tons of primary aluminium each year (2002) on behalf of a joint venture with different equity for reduction lines 1, 2 and 3. Adding all the lines, Comalco Limited holds a 54.5% share of the company, Kobe Aluminium (Australia) Pty Ltd 5%, Sumitomo Light Metal Australia (SLMA) Pty Ltd 17%, Sumitomo Chemical Co Limited 2%, Yoshida Kogyo KK (YKK) Aluminium (Australia) Pty Ltd 9.5% and Ryowa Development 12%. ❖ BSL is a tolling operation that is managed by Comalco. Aluminium produced by BSL is distributed to the participant companies in proportion to their ownership. ❖ Boyne Smelters is located in the Gladstone region. ❖ As information, 4 tons of bauxite can produce 2 tons of alumina that can produce 1 ton of aluminium. The process of production of aluminium requires a large amount of energy, then a power demand of 840 MW is required by BSL (provided by NRGOS/GPS and Enertrade). At BSL, around 14,000 DCkWh of electricity, 2 tons of alumina and half ton of carbon (pitch + coke) are required to produce one ton of aluminium. ❖ Comalco sells part of its shares in aluminium to Capral Aluminium, in Australia (43,840 tons/year – 2002).

- ❖ A general energy and mass balance of the process is (Information only provided to have a general idea of the process. The data is not 100% reliable):



REPRESENTATIVES OF THE ORGANISATION WHO PROVIDED INFORMATION AND ASPECTS OF THE INFORMATION PROVIDED

- ❖ The questionnaire was answered by Peter Budd, Superintendent of Materials & Procurement and complemented by Craig Walters, Commercial Manager. Both have good knowledge about the process of performance evaluation of the company. The information available inside the company was provided by them. Data information from KPIs was also extracted by the research through reports.
- ❖ Some information was extracted by the researcher through the Internet, public reports and other corporate public information.

ENVIRONMENTAL ISSUES

- ❖ Environmental issues are linked to greenhouse gases and other gases [e.g. carbon oxides, fluorides, sulphur dioxides, polycyclic aromatic hydrocarbons etc], waste management (e.g. spent cell lining, tar, refractory bricks, aluminium scrap, etc), water management (e.g. contamination with fluoride), energy management (i.e. the use of large amount of energy in the process and the use of non-renewable raw materials).
- ❖ 50% of the aluminium scrap (total aluminium scrap from BSL = 5,600 tons and 50% = 2,800 tons – 2002) from BSL is recycled by Smorgon Steel Recycling.
- ❖ The carbon anodes that are consumed in the process of production of aluminium are a mix of pitch and coke (the mix is called carbon after it is baked in furnaces at the Carbon Bake Fume Treatment Centre). Tar is a residue that is formed during the production of anodes (at the Carbon Bake Fume Treatment Centre).
- ❖ Spent cell lining is the waste product that is generated during the reduction of alumina to aluminium inside the reduction cells.

SOCIAL ISSUES

- ❖ The company has 1350 employees (2002) and 100 people working on the site through contractors. It operates in a 24 hours shift system.
- ❖ Only internal social issues are managed by the company. However the company sponsors some external activities for the local community.

ECONOMIC ISSUES

- ❖ BSL is a tolling operation.
- ❖ The company buys services and products in the local market.

MANAGEMENT SYSTEMS, SC AND PERFORMANCE EVALUATION

- ❖ The company has in place three certified management systems:
 - WH&S (based in NOSA 5 STARS – certified as 3 stars).

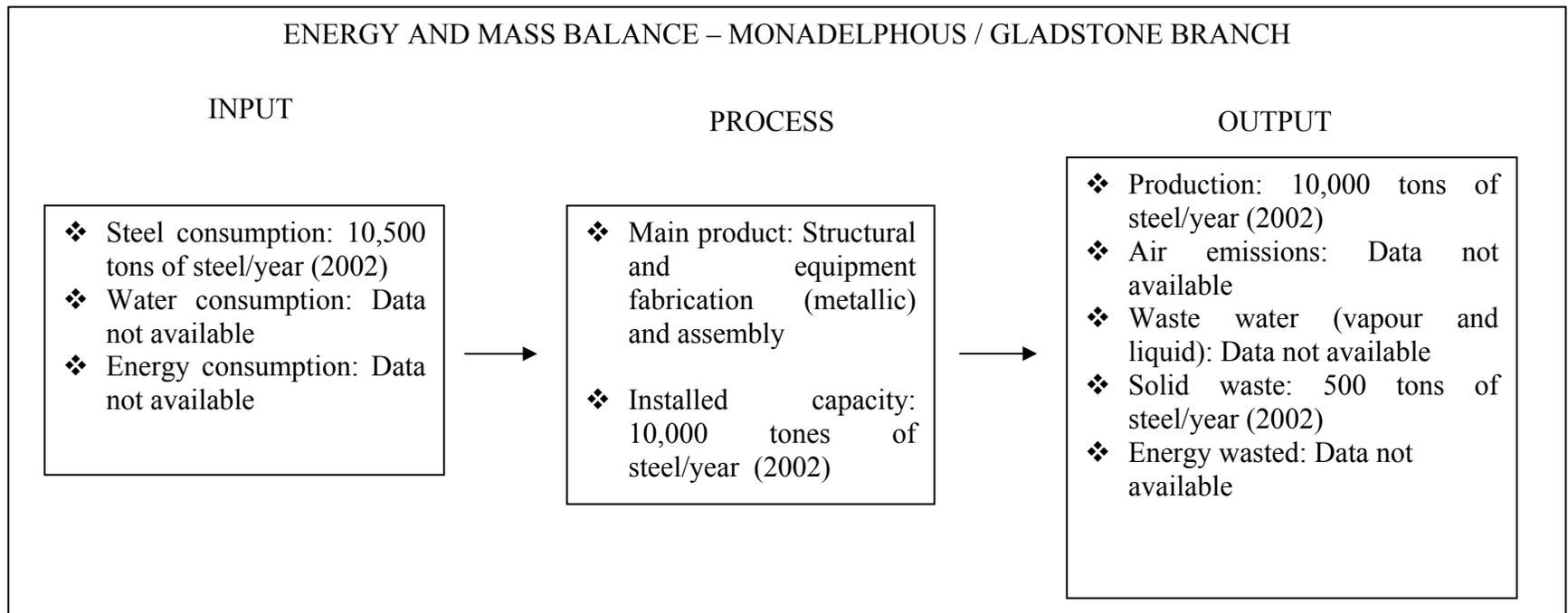
- Environment (based in ISO 14001 – certified).
- Quality (based in ISO 9001 – certified only part of the plant).
- ❖ Boyne Smelters has interesting experience with performance evaluation management systems. Comalco develops every five years (it is revised once a year) and has a general scorecard that has six pillars: WH&S, Environment and Communities, People, Cost & Revenue, Manufacturing & Quality and Engineering & Technology. This scorecard is cascaded to each company of the group. BSL takes this scorecard and develops its own scorecard based in the six pillars. Then a general strategic plan is developed by the top management of BSL based on the specific scorecard of the company. The strategic plan is cascaded to each department that develop their own and individual strategic plans. Derived from these plans is developed a plan for each team within the departments. A general business improvement plan is also developed by the top management based on the general strategic plan of BSL (see enclosed document called “BSL – Our Direction”. The general business improvement plan is focused on Capital and uses the Six Sigma approach. Six Sigma is a rigorous database problem solving methodology that is being used, proven and refined by some of the world’s largest companies. Within a standard methodology (Define, Measure, Analyse, Improve and Control), Six Sigma provides a tool kit that uses process data as the foundation.
- ❖ One of the respondents of the questionnaire expressed the view that there is no continuity in performance evaluation processes (including KPIs) when the top management changes. The circulation of top management in the company is common.
- ❖ Thus the internal process for performance evaluation is not well documented through procedures and a number of small negative consequences occur due to this fact. Aspects, such as performance improvement of the organization against performance criteria, evaluation of performance improvement and decision-making process and external verification of the report and/or information to release for external interested parties, need to be improved. It is also necessary to better understand the concept of sustainability for the organization for the development of action plans pertaining to the entire spectrum linked to sustainability.
- ❖ The improvement of the PE process (major one) of the company could start with the development of a set of procedures dealing with all the steps of their performance evaluation process. The company has a few steps similar to the process that has been developed through the research. The company could use the process for PE that has been developed through the research to improve their PE process(es).
- ❖ The company has limited experience with evaluation of performance of suppliers. Their performance evaluation process for suppliers is based in impositions through contract. Their experience is linked to the provision of cleaning services. It means that the experience is only with part of an SC (main company and one supplier) and the process is not a complete one. The company has just initiated a project to develop a more open and voluntary relationship with suppliers. They are also trying to develop more open and voluntary relations with the shareholders who are the owners of the aluminium produced. The owners impose their needs onto BSL.
- ❖ The intention to develop a case study with a small SC, using the research model for performance evaluation, was discussed with one of the representatives of the company

NOTE

- ❖ See enclosed documents provided by the company and www.comalco.com.au.

GENERAL STRUCTURE, TECHNICAL INFORMATION AND LINK WITH OTHER COMPANIES

- ❖ Monadelphous Group Limited is a national engineering company that provides structural and equipment fabrication (metallic) and assembly, civil construction, industrial maintenance, labour hire and project management.
- ❖ Monadelphous Group Limited is an Australian Stock Exchange (ASX) listed company.
- ❖ The company has a head office in Perth and ten (10) branches. The Gladstone branch of the company, located in the Gladstone region, was the one that provided a representative to work within the research project.
- ❖ The major clients of the Gladstone branch are BSL and QAL, among others.
- ❖ The major products/services of the Gladstone branch are structural and equipment fabrication (metallic) and assembly (around 10,000 tons a year- 2002).
- ❖ A general mass balance of the process of the Gladstone branch is (?) (The data provided can be used only as a reference for understanding the process and it is not 100% precise):



REPRESENTATIVE OF THE ORGANISATION WHO PROVIDED INFORMATION AND ASPECTS OF THE INFORMATION PROVIDED

- ❖ The representative who answered the questionnaire, Tony Stuart-Street, Project Engineer, is responsible for the quality systems of the branch and he stated that he did not have a deep knowledge of the performance evaluation and decision making processes developed

by the top management at the head office in Perth. His knowledge is limited to the branch but he obtained some information from the head office.

- ❖ Some information was extracted by the researcher through the internet, public reports and other corporate public information. Data through KPIs was not available for the research.
- ❖ It can be concluded, based on the answers provided and physical proof presented to support information that performance evaluation within the organisation is developed by the top management of the company and the other levels do not have a clear understanding of the process.

ENVIRONMENTAL ISSUES

- ❖ Environmental issues are major ones, linked with waste management (steel waste).

SOCIAL ISSUES

- ❖ As the Gladstone branch works through contract, the workforce is variable because it is contract dependent. The employees work around 44 hours a week. Shift workers are employed only in very specific situations or contracts.
- ❖ Only internal social issues are managed by the branch.

ECONOMIC ISSUES

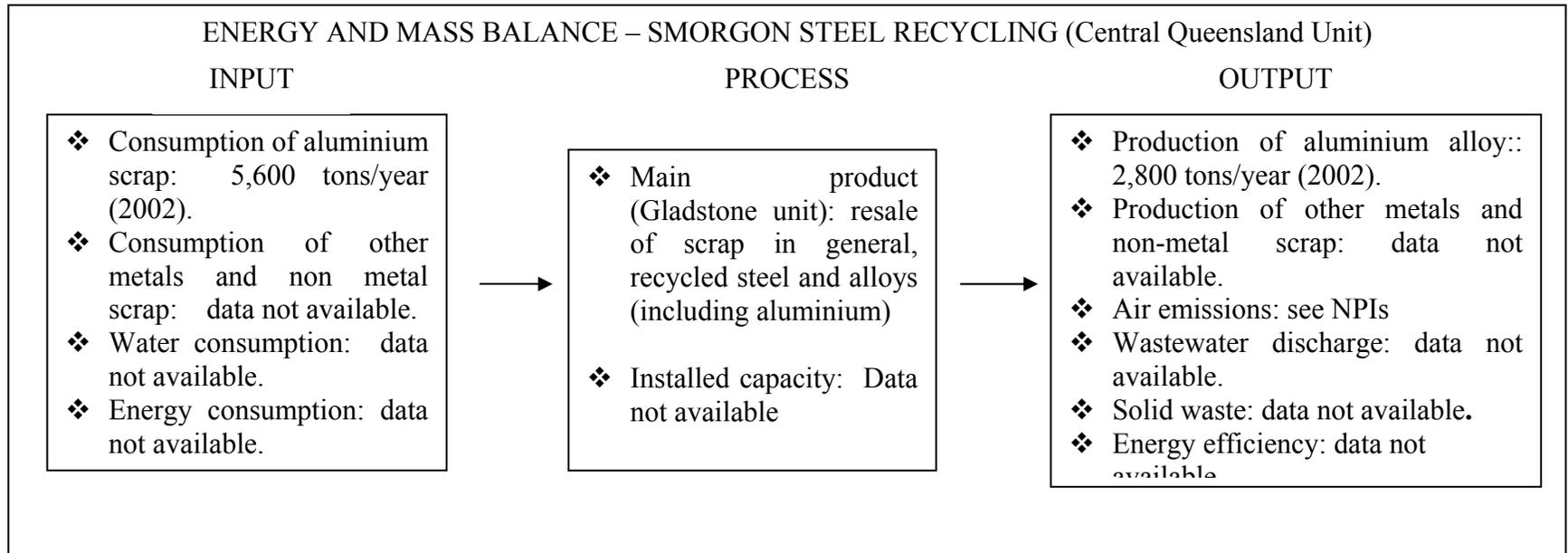
- ❖ The total revenue of the entire Monadelphous in 2002 was \$ 155,622,000.00. Data about the branch in Gladstone is not available for the research.
- ❖ The Gladstone branch buys services and products in the local market.

MANAGEMENT SYSTEMS, SC AND PERFORMANCE EVALUATION

- ❖ The company has a quality management system (QMS) that is controlled by the head office. The management system is certified against ISO 9002:1994.
- ❖ Issues linked to workplace health and safety (WH&S), finance and environment are included in the QMS. The company has individual policies for the quality, environment and WH&S areas. In relation to environment and WH&S, the company developed procedures (inside the QMS) that have the intention to lead them to comply with the legislation.
- ❖ A new electronic quality management system has been developed for the whole company. The interviewee does not have information about this future tool.
- ❖ The head office develops the performance evaluation and decision-making. Both processes are not formal (with procedures) and are not included in the quality systems. The branches only collect performance data (separate data about financial, environmental, quality and WH&S issues) send them to the head office and then receive back the action plans for each branch.
- ❖ The performance evaluation process of the branch starts when the top management send to the branch targets to be met. Based on this

	<p>and on the contracts to be developed, some local targets are developed. On a regular basis the branch collects some data based on KPIs defined by the head office and sent to the top management that is located in Perth. Business decisions and planning are taken by the top management. Business data properly cover financial and quality issues. Some WH&S and environmental data are also collected but the reason is only for compliance with the legislation. The branches do not have a clear knowledge about those processes. The company needs the development and implementation of complete performance evaluation management systems based on sustainable principles.</p> <ul style="list-style-type: none"> ❖ The company has some experience in imposing requirements and evaluating performance of individual suppliers through contracts. The major reason for this imposition system is because they also receive the requirements from their clients and then they transfer those requirements for their contractors. <p>NOTE</p> <ul style="list-style-type: none"> ❖ See enclosed documents provided by the company and www.monadel.com.au.
18	<p>GENERAL STRUCTURE, TECHNICAL INFORMATION AND LINK WITH OTHER COMPANIES</p> <ul style="list-style-type: none"> ❖ Smorgon Steel Recycling was formed in 2002 from the merger of Smorgon Metal Recycling and Metalcorp Limited. It operates from 39 locations or units throughout all States of Australia, New Zealand and China employing over 550 people and is the fastest growing metal recycling business in Australia. The business supplies more than one million tons per year of ferrous and non-ferrous scrap to the domestic and export markets. Smorgon Steel Recycling also operates aluminium smelters at Gladstone, Queensland and Bell Bay, Tasmania. Smorgon Steel Recycling exports steel scrap to Korea, Taiwan, Thailand and Indonesia, among others, complementing sales to domestic steel mills in Australia. ❖ Smorgon Steel Recycling is a division of Smorgon Steel Group Limited. Smorgon Steel is an Australian company that produces, markets and distributes a broad range of steel and steel products. The group has been listed on the Australian Stock Exchange (ASX) since February 1999. Features of Smorgon Steel Group today are: <ul style="list-style-type: none"> ○ It comprises three operating divisions with locations throughout Australia. ○ Australia's most integrated steel producer with a capacity of about one million tonnes per annum. ○ Vertically integrated from scrap collection to steel manufacture and distribution. ○ A broad product range servicing diverse industry sectors. ○ Significant market shares for all key products. ○ Around 5,000 employees and 30,000 customers within Australia and overseas. ○ Proven management, performance and industrial relations track records. ○ Rationalising Australia's steel industry to optimize competitiveness, efficiencies and returns. ❖ Information of the three divisions of the company: <ul style="list-style-type: none"> ○ Division Reinforcing & Steel Products or Smorgon Steel is one of Australia's largest steel producers, with annual production exceeding 900,000 tonnes. ○ Division Distribution or Smorgon Steel Distribution has more than 2,100 employees in plants and offices throughout Australia. ○ Division Recycling or Smorgon Steel Recycling.

- ❖ Smorgon Steel Recycling, Central Queensland Unit, is located in the Gladstone region. The unit is the one that is participating in the research. The unit is responsible for the business of Smorgon Steel Recycling in Central Queensland.
- ❖ The unit buys from Boyne Smelter 5,600 tons/year (2002) of aluminium scrap and produces 2,800 tons/year (2002) of aluminium alloy (50% of the scrap).
- ❖ A general energy and mass balance of the process is (?) (The data provided can be used only as a reference for understanding the process and it is not 100% precise):



REPRESENTATIVE OF THE ORGANISATION WHO PROVIDED INFORMATION AND ASPECTS OF THE INFORMATION PROVIDED

- ❖ The questionnaire was answered by Tony Burns, the Central Queensland Manager. He has good knowledge about the process of performance evaluation of the company. However as the company changed the name and owner, the Gladstone unit has been facing a lot of management changes due to this change of ownership and management style.
- ❖ Data was not available for the research in relation to list of KPIs, data linked to those KPIs for three years, graph representation, annual revenue of the unit, number of employees and basic mass balance of the process.
- ❖ Some information was extracted by the researcher through the internet, public reports and other corporate public information.

ENVIRONMENTAL ISSUES

- ❖ The environment is a serious issue for the company because much of the scrap bought from clients comes impregnated with hazardous

substances. Then if contracts are not well established, Smorgon could become responsible for the waste and the disposal. There are also social and economic issues linked to the subject (e.g. an employee, who deals with waste, get sick and then the company and society have to manage the situation).

SOCIAL ISSUES

- ❖ Data was not available for the research in relation to the number of employees of the unit and other people working on the site through contractors. It operates on a 24 hour shift system, 6 days a week (excluding Sundays).
- ❖ Only internal social issues are managed by the unit.

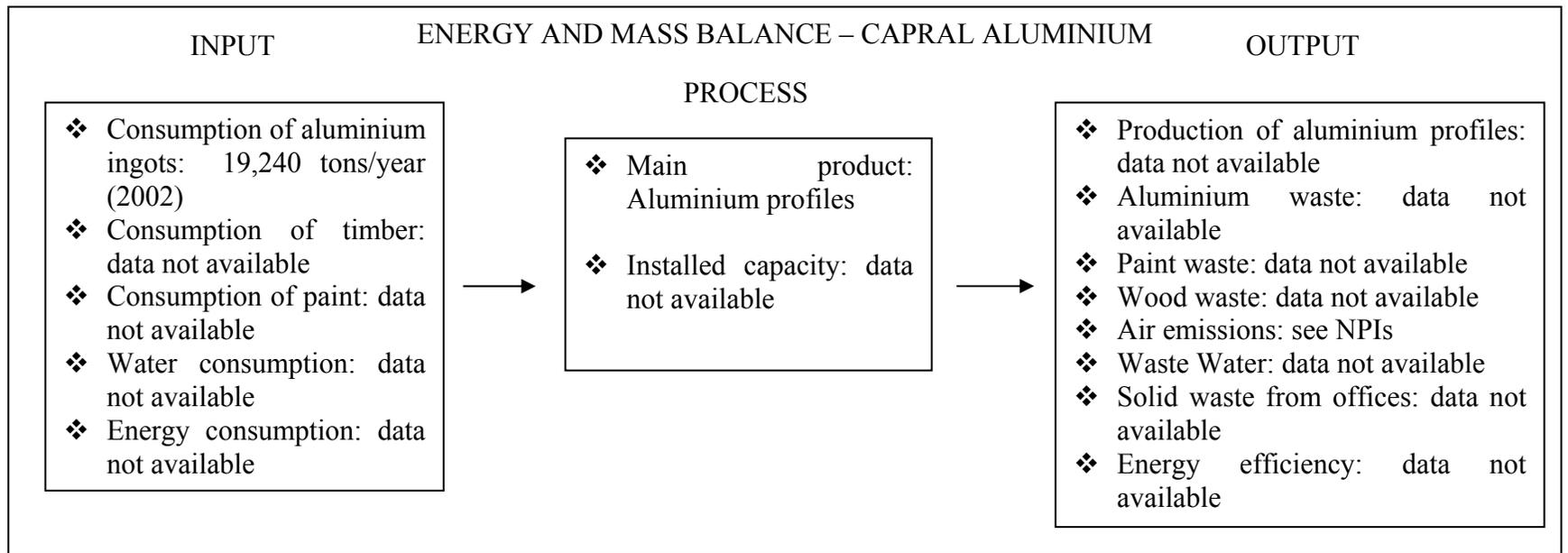
ECONOMIC ISSUES

- ❖ The total revenue of the Group (Central Queensland Unit?) in 2002 was \$ 2,666,2000,000.00. The revenue of the unit was not available for the research.
- ❖ The Gladstone unit buys services and products in the local market.

MANAGEMENT SYSTEMS, SC AND PERFORMANCE EVALUATION

- ❖ Quality assurance throughout the Group is achieved by Smorgon Steel Recycling adherence to ISO 9002. Under the control of a Group Safety Manager, safety is maintained by continual upgrading of safe operating procedures and benchmarking within Smorgon Steel Recycling and with similar industries. Environmental best practice is achieved and managed by Divisional management through management systems based on the international ISO 14000 standard controlled by a Group Environment Manager.
- ❖ However the Gladstone unit does not have ISO 14000 and either Quality Management Systems. The unit has implemented NOSA 3 stars (including WH&S and some issues linked to environment). This management system was imposed by BSL. It is important to emphasise that the Gladstone unit started to implement the Group's management systems a few weeks ago (after Smorgon Steel bought Metalcorp Recyclers).
- ❖ After the establishment of the unit to implement all the management systems of Smorgon, it would be recommended for the unit to integrate all systems in one as an action to save resources.
- ❖ The company uses a project approach to manage their activity. Then the performance evaluation of the projects is done using a template form that is financial based. Environment and WH&S PE are linked to compliance with legislative requirements and contracts with suppliers.
- ❖ The improvement of the PE process (major one) of the company could start with the development of a set of procedures dealing with all the steps of their performance evaluation process. The company has a few steps similar to the process that has been developed through the research. The company could use the process for PE that has been developed through the research to improve their PE process(es).
- ❖ Other issues that could be improved in their PE processes are linked to scope for performance evaluation of each project, communication systems with interested parties, identification of KPIs, collection/evaluation of data through KPIs, maintenance of

	<p>records (data through KPIs), establishment and maintenance of champion team to deal with PE, etc.</p> <ul style="list-style-type: none"> ❖ The company has limited experience with evaluation of performance of suppliers. Their best example is the contract developed with BSL where they have, from time to time, to provide information to Boyne Smelters, through KPIs, about environment, WH&S and quality performance. ❖ The intention to develop a case study with a small SC, using the research model for performance evaluation, was discussed with one of the representatives of the company. <p>NOTE</p> <ul style="list-style-type: none"> ❖ See enclosed documents provided by the company and www.smorgonsteel.com.au/recycling.
19	<p>GENERAL STRUCTURE, TECHNICAL INFORMATION AND LINK WITH OTHER COMPANIES</p> <ul style="list-style-type: none"> ❖ Capral Aluminium Limited is a supplier of aluminium extrusion and sheet products in Australia and New Zealand. The company has a Head Office in Sydney, twenty-one (21) trade centres (sales offices) around Australia and six (6) manufacturing units distributed in NSW, QLD, WA and VIC. The representative of the company who answered the questionnaire works in the Brisbane unit that is informally called Eagle Farm. ❖ Capral Aluminium is an Australian Stock Exchange (ASX) listed company. ❖ The unit receives aluminium ingots from Boyne Smelters and other smelters, produces aluminium profiles, sells them in Australia and New Zealand and surprisingly sells back small quantities of aluminium profiles to BSL. It also sells small quantities of profiles to NRG, QAL and Monadelphous. ❖ A general energy and mass balance of the process of the unit in Brisbane is (The data provided can be used only as a reference for understanding the process and it is not 100% precise):



REPRESENTATIVE OF THE ORGANISATION WHO PROVIDED INFORMATION AND ASPECTS OF THE INFORMATION PROVIDED

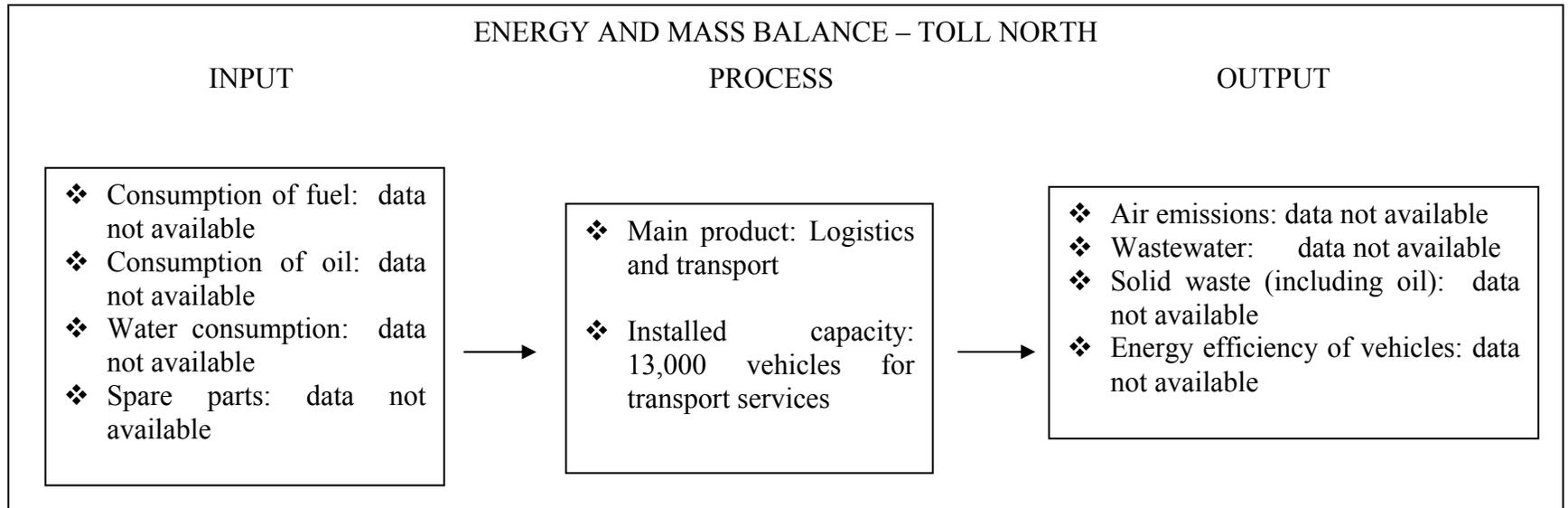
- ❖ The questionnaire was answered by Steve Robinson, Logistics Manager. He has good knowledge about the process of performance evaluation of the company. He had to interrupt much the interview to answer phone calls and attend to his team members.
- ❖ Financial data information from KPIs was also extracted by the research through reports. Other types of data were not available for the research.
- ❖ Some information was extracted by the researcher through the internet, public reports and other corporate public information.
- ❖ Even though the representative works at the Eagle Farm unit, he answered the questionnaire based in his knowledge about the whole group of companies that Capral owns.

ENVIRONMENTAL ISSUES

- ❖ Environmental issues are linked to:
 - Energy efficiency
 - Water management for production and waste water from offices
 - Solid waste (Aluminium scrap, lubricants from equipment, spare parts for equipment and wood scraps from old pallets).

	<p>SOCIAL ISSUES</p> <ul style="list-style-type: none"> ❖ The Eagle Farm manufacturing unit has 157 employees. It operates on a 24 hours shift system. ❖ The company manages only internal social issues. <p>ECONOMIC ISSUES</p> <ul style="list-style-type: none"> ❖ The total revenue of the company (the group) in 2002 was \$440,327,000.00 ❖ The only products that the company buys in the Gladstone region are aluminium ingots from Boyne Smelters. This aluminium is bought directly from Comalco. <p>MANAGEMENT SYSTEMS, SC AND PERFORMANCE EVALUATION</p> <ul style="list-style-type: none"> ❖ The company has a certified quality management system and non-certified WH&S and environment management systems. ❖ The experience with performance evaluation is considered very simple for them. The company has some pre-selected quality and financial indicators that they use to collect data and report within specific intervals of time. Environmental and WH&S are used for compliance. ❖ Major improvement in the PE system is the development and implementation of a new PE management system to encompass sustainability aspects. ❖ The vision of the company could be seen through a statement called Capral Employee’s focus that is “Execution of the business plan”. ❖ The company has some experience in imposing requirements and evaluating performance of individual suppliers through contracts. The company considers the process excellent because they track the products through a small SC. ❖ The company considers some suppliers as one department of the company. ❖ The company will introduce a tool created by them called “Advanced Planning & Optimisation” (electronic track system). It has the intention to give end-to-end visibility (information about products) through the SC. <p>NOTE</p> <ul style="list-style-type: none"> ❖ See enclosed documents provided by the company and www.capral.com.au.
20	<p>GENERAL STRUCTURE, TECHNICAL INFORMATION AND LINK WITH OTHER COMPANIES</p> <ul style="list-style-type: none"> ❖ The Toll Group (Toll Holdings Limited) is an integrated transport and logistics company (movement and handling of goods within SC) that has 38 business units, 370 braches/sites and 13,000 vehicles. It is a public listed company (shares in the ASX) where the directors hold around 24% of the shares. The business units of the group manage the assets of the Holding in an integrated manner (horizontal management approach where each unit supports and complements the services provided by other units). ❖ The representative who answered the questionnaire works for the unit called Toll North. Toll North has a site in the Gladstone region.

- ❖ The company provides transport services to Boyne Smelters. Part of the aluminium produced by Boyne Smelter is transported by Toll North to Capral Aluminium in Brisbane.
- ❖ A general energy and mass balance of the process is (The data provided can be used only as a reference for understanding the process and it is not 100% precise):



REPRESENTATIVE OF THE ORGANISATION WHO PROVIDED INFORMATION AND ASPECTS OF THE INFORMATION PROVIDED

- ❖ The representative of the company who answered the questionnaire was Russell Baxter, Business Development Manager of Toll North. This unit is a leading edge innovative freight solutions provider, leading the market in time-certain distribution between all major Australian cities and regional centres of Queensland and the Northern Territory.
- ❖ Russell has good knowledge about the process of performance evaluation of the Holding and Toll North. The company could not provide information about mass and energy balance. In relation to KPIs, the company only provided financial data. Some information were taken by the researcher through the internet and public reports about the company.
- ❖ Even though the representative is employed by Toll North, he answered the questionnaire based in his knowledge about the whole holding.

ENVIRONMENTAL ISSUES

- ❖ Environmental issues are linked to air emissions from vehicles, solid waste from vehicles maintenance (including oil), scrap at the end

of transportation and offices, wastewater from facilities and vehicle cleaning and energy efficiency of vehicles. It is important to state that the company does not have any data related to the above issues.

SOCIAL ISSUES

- ❖ The Holding has 15,000 employees and sub-contractors. Administrative employees work during commercial hours. However the drivers follow working hours according to the contracts to which they are linked. Information about Toll North is not available.
- ❖ The company manages only internal social issues (WH&S).

ECONOMIC ISSUES

- ❖ The total revenue of the holding in 2002 was \$ 2.2 billion Australian Dollars. The holding, through Toll North, buys some services in the Gladstone region. Information about Toll North is not available.

MANAGEMENT SYSTEMS, SC AND PERFORMANCE EVALUATION

- ❖ The holding has management systems in place according ISO 9000, ISO 14000, HACCP, SQF 2000, including trucksafe, mass management, fatigue management programs, among other standards (many related to customers standards). Some management systems encompass the whole holding and some only for some business units and/or branches/sites. Some management systems are certified and some are not. Toll North has financial and quality management systems in place and it will implement NOSA (WH&S) with the intention to achieve 3 stars certification. This is a Boyne Smelter's requirement.
- ❖ Due to the type of work (i.e. many variables and changes during operation/transport), the entire holding uses risk management approaches to run the business.
- ❖ The performance evaluation of the company is entirely based on the financial perspective. The culture in the company is based in personal gains where every week the units evaluate and report performance using a system based on profit and loss. Nowadays WH&S is becoming more important.
- ❖ The major improvement that could be develop by the company and that could also lead to the solution of minor problems linked to the process of PE, is to improve the actual procedures for PE (financial) to encompass other aspects linked to sustainability {Social area: labour practices (not only WH&S), community issues linked to the company's activities and human rights; Environmental area: emissions, energy use, material use, water management, waste emissions, environmental conditions; and, Economic area: economic impacts of the activities).
- ❖ As a company that provides logistics and transport, their business is a kind of link within a SC. Thus they have reasonable experience in understanding SC and solving/improving the logistics problems of those chains. However their experience is based in their own perspective, and logistics (nothing related to the extraction of materials, production, etc).

NOTE

- ❖ See enclosed documents provided by the company and <http://www.toll.com.au/contact/north.html>.

INTERVIEWER'S COMMENTS

- ❖ All the companies involved in the Research belong to major conglomerates of companies. However some of the companies have small and medium size units/branches/companies in Gladstone. Information about them are:

UNIT/BRANCH/COMPANY INVOLVED IN THE RESEARCH	HOLDING OR GROUP THAT THE COMPANY BELONGS TO	IDEA OF SIZE OF THE COMPANY	TYPE OF COMPANY
❖ NRG Gladstone Operating Services Pty Ltd	❖ One of the owners is Comalco	❖ NRG is a major company	❖ NRG is a tolling operation
❖ Queensland Alumina Ltd – QAL	❖ One of the owners is Comalco	❖ QAL is a major company	❖ QAL is a tolling operation
❖ Boyne Smelters Ltd – BSL	❖ One of the owners is Comalco	❖ BSL is a major company	❖ BSL is a tolling operation
❖ Gladstone branch of Monadelphous	❖ Monadelphous Group Ltd	❖ Gladstone branch is a small company	❖ Monadelphous Group Ltd is an Australian Stock Exchange listed company
❖ Gladstone unit of Smorgon Steel Recycling that belongs to Smorgon Steel Group Ltd	❖ Smorgon Steel Group Ltd	❖ Gladstone unit of Smorgon Steel Recycling is a small company	❖ Smorgon Steel Group Ltd is an Australian Stock Exchange listed company
❖ Eagle Farm unit of Capral Aluminium Ltd	❖ Capral Aluminium Ltd	❖ Eagle Farm unit of Capral Aluminium is a medium company	❖ Capral Aluminium Ltd is an Australian Stock Exchange listed company
❖ Toll North	❖ Toll Holding Pty	❖ Toll North is a medium company	❖ Toll Holding Pty is an Australian Stock Exchange listed company

- ❖ All the companies have a series of different types of management systems in place. However only NRG has formal and quite complete PE management system in place compared with the research model. BSL has incomplete PE management systems compared with the research model. All the other companies have a financial and quality based PE process. For those companies general economic (not quality and financial) and social (not WH&S) issues are not addressed by them in the PE. Environment and WH&S issues are dealt with only in terms of compliance with legislation and shareholders requirements.
- ❖ In most of the companies the KPIs are linked to financial and quality issues.
- ❖ QAL provided very poor answers. However QAL is the only company to run public community consultation.
- ❖ Some information was taken from the Internet and public reports, not through the questionnaires.
- ❖ BSL was the only company to provide KPIs and data related to them. NRG provided only the list of KPIs. None of the other companies could provide either the list of KPIs or data related to them. Some financial data and KPIs were taken by the research through companies' reports presented at the Australian Stock Exchange.

- ❖ NRG, BSL, Capral and Toll have some experience with performance evaluation of suppliers. However their experience is not rich in details. Their experience shows that their PE management system for suppliers is not complete compared with the research model. Most of the time the experiences have been linked to the imposition of requirements to the suppliers through contracts.
- ❖ NRG, BSL and QAL have the major environmental, social and economic impacts, positive and negative, to the local community. Some environmental impacts are serious.

GENERAL INFORMATION ABOUT THE ORGANISATION AND SC

- 1) Every organisation participates in many different SC. The SC can have formal or informal scope (defined boundaries) and structured or unstructured performance evaluation process. Think now about the SC in which your organisation participates or has participated. Have any of these SCs developed a clear process, formal (with procedures) or informal (without procedures), to evaluate performance (complete process including communication with interested parties, development of a common set of key performance indicators – KPIs and reporting) for the entire SC?

ORGANISATIONS	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes									❖ Organisation 14: The answer provided was “Yes” but the interviewee stated that the process

No	X	X	X	X	X	X	X	100%	<p>was not a complete one. Their process does not include communication, similar indicators or report. Then the real answer is “No”.</p> <ul style="list-style-type: none"> ❖ Organisation 16: The company has limited experience with evaluation of performance of suppliers. Their performance evaluation process for suppliers is based in impositions through contract (3 star management system that encompass WH&S and environment). Their experience is linked to the provision of cleaning services. It means that the experience is only with part of a SC (main company and one supplier) and the process is not a complete one. ❖ Organisation 18: <ul style="list-style-type: none"> ○ The person stated that his company has a contract with Boyne Smelter that has clear boundaries and guidelines, including financial benefits and best practices for environment and WH&S. ○ The person stated that their process is linked only with suppliers, not with SC. ○ BSL does not consider this experience as a good example to consider this answer as “yes” ○ The answer was “yes”. However after the previous observation the real answer is “no”. ❖ Organisation 19: <ul style="list-style-type: none"> ○ The person stated that they have one example of a good relation with one supplier. The supplier is called “AAF”. ○ However the example is linked only with one supplier, guided by a contract based on imposition and linked only to financial and quality issues. ○ Then the real answer is “no” ❖ Organisation 20: The answer was “yes”. However it is clear that their PE process does not include all the steps and also does not encompass broad issues linked to environment and social. They have an experience with Boyne Smelters where BSL imposes some KPIs to them related to WH&S, financial and quality. Then the real answer is “no”.
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INTERVIEWER’S COMMENTS

- ❖ Different companies have different understanding for SC. Some understand SC as the focus company and direct and indirect suppliers linked to produce a product or service. Others as supplier focus company and customer. Some understand the link within an SC as a straight line of companies to produce a specific product or service and others as a network of companies working together.
- ❖ Different companies have different parameters to define levels of transparency when developing business in a partnership way within an SC.
- ❖ If the companies had only part of the PE process they tended to answer “yes” even if they knew they did not have in place, in their company, the entire process for PE. They wanted to demonstrate their experience and how good their processes were

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 1

- ❖ None of the companies have a complete PE process for SC taking comparison with the research model. This confirms that there was no necessity to ask the companies their experience with SC because their experiences are very limited.
- 2) Think again about the SC in which your organisation participates or has participated. Have any of these SCs developed evaluation of the performance for the entire SC?

ORGANISATIONS	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes									
No	X	X	X	X	X	X	X	100%	<ul style="list-style-type: none"> ❖ Organisation 18: <ul style="list-style-type: none"> ○ The person stated that his company has a contract with Boyne Smelter that has clear boundaries and guidelines, including financial benefits and best practices for environment and WH&S. ○ The person stated that their process is linked only with suppliers, not with SC. ○ BSL does not consider this experience as a good example to consider this answer as “yes” ○ The answer was “yes”. However after the previous observation the real answer is “no”. ❖ Organisation 19: The answer was “yes”. However the right answer is “no” because their example is linked only with one supplier, the performance is linked only to financial and quality aspects (not linked to all aspects of sustainability) and their relations are guided by an imposed contract. However the process has similarities compared with the research model. ❖ Organisation 20: The answer was “yes”. However it is clear that their PE process does not include all the steps and also does not encompass broad issues linked to environment and social. The view was expressed that they developed PE only in the financial area. Then the real answer is “no”.

INTERVIEWER’S COMMENTS

- ❖ Same comment of the previous question.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 2

- ❖ None of the companies have a good example of the evaluation of PE of the entire SC taking into comparison the research model. This confirms that there was no necessity to ask the companies their experience with SC because their experiences are very limited.

3) Every organisation has in place some form of business performance evaluation process(es) (e.g. financial, environmental, quality, Workplace Health & Safety), formal (with procedures) or informal (without procedures), well structured or not well structured. Performance evaluation processes can include steps such as communication with interested parties, development of set of KPIs, collection of data based on KPIs, organisation's performance reporting and decision-making. It can also be said that every organisation participates in many SCs. Imagine now that the top management of your organization decides to develop or improve the process of performance evaluation for one of its SCs. Would your organization want to use its own internal experience with performance evaluation process as the basis or example for the development of the performance evaluation process for the entire SC?

ORGANISATIONS	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	❖ Organisation 14: The person expects to obtain an external process for performance evaluation, test and adapt it to the company and them to expand the process to the SC.
No									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 3

❖ All the companies would take successful internal experiences with PE as a base for the PE process of linked SC. This confirms that there was no necessity to ask the companies the questions related to ideal situation (or improved situation) in terms of internal PE for individual companies. As most of the time companies would answer exactly the same for ideal situation of individual organisations and SC, then the questionnaire was develop with the question only for ideal situation of SC.

4) Information about individual organisations' and SCs' performance evaluation process (record the answers).

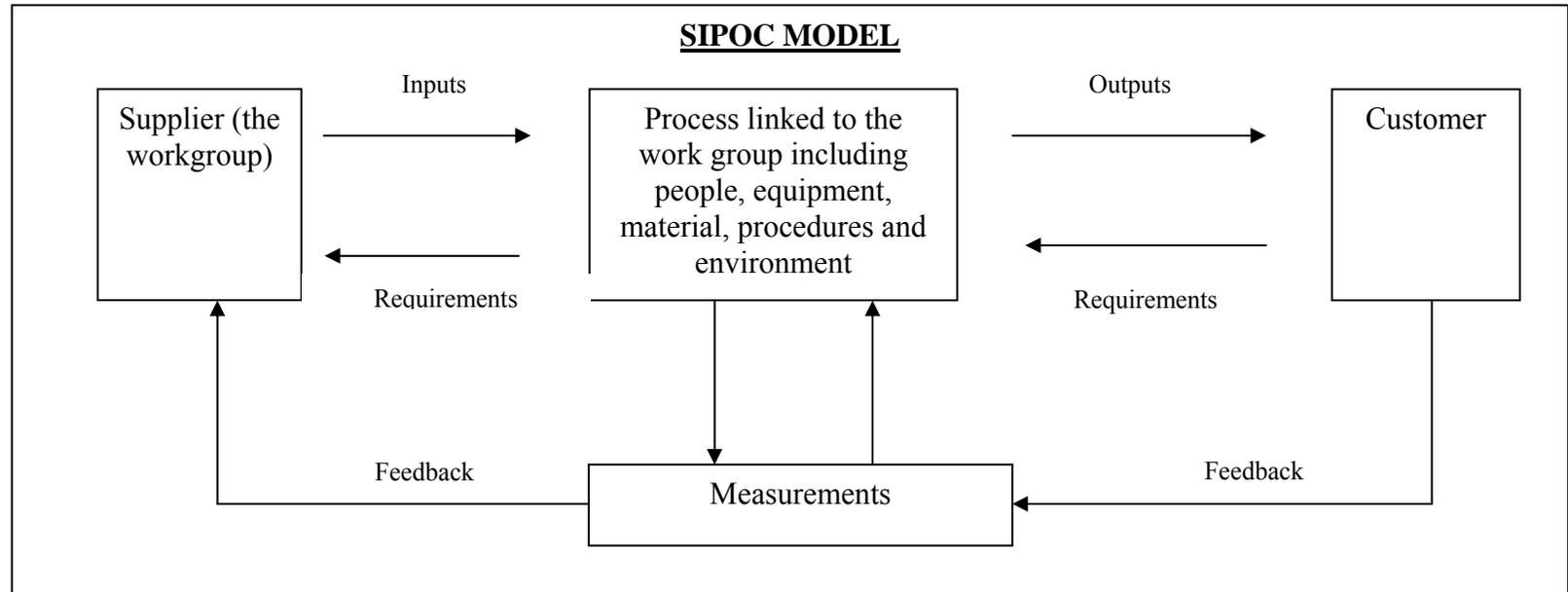
a) Explain the steps (give details of each step) of the performance evaluation process of your organization (for ORGANIZATION – CURRENT SITUATION).

ORGANISATIONS – CURRENT SITUATION	ANSWERS
14	<ul style="list-style-type: none"> ❖ The answer was recorded and was given by Jeff Mahoney, Manger of Business Services. ❖ The answer was based in the performance evaluation of internal workgroups that manage specific areas and/or activities. The top management of NRRGOS uses the same process and it is cascaded first to department levels and then individual workgroups. It allows the company to align their overall strategy with the strategy of the departments and workgroups. ❖ The steps of the performance evaluation process are:

- PART I (the elements of this process can be used in a different order or be eliminated depending on the users' choice): 1 – Introducing planning models and concepts; 2 – Business environment and strategic issues; 3 – Management business direction and strategies; 4 – Workgroup core purpose and core values; 5 – Overriding goal vision for the future (more used by the top management); 6 – Critical success factors;
- PART II (the elements of this process can be used in a different order or be eliminated depending on the users' choice): 7 – Workgroup roles and responsibilities; 8 – Skill & responsibility development plan; 9 – Operating procedures and ground rules; 10 – Managing business performance; 11 – Customers and suppliers (more used by workgroups); and, 12 – Dealing with individuals & new team members.
- Explanation of some steps:
 - Initially each workgroup has to develop a clear direction statement (also called business vision) that has to be aligned with the direction statement of the department (also called business vision) and consequently with the direction statement developed by the top management (also called organizational vision) – see PART I of the process.
 - The direction statement has the intention to understand the core purpose of the group and the core values addressing how they want to interact, treat and be treated by other connected workgroups – see PART I of the process.
 - Then the workgroup identifies the business vision, strategic goals and critical success factors (issues to be looked at). The identification of vision is based on McKinsey 7 S's. McKinsey, a consulting organisation, examines a company's internal strengths and weaknesses by focusing on seven internal factors (adapted for workgroups) – see PART I of the process:
 - Strategy – The purpose, future plans, goals and visions of the workgroup + Business direction statement.
 - Structure – The way the workgroup's work is organized and allocated into jobs or roles, responsibilities and accountabilities, and how these are coordinated + How the workgroup's responsibilities would relate to supervisors and other in the organization.
 - Systems – The policies, procedures and practices the workgroup uses (e.g. Safety, quality, communication, work instructions).
 - Style – The overall impression of the workgroup based on its action and behaviours + Physical appearance of the workgroup.
 - Staff – The type of people in the workgroup (their background, experience, morale) and how they are managed.
 - Skills (Capabilities) – The things the workgroup need to be able to do well, in order to achieve their goals.
 - Shared values – The underlying values, beliefs and principles that shape the way the workgroup goes about doing things
 - The 7 S's helps to identify where the organization is in terms of business now and where the top management wants the company to be in the future – see PART I of the process.
 - Then the group identifies how to measure critical success factors. Some key performance indicators (KPIs) are developed and criteria identified – see PART I of the process.
 - As some targets (or criteria) are unknown a search for benchmarking for criteria was done and the new targets established – see PART I of the process.
 - From there the group develops some measurements of performance, collecting the data, reporting to the group – see

PART I of the process.

- At this stage the roles and responsibilities of each participant of the group are identified – see PART II of the process.
- Gaps between the criteria and the data expressed through KPIs are identified. A development plan including operation procedures and ground rules is developed to close the gaps - see PART II of the process.
- At this stage a business report is developed - see PART II of the process.
- Each group develops a training program to ensure that the participants understand their roles and responsibilities and to enhance the capabilities see PART II of the process.
- Then each group has to develop a customer supplier agreement called Supplier Input Process Output Customer (“SIPOC”) to have a clear understanding of the outputs to be achieved by the group. A visual representation of the SIPOC model is see PART II of the process:



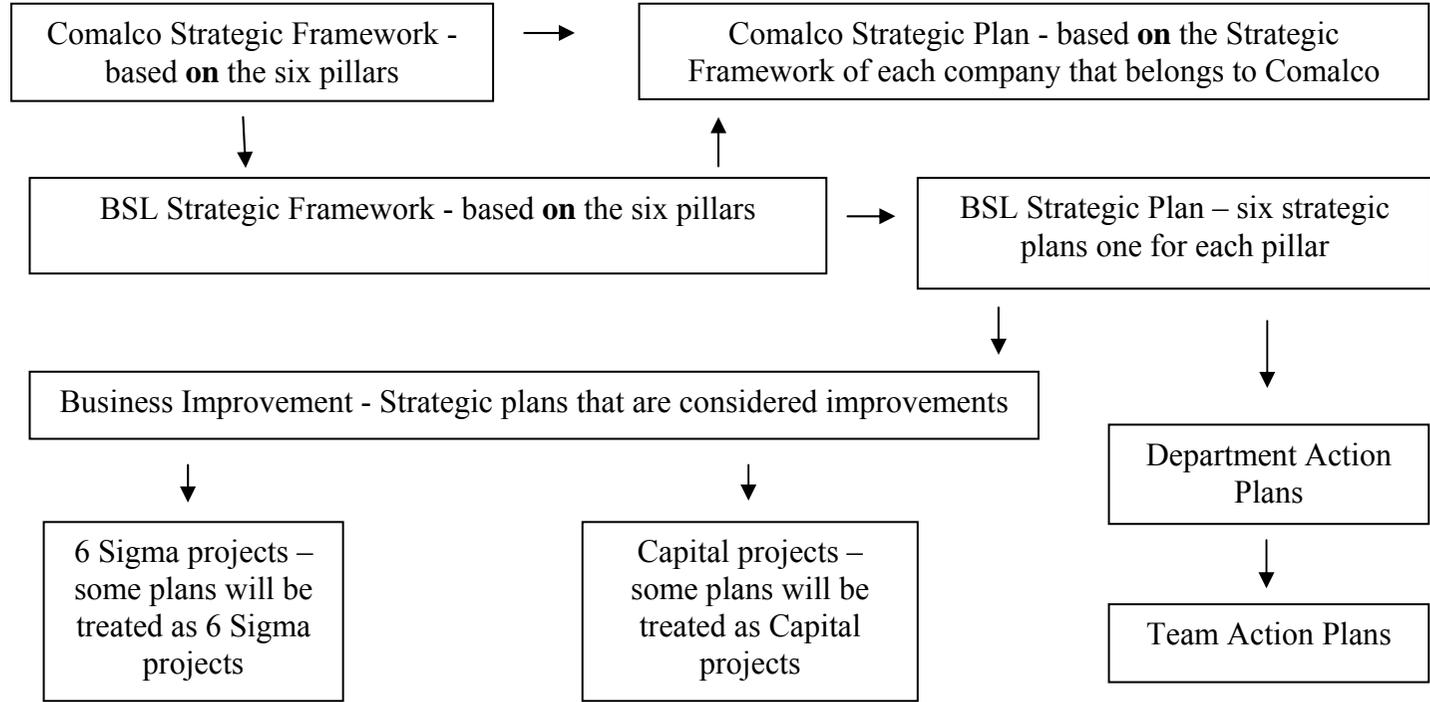
- The 10 steps of the closed loop (continuous improvement) of the SIPOC model are (see PART II of the process):
 - PLAN PHASE: 1- Establish context and assign accountabilities of process; 2 – Suppliers identify outputs & customers; 3 – Customers advise requirements; 4 – Identify steps in process and critical process variables and define performance measurements and feedback (agreed with customers); 5 – Identify key suppliers’ input for achieving customer requirements; 6 – Assess conformance to customer requirements (identify if your performance is acceptable); and, 7 – Identify and select improvement opportunities and set improvement targets.
 - DO PHASE: 8 – Improve process quality.
 - CHECK PHASE: 9 – Evaluate results.

	<ul style="list-style-type: none"> • ACT PHASE: 10 – Standardise to lock-in gains made and review process followed for organizational learning. • Start again with step 1 <ul style="list-style-type: none"> ▪ The group also monitor their own performance and the performance of each individual - see PART II of the process. ▪ The group has to develop conditions to introduce new members in the group see - PART II of the process. <p>❖ This performance evaluation management tool (structured process) is the same language that has been introduced to align directions and strategies of the workgroups with respective departments and the departments with top management. The tool guides the organization to access, achieve goals and report performance in an integrated manner. Everyone agrees the direction to go, success factors and KPIs. Everyone has information through reports if the goals of each workgroup (or departments or overall organisation) have been achieved.</p> <p>❖ Success factors are a KPI that joins the information of many KPIs</p> <p>❖ The performance evaluation process includes a regular reporting system. Workgroups report performance weekly, middle management (departments) monthly and senior management quarterly.</p> <p>❖ News projects use the process and if the goals have not been achieved, two questions arise: 1 – Is the project adequate to achieve the goals; and, 2 – Are the goals achievable?</p> <p>❖ See enclosed documents provided by NRG</p>
15	<p>❖ The answer was not recorded. The representative of the company decided to answer in writing. Tony Evans, the Chief Engineer of the company answered the question.</p> <p>❖ The process of performance evaluation is:</p> <ul style="list-style-type: none"> ○ Development of the annual budget by the board of the company in the middle of September by the Board (owners). ○ Developments of quarterly reforecast. ○ Development of monthly reports based on KPIs against annual budget and most recent reforecast: <ul style="list-style-type: none"> ▪ One operational report. ▪ One overall report to the manager Director (MD report) ○ Face to face presentations of the performance to the Board (owners) twice a year. ○ Development of financial internal audits by Ernest & Young once a year. ○ Quarterly executive internal meetings to address performance in the following areas: WH&S, environment, quality and risks. <p>❖ QAL has now written the procedure for performance evaluation in the quality area. Tony requested the research approach for performance evaluation as an example.</p>
16	<p>❖ The answer was recorded and was given by Craig Walters, Commercial Manager.</p> <p>❖ The process starts at the corporate office at Comalco Headquarters (one of the owners of BSL and the company responsible to manage BSL). It is based in a scorecard system. It is:</p>

SCORECARD SYSTEM

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STRATEGIC FRAMEWORK – COMALCO’S TEMPLATE

OVERALL VISION	e.g. Delivering Excellence					
MISSION	e.g. To create the most sustainable value					
PILLARS	HEALTH & SAFETY	ENVIRONMENT AND COMMUNITIES	PEOPLE	COST & REVENUE	MANUFACTURING & QUALITY	ENGINEERING & TECHNOLOGY
VISION	e.g. ZERO harm		e.g. everyone working together			
2008 TARGET			e.g. <5% turnover			
2004 PLAN			e.g. <9% turnover			
KEY INITIATIVES			e.g. training programs			
SYSTEMS AND TOOLS	Change Management and/or Communication Systems and/or Staff Employment and/or mySAP and/or Six Sigma and/or Knowledge/Document Management and/or Business Planning					

- ❖ Every five years Comalco develops a five years strategy. Using a cascade system, the companies that are managed by Comalco developed their own strategy based in the Comalco one (see the above diagrams). The first document developed is called Strategic Framework and includes vision, mission, five pillars used by Comalco to structure its management approach, targets (first level metrics that includes a series of measures and timeframes to develop some initiatives) and key initiatives.
- ❖ With cascading, based on the Strategic Framework, BSL develops action plans. The action plans are divided according to the six pillars (six sets of action plans). Then based in these action plans, each department develops its own action plan (one to each department). Then each team working within each department develops its own action plan for their activities. Some action plans are separate and they will be considered Business Improvement ones (special ones). From those special ones, some will be treated as the 6 Sigma projects and/or capital projects.
- ❖ Comparing the process for performance evaluation presented by the researcher and the internal process, the company has to:
 - Identify aspects of the business.
 - Metrics (developed using 5 years of historical data and 5 years of prediction ahead).
 - Develop strategies, initiatives and action plans.
 - Prioritise the important initiatives dividing them by year (within the five years strategy).
 - Define action plans that will be developed at sites but controlled by department.
 - Look at some initiatives and action plans and define some as 6 Sigma projects (including definition of resources for them). Priorities are defined.
 - The company looks at some initiatives and action plans and defines some as Capital projects (the ones that because of their

	<p>magnitude are necessary to control financial and other resources). Priorities are defined.</p> <ul style="list-style-type: none"> ○ Definition of metrics for those projects (called secondary metrics). ○ There is a verification phase at the end of each project that the company needs to improve and use properly: <ul style="list-style-type: none"> ▪ Take the results. ▪ Evaluate the metrics (done by the project leader). ▪ Audit the savings (bottom line evaluation done by the manager of each department and external person of the department). ○ Onsite there are quarterly financial and physical forecasts that are reported monthly. This gives the opportunity for the managers to change plans. Operational decisions can be taken by the onsite managers but changes that are linked to issues included in the strategic plan have to be discussed with Comalco. ○ Authority levels to take decisions are defined inside the organization. Some levels are related to finance, purchase, delegations, disposal assets, contracts, donations, travels, freights, etc) ○ There are weekly and monthly reports based on data collected according to the strategy. The reports are delivered to the corporate management (Comalco) and internal senior management. ○ Evaluation of reports and decisions: <ul style="list-style-type: none"> ▪ Corporate management looks at the return of investment and commitment of the focus entity with the corporations and company's strategy. ▪ At site level there are monthly business meetings to evaluate if the projects work according to the plans (financial and technical issues).
17	<ul style="list-style-type: none"> ❖ The answer was recorded and was given by Tony Stuart-Street, Project Engineer. ❖ The branch in Gladstone has some general targets to be met. The head office develops these general targets. The branch, based on knowledge of the local market, evaluates those targets. After the evaluation the branch and the head office agree with the targets for the following year. ❖ Secondary targets are established by the branch based on those general targets and on the requirements established by clients for each work contracted from the Gladstone branch. The branch established these secondary targets only after agreeing with the requirements for works and after signing a contract to provide the respective service. ❖ In relation to those general targets, the branch collects performance data linked to quality, WH&S, financial and environmental issues on a monthly base. This information is reported to the head office. Once a year the head office compares the branch's performance against the pre-established targets and then develops new targets for the branch for the next year. A report of the previous performance is also given to each branch. Then the cycle of performance evaluation starts again.
18	<ul style="list-style-type: none"> ❖ The answer was recorded and was given by Tony Burns, Central Queensland Manager. ❖ Smorgon Steel Recycling uses project management as an approach to manage the activities of the company. ❖ Evaluations of the project are done at the beginning (decision to take the project) and at the end of each project (performance evaluation). ❖ At the beginning of each project the company identifies some parameters of the project such as size, commercial value, resources necessary to run, if the company needs or wants to add value to the product before selling it, environment and workplace health & safety implications and other necessary actions. This evaluation is more financial and the decision to develop the project or not is done

	<p>by the senior management.</p> <ul style="list-style-type: none"> ❖ The decision about projects is based in the evaluation of information provided through a template form for performance that is filled by the coordinator of each project. ❖ The performance evaluation of each project is done at the end of each project by senior management following information provided through the same template form filled by the coordinator with the outcome results. ❖ The outcome of this performance evaluation is an internal report that shows benefits of the project, gaps, improvements for future projects, etc. ❖ KPIs and performance criteria are only developed for the development of the project if senior management evaluates that it will be beneficial to the project. ❖ Some external reports are generated and they are: <ul style="list-style-type: none"> ○ Financial reports for shareholders and senior management. ○ Quality reports for senior management. ❖ WH&S and environment reporting for the control bodies of the government.
19	<ul style="list-style-type: none"> ❖ The answer was recorded and was given by Steve Robinson, Logistic Manager. ❖ The performance evaluation system is based on quality parameters (KPIs). The major KPIs used are the delivery of products to customers on time, with the right quality and with agreed cost level.
20	<ul style="list-style-type: none"> ❖ The answer was recorded and was given by Russell Baxter, Business Development Manager. ❖ Toll group is broken down into units. Units operate based on financial performance and nowadays WH&S is also becoming an important parameter in terms of performance evaluation in our business. WH&S reports and addresses incidents, near miss and lost time injury). ❖ Each unit is responsible for its own financial performance. Our financial system is based on “profits” and “losses”. ❖ Steps of this process: <ul style="list-style-type: none"> ○ The manager of each unit, in conjunction with the accountants of the company develops a five-year budget plan. Each plan (based on profits and losses) has very specific information for each year of the plan. The year is considered from June to July next year. ○ At corporate level the plans are unified and some specifics are added to them, then the corporate budget plan is defined. ○ Each unit then divides each annual budget in weeks. A periodic forecast is also developed for each week. The forecast has the intention to correct the budget for the right time of its use. ○ Development of weekly reports against budget and forecasts and the development of the forecast of subsequent weeks. The intention of the weekly performance evaluation is to measures achievements of the unit and responsibilities of the manager. ❖ The decision making process of the company and units follows a table of levels of authority. This table defines who can take some decisions and when.

INTERVIEWER’S COMMENTS

- ❖ NRG has a structured performance evaluation process (formal) that has been used by all levels inside the company. It helps to cascade the strategy along the levels of work. The process includes a tool that helps to identify requirements and measurements between, for example, a focus group and their internal

customers and suppliers. It is called Supplier Input Process Output Customer – SIPOC. There is also a tool that helps to identify the gaps between the map of activities of the company and the requirements of interested parties. The PE process has many steps but some steps are suitable for top management and not for group work and vice versa. There are shifts of steps in some specific circumstances. However the procedures within the process do not define which one would be suppressed and shifted in some cases. The internal PE process has some similarities with the research draft model.

- ❖ QAL PE process is financial and quality oriented and it is done by the top management. There is no formal process for that. However QAL has a well-structured community consultation program.
- ❖ BSL has a structured performance evaluation process (partial formal) based on a scorecard system. It includes six pillars that address sustainability. However the sustainability vision and policies are not well translated into actions. The process is different compared with the research model even if there are some similar steps. The PE process of the company needs some formalisation and clarification for everyone involved with it.
- ❖ Monadelphous PE process is financial and quality oriented and it is done by the top management. There is no formal process for that.
- ❖ The PE process of Sorگون Steel Recycling is based on project approach. It is financial and quality based. The process is partially formal but with few directions on how to do PE.
- ❖ Capral Aluminium has a simplified PE process based on some indicators pre-selected to measure and report periodically. Top management use them to take decisions. The process is heavily financial and quality orientated. There is no formal process.
- ❖ Capral Aluminium PE process is financial and quality oriented and it is done by the top management. There is no formal process for that.
- ❖ All the companies have financial planning and periodical forecasting to correct the plans. Most of the times the plans are done for five years but separately by year.
- ❖ Most aspects linked to the social, economic and environmental areas are dealt with by most of the companies with the intention to comply with legislation. It is clear that there are very few objectives linked to continual improvement of those areas in most of the companies. There are companies that address in their PE only financial, quality and sometimes WH&S issues.
- ❖ Most of the PE processes obtain relevant information only from shareholders and top management.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 4a

- ❖ In terms of ideas and good experiences that could be used to improve the research model for PE for individual organisations, they are:
 - The idea of a PE that could be cascaded to all levels of the company, translating shareholders' directions from the top management down to the floor of the company.
 - The idea of a PE that would use a sustainability scorecard as pillars for business planning and performance evaluation.
 - The idea of the community consultation system used by QAL. It could be interesting to have the process to deal with interested party consultation but the data about it was not available for the research.
 - The idea to use an improved tool based on the tool called Supplier Input Process Output Customer – SIPOC. The tool helps to identify requirements and measurements between, for example, a focus group (and its activities) and internal customers and suppliers linked to the group (and its activities).
 - The idea to add to the research model for PE the gap analysis between the interested parties' requirements/needs and the map of the business.
 - The idea of PE being planning together with the five years business planning (divided by year) and forecasted periodically.

- b) Think about one SC in which your organization participates or has participated . Explain in the view of your organization what would be the steps (give details of each step) of an improved performance evaluation process for the entire SC (for SC - IMPROVED SITUATION).

SC – IMPROVED SITUATION	ANSWERS
14	<ul style="list-style-type: none"> ❖ The answer was recorded and given by Jeff Mahoney, Manger of Business Services. ❖ The company has an incomplete performance evaluation process for the larger suppliers. The process is based on imposition of some requirements through contracts and the performance is evaluated at the end of the contract term. The actual contracts are based on Australian Standards. The main ones are AS4000 Construct, AS4305 Minor Works, AS4902 Design & Construct, AS4910 Supply & Installation, and AS4911 Supply without installation. The company cannot provide examples of contracts. ❖ The company wants to improve the process through the definition of some KPIs, common language in terms of performance evaluation to access performance, comparing achievements with agreed targets during specific periods, overall management strategy to deal with suppliers and tools to monitor the strategy. ❖ The company also wants to improve the contracts with suppliers developing contract management systems. It means the company will access primarily the current performance of the suppliers’ management systems linked to safety and environment. In a second stage the company will access the performance of the management systems of the suppliers linked to the commercial and technical areas. ❖ The company wants to use their own internal process of performance evaluation to manage the performance of suppliers but it has not been done yet.
15	<ul style="list-style-type: none"> ❖ The answer was not recorded. The company decided to answer in writing. Tony Evans, the Chief Engineer of the company answered the question. ❖ The experience and example provided by Tony Evans is related to engineering design. It is requesting data from their suppliers (engineering services) for the following: <ul style="list-style-type: none"> ○ % earned value vs. % expanded effect. ○ Earned value vs. planned.
16	<ul style="list-style-type: none"> ❖ The answer was recorded and given by Peter Budd, Superintendent of Materials & Procurement. ❖ In his opinion companies that want to develop SC agreement have to sit in at the beginning of the relationship and develop consensus about the main value drivers/objectives that will guide the relationship. ❖ Next step is to define together a joint mission statement, processes/actions to meet the objectives, KPIs that will measure success of the relation and show the benefits for both companies. Every thing is negotiable. ❖ Another important need is to define a schedule for both companies to sit and develop improvements (continual improvement) in terms of their relations and performance.
17	<ul style="list-style-type: none"> ❖ The answer was recorded and given by Tony Stuart-Street, Project Engineer. ❖ The steps that the company undertakes to evaluate the performance of the SC are (the process described is related only to a SC where Monadelphous is the client and other companies suppliers): <ul style="list-style-type: none"> ○ Recognize our needs as a company and where the company fits in the SC. ○ Develop parameters to be met by the supplier that the company feels the suppliers have to meet in terms of Monadelphous requirements.

	<ul style="list-style-type: none"> ○ Present the steps to the supplier to make sure that they can achieve the company's requirements. ○ Evaluate the supplier's information as to they can meet our requirements or not. ○ Open conversation with suppliers about their deficiencies to meet the company's requirements. ○ If both parts agree with the parameters to be met the supplier is approved by Monadelphous and then this supplier is included in our SC <p>❖ The intention of this step-by-step evaluation is to choose suppliers that will streamline the day-by-day process of production. It also helps to improve the communication process when working together because both Monadelphous and the supplier speak the same language in terms of performance. Electronic communication system is used between Monadelphous and the suppliers during production processes.</p>
18	<p>❖ The answer was recorded and was given by Tony Burns, Central Queensland Manager.</p> <p>❖ It is important in the development of an SC that all possible participants (interested parties) sit at a table to define clear and agreed objectives for the SC.</p>
19	<p>❖ The answer was recorded and was given by Steve Robinson, Logistic Manager.</p> <p>❖ Taking the example of one SC agreement that Capral has with another company, the flow of products within the chain is:</p> <ul style="list-style-type: none"> ○ Customer comes to Capral's warehouse and orders a product. ○ Capral obtain the raw material (or has it in stock), add value to it, send it to a supplier, who adds value to the product, sends it back to Capral who add more value to the product and then deliver it to the customer. <p>❖ Actions taken by Capral to determine and establish a SC:</p> <ul style="list-style-type: none"> ○ What is the market place for a specific product? ○ How does the SC offer a better product to the market (e.g. better quality, better price, shorter delivery time, etc)? ○ Number and key suppliers (e.g. offer good quality and reliability in delivering). The suppliers have to beat other suppliers based on the previous parameters to become Capral's partner. ○ Capral work with suppliers to know what the company can offer to the suppliers to help them to develop their activity (part of the agreement). ○ Capral offer a forecast for the suppliers. ○ The company offers measurement tools for the suppliers to achieve required standards. ○ The company provides track information of the product inside the chain and the other participants of the SC have to provide precise and clear information of the products inside their facilities. ○ Capral provide KPIs for the suppliers and they have to report weekly. <p>❖ Capral has internal assessments of the suppliers, from time to time, based on delivery on time KPI and other quality parameters.</p> <p>❖ There are meetings with SC participants to transparently discuss internal issues of each company with the intention to improve conditions to continue to concur in the market with a specific product (this is done as a kind of SWOT analysis of the partnership – strength, weakness, opportunities and threats).</p> <p>❖ The suppliers are treated by Capral as a department of the company.</p>
20	<p>❖ The answer was recorded and was given by Russell Baxter, Business Development Manager. It was addressed not as an improved situation but based on their current experience that in his opinion is very good. The information provided about the SC has the companies' perspective of SC as a logistic company that participates and links companies within the chain.</p>

	<ul style="list-style-type: none"> ❖ The SC approach is the following: <ul style="list-style-type: none"> ○ The process of understanding the logistics within a specific SC (called Process Method) initiates with all participants of the chain and some interested parties providing information for our company to have an overview of the chain. It is important to say that our customers control and provide the requirements for our operation. ○ The best overview possible of the chain gives the opportunity to identify and solve the bottlenecks and improve the process of logistics. Note that small problems in an SC can develop a cascade of problems that could increase substantially the total cost of the exchange of goods and services.
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INTERVIEWER'S COMMENTS

- ❖ In most cases the companies have experience in dealing only with suppliers and through contracts. The contracts are imposition tools that include requirements most of the time linked to quality achievements and WH&S and environment compliance with the legislation.
- ❖ Toll North has an informal process to deal with SC but it is linked to their business only, transport and logistics.
- ❖ Capral has an informal process to deal with an SC but it is linked with the track of products inside the chain. They have been implementing a new IT system called “Advanced Planning & Optimisation”.
- ❖ The information provided by QAL was very poor.
- ❖ All companies agree that to have a similar language in terms of PE process is important for the success of an SC.
- ❖ Some companies agree that it is necessary to develop a partnership within an SC where the transparency of relations is important.
- ❖ All of them agree that it is important that the relations within an SC would be through a collaborative approach but some of them expressed the view that sometimes it is necessary to have some imposed requirements for suppliers.
- ❖ Some of them expressed the view that it is necessary at the beginning of the relations within an SC that all partners sit to define scope, objectives and targets, resources, exchange of resources among participants, needs and limitations of the participants, requirements for everyone, schedule meetings to evaluate and improve performance and relations, etc
- ❖ Some of them stated that the research model encompass some steps they find important for an SC PE process
- ❖ Different companies have different understanding of SC. Some understand SC as the focus company and direct and indirect suppliers linked to produce a product or service. Others as a supplier focus company and customer. Some understand the links within an SC as a straight line of companies to produce a specific product or service and others as a network of companies working together.
- ❖ Different companies have different parameters to define levels of transparency when developing business in a partnership way within an SC.
- ❖ Different companies have different understandings of partnership.
- ❖ Different companies have different understandings of the concept of sustainability for themselves.
- ❖ Capral uses an interesting approach. It considers every supplier as a department of the company.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 4b

- ❖ In terms of ideas and good experiences that could be used to improve the research model for PE for SC, they are:
 - Define as a starting point for organizations that will use the PE process for SC, at least some concepts and words like SC, partnership, transparency, sustainability, etc.

- Develop a PE process that is based on a collaborative approach within participants of the SC but that could also consider a step that shows how to introduce some impositions in specific situations.
- Treat participants of the SC as departments of your own company.
- Define steps for the PE process for an SC that would include issues to be dealt by the participants such as scope, objectives and targets, resources, exchange of resources among participants, needs and limitations of the participants, requirements for everyone, schedule meetings to evaluate and improve performance and relations, etc
- Use risk management to identify bottleneck of the PE process when used
- Define tools inside the PE process that would help participants of the chains to track products and services.

5) Questions:

a) Which are the elements included in the performance evaluation management systems (process) of your organization (mark in the column ORGANIZATION - CURRENT SITUATION)? The scores are:

- “0” for not important element – not included in our PE
- “1” for important element – needs improvement in our PE
- “2” for very important element – well developed in our PE

ORGANISATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Engagement and assessment of the needs of the interested parties (consultation process)	2	2	2	2	1	0	2	14% scored 0, 14% scored 1 and 72% scored 2	

Identification of aspects (key characteristics of the business including activities, products and services) and impacts of the organisation/SC.	1	1	2	2	1	1	2	57% scored 1 and 43% scored 2
Combination and assessment of the previous information	1	1	2	2	1	0	2	14% scored 0, 43% scored 1 and 43% scored 2
Development of vision and policy	2	2	2	2	2	1	1	28% scored 1 and 72% scored 2
Identification of priorities to develop action plans	2	1	2	1	2	2	1	43% scored 1 and 57% scored 2
Development of action plans (for day-to-day activities and/or improvements and/or risks)	2	1	2	1	2	2	1	43% scored 1 and 57% scored 2
Identification of the priorities (key characteristics for control and/or monitoring) for the development of KPIs and performance criteria	1	2	2	1	2	2	1	43% scored 1 and 57% scored 2

Development of KPIs and performance criteria	1	2	2	1	2	2	1	43% scored 1 and 57% scored 2
Collection of data	1	2	2	2	2	2	2	14% scored 1 and 86% scored 2
Analysis and conversion of data	1	1	2	2	2	2	1	43% scored 1 and 57% scored 2
Checking/Auditing (performance improvement of the organization against performance criteria and the performance evaluation management systems or process)	1	1	1	2	1	1	1	86% scored 1 and 14% scored 2
Internal reports (general and for specific target groups)	2	1	2	1	0	1	1	14% scored 0, 57% scored 1 and 29% scored 2

Management review (evaluation of performance improvement, decision-making process to improve organization/SC performance, evaluation and improvement of the performance evaluation management systems or process)	2	1	1	2	0	1	1	14% scored 0, 57% scored 1 and 29% scored 2
External reports (public and specific target groups)	2	0	2	0	2	1	1	28% scored 0, 28% scored 1 and 44% scored 2)
Verification of the external reports	1	0	1	0	0	1	1	43% scored 0 and 57% scored 1
No elements and performance evaluation process	-	-	-	-	-	-	-	-
Other: Gap analysis between the interested parties requirements and our business	2	-	-	-	-	-	-	14% stated this additional element would be very important

Other: Cascade strategy inside the organisation using the same process for performance evaluation	2	-	-	-	-	-	-	14% stated this additional element would be very important
Other: Clients auditing our management systems	-	-	-	1	-	-	-	14% stated this additional element would be important

INTERVIEWER'S COMMENTS

- ❖ All the suggested items for this question are already included in the research model for PE.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 5a – ORGANIZATIONS – CURRENT SITUATION

The representative of each company marked in this question the steps and the importance of those steps in their performance evaluation process. The question is based on the steps of the PE model developed by the research. The evaluations of the answers are:

- ❖ 28% of the organisations demonstrated that they needed to implement or improve the engagement of interested parties. However most of them engage only shareholders and only QAL has a process to engage community-interested parties. Thus it is clear that at least 86% of the companies need to implement or improve their process of engagement.
- ❖ 57% need to improve the identification of key characteristics of their business (map the activities, products and services of the organisation including aspects and impacts according to sustainable principles). It means that if they do not do it well, the rest of the process of business planning and performance evaluation is compromised by the lack of information.
- ❖ 57% do not develop gap analysis between the engagement of interested parties and the map of business.
- ❖ 43% need to improve the way that they are defining and developing action plans.
- ❖ 43% need to improve the way that they are identifying KPIs and performance criteria.
- ❖ 86% need to improve the way that they are evaluating their performance (comparing data expressed through KPIs with performance criteria).
- ❖ 71% need to improve internal communication systems with interested parties (including internal reporting). This percentage is higher because most of the companies have only released financial, quality, WH&S and some environment information to internal interested parties.
- ❖ 71% need to improve taking decisions based on reliable performance data.

- ❖ 56% need to improve external communication systems with interested parties (including external reporting). This percentage is higher because most of the companies have only released financial information to the Stock Exchange.
- ❖ 43% need to implement verification systems for the information that would be released for external interested parties. However most of the companies have this procedure for financial reports, not for other sustainability issues that would be reported.
- ❖ Taking into comparison the PE model of the research, there are several gaps in the process of performance evaluation of companies. If we consider that 57% of them need to improve the identification of key characteristics of their business, it can be said that their process of business planning and PE are compromised negatively by the lack of information and because it occurs at the beginning of the planning and PE process.
- ❖ It can be also said that the evaluation of performance against criteria, decision-making process and communication need improvement in most of the companies.
- ❖ Thus most of the companies need to improve the major steps of their PE process when comparing the process with the PE model developed within the research. This shows the importance of the development of the research when we are talking about internal process for performance evaluation.

b) Which, then, would be the elements included in an improved performance evaluation process for an entire SC (mark in the column SC - IMPROVED SITUATION)? After marking the answers in both columns, please score the importance of each element within the performance evaluation process, firstly for the organization and secondly for the SC. The scores are:

- “0” for not important element
- “1” for important element
- “2” for very important element

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES	
ANSWERS										
Engagement and assessment of the needs of the interested parties (consultation process)	2	2	2	2	2	2	2	100% scored 2		

Identification of aspects (key characteristics of the business including activities, products and services) and impacts of the organization/SC.	1	2	2	2	2	2	2	14% scored 1 and 86% scored 2
Combination and assessment of the previous information	1	2	2	2	2	2	2	14% scored 1 and 86% scored 2
Development of vision and policy	2	2	2	2	1	2	2	14% scored 1 and 86% scored 2
Identification of priorities to develop action plans	2	2	2	1	2	2	2	14% scored 1 and 86% scored 2
Development of action plans (for day-to-day activities and/or improvements and/or risks)	2	2	2	1	2	2	2	14% scored 1 and 86% scored 2
Identification of the priorities (key characteristics for control and/or monitoring) for the development of KPIs and performance criteria	1	2	2	1	2	1	2	43% scored 1 and 57% scored 2

Development of KPIs and performance criteria	1	2	2	1	2	2	2	28% scored 1 and 72% scored 2
Collection of data	1	2	2	2	1	1	2	43% scored 1 and 57% scored 2
Analysis and conversion of data	1	2	2	2	1	1	2	43% scored 1 and 57% scored 2
Checking/Auditing (performance improvement of the organization against performance criteria and the performance evaluation management systems or process)	1	2	2	2	2	1	2	28% scored 1 and 72% scored 2
Internal reports (general and for specific target groups)	2	2	2	1	2	1	0	14% scored 0, 28% scored 1 and 58% scored 2

Management review (evaluation of performance improvement, decision-making process to improve organization/SC performance, evaluation and improvement of the performance evaluation management systems or process)	2	2	2	2	2	1	2	14% scored 1 and 86% scored 2
External reports (public and specific target groups)	2	2	2	1	2	0	1	14% scored 0, 28% scored 1 and 58% scored 2
Verification of the external reports	1	0	2	1	2	0	1	28% scored 0, 43% scored 1 and 29% scored 2
No elements and performance evaluation process	-	-	-	-	-	-	-	-
Other: Gap analysis between the interested parties' requirements and the participants of the SC	2	-	-	-	-	-	-	14% stated this additional element would be very important

Other: Cascade strategy inside the organization using the same process for performance evaluation and among participants of the SC	2	-	-	-	-	-	-	14% stated this additional element would be very important
Other: general communication system	-	-	-	-	2	-	-	14% stated this additional element would be very important

INTERVIEWER'S COMMENTS

The representative of each company marked in this questionnaire the steps and the importance of those steps for an improved process of performance evaluation of SC. The question is based on the steps of the PE model develop by the research. The evaluations of the answers are:

- ❖ All the items were considered very important or important for a PE process for SC.
- ❖ All the suggested items for this question are already included in the research model for PE.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 5b - SC - IMPROVED SITUATION

- ❖ All the items related in this question need to be included in the final PE management systems for SC according to the answers.

6) Questions:

a) Does your organization have procedures (written or not written) showing how to develop business performance evaluation process (the steps) - mark in the column ORGANIZATION - CURRENT SITUATION?

ORGANIZATIONS- CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
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ANSWERS									
Yes (complete set)	X								14%
Yes (only a few)			X	X	X		X		57%
No		X					X		29%
Other:									

INTERVIEWER'S COMMENTS

- ❖ 57% answered that they have only a few but most of the procedures are linked to financial and quality issues

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 6a – ORGANIZATIONS – CURRENT SITUATION

- ❖ Based on the answers of 6a and 6b, it is clear that the companies need to improve the procedures.

b) Then, what would be the ideal situation for an SC in which your organisation would like to participate (to have procedures explaining how to develop performance evaluation for the SC) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes (complete set)	X	X	X	X	X			72%	❖ Organization 20: The person expressed the view that it is difficult to develop a complete set due to the variation among companies.
Yes (only a few)						X	X	28%	
No									
Other:									

INTERVIEWER'S COMMENTS

- ❖ Organisation 20 is correct when it states that it is difficult to develop procedures for everything.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 6b - SC - IMPROVED SITUATION

- ❖ The PE model has to state the necessity to develop PE procedures at least for the most important steps, when possible.

7) Questions:

a) Does your organisation have clearly defined boundaries (scope) for the performance evaluation management systems (or process) - mark in the column ORGANIZATION - CURRENT SITUATION?

ORGANISATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X			X				28%	❖ Organisation 20: The person stated that there are many grey areas. The answer was “yes’ to the question but the real answer is “no”.
No		X	X		X	X	X	72%	

INTERVIEWER’S COMMENTS

❖ 72% answered that the scope does not have clear definition.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 7a – ORGANIZATIONS – CURRENT SITUATION

❖ Based on the answer of 7a and 7b it is clear that organisations need to improve the scope of their performance evaluation

b) Then, what would be the ideal situation for an SC in which your organisation would like to participate (to have clearly defined boundaries (scope) for the performance evaluation management systems of the SC) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	
No									

INTERVIEWER’S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 7b - SC - IMPROVED SITUATION

❖ The PE model needs to address the necessity to define clear scope for the PE of SC

8) Questions:

a) Does your organization have in place structured performance evaluation management systems or process (not only the steps of the process but also responsibilities addressed and training/record/documentation systems) - mark in the column ORGANIZATION - CURRENT SITUATION?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X		X	X			X	57%	❖ Organisation 16: It was stated that it needs improvements. ❖ Organisation 20: Only for the financial area.
No		X			X	X		43%	

INTERVIEWER'S COMMENTS

❖ It is interesting to see that 57% of the representatives of the organisations consider that they have structured performance evaluation. The previous answers show that most of the companies do not have structured performance evaluation that includes most of the steps of the model and also all sustainability principles. My hypothesis is that they have something in terms of PE and they want to show that it is effective so they answer that the process is structured. In reality it is structured for some areas of analysis but not for the entire process.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 8a – ORGANIZATIONS – CURRENT SITUATION

❖ Based in 8a and 8b it is clear that all the companies want a very structured process for performance evaluation

b) Then, what would be the ideal situation for an SC in which your organisation would like to participate (to have in place structured performance evaluation management systems for the SC) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	
No									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 8b - SC - IMPROVED SITUATION

❖ The companies want to have a structured process that can be used along the SC

9) Questions:

a) Does your organization have a team that is responsible for the operation and improvement of the performance evaluation management systems (or process) of the organisation (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANISATIONS– CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes (structured team)				X				14%	❖ Organisation 14: The person added that everyone inside the organisation has to understand and be committed with the performance evaluation process. Ownership of the process is important. ❖ Organisation 16: There is a team but not formal.
Yes (not structured team)	X	X	X		X	X	X	86%	
No									
Other:									

INTERVIEWER’S COMMENTS

❖ The comment given by the representative of organization 14 is important: “The person added that everyone inside the organization has to understand and be committed with the performance evaluation process. Ownership of the process is important”.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 9a – ORGANISATIONS – CURRENT SITUATION

❖ Based on 9a and 9b it is clear that organizations want to have a structured team to deal with performance evaluation

b) Then, what would be the ideal situation for an SC in which your organization would like to participate (to have a team that would be responsible for the operation and improvement of the performance evaluation management systems of the SC) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									

Yes (structured team)	X	X	X	X	X			72%	❖ Organisation 14: The person added that everyone inside the organization participating in the SC has to understand and be committed to the performance evaluation process. Ownership of the process is important
Yes (not structured team)						X	X	28%	
No									
Other:									

INTERVIEWER'S COMMENTS

- ❖ The comment given by the representative of organization 14 is important: “The person added that everyone inside the organisation participating in the SC has to understand and be committed to the performance evaluation process. Ownership of the process is important”.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 9b - SC - IMPROVED SITUATION

- ❖ Based in 9a and 9b it is clear that organizations want to have a structured team to deal with performance evaluation of the SC

10) Questions:

a) Which are the areas covered in your organisation's performance evaluation (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANISATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Environmental, Workplace Health & Safety and Quality combined									❖ Organisation 14: The person stated that there are KPIs that are combined with others to form more complex KPIs
Environmental, Economic and Social combined	X							14%	
Financial separately			X		X	X		43%	
Economic separately				X	X	X	X	57%	

Environmental separately		X	X		X	X		57%
Social separately		X			X			28%
Workplace Health & Safety separately		X	X		X	X	X	72%
Quality separately			X	X	X	X	X	72%
No areas								
Other: Environmental+ Workplace Health & Safety				X				14%
Other: Quality + Economic		X						14%
Other:								

INTERVIEWER'S COMMENTS

- ❖ Based on what I saw from the answers of the organizations, my hypothesis is that some organizations do not know how identify social and economical aspects. Economic they mix with financial and social with human resources and WH&S.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 10a - ORGANIZATIONS – CURRENT SITUATION

- ❖ Based on 10a and 10b, most of the organizations show the intention to develop PE based on the combination with sustainable principles.

b) Then, which would be the ideal areas covered in your SC's performance evaluation (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									

Environmental, Workplace Health & Safety and Quality combined								
Environmental, Economic and Social combined	X	X	X		X		X	72%
Financial separately				X		X		28%
Economic separately				X		X		28%
Environmental separately				X		X		28%
Social separately				X				14%
Workplace Health & Safety separately				X		X		28%
Quality separately				X		X		28%
No areas								
Other:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

❖ It is interesting to see that 28% of the organizations are still thinking to develop PE not in an integrated form, but for separate areas.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 10b - SC - IMPROVED SITUATION

❖ Most of the organizations want to see their SC develop PE based on the combination of sustainable principles

11) Questions:

a) Indicate which is the length of one complete cycle of the performance evaluation process of your organization (mark in the column ORGANIZATION - CURRENT SITUATION).

ORGANISATIONS –	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
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CURRENT SITUATION									
ANSWERS									
Monthly	X			X	X		X	57%	<ul style="list-style-type: none"> ❖ Organization 14: The person added weekly for workgroups, monthly for departments and annually for the general one for the entire organisation. ❖ Organization 17: The person added monthly for WH&S, six monthly for quality and annually for financial, social and environment. ❖ Organization 18: The person added monthly for environment, WH&S, financial and quality and annually for social. ❖ Organization 20: The person added monthly for quality and WH&S and weekly for financial.
Three months			X					14%	
Six months				X				14%	
One year	X	X		X	X	X		72%	
No specific period									
No length									
Other: weekly	X						X	28%	

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 11a - ORGANIZATIONS – CURRENT SITUATION

❖ There is a tendency among companies to have monthly PE cycle followed by an annual one.

b) Then, indicate which would be the ideal length of one complete cycle of the performance evaluation process of your SC (mark in the column SC - IMPROVED SITUATION).

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Monthly			X	X			X	43%	<ul style="list-style-type: none"> ❖ Organization 14: The person added that for long partnership one year is OK and for specific contracts, as required. ❖ Organization 17: The person added monthly for WH&S, six monthly for quality and financial and annually for social and environment. ❖ Organization 18: The person added that at the beginning of the partnership the ideal would be six months but after the partnership develops, annually is ideal.
Three months						X		14%	
Six months				X	X			28%	
One year		X		X	X			43%	
No specific period									
No length									

Other: Must adapt depending on the scope and type of relations among participants	X							14%	❖ Organisation 20: The person added that for a stable relationship and business, monthly is OK. However when many changes occur, weekly is necessary.
Other: When many changes occur with businesses						X	14%		

INTERVIEWER’S COMMENTS

- ❖ There is an important comment from one company that has to be taken into consideration: The length depends on each company’s necessity.
- ❖ It is important for companies to achieve a consensus in terms of the meaning of partnership

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 11b - SC - IMPROVED SITUATION

- ❖ There is a tendency among the companies to suggest the cycle of PE for SC as a monthly one followed by a more comprehensive annual one

12) Questions:

- Do your organization’s corporate vision and/or policy and/or strategy address issues related to the participation in SC (mark in the column ORGANIZATION – CURRENT SITUATION)?

ORGANISATIONS– CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes		X	X	X			X	57%	❖ Organisation 16: The person explained that it needs improvement and that the action plans do not translate properly the vision and mission of the company. ❖ Organisation 18: The person answered “yes” but he/she also said that there is an informal policy that is not written. Then the real answer is “no”
No	X				X	X		43%	

INTERVIEWER’S COMMENTS

- ❖ If we take the answers and comments it can be concluded that most of the companies need to improve or implement vision and/or policy and/or strategy addressing issues related to the participation in SC

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 12a – ORGANIZATIONS – CURRENT SITUATION

❖ Companies need to improve or implement vision and/or policy and/or strategy to address issues related to the participation in SC

b) Then, what would be the ideal situation for an SC in which your organization would like to participate (to have each organization that participates in the SC addressing in their corporate vision and/or policy and/or strategy issues related to the participation in the SC) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	❖ Organisation 17: The person explained the company’s understanding of the definition of SC: Monadelphous and their suppliers form an SC only.
No									

INTERVIEWER’S COMMENTS

- ❖ After interviewing the companies it became clear that they have different definitions for SC. They are similar and they do not affect the result of the research because the answers of the companies contribute to the research in the way they see an SC. Some understand SC as their companies and suppliers. Some understand a straight line of indirect and direct suppliers, a focus company and direct and indirect customers who participate in the life cycle of one product. Some understand SC as a network of companies working towards the same objective. This last view is closer to the view used for this research.
- ❖ It is necessary for companies that work within an SC to define clearly their meaning of the concept.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 12b - SC - IMPROVED SITUATION

❖ Companies that work within an SC need to improve or implement vision and/or policy and/or strategy addressing issues related to the participation in SC

13) Questions:

a) Indicate the types of relationships between your organization and suppliers (mark in the column ORGANIZATION - CURRENT SITUATION):

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES

ANSWERS									
Imposed by the organisation on suppliers		X	X						28%
Imposed by suppliers on the organisation									
Collaboration between the organisation and suppliers									
Mix of collaboration and imposition	X			X	X	X	X		72%
No relationship									
Other:									
Other:									

Please explain - ORGANIZATION - CURRENT SITUATION

ORGANISATIONS - CURRENT SITUATION	ANSWERS
14	<ul style="list-style-type: none"> ❖ Most of the time imposition from us to them through contracts (for small suppliers) ❖ Our major supplier develops the contract directly with the shareholders and the contract is imposed on us (see additional information at the beginning of this document)
15	<ul style="list-style-type: none"> ❖ Criteria imposed by the organization. Every contractor has a contract with requirements and these are audited from time to time based on the contract (some KPIs are defined)
16	<ul style="list-style-type: none"> ❖ Requirements imposed through contracts.
17	<ul style="list-style-type: none"> ❖ Imposition: The requirements of our contracts with clients are passed to our suppliers through our contracts with them. ❖ Collaboration: Monadelphous and the suppliers work together to fulfil a need.
18	<ul style="list-style-type: none"> ❖ Collaboration through negotiation is a good approach but sometimes it is necessary to impose some requirements.
19	<ul style="list-style-type: none"> ❖ Collaboration: Both parties sharing the same objectives and directions. ❖ Imposition: Necessity to have KPIs to measure the common goals. However the company audits the data from the KPIs of the supplier
20	<ul style="list-style-type: none"> ❖ The company competes in a market where Queensland Rail (QR) has the monopoly of rail transport. Thus to transport through rail we have to contract with them. However QR sells the same services. QR has the power to impose conditions on us. When we develop a

	contract of transport with them it has to be very well written to avoid losses to us. Then our relations with them are a mix of collaboration and imposition. Collaboration comes in the sense that this type of activity needs collaboration between companies that will share the transport activity (e.g. rail + road) because if there is no flexibility, it is impossible to transport goods since there are many changes during the physical transportation in comparison with the planned one where there are changes of transport source during the transportation.
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INTERVIEWER'S COMMENTS

- ❖ 72% of the companies state that their relations with suppliers follow a mix of imposition and collaboration. In my opinion it is imposition because contracts are imposed on suppliers who have to follow requirements.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 13a - ORGANIZATIONS – CURRENT SITUATION

- ❖ Most of the relations between companies and their suppliers are through imposition from the companies in the directions of the suppliers, using contracts with requirements.

b) Then, indicate which would be ideal types of relations between your SC and the chain's suppliers (mark in the column SC - IMPROVED SITUATION):

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Imposed by the organization on suppliers									
Imposed by suppliers on the organization									
Collaboration between the organization and suppliers	X		X		X			43%	
Mix of collaboration and imposition		X		X		X	X	57%	
No relationship									

Other:									
Other:									

Please explain - SC - IMPROVED SITUATION

SC – IMPROVED SITUATION	ANSWERS
14	❖ Open relationship improves gains for everyone.
15	❖ The best way to achieve desired outcomes.
16	❖ Collaboration is ideal but in reality a balance of imposition and collaboration is necessary. ❖ Simple relations could be only imposition.
17	❖ It is easy to fulfil a need through collaboration in an SC. ❖ For specific works Monadelphous has to impose some requirements.
18	❖ The process needs to be very clear to everyone.
19	❖ Collaboration: Both parties sharing the same objectives and directions. ❖ Imposition: Necessity to have KPIs to measure the common goals. However our company wants to keep the power to audit the data from the KPIs of the suppliers.
20	❖ The same answer of 13a. However the system needs to be improved to better define the relations.

INTERVIEWER’S COMMENTS

- ❖ Based on the answers my hypothesis is that the companies want to move from an imposition system to one more collaborative but they are afraid of possible results. Then they still support a mix of collaboration and imposition that at the end is imposition through contracts.
- ❖ It is stated that a more collaborative approach is productive in terms of fulfilling the needs of everyone involved

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 13b - SC - IMPROVED SITUATION

- ❖ There is a tendency to move from a mix of collaboration and imposition to collaboration only but companies are reticent to develop it because some of their negative past experiences with suppliers.

14) Questions:

a) Indicate the types of relationships between your organization and customers (mark in the column ORGANIZATION - CURRENT SITUATION):

ORGANIZATIONS – CURRENT	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
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SITUATION								
ANSWERS								
Imposed by the organization on customers								
Imposed by customers on the organization	X	X	X	X				57% (14% scored it as very important)
Collaboration between the organization and customers				X		X		28%
Mix of collaboration and imposition					X		X	28%
No relationship								
Other:								
Other:								

Please explain - ORGANIZATION - CURRENT SITUATION

ORGANIZATIONS – CURRENT SITUATION	ANSWERS
14	❖ Our major contracts for provision are developed by the shareholders and our company has to follow them (see additional information at the beginning of this document).
15	❖ The owners of the company are the customers. They define the requirements.
16	❖ The customers are the owners of BSL and they establish the requirements for the company.
17	❖ Our clients impose requirements on Monadelphous. ❖ Collaboration: Monadelphous and the customers work together to fulfil a need.
18	❖ Collaboration through negotiation is a good approach but sometimes it is necessary to impose some requirements.
19	❖ The company has agreement with key customers that assures lead-time services (provision of products on time, with required quality and quantity)
20	❖ Some customers impose requirements, some don't and some stay in the middle. Everything depends in the culture of the customer.

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 14a - ORGANIZATIONS – CURRENT SITUATION

❖ Most of the relations are also based on impositions through contracts or shareholders' requirements.

b) Then, indicate which would be ideal types of relationship between your SC and the chain's customers (mark in the column SC - IMPROVED SITUATION):

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Imposed by the organization on customers									
Imposed by customers on the organization									
Collaboration between the organization and customers	X	X	X		X	X	X	86%	
Mix of collaboration and imposition				X				14%	
No relationship									
Other:									
Other:									

Please explain – SC – IMPROVED SITUATION

SC – IMPROVED SITUATION	ANSWERS
14	❖ Open relationship improves gains for everyone.
15	❖ Allow QAL to drive the direction of business because the personnel have experience and knowledge (the parameters of the business are imposed by the owners/customers).
16	❖ Data not available.
17	❖ It is easy to fulfil a need through collaboration in an SC. ❖ For specific works our customers need to impose some requirements.
18	❖ The process needs to be very clear to everyone.
19	❖ The SC would have agreement with key customers that assures lead-time services (provision of products on time, with required quality and quantity).
20	❖ Transparency is good because when we understand all businesses involved in the SC we can add more value to the product or service.

INTERVIEWER'S COMMENTS

- ❖ 86% of the companies stated they would like to see their SC having collaborative approaches with customers. They feel capable of achieving this.. However they do not feel, based on the answers to the previous question, that the suppliers have the conditions to do this.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 14b - SC - IMPROVED SITUATION

- ❖ Collaboration is the approach to be established between SC and customers.

15) How does the performance of your suppliers affect your organization? What activities or aspects of your suppliers affect the performance of your organization?

ORGANIZATIONS	ANSWERS		
	ENVIRONMENTAL	SOCIAL	ECONOMIC
14	<ul style="list-style-type: none"> ❖ The quality of coal impacts on the emissions and the company does not have control of it because the contract to supply coal is made by the shareholders (the Joint Venture that owns the Power Station). This possible impact in our company does not directly affect the companies to which we sell energy. 	<ul style="list-style-type: none"> ❖ Work conditions and salaries are imposed through contracts to our suppliers when they send employees to do a job at the Power Station. It means that our high standards are passed on to them. 	<ul style="list-style-type: none"> ❖ The company has to balance quality of provision of energy (reliability) and cost (competitiveness in the market). However the only way to improve gains is through the performance improvement of the process of productions (improve the costs) because if the reliability is affected not everyone in the energy chain will receive energy and in the end it generates higher costs for the entire chain (for us we have penalties in the contract). If any supplier impacts negatively on our provision of energy, the entire chain will lose. ❖ Increase in the price of coal will impact on our customers because the cost is transferred to them.
15	<ul style="list-style-type: none"> ❖ If the quality of a pressure vessel supplied is low it can generate excessive noise. ❖ If a supplier has a bad reputation with the community it is passed on to us if we do business with this supplier. 	<ul style="list-style-type: none"> ❖ If a supplier has a bad reputation with the community it is passed on to us if we do business with this supplier (i.e. contractors with bad WH&S policy). 	<ul style="list-style-type: none"> ❖ If a supplier has a bad reputation with the community it is passed on to us if we do business with this supplier (i.e. contractors do not properly follow their financial commitments).
16	<ul style="list-style-type: none"> ❖ BSL's suppliers that pollute can affect the image of BSL. 	<ul style="list-style-type: none"> ❖ BSL's suppliers who breach WH&S regulations can affect the image of BSL. 	<ul style="list-style-type: none"> ❖ BSL's suppliers who do not pay tax can affect image of BSL.
17	<ul style="list-style-type: none"> ❖ Data not available 	<ul style="list-style-type: none"> ❖ Data not available 	<ul style="list-style-type: none"> ❖ Low product quality will affect our services or products to our clients (it is a chain in the provision of products and services)

18	<ul style="list-style-type: none"> ❖ If suppliers supply contaminated material (e.g. chemicals, heavy metals, etc.) it will generate hazardous waste that the company will have a problem with disposing. ❖ We have to follow some requirements imposed by some suppliers in terms of WH&S and environment. ❖ See supplied brochure. 	<ul style="list-style-type: none"> ❖ If suppliers supply contaminated material (e.g. chemicals, heavy metals, etc.) our staff can be contaminated. ❖ See supplied brochure. ❖ We have to follow some requirements imposed by some suppliers in terms of WH&S and environment. 	<ul style="list-style-type: none"> ❖ If suppliers supply contaminated material (e.g. chemicals, heavy metals, etc.) our output product will have less quality. ❖ See supplied brochure. ❖ We have to follow some requirements imposed by some suppliers in terms of WH&S and environment.
19	<ul style="list-style-type: none"> ❖ Suppliers' pollution can affect our image. 	<ul style="list-style-type: none"> ❖ Little things impact a lot on our company (e.g. same treatment for everyone otherwise there is disturbance, transparent promotion otherwise there is disturbance, no coffee in the canteen for workers causes dissatisfaction, etc) 	<ul style="list-style-type: none"> ❖ Two days delay in delivering raw material will stop the plant.
20	<ul style="list-style-type: none"> ❖ If we ask a contractor to transport dangerous goods for us (as part of our business) and an accident occurs, we are also responsible for the environmental impact. 	<ul style="list-style-type: none"> ❖ In the loading of ships at harbours we have to hire people from one specific trade union to do the job. If we do not hire them, they will not allow us to do the work. Add to that we have to follow their human resources requirements. 	<ul style="list-style-type: none"> ❖ Supplier can affect unit costs that will affect our price to our clients.

INTERVIEWER'S COMMENTS

- ❖ Most of the facts presented are negative aspects.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 15

- ❖ Social, environmental and economic negative impacts of suppliers can make companies that buy from them also legally responsible for the impact. It can also be added that the image of the companies that buy from suppliers that develop negative impacts is also affected

16) How does the performance of your customers affect your organization? What activities or aspects of your customers affect the performance of your organization?

ORGANISATIONS	ANSWERS		
	ENVIRONMENTAL	SOCIAL	ECONOMIC
14	❖ If our clients increase the energy consumption, there will be an increase of emissions (air, waste) and raw material consumption.	❖ If our clients increase the energy consumption, there will be an increase in work force.	❖ If our clients increase the energy consumption, there will be an increase of economical benefits because more people will work and receive salaries.
15	❖ If the aluminium industry around the world does not perform properly (i.e. environmental area) all the industries linked to them will suffer with this image	❖ If the aluminium industry around the world does not perform properly (i.e. social area) all the industries linked to them will suffer with this image	❖ The financial success of the owners of QAL will dictate the success of QAL.
16	❖ The customers are the owners and if they fail it can affect the image of BSL and also close the company.	❖ The customers are the owners and if they fail it can affect the image of BSL and also close the company.	❖ The customers are the owners and if they fail it can affect the image of BSL and also close the company.
17	❖ Data not available	❖ Data not available	❖ When Monadelphous is developing a service/product for or inside a company (client), the client needs to provide their part of the work according to the contract between the parties because without it Monadelphous cannot deliver the product/service properly (e.g. according to a contract, the client needs to provide energy for a service that will be developed by Monadelphous but their internal energy system is not capable of supporting the energy demand of our equipment).
18	❖ If the customer does something wrong with the scrap that we sell them, our image can be affected because of our direct link with them. Then we can be considered not environmentally friendly.	❖ If the customer does something wrong with the scrap that we sell them, our image can be affected because of our direct link with them. Then we can be considered a company that is not doing the right thing.	❖ If the customer does something wrong with the scrap that we sell them, our image can be affected because of our direct link with them. Then our shareholders will start to sell the shares.
19	❖ Data not available	❖ Return of products by customers lowers staff morale. However sometimes the problem is with the customers and we have to accept the product back.	❖ The way the customer orders impacts on my financial and economic health (e.g. If the size of the order is major than the production is enhanced.

20	❖ If our customer asks us to transport dangerous goods for us (as part of our business) and an accident occurs, we are also responsible for the environmental impact.	❖ In remote areas the mines (customers) take our labour after we train them.	❖ If one customer goes bankrupt we can have a big loss (customer will not pay – depending on the contract the companies pay per specific period of time). ❖ Some customers fight for cents when paying transport of low value goods (commodities). We have to attend to them.
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INTERVIEWER'S COMMENTS

- ❖ Most of the facts presented are negative aspects.

OTHER COMMENTS FROM THE ANSWERS OF QUESTION 15

- ❖ Financial success and failure of customers have a cascade effect for companies involved with them.
- ❖ It can be said that the image of the companies that sell to customers that develop negative impacts is affected.

17) Indicate which management structure (the concept) in terms of performance evaluation process is likely to be best for your SC (mark in the column SC - IMPROVED SITUATION).

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
PART A: One organization leading and managing the performance evaluation process of the SC.	X					X	X	43%	

PART A: Committee formed by the top management of the organizations involved that coordinates the performance evaluation process of the SC.		X	X	X	X		X	72%
PART A - Other: One company leading + committee (formed by representatives of each organisation) managing the performance evaluation		X						14%
PART A - Other:								
PART B: General management systems (including the performance evaluation process) for the entire SC								
PART B: Performance evaluation management systems for the entire SC (including KPIs)	X	X	X	X	X	X	X	100%

PART B: Only exchange of information among organizations									
PART B: No structure/concept									
PART B - Other:									
PART B - Other:									

INTERVIEWER'S COMMENTS

❖ No Comments

OTHER COMMENTS FROM THE ANSWERS TO THE QUESTION 17 - SC - IMPROVED SITUATION

❖ Two aspects are clearly the preferable management structure for an SC: Committee formed by the top management of the organizations involved that coordinates the performance evaluation process of the SC and performance evaluation management systems for the entire SC (including KPIs).

18) Questions:

a) Does your organisation use a life cycle (*) approach to understand its activities, the flux of products/services and their impact on the environment and society (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS - CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X		X		X	X		57%	❖ Organisation 14: The person explained that basic life cycle is imposed by the Environmental Protection Act 1994 (QLD). ❖ Organisation 18: The person explained that the process needs improvement.
No		X		X			X	43%	

INTERVIEWER'S COMMENTS

❖ Life cycle assessment is well documented through some standards within ISO 14000

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 18a – ORGANIZATIONS – CURRENT SITUATION

❖ 57% of the companies are already using life cycle to understand their business and the interaction with other businesses in terms of the production of some products

b) Do you think that it is important for your SC to use a life cycle (*) approach to understand its activities, the flux of products/services and their impacts on the environment and society (mark in the column SC – IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	❖ Organisation 14: The person explained that basic life cycle is imposed by the Environmental Protection Act 1994 (QLD). ❖ Organisation 20: The person added that the use of the tool would not lead companies to lose their focus and main objectives.
No									

INTERVIEWER’S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 18b - SC - IMPROVED SITUATION

❖ 100% of the companies want to see their SC using life cycle assessment

ENGAGEMENT AND ASSESSMENT OF THE NEEDS OF THE INTERESTED PARTIES (CONSULTATION PROCESS)

19) Questions:

a) From which interested party does your organization access information/needs/values/views (consultation process/engagement) to develop business strategic plans (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES

ANSWERS								
Management representatives	X	X	X	X	X	X	X	100% (43% scored it as very important)
Employees	X				X		X	43% (14% scored it as very important)
Purchasers/ Consumers/Customers			X	X	X	X	X	72% (28% scored it as very important)
Investors/Shareholders	X	X	X	X	X	X	X	100% (57% scored it as very important)
Suppliers		X	X		X		X	57%
Contractors			X		X		X	43%
Indigenous people								
Welfare organizations								
Neighbouring and regional communities			X					14%
General public		X	X					28%
Trade unions		X				X	X	43%
NGOs								
Opinion leaders			X					14%
Business, administrative, academic and research institutions			X		X			28%
Communications media			X					14%

Financial institutions (insurers, lending institutions, etc)		X	X		X	X		57%	
Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	X	X	X	X	X	X	X	100% (14% scored it as very important)	
Local, State and Federal Government	X	X	X	X	X			72%	
Other organizations from your SC									
No interested parties accessed									
Other (from the Community, Government, etc): information from other Power Stations	X							14%	
Other (from the Community, Government, etc):									
Other (from the Community, Government, etc):									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 19a - ORGANIZATIONS – CURRENT SITUATION

- ❖ It is clear that the most important interested parties for the companies are investors/shareholders, management representatives and regulatory organizations.
- ❖ In a second level of importance for the companies come customers and suppliers.
- ❖ Consultation with employees is done only with 43%. However they are the ones that operate the business and know practical details of the business

b) Then, which would be the ideal interested parties that your SC would like to access for information/needs/values/views to develop strategic plans (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Management representatives	X	X	X	X	X	X	X	100%	
Employees	X	X	X	X			X	72% (14% scored it as very important)	
Purchasers/ Consumers/Customers	X	X	X	X	X	X	X	100% (14% scored it as very important)	
Investors/Shareholders	X	X	X	X	X	X	X	100% (14% scored it as very important)	
Suppliers	X	X	X	X	X	X	X	100% (14% scored it as very important)	
Contractors	X	X	X		X		X	72% (14% scored it as very important)	
Indigenous people			X		X		X	43%	

Welfare organisations			X		X			28%
Neighbouring and regional communities			X		X	X		43%
General public	X	X	X		X			57%
Trade unions		X	X			X	X	57%
NGOs		X	X		X			43%
Opinion leaders		X	X		X			43%
Business, administrative, academic and research institutions		X	X		X		X	57% (14% scored it as very important)
Communications media		X	X		X			43%
Financial institutions (insurers, lending institutions, etc)		X	X	X		X	X	72% (14% scored it as very important)
Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	X	X	X	X	X	X	X	100% (14% scored it as very important)
Local, State and Federal Government	X	X	X	X	X		X	86% (14% scored it as very important)
Other organizations from your SC	X	X	X	X	X			72%
No interested parties accessed								

Other (from the Community, Government, etc): information from other Power Stations	X								14%	
Other (from the Community, Government, etc): industry bodies				X					14%	
Other (from the Community, Government, etc):										

INTERVIEWER'S COMMENTS

- ❖ Some good comments are linked to the inclusion of industries' bodies and other industries from the same area.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 19b - SC - IMPROVED SITUATION

- ❖ When answering for SC, the companies amplified the range of interested parties to be consulted. However, even if they are talking about sustainable principles, through the answers it can be concluded that at least 50% are not concerned about indigenous people, welfare organizations, neighbouring and regional communities, NGOs, opinion leaders and a strategic and important interested party, communications media.

20) Questions:

a) To which interested parties do your organisation give feedback about the consultation process/engagement (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES	
ANSWERS										

Management representatives	X	X	X	X	X	X	X	100% (43% scored it as very important)
Employees	X		X	X	X	X	X	86%% (14% scored it as very important)
Purchasers/ Consumers/Custome rs		X	X		X		X	57% (14% scored it as very important)
Investors/Sharehold ers	X	X	X	X	X	X	X	100% (57% scored it as very important)
Suppliers		X	X		X	X	X	72% (28% scored it as very important)
Contractors		X	X		X		X	57% (28% scored it as very important)
Indigenous people								
Welfare organisations								
Neighbouring and regional communities		X	X		X			43%
General public		X	X	X	X	X		72%
Trade unions	X						X	28%
NGOs								
Opinion leaders			X					14%

Business, administrative, academic and research institutions			X		X		X	43%
Communications media	X		X		X		X	57%
Financial institutions (insurers, lending institutions, etc)	X		X	X			X	72%
Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	X	X	X	X	X	X	X	100% (14% scored it as very important)
Local, State and Federal Government	X		X	X			X	57%
Other organizations from your SC	X							14%
No interested parties accessed								
Other (from the Community, Government, etc): Give information to other Power Station of the NRG group	X							14%
Other (from the Community, Government, etc):								
Other (from the Community, Government, etc):								

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 20a - ORGANISATIONS – CURRENT SITUATION

❖ Today companies are talking about sustainable principles. However through the answers it can be concluded that at least 50% are not concerned about indigenous people, welfare organisations, neighbouring and regional communities, trade unions, NGOs AND opinion leaders.

b) Then, who would be the ideal interested parties to which your SC would like to give feedback about the consultation process/engagement (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Management representatives	X	X	X	X	X	X	X	100% (28% scored it as very important)	
Employees	X	X	X	X		X	X	86% (28% scored it as very important)	
Purchasers/ Consumers/Customers	X	X	X		X	X	X	86% (14% scored it as very important)	
Investors/Shareholders	X	X	X	X	X	X	X	100% (28% scored it as very important)	
Suppliers	X	X	X		X	X	X	86%	
Contractors	X	X	X		X		X	72%	
Indigenous people			X		X			28%	

Welfare organisations			X		X			28%
Neighbouring and regional communities		X	X		X		X	57%
General public	X	X	X	X	X	X		86%
Trade unions			X				X	28%
NGOs			X		X			28%
Opinion leaders			X		X			28%
Business, administrative, academic and research institutions			X		X			28%
Communications media			X		X		X	43%
Financial institutions (insurers, lending institutions, etc)		X	X	X		X	X	72%
Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	X	X	X	X	X	X	X	100%
Local, State and Federal Government	X		X	X	X		X	72%
Other organizations from your SC	X		X		X			43%
No interested parties accessed								

Other (from the Community, Government, etc): Give information to other Power Station of the NRG group	X								14%	
Other (from the Community, Government, etc):										
Other (from the Community, Government, etc):										

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 20b - SC - IMPROVED SITUATION

❖ When answering for SC, the companies amplified the range of interested parties to be consulted. However, even if they are talking about sustainable principles, through the answers it can be concluded that at least 50% are not concerned about indigenous people, welfare organisations, NGOs, opinion leaders and business, administrative, academic and research institutions.

21) Questions:

a) Which are the methods that your organization uses to engage and obtain information/needs/values/views (consultation process/engagement) from interested parties to develop business strategic plans (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									

General internal meetings and workshops	X	X		X	X	X		72% (43% scored it as very important)
General external meetings and workshops	X	X	X	X	X	X		86% (14% scored it as very important)
Internal focus group meetings and workshops	X			X	X	X	X	72% (14% scored it as very important)
External focus group meetings and workshops	X		X		X		X	57%
Specific community advisory group	X		X					28%
Specific internal advisory group	X		X	X	X			57% (14% scored it as very important)
Internal surveys/questionnaires	X	X	X	X	X	X		86%
External surveys/questionnaires	X	X						28%
Direct questions to target external interested parties (neighbours, regulatory bodies, customers, suppliers, etc.)	X	X	X		X		X	72% (28% scored it as very important)

Direct questions to target internal interested parties (employees, etc.)	X		X	X	X		X	72% (14% scored it as very important)
Employee suggestions program	X	X		X	X			57%
External suggestions program			X					14%
Market research	X		X		X		X	57% (14% scored it as very important)
Regulatory tracking and trending	X	X	X	X	X	X	X	100% (14% scored it as very important)
Participation in interest groups	X		X	X	X			57%
Information from media and other sources of public information	X	X	X	X	X		X	86%
Review public reports from other institutions	X				X	X	X	57%
Review of non-public reports from other institutions	X		X				X	43%
Specific internal activities and programmes to obtain data	X		X	X			X	57%
Initiatives of interested parties in providing information	X	X	X	X			X	72% (28% scored it as very important)

External expert or consultancy firm	X	X	X	X	X	X		86% (28% scored it as very important)
Knowledge of internal expert	X	X	X		X		X	72% (14% scored it as very important)
No methods								
Other:								

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 21a - ORGANIZATIONS – CURRENT SITUATION

❖ Companies use some approaches more than others but all of them can be used for specific cases.

b) Then, which would be the ideal methods that your SC would like to use to engage and obtain information/needs/values/views (consultation process/engagement) from interested parties to develop SC strategic plans (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
General internal and meetings and workshops	X	X	X	X	X			72% (43% scored it as very important)	
General external and meetings and workshops	X	X	X	X	X			72% (14% scored it as very important)	

Internal focus group meetings and workshops	X	X	X	X	X	X	X	100% (14% scored it as very important)
External focus group meetings and workshops	X	X	X		X		X	72%
Specific community advisory group	X	X	X		X			57% (14% scored it as very important)
Specific internal advisory group	X	X	X	X	X	X		86% (14% scored it as very important)
Internal surveys/questionnaires	X	X	X	X	X			72%
External surveys/questionnaires	X	X	X		X			57%
Direct questions to target external interested parties (neighbours, regulatory bodies, customers, suppliers, etc.)	X	X	X	X	X	X	X	100% (28% scored it as very important)
Direct questions to target internal interested parties (employees, etc.)	X	X	X	X		X	X	86% (28% scored it as very important)
Employee suggestions program	X	X	X	X				57%

External suggestions program	X	X	X	X	X			72% (14% scored it as very important)
Market research	X	X	X	X	X	X	X	100% (14% scored it as very important)
Regulatory tracking and trending	X	X	X	X	X		X	86% (14% scored it as very important)
Participation in interest groups	X	X	X	X	X			72%
Information from media and other sources of public information	X	X	X	X	X		X	86%
Review of public reports from other institutions	X	X	X	X	X		X	86%
Review of non-public reports from other institutions	X	X	X				X	57%
Specific internal activities and programmes to obtain data	X	X	X	X			X	72%
Initiatives of interested parties in providing information	X	X	X	X	X		X	86% (28% scored it as very important)
External expert or consultancy firm	X	X	X	X	X		X	86% (28% scored it as very important)

Knowledge of internal expert	X	X	X	X	X		X	86% (28% scored it as very important)	
No methods									
Other:									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 21b - SC - IMPROVED SITUATION

❖ Companies want to use the SC but some for specific cases.

22) Questions:

a) Which type of information does your organization obtain from interested parties (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Their needs/values	X	X	X	X	X		X	86%	❖ Organization 16: The person expressed the opinion that the organization needs to take more into consideration the needs/values, complaints and suggestions to improve relations.
Their requirements	X	X	X	X	X	X	X	100% (72% scored it as very important)	
Complaints	X	X	X	X	X	X	X	100% (14% scored it as very important)	
Suggestions to improve relations	X		X		X		X	57% (14% scored it as very important)	

Suggestions to improve products/services	X	X	X		X	X	X	86% (14% scored it as very important)
No information obtained								
Other suggestion: Raw material availability			X					14% (14% scored it as very important)
Other: Market for products			X					14% (14% scored it as very important)
Other:								
Other:								

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 22a - ORGANIZATIONS – CURRENT SITUATION

❖ It is interesting there is a relatively low score, 57%, for suggestions to improve relations even if all companies have quality systems.

b) Then, which would be the ideal type of information that your SC would like to obtain from interested parties (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									

Their needs/values	X	X		X	X	X	X	86% (14% scored it as very important)
Their requirements	X	X		X	X	X	X	86% (28% scored it as very important)
Complaints	X	X		X	X	X	X	86% (14% scored it as very important)
Suggestions to improve relations	X	X		X	X	X	X	86% (14% scored it as very important)
Suggestions to improve products/services	X	X		X	X	X	X	86%
No information obtained								
Other suggestions:								
Other:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS TO QUESTION 22b - SC - IMPROVED SITUATION

- ❖ All the companies suggested that it is necessary to collect all types of information from interested parties (their needs/values, their requirements, complaints, suggestions) to improve relations and suggestions to improve products/services.

23) Questions:

a) Which methods does your organization use to give feedback (*) to the interested parties within the consultation process (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Internal statements (brochures, newspapers, magazines, etc)	X	X	X	X	X	X	X	100% (14% scored it as very important)	
External statements (brochures, newspapers, magazines, etc)	X	X	X		X			57% (14% scored it as very important)	
Internal information through TV or radio									
External information through TV or radio	X							14%	
Direct answers to internal target of interested parties (employees, etc.)	X	X	X	X	X	X	X	100% (28% scored it as very important)	

Direct answers to target external interested parties (neighbours, regulatory bodies, customers, suppliers and etc)	X	X	X	X	X	X	X	100% (43% scored it as very important)
General internal meetings	X	X		X	X	X	X	86%
General internal external meetings					X	X		28%
Internal focus group meetings	X		X		X		X	57%
External focus groups meetings			X			X	X	43%
Speeches during internal events		X	X	X	X		X	72% (14% scored it as very important)
Speeches during external events		X			X		X	43%
General internal report	X	X	X	X	X	X		86%
Target group internal report			X				X	28% (14% scored it as very important)
General external (public) report	X		X			X		43%
Target group external report							X	14% (14% scored it as very important)
No feedback								
Other:								

Other:									
Other:									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 23a - ORGANIZATIONS – CURRENT SITUATION

- ❖ The three most important approaches to giving feedback are direct answers to target external interested parties, internal statements (brochures, newspapers, magazines, etc) and direct answers to target internal interested parties. After that came general internal meetings, speeches during internal events and general internal report.
- ❖ Other approaches can be used for different situations also.
- ❖ What is interesting is the low use of external media and only 43% use external reporting.

b) Then, which would be the ideal methods that your SC would like to use to give feedback (*) to the interested parties of the consultation process (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Internal statements (brochures, newspapers, magazines, etc)	X	X	X	X	X			72% (14% scored it as very important)	
External statements (brochures, newspapers, magazines, etc)	X	X	X		X			57% (14% scored it as very important)	
Internal information through TV or radio	X				X			28%	
External information through TV or radio	X				X			28%	

Direct answers to target internal interested parties (employees, etc.)	X	X	X	X	X	X	X	100%
Direct answers to target external interested parties (neighbours, regulatory bodies, customers, suppliers and etc)	X	X	X	X	X	X	X	100% (14% scored it as very important)
General internal meetings	X	X	X	X	X	X		86%
General external meetings	X		X		X	X		57%
Internal focus groups meetings	X	X	X	X	X	X		86%
External focus groups meetings	X	X	X		X	X		72%
Speeches during internal events	X	X	X	X	X			72%
Speeches during external events	X	X			X			43%
General internal report	X	X	X	X	X			72%
Target group internal report	X	X	X	X			X	72%
General external (public) report	X	X	X		X	X	X	86% (14% scored it as very important)
Target group external report	X	X	X				X	57%
No feedback								
Other:								

Other:									
Other:									

INTERVIEWER’S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 23b - SC - IMPROVED SITUATION

- ❖ The most suggested approaches for SC are direct answers to target external interested parties, internal statements (brochures, newspapers, magazines, etc) and direct answers to target internal interested parties. After that came internal statements (brochures, newspapers, magazines, etc), external statements (brochures, newspaper, magazines, etc), general internal meetings, internal focus group meetings, external focus group meetings, speeches during internal events, general internal report, target group internal report, general external (public) report, target group external report..
- ❖ Other approaches can be used for different situations also.
- ❖ What is interesting is the view that the use of external reporting increased from 43% in part “a” to 86% in part “b”.

IDENTIFICATION OF ASPECTS (KEY CHARACTERISTICS OF THE BUSINESS INCLUDING ACTIVITIES, PRODUCTS AND SERVICES) AND IMPACTS OF THE ORGANIZATION/SC

24) Questions:

a) Which type of approach does the organization use to identify the key characteristics of its activities, products and services and their impacts on the environment, society and economy (map or description of the business and interaction with environment, society and economy – WHERE THE BUSINESS IS?) for the purpose of developing business strategic plans (and also to manage and control activities, products and services and their impacts) - mark in the column ORGANIZATION - CURRENT SITUATION?

ORGANIZATION – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
General cause and effect	X			X	X			43%	

General Risk-based	X	X						28% (14% scored it as very important)
Risk-based using cause and effect		X	X			X	X	57%
Life cycle	X	X			X	X		57% (14% scored it as very important)
Regulatory or voluntary initiative	X	X	X	X	X	X	X	100%
Flowchart of the processes and activities	X		X		X	X	X	72%
Description of the activities			X	X	X	X		57%
No approach								
Other: McKinsey 7 S's	X							14%
Other:								

If the answer is no, please explain your methodology ORGANIZATION - CURRENT SITUATION.

ORGANIZATIONS – CURRENT SITUATION	ANSWERS
14	-
15	-
16	-
17	-
18	-
19	-
20	-

INTERVIEWER'S COMMENTS

❖ 57% voted that they use life cycle. My hypothesis is that the use of this tool is very superficial based on the contact that I had with them.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 24a - ORGANIZATIONS – CURRENT SITUATION

❖ It is clear that the most used is regulatory track (compliance with the law) that is followed by general cause and effect, risk-based using cause and effect, life cycle, flowchart of the processes and activities and description of the activities.

b) Then, which would be the ideal type of approach that your SC would like to use to identify the key characteristics of its activities, products and services and their impacts on the environment, society and economy for the purpose of developing the chain's strategic plans (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
General cause and effect	X							14%	
General risk-based	X							14%	
Risk-based using cause and effect	X	X	X	X	X	X	X	100%	
Life cycle	X	X	X		X	X		72%	
Regulatory or voluntary initiative	X	X	X	X	X	X	X	100%	
Flowchart of the processes and activities	X	X	X	X	X	X	X	100%	
Description of the activities	X	X	X	X	X	X		86%	
No approach									
Other: McKinsey 7 S's	X							14%	
Other:									

If the answer is no, please explain your methodology - SC - IMPROVED SITUATION.

SC – IMPROVED SITUATION	ANSWERS
14	-
15	-
16	-
17	-
18	-
19	-
20	-

INTERVIEWER’S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 24b - SC - IMPROVED SITUATION

❖ It was suggested to the SC (most suggested) risk-based using cause and effect, regulatory or voluntary initiative, flowchart of the processes and activities. The next more suggested are life cycle and description of the activities.

25) Questions:

a) Which sources of information does your organization use to help identify the key characteristics and impacts of the organization (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANISATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Reports of the interested parties’ consultation process	X	X	X	X			X	43% (14% scored it as very important)	

Internal knowledge (people, documents, etc)	X	X	X	X	X	X	X	100%
Impact assessments (Reports)	X	X	X		X	X		72%
Laws and permits from government agencies	X	X	X	X	X	X	X	100%
Publications from local or regional libraries and databases	X		X		X			43%
Information exchanged with other organizations/SC	X	X	X	X	X	X	X	100%
Benchmark (business performance) reports	X		X	X	X			57% (14% scored it as very important)
Professional help	X	X	X	X	X	X		86%
Historical data	X	X	X		X	X	X	86%
Publications from other organizations and associations	X	X		X	X			57%
Publications from welfare organisations								
Media	X	X	X					43%
Publications from NGOs	X							14%
Publications on corporate responsibility initiatives from financial institutions		X			X			28%
No sources								

Other:									
Other:									
Other:									

INTERVIEWER'S COMMENTS

❖ Publications from welfare organisations are not taken into consideration. Where is the social part?

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 25a - ORGANIZATIONS – CURRENT SITUATION

- ❖ The most important sources of information are: internal knowledge (people, documents, etc), laws and permits from government agencies and information exchanged with other organizations.
- ❖ Other sources can be used for different situations.

b) Then, which would be the ideal sources of information that your SC would like to use to help identify the key characteristics and impacts of the SC (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Reports of the interested parties' consultation process	X	X	X	X	X	X	X	100% (14% scored it as very important)	
Internal knowledge (people, documents, etc)	X	X	X	X	X	X	X	100%	
Impact assessments (reports)	X	X	X	X	X	X	X	100%	

Laws and permits from government agencies	X	X	X	X	X	X	X	100%
Publications from local or regional libraries and databases	X	X	X	X	X			72%
Information exchanged with other organisations/SC	X	X	X	X	X	X	X	100%
Benchmark (business performance) reports	X	X	X	X	X	X	X	100% (14% scored it as very important)
Professional help	X	X	X	X	X	X	X	100%
Historical data	X	X	X	X	X	X	X	100%
Publications from other organizations and associations	X	X	X	X	X		X	86%
Publications from welfare organizations	X		X		X			43%
Media	X	X	X					43%
Publications from NGOs	X	X	X					43%
Publications on corporate responsibility initiatives from financial institutions	X	X	X	X	X		X	86%
No sources								
Other:								
Other:								

Other:									
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INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 25b - SC - IMPROVED SITUATION

❖ Most the sources are highly suggested for SC. However certain important sources of information are not well taken into consideration. They are: publications from welfare organisations, media and publications from NGOs.

COMBINATION AND ASSESSMENT OF THE PREVIOUS INFORMATION - FROM THE IDENTIFICATION OF ASPECTS (KEY CHARACTERISTICS OF THE BUSINESS INCLUDING ACTIVITIES, PRODUCTS AND SERVICES) AND IMPACTS OF THE ORGANIZATION/SC + ENGAGEMENT/ASSESSMENT OF THE NEEDS OF THE INTERESTED PARTIES)

26) Questions:

a) Does your organization combine and assess the previous information (from the identification of the key characteristics and aspects/impacts of the organization and consultation with the interested parties) - mark in the column ORGANIZATION - CURRENT SITUATION?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X			X	72%	
No					X	X		28%	

If yes for ORGANIZATION - CURRENT SITUATION, please explain:

ORGANIZATIONS – CURRENT SITUATION	ANSWERS
14	❖ The strategic plan is developed every 5 years (by the shareholders) but evaluated every year. Every year the company assesses the

	context and targets, identify the gaps between both and defines ways to fill the gap.
15	❖ The company has been updating the quality manual. The new manual will include the analysis of all information.
16	❖ It is a new process that became formal recently and it needs improvement.
17	❖ The top management at the head office does it and I am not sure what the process is.
18	-
19	-
20	<ul style="list-style-type: none"> ❖ The directors of the company develop the strategy. Steps: <ul style="list-style-type: none"> ○ Evaluate internally and externally (the customers and suppliers) where the businesses are and where they want to be in the future (i.e. near, medium and long term). ○ Understand the gaps. ○ Develop action plans to fill the gaps ❖ The person added that the tool is not formal.

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 26a - ORGANIZATIONS – CURRENT SITUATION

- ❖ 72% of the companies combine both sources of information. However most of them collect information only from investors/shareholders, management representatives and regulatory organizations.

b) Then, what would be the ideal situation for an SC in which your organization would like to participate (to combine and assess the previous information) - mark in the column SC - IMPROVED SITUATION)

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
	ANSWERS								
Yes	X	X	X	X	X	X	X	100%	
No									

If yes for SC - IMPROVED SITUATION, please explain:

SC – IMPROVED SITUATION	ANSWERS
14	❖ The strategic plan would be developed every 5 years (taking into consideration the information from a broader range of interested parties) but evaluated every year. Every year the company would assess their context (including the needs of interested parties) and targets, identify the gaps between both and define ways to fill the gap.
15	❖ No suggestion.
16	❖ Extract as much as possible information from your sources of information.
17	❖ Workgroups for evaluation at all levels.
18	❖ It will be beneficial to all participants of the SC.
19	❖ No suggestion.
20	❖ Use the same approach described in the answer to the question 26a.

INTERVIEWER'S COMMENTS

- ❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 26b - SC - IMPROVED SITUATION

- ❖ For the SC the companies suggested that the combination is important.

DEVELOPMENT OF THE ORGANIZATION'S/SC'S VISION, POLICY AND ACTION PLANS

27) Questions:

a) Does your organization develop vision, policies and action plans based on the combination of the identification of the key characteristics and aspects/impacts of the organization and consultation with the interested parties (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X		X	X	86%	
No					X			14%	

If the answer is no, please explain your methodology ORGANIZATION - CURRENT SITUATION, please explain:

ORGANISATIONS – CURRENT SITUATION	ANSWERS
14	-
15	-
16	-
17	-
18	❖ We develop policies and action plans but we do not cross that information to develop them.
19	-
20	-

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 27a - ORGANIZATIONS – CURRENT SITUATION

❖ Major part of the companies answered yes but they collect information only from a few interested parties

b) Then, what would be the ideal situation for an SC in which your organization would like to participate (to develop vision, polices and action plans for the chain based on the combination of the identification of the key characteristics and aspects/impacts of the organization and consultation with the interested parties) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION ANSWERS	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
	Yes	X	X	X	X	X	X	X	
No									

If the answer is no, please explain your methodology - SC - IMPROVED SITUATION.

SC – IMPROVED SITUATION	ANSWERS
14	-
15	-
16	-
17	-
18	-
19	-
20	-

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 27b - SC - IMPROVED SITUATION

❖ Companies want the participants of the SC to use the combination of the sources of information as the basis for the development of vision, policies and action plans of individual companies' participants in the chain and for the SC.

DEVELOPMENT OF KPIs, PERFORMANCE CRITERIA, DATA COLLECTION SYSTEM AND ASSESSMENT OF THE PERFORMANCE

28) Which type of characteristics in terms of KPIs would you like to develop for your SC (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
	ANSWERS								
Each company uses their own KPIs (different ones)									
The KPIs are used along SC	X							14%	
No characteristics									

Other: ❖ For routine activities – similar ones ❖ Special situations and activities – specific ones for each company				X				14%	
Other: ❖ Mix of both		X			X	X	X	57%	
Other: ❖ Mix of both but the data from specific ones can be shared by partners			X					14%	

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 28 - SC - IMPROVED SITUATION

❖ For the SC, the use of similar KPIs along the SC and specific ones for specific situations of each company were the most suggested approaches.

29) Questions:

a) Which type of approach does your organization use to identify priorities to develop KPIs and the KPIs/performance criteria (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									

Top down definition	X	X	X	X				57% (43% scored it as very important)	<ul style="list-style-type: none"> ❖ Organisation 17: The person explained that the consultation with interested parties is done only with clients. ❖ Organisation 18: The person explained that the process is new at the plant.
External help			X					14%	
Choices made by the organization/SC based on the experience of the personnel (no specific method)	X	X	X			X		57%	
Internal brainstorm meetings and workshops		X	X		X	X		57% (14% scored it as very important)	
Internal surveys/questionnaires					X			14%	
Direct questions/answers from top management to employees					X	X	X	43%	
Employee suggestions program					X			14%	
Consultation meetings with interested parties		X	X	X				43% (14% scored it as very important)	
No approach									
Other: Defined by workgroups (each workgroup has a set of particular ones and a set that is similar to all workgroups)	X							14%	

Other:									
Other:									

If answered “Top down definition”, please explain the process (ORGANIZATION - CURRENT SITUATION):

ORGANIZATIONS – CURRENT SITUATION	ANSWERS
14	❖ Defined by them but NRG can give some recommendations in terms of KPIs (process unknown).
15	❖ The representative does not know the process.
16	❖ Comalco give us the major KPIs and then the managers and their team from BSL need to develop their own KPIs.
17	❖ Evaluation of the requirements of the clients and then definition of priorities
18	-
19	-
20	-

INTERVIEWER’S COMMENTS

- ❖ The companies do not know the method used by the top management to define KPIs.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 29a - ORGANIZATIONS – CURRENT SITUATION

- ❖ The most used are choices made by the organization based on the experience of the personnel (no specific method), internal brainstorming meetings and workshops and top down definition followed by direct questions/answers from top management to employees and consultation meetings with interested parties.

b) Then, which would be the ideal type of approach that your SC would like to use to identify priorities to develop KPIs and the KPIs/performance criteria for the chain (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Top down definition		X						14%	

External help	X	X	X		X			57%
Choices made by the organization/SC based on the experience of the personnel (no specific method)		X	X	X		X		57%
Internal brainstorm meetings and workshops	X	X	X	X	X	X		86%
Internal surveys/questionnaires		X	X			X		43%
Direct questions/answers from top management to employees		X	X	X		X	X	72% (14% scored it as very important)
Employee suggestions program		X	X					28%
Consultation meetings with interested parties	X	X	X	X	X	X		86%
No approach								
Other:								
Other:								
Other:								

If answered “Top down definition”, please explain the process (SC - IMPROVED SITUATION):

SC – IMPROVED SITUATION	ANSWERS
14	-
15	❖ No suggestion
16	-

17	-
18	-
19	-
20	-

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 29b - SC - IMPROVED SITUATION

❖ The most suggested methods for SC are direct questions/answers from top management to employees, consultation meetings with interested parties and internal brainstorm meetings and workshops followed by external help, choices made by the SC based on the experience of the personnel (no specific method) and internal surveys/questionnaires.

30) Questions:

a) Which type of information does your organization use to identify priorities to develop KPIs and the KPIs/performance criteria (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Information from the identification of the key characteristics of its activities, products and services and their impacts on the environment and society (cause and effect analysis)		X	X			X		43%	❖ Organization 16: The person said that there is no continuity in performance evaluation processes (including KPIs) when the top management changes. The circulation of top management in the company is usual.

Information from the consultation of interested parties (including information from regulatory or voluntary initiative)	X	X	X	X			X	72%
Information from policy and action plans	X	X	X		X			57%
Information from risk-based analysis	X	X	X	X	X	X		86%
Information from life cycle analysis	X	X				X		43%
Information from historical data	X	X	X			X		57%
Perceptions	X	X	X			X		57% (14% scored it as very important)
Benchmark information from other organization/SC	X		X					28%
Use examples from technical tools such as ISO 14031, SA 8000, ISO 9001, ISO 14001, etc.		X	X		X		X	57%
Use examples from technical tools such as Global Reporting Initiatives – GRI			X					14%
Legislation and other requirements	X	X	X		X			57%
No information								

Use examples from other publications:									
Use examples from other publications:									
Use examples from other publications:									
Other:									
Other:									

INTERVIEWER'S COMMENTS

- ❖ Continuity and historical data are important in terms of PE. Only one datum does not mean anything.
- ❖ It is interesting that the companies continue to use several perceptions and only a few benchmarking performance against other companies' performance.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 30a - ORGANISATIONS – CURRENT SITUATION

- ❖ The most used type of information is information from the consultation of interested parties (including information from regulatory or voluntary initiative) and information from risk-based analysis followed by information from the identification of the key characteristics of its activities, products and services and their impacts on the environment and society (cause and effect analysis), information from policy and action plans, information from life cycle analysis, information from historical data, perceptions, using examples from technical tools such as ISO 14031, SA 8000, ISO 9001, ISO 14001, etc and legislation and other requirements .

b) Then, which would be the ideal type of information that your SC would like to use to identify priorities to develop KPIs and the KPIs/performance criteria for the chain (mark in the column SC - IMPROVED SITUATION)?

ANSWERS	SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES

Information from the identification of the key characteristics of its activities, products and services and their impacts on the environment and society (cause and effect analysis)	X	X	X	X	X	X		86% (14% scored it as very important)	❖ Organisations 14 and 17: The persons explained that they did not know about GRI.
Information from the consultation of interested parties (including information from regulatory or voluntary initiative)	X	X	X	X	X		X	86% (14% scored it as very important)	
Information from policy and action plans	X	X	X	X	X			72%	
Information from risk-based analysis	X	X	X	X	X	X		86%	
Information from life cycle analysis	X	X	X		X	X		72%	
Information from historical data	X	X	X		X	X		72%	
Perceptions	X	X	X		X			57%	
Benchmark information from other organization/SC	X	X	X	X	X			72%	
Using examples from technical tools such as ISO 14031, SA 8000, ISO 9001, ISO 14001, etc.		X	X	X	X		X	72%	

Using examples from technical tools such as Global Reporting Initiatives – GRI		X	X		X			43%
Legislation and other requirements	X	X	X	X	X			72%
No information								
Using example from other publications:								
Using example from other publications:								
Using example from other publications:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

- ❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 30b - SC - IMPROVED SITUATION

- ❖ Most of the approaches (information from the identification of the key characteristics of its activities, products and services and their impacts on the environment and society, information from the consultation of interested parties, information from policy and action plans, information from risk-based analysis, information from life cycle analysis, information from historical data, benchmark information from other organization/SC, using examples from technical tools such as ISO 14031, SA 8000, ISO 9001, ISO 14001, etc and legislation and other requirements) were chosen by the companies as a suggestion for SC and in their opinion the amount of perception had declined in importance compared with 30a.
- ❖ GRI had a low score mostly because most of the companies are not aware of it.

31) Questions:

a) Which type of characteristics of KPIs does your organization take into consideration to select KPIs (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Consistent with policy				X	X	X	X	57%	<ul style="list-style-type: none"> ❖ Organisation 14: The person added that there is no formal process. ❖ Organisation 15: The person added that the KPIs developed by the company are based on Six Sigma approaches. ❖ Organisation 16: The person said that it is not a formal process.
Reliable because there are fewer assumptions when presenting information							X	14% (14% scored it as very important)	
Easy to understand	X			X		X	X	57%	
Easy to obtain data	X			X		X	X	57%	
Able to provide information on current and future trends				X			X	28%	
Sensitive to changes	X			X			X	43%	
Useful for measuring performance against criteria	X			X		X	X	57% (14% scored it as very important)	
Appropriate to management or operational efforts or the condition of the society/environment	X			X		X	X	57% (14% scored it as very important)	
No characteristics									
Other: Single highly significant		X						14%	
Other: Contribution to desired outcome		X						14%	

Other: _____

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 31a - ORGANIZATIONS – CURRENT SITUATION

❖ Even if there were some answers it became clear that most of the companies have not followed any approach to define types of characteristics of KPIs.

b) Then, which would be the ideal type of characteristics of KPIs that the SC would like to take into consideration to select KPIs for the chain (mark in the column SC - IMPROVED SITUATION)?

ANSWERS	SC – IMPROVED SITUATION								TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
	14	15	16	17	18	19	20			
Consistent with policy	X	X	X	X	X	X	X	X	100%	
Reliable because there are fewer assumptions when presenting information	X	X	X	X	X	X	X	X	100% (14% scored it as very important)	
Easy to understand	X	X	X	X	X	X	X	X	100%	
Easy to obtain data	X	X	X	X	X	X	X	X	100%	
Able to provide information on current and future trends	X	X	X	X	X			X	86%	
Sensitive to changes	X	X	X	X	X			X	86%	
Useful for measuring performance against criteria	X	X	X	X	X	X	X	X	100% (14% scored it as very important)	

Appropriate to management or operational efforts or the condition of the society/environment	X	X	X	X	X	X	X	100% (14% scored it as very important)	
No characteristics									
Other:									
Other:									
Other:									

INTERVIEWER'S COMMENTS

- ❖ The types of characteristics can be used as a filter to define KPIs.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 31b - SC - IMPROVED SITUATION

- ❖ Companies suggested that all types should be used by the SC (consistent with policy, reliable because there are fewer assumptions when presenting information, easy to understand, easy to obtain data, able to provide information on current and future trends, sensitive to changes, useful for measuring performance against criteria and appropriate to management or operational efforts or the condition of the society/environment).

32) Questions:

a) Which type of unit and data for KPIs does your organization use (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
PART A: Direct unit (such as tons of contaminant emitted)	X	X	X	X		X		72% (14% scored it as very important)	<ul style="list-style-type: none"> ❖ Organisation 14: The person added that in environmental reporting the numerator and denominator of some ratios are presented. ❖ Organization 15: The person added that the major parts of the indicators are quantitative and financial / commercial.

PART A: Relative unit (such as tons of contaminant emitted per tons of product manufactured)	X	X	X		X		X	72% (28% scored it as very important)
PART A: Indexed (convert data to different unit)	X	X	X			X		57%
PART A: Aggregated (combined value of data of the same type)	X		X					28%
PART A: Weighted	X	X				X	X	57%
PART B: Only qualitative data								
PART B: Only quantitative data	X		X	X				43%
PART B: Qualitative and quantitative data		X			X	X	X	57%
No unit/characteristic								
Other:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

❖ An important comment is that it would be good to see the numeric value of the numerator and denominator of some ratios.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 32a - ORGANISATIONS – CURRENT SITUATION

❖ All of them are relatively used by companies but the only one that had a low score was aggregated.

❖ In the presentation of data 43% use only quantitative data and 57% uses a combination of quantitative and qualitative data.

b) Then, which would be the ideal type of unit and data for KPIs that your SC would like to use for the chain (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
PART A: Direct unit (as tons of contaminant emitted)	X	X	X			X		57%	❖ Organization 16: The person added: <ul style="list-style-type: none"> ○ Direct units for floor workers. ○ Relative units for middle management. ○ Indexed units for top management.
PART A: Relative unit (as tons of contaminant emitted per tons of product manufactured)	X	X	X	X	X		X	86% (28% scored it as very important)	
PART A: Indexed (convert data to different unit)	X	X	X	X		X	X	86%	
PART A: Aggregated (combined value of data of the same type)	X	X						28%	
PART A: Weighted	X	X		X		X	X	72%	
PART B: Only qualitative data		X						14%	
PART B: Only quantitative data									
PART B: Qualitative and quantitative data	X	X	X	X	X	X	X	100% (14% scored it as very important)	

No unit/characteristic									
Other:									
Other:									
Other:									

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 32b - SC - IMPROVED SITUATION

- ❖ All of them are suggested (direct unit, relative unit, indexed and weighted) by companies for the SC but the only one that had low score was aggregated.
- ❖ In the presentation of data 100% of the companies suggested that the SC uses a combination of quantitative and qualitative data.

33) Questions:

a) Which categories of KPIs does your organization define (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Operational indicators	X	X					X	43%	<ul style="list-style-type: none"> ❖ Organization 15: The person added that most of the indicators are linked to costs. ❖ Organization 16: The person said that it is not a formal process.
Management indicators		X					X	28%	
Condition indicators		X						14%	
Pressure indicators									
Response indicators									
State indicators									
Lead indicators		X	X					28%	

Lag indicators		X	X					28% (14% scored it as very important)
Aspect indicators								
Impact indicators			X					14%
No categories				X	X	X		43%
Other:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 33a - ORGANIZATIONS – CURRENT SITUATION

❖ Most of the companies do not have a formal definition for types of KPIs. 43% declared that they only look to operational indicators.

b) Then, which would be the ideal categories of KPIs that your SC would like to define for the chain (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Operational indicators		X	X	X	X	X	X	86%	
Management indicators		X	X	X	X		X	72%	
Condition indicators		X	X	X	X	X	X	86%	
Pressure indicators		X	X		X	X	X	72%	
Response indicators		X		X	X		X	57%	
State indicators		X		X	X		X	57%	
Lead indicators		X	X	X	X		X	57%	
Lag indicators		X	X	X	X	X	X	86%	
Aspect indicators		X		X	X		X	57%	

Impact indicators		X		X	X		X	57%
No categories	X							14%
Other:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

- ❖ Even if they answered that most of categories of KPIs can be used by the SC, it became clear during the interview that they do not properly understand each category

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 33b - SC - IMPROVED SITUATION

- ❖ Companies suggested for the SC that most of the categories should be used (operational indicators, management indicators, condition indicators, pressure indicators, response indicators, state indicators, lead indicators, lag indicators, aspect indicators and impact indicators).

34) Questions:

a) Does your organization have specific procedures showing how to collect, evaluate and convert data (to the unit of KPIs) - mark in the column ORGANIZATION - CURRENT SITUATION?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X			X				28%	
No		X	X		X	X		57%	
Other: Financial “yes” but other areas “no”							X	14%	

INTERVIEWER'S COMMENTS

- ❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 34a - ORGANIZATIONS – CURRENT SITUATION

❖ Most of the companies (57%) do not have specific procedures showing how to collect, evaluate and convert data

b) Then, what would be the ideal situation for an SC in which your organization would like to participate to have specific procedures showing how to collect, evaluate and convert data (to the unit of KPIs) for your SC} - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	
No									

INTERVIEWER’S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 34b - SC - IMPROVED SITUATION

❖ All the companies want the SC (or all participants of the chain) to have procedures showing how to collect, evaluate and convert data.

35) Questions:

a) Which approach does your organisation use to define sustainability KPIs (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, which would be the ideal approach that your SC would like to use to define sustainability KPIs for the chain (mark in the column SC - IMPROVED SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									

Indicators that give information about all the areas (environmental, social and economic) at the same time								
Indicators that give information about at least two areas (environmental, social and economic) at the same time						X		14%
Indicators of one area but they are important to all types of interested parties linked to the organisation/SC								
Indicators of one area but they are important to the most important interested parties linked to the organisation/SC	X		X					28%
No approach		X		X	X	X		57%
Other:								
Other:								

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 35a - ORGANIZATIONS – CURRENT SITUATION

- ❖ Even if there are a few answers it became clear that most of the companies do not have any definition to sustainability KPIs.
- ❖ It is important for the companies to define clearly sustainability and sustainability KPIs for them.

b) Then, what would be the ideal situation for an SC in which your organization would like to participate to have specific procedures showing how to collect, evaluate and convert data (to the unit of KPIs) for your SC} - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES	
ANSWERS										
Indicators that give information about all the areas (environmental, social and economic) at the same time	X						X	28%		
Indicators that give information about at least two areas (environmental, social and economic) at the same time			X					14%		
Indicators of one area but they are important to all types of interested parties linked to the organisation/SC		X						14%		

Indicators of one area but they are important to the most important interested parties linked to the organisation/SC		X		X		X		43%
No approach								
Other: No opinion at this stage				X				14%
Other:								

INTERVIEWER'S COMMENTS

- ❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 35b - SC - IMPROVED SITUATION

- ❖ 43% of the companies define sustainability KPIs, for the SC, as “Indicators of one area but they are important to the most important interested parties linked to the organisation/SC”. It is not a consensus but it is the most marked one.
- ❖ This definition is also the definition that has been used in this research.

36) Complete enclosed tables (Ask data of at least five already defined indicators for each area (environmental, social and economic) for the last three years)

- Show me some KPIs and their respective performance criteria for the environmental, social and economic areas – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS

Organization 14

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS						
INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)	DATA FOR THE FIRST YEAR	DATA FOR THE SECOND YEAR	DATA FOR THE THIRD YEAR
Environmental	❖ Number of significant environmental incidents per month *	❖ Data not available	❖ Performance indicators marked with * are the ones	❖ Data not available	❖ Data not available	❖ Data not available

	❖ Oil spills per month *	❖ Data not available	only provided to shareholders. ❖ All other indicators + the ones marked with * are provided to the top management of NRGGOS	❖ Data not available	❖ Data not available	❖ Data not available
	❖ Site licensing violations	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Environmental actions completed	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Lost time injury (LTI) frequency rate *	❖ Data not available	❖ Performance indicators marked with * are the ones only provided to shareholders. ❖ All other indicators + the ones marked with * are provided to the top management of NRGGOS	❖ Data not available	❖ Data not available	❖ Data not available
	❖ LTI severity rate *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Overtime as % of total hours *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Unscheduled non-productive time % *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Employee numbers *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Formal workplace health & safety (WH&S) directions (description of the directions)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Safety activities completed	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Number of equity (discrimination) incidents per month	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Short-term sick leave	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Industrial action lost time	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Employee turnover	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Community support (\$)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

Economic	❖ Availability (NRGGOS has six units that produce energy then availability is related to the number of units operating per month) *	❖ Data not available	❖ Performance indicators marked with * are the ones only provided to shareholders. ❖ All other indicators + the ones marked with * are provided to the top management of NRGGOS	❖ Data not available	❖ Data not available	❖ Data not available
	❖ Equivalent Availability Factor (number of units operating per year) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Contractual Forced Outage Rate (% of time that the units are not operating in a contract)*	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Equivalent Forced Outage Rate (% of time that all units are not operating) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Number of trips per month (number of times that units are not operating) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Unplanned maintenance (number of hours of unplanned maintenance over number of total hours used for maintenance) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Operational + maintenance (O&M) costs cumulative year to date (YTD) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Total capital expenditure YTD with the operation of the power plant *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Capacity support energy in MWh (energy bought to attend contracts) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Capacity factor (% energy produced over energy sold) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

	❖ Coal stocks (tons of coal in stock) *	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Feed Temperation Losses in GJ/h (measurement of losses)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Carbon in Dust Losses in GJ/h (measurement of losses)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Back Pressure Losses in GJ/h (measurement of losses)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Station Thermal Losses in GJ/h (Feed Temperation Losses + Carbon in Dust Losses + Back Pressure Losses)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

Organization 15

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS						
INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)	DATA FOR THE FIRST YEAR	DATA FOR THE SECOND YEAR	DATA FOR THE THIRD YEAR
Environmental	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

Organisation 16

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS						
INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)	DATA FROM JAN 2001	DATA FROM JAN 2002	DATA FROM JAN 2003

Environmental	❖ License violations (number of times that the company exceed the environmental licence)	❖ Less than 10 by 2004 (0 by 2006 and 0 by 2008)		❖ 3	❖ 2	❖ 5
	❖ Non-conformance to ISO 14001 (number)	❖ 8 by 2004 (4 by 2006 and 2 by 2008)		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Water usage (mega litres/ kilo tons of aluminium produced)	❖ 1.3 by 2004 (1.3 by 2006 and 1.3 by 2008)		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Tar in stockpiles (tons)	❖ 0 by 2004 (0 by 2006 and 0 by 2008)		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Spent cell lining (kilo tons)	❖ 82 by 2004 (66 by 2006 and 55 by 2008)		❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Lost time injuries frequency rate (the number of work related injuries per 200,000 man hours worked)	❖ 50% reduction year over year (0 by 2006)	❖ Reference year for the performance criteria is 2003	❖ 4.8	❖ 1.9	❖ 0
	❖ Lost time injuries severity rate (the number of days lost due to work related injuries per 2000,000 man hours worked)	❖ 0 by 2006		❖ 130	❖ 38	❖ 19
	❖ Recordable injuries	❖ 50% reduction year over year (1 by 2008)	❖ Reference year for the performance criteria is 2003	❖ Data not available	❖ Data not available	❖ Data not available
	❖ Occupational illnesses	❖ 0 by 2006		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Employee turnover	❖ 5% reduction by 2008	❖ Reference year for the performance criteria is 2003	❖ Data not available	❖ Data not available	❖ Data not available
	❖ NOSA audit ranking (WH&S management systems)	❖ Achieve 5 stars by 2008		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Donations	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

	❖ Workforce numbers	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Amount spent on qualified contractors (\$)	❖ 80% reduction by 2005	❖ Reference year for the performance criteria is 2003	❖ Data not available	❖ Data not available	❖ Data not available
	❖ Reduction in contracting firms (number)	❖ 30% reduction by 2005	❖ Reference year for the performance criteria is 2003	❖ Data not available	❖ Data not available	❖ Data not available
	❖ Emergency breakdowns (number)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ % Schedule maintenance completed (in hours)	❖ 90% by 2006		❖ Data not available	❖ Data not available	❖ Data not available
	❖ % Value added to product	❖ 54% by 2008		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Stores stock discrepancy level (tons)	❖ 2% reduction by 2005	❖ Reference year for the performance criteria is 2003	❖ Data not available	❖ Data not available	❖ Data not available
	❖ % Work schedule (hours)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Cost/ton	❖ \$975/ton by Jan 2004		❖ \$1,000/ton	❖ \$1,060/ton	❖ \$1,050/ton
	❖ Total cost of production (\$)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Production (tons)	❖ 550,000 by Jan 2004		❖ 503,000 tons	❖ 501,000 tons	❖ 532,000 tons
	❖ Monthly saleable metal (\$)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Stocks of aluminium (tons)	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Production efficiency	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
	❖ Current efficiency (% of aluminium actual produced compared with what is theoretically able to be produced by the current workforce [?] involved in the production)	❖ 93% by Jan 2004		❖ 92%	❖ 87%	❖ 91%

❖ Power efficiency (KWh/Kg Al - DC electricity consumed to produce 1 Kg of aluminium)	❖ 13.9 KWh/Kg Al by Jan 2004		❖ 13.7 KWh/Kg Al	❖ 14.3 KWh/Kg Al	❖ 14.3 KWh/Kg Al
❖ Workforce productivity (tons per person - The total of aluminium production per operating person)	❖ 382 tons/person by Jan 2004		❖ 359 tons/person	❖ 335 tons/person	❖ 338 tons/person
❖ % Off-specification metal	❖ 2.5% by Jan 2004		❖ 5%	❖ 4%	❖ 3%
❖ Capital expenditure	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

Organisation 17

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS						
INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (any if necessary)	DATA OF THE FIRST YEAR	DATA OF THE SECOND YEAR	DATA OF THE THIRD YEAR
Environmental	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

Organisation 18 (for the entire group)

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS						
INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (any if necessary)	2001	2002	2003
Environmental	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Employees (core businesses) - numbers	❖ Data not available		❖ Data not available	❖ 5,170	❖ 5,283

❖ Sales per employee (excluded divested businesses) - \$	❖ Data not available		❖ Data not available	❖ \$ 435,000.00	❖ \$450,000.00
❖ Earnings (EBITA) margin on sales (core businesses) - %	❖ Data not available		❖ Data not available	❖ 8.6%	❖ 8.8%
❖ Returns on funds employed - %	❖ Data not available		❖ Data not available	❖ 11.7%	❖ 12.2%
❖ Gearing (net debt/net debt + equity) - %	❖ Data not available		❖ Data not available	❖ 38.0%	❖ 33.5%
❖ Interest cover, times	❖ Data not available		❖ Data not available	❖ 3.1	❖ 4.4
❖ Basic earnings per share, excluding goodwill amortisation - \$	❖ Data not available		❖ Data not available	❖ 12.1c	❖ 16.4c
❖ Divided per share, fully franked	❖ Data not available		❖ Data not available	❖ 6.5C	❖ 8.0c

Organization 19

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS						
INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)	DATA FOR THE FIRST YEAR	DATA FOR THE SECOND YEAR	DATA FOR THE THIRD YEAR
Environmental	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available

Organisation 20 (for the entire group)

CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS						
INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)	2001	2002	2003
Environmental	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available		❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Revenue (\$Billion)	❖ Data not available		❖ 1,602.8	❖ 2,038.0	❖ 2,569.8
	❖ Earnings before interest and tax - EBIT (\$Million)	❖ Data not available		❖ 70.6	❖ 102.1	❖ 128.5
	❖ Earnings before interest and tax, depreciation and amortisation - EBITDA (\$Million)	❖ Data not available		❖ 100.4	❖ 154.7	❖ 205.4
	❖ Earnings per share (EPS) fully diluted (Cents)	❖ Data not available		❖ 19.4	❖ 26.4	❖ 34.8
	❖ Net profit after income tax (for members) - NPAT (\$Million)	❖ Data not available		❖ 49.2	❖ 74.2	❖ 106.1
	❖ Shareholder equity (\$Million)	❖ Data not available		❖ 197.7	❖ 402.8	❖ 630.8
	❖ Total divided paid (\$Million)	❖ Data not available		❖ 20.2	❖ 27.5	❖ 44.4
	❖ Divided paid (Cents per ordinary share)	❖ Data not available		❖ 8.0	❖ 10.0	❖ 14.5

INTERVIEWER'S COMMENTS

- ❖ The information provided by companies was very poor in terms of KPIs and data. Most of the data obtained was taken from financial reports available at the Australian Stock Exchange. Organization 16 was the one that provided a little more information.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 36a - ORGANIZATIONS – CURRENT SITUATION

- ❖ The KPIs and data provided show that for the environmental area the companies are only complying with the legislation, social the information is only linked to WH&S and economic area all the information is linked to financial and quality data.

b) Show me some KPIs and their respective performance criteria for the environmental, social and economic areas – IMPROVED SITUATION - FOR THE SC (please suggest common indicators that can be used by most of the organisations participants in an SC)

Organisation 14

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)
Environmental	❖ Number of significant environmental incidents per month *	❖ Data not available	❖ Performance indicators marked with * are the ones only provided to shareholders. ❖ All other indicators + the ones marked with * are provided to the top management of NRGGOS
	❖ Oil spills per month *	❖ Data not available	
	❖ Site licensing violations	❖ Data not available	
	❖ Environmental actions completed	❖ Data not available	
Social	❖ Lost time injury (LTI) frequency rate *	❖ Data not available	❖ Performance indicators marked with * are the ones only provided to shareholders. ❖ All other indicators + the ones marked with * are provided to the top management of NRGGOS
	❖ LTI severity rate *	❖ Data not available	
	❖ Overtime as % of total hours *	❖ Data not available	
	❖ Unscheduled non-productive time % *	❖ Data not available	
	❖ Employee numbers *	❖ Data not available	
	❖ Formal workplace health & safety (WH&S) directions (description of the directions)	❖ Data not available	
	❖ Safety activities completed	❖ Data not available	
	❖ Number of equity (discrimination) incidents per month	❖ Data not available	
	❖ Short-term sick leave	❖ Data not available	
	❖ Industrial action lost time	❖ Data not available	
	❖ Employee turnover	❖ Data not available	
❖ Community support (\$)	❖ Data not available		
Economic	❖ Unplanned maintenance (number of hours of unplanned maintenance over number of total hours used for maintenance) *	❖ Data not available	❖ Performance indicators marked with * are the ones only provided to shareholders.
	❖ Operational + maintenance (O&M) costs cumulative year to date (YTD) *	❖ Data not available	

	❖ Total capital expenditure YTD with the operation of the power plant *	❖ Data not available	❖ All other indicators + the ones marked with * are provided to the top management of NRRGOS
	❖ Coal stocks (tons of coal in stock) *	❖ Data not available	

Organization 15

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)
Environmental	❖ Data not available	❖ Data not available	
Social	❖ Data not available	❖ Data not available	
Economic	❖ Data not available	❖ Data not available	

Organization 16

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking) – e.g.	OBSERVATION OR COMMENT (if necessary)
Environmental	❖ License violations (number)	❖ Less than 10 by 2004 (0 by 2006 and 0 by 2008)	
	❖ Non-conformance to ISO 14001 (number)	❖ 8 by 2004 (4 by 2006 and 2 by 2008)	
	❖ Water usage (mega litres/ kilo tons)	❖ 1.3 by 2004 (1.3 by 2006 and 1.3 by 2008)	
	❖ Energy use	❖ Data not available	
	❖ Raw material use	❖ Data not available	
	❖ Solid waste (tons)	❖ Data not available	
	❖ Greenhouse emissions	❖ Data not available	
	❖ Other atmospheric and waste water emissions	❖ Data not available	
	❖ Regulatory non-compliance	❖ Data not available	
	❖ Environmental incidents	❖ Data not available	
	❖ Efficiency of use (water, energy, raw material, etc)	❖ Data not available	
	❖ Recycling	❖ Data not available	
	❖ Noise	❖ Data not available	
Social	❖ Lost time injuries frequency rate	❖ 50% reduction year over year (0 by 2006)	
	❖ Medical treatment cases	❖ Data not available	

	❖ Lost time injuries severity rate	❖ 0 by 2006	
	❖ Recordable injuries	❖ 50% reduction year over year (1 by 2008)	
	❖ Occupational illnesses	❖ 0 by 2006	
	❖ Employee turnover	❖ 5% reduction by 2008	
	❖ NOSA audit raking (WH&S management systems)	❖ Achieve 5 stars by 2008	
	❖ Donations and contributions	❖ Data not available	
	❖ Participation in social events	❖ Data not available	
	❖ Workforce numbers	❖ Data not available	
Economic	❖ Total revenue	❖ Data not available	
	❖ Tax paid	❖ Data not available	
	❖ Salary paid	❖ Data not available	
	❖ Amount spent buying locally	❖ Data not available	
	❖ Amount spent with qualified contractors (\$)	❖ 80% reduction by 2005	
	❖ Reduction in contracting firms (number)	❖ 30% reduction by 2005	
	❖ Emergency breakdowns (number)	❖ Data not available	
	❖ % Schedule maintenance completed (in hours)	❖ 90% by 2006	
	❖ % Value added to product	❖ 54% by 2008	
	❖ % Work schedule (hours)	❖ Data not available	
	❖ Cost/ton	❖ \$975/ton by Jan 2004	
	❖ Total cost of production	❖ Data not available	
	❖ Production (tons) or monthly saleable metal (\$)	❖ 550,000 by Jan 2004	
	❖ Stocks of aluminium (tons)	❖ Data not available	
	❖ Production efficiency	❖ Data not available	
	❖ Current efficiency (%)	❖ 93% by Jan 2004	
	❖ Power efficiency (KWh/Kg Al)	❖ 13.9 KWh/Kg Al by Jan 2004	
	❖ Workforce productivity (tons per person)	❖ 382 tons/person by Jan 2004	
	❖ % Off-specification metal	❖ 2.5% by Jan 2004	
	❖ Capital expenditure	❖ Data not available	

OrganiZation 17

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT if necessary)
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Environmental	❖ Data not available	❖ Data not available	
Social	❖ Data not available	❖ Data not available	
Economic	❖ Data not available	❖ Data not available	

Organization 18

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)
Environmental	❖ Data not available	❖ Data not available	
Social	❖ Data not available	❖ Data not available	
Economic	❖ Data not available	❖ Data not available	

Organization 19

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (if necessary)
Environmental	❖ Data not available	❖ Data not available	
Social	❖ Data not available	❖ Data not available	
Economic	❖ Data not available	❖ Data not available	

Organization 20

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking)	OBSERVATION OR COMMENT (any if necessary)
Environmental	❖ Data not available	❖ Data not available	
Social	❖ Data not available	❖ Data not available	
Economic	❖ Data not available	❖ Data not available	

INTERVIEWER'S COMMENTS

- ❖ Information provided was very poor. Only organizations 14 and 16 provided their suggestions for the SC.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 36b - SC - IMPROVED SITUATION

- ❖ The KPIs suggested for the environmental area are only for compliance with the legislation; in the social area the information is only linked to WH&S and in the economic area all the information is linked to financial and quality data.
- ❖ Summary of the information provided by companies as a suggestion for similar KPIs for the SC:

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA (or target or benchmarking) – e.g.	OBSERVATION OR COMMENT (if necessary)
Environmental	❖ Number of significant environment incidents per month *	❖ Data not available	
	❖ Oil spills per month *	❖ Data not available	
	❖ Site licensing violations	❖ Data not available	
	❖ Environmental actions completed	❖ Data not available	
	❖ License violations (number)	❖ Less than 10 by 2004 (0 by 2006 and 0 by 2008)	
	❖ Non-conformance to ISO 14001 (number)	❖ 8 by 2004 (4 by 2006 and 2 by 2008)	
	❖ Water usage (mega litres/ kilo tons)	❖ 1.3 by 2004 (1.3 by 2006 and 1.3 by 2008)	
	❖ Energy use	❖ Data not available	
	❖ Raw material use	❖ Data not available	
	❖ Solid waste (tons)	❖ Data not available	
	❖ Greenhouse emissions	❖ Data not available	
	❖ Other atmospheric and waste water emissions	❖ Data not available	
	❖ Regulatory non-compliance	❖ Data not available	
	❖ Environmental incidents	❖ Data not available	
	❖ Efficiency of use (water, energy, raw material, etc)	❖ Data not available	
	❖ Recycling	❖ Data not available	
❖ Noise	❖ Data not available		
Social	❖ Lost time injury (LTI) frequency rate *	❖ Data not available	
	❖ LTI severity rate *	❖ Data not available	
	❖ Overtime as % of total hours *	❖ Data not available	
	❖ Unscheduled non-productive time % *	❖ Data not available	
	❖ Employee numbers *	❖ Data not available	
	❖ Formal workplace health & safety (WH&S) directions (description of the directions)	❖ Data not available	
	❖ Safety activities completed	❖ Data not available	

	❖ Number of equity (discrimination) incidents per month	❖ Data not available	
	❖ Short-term sick leave	❖ Data not available	
	❖ Industrial action lost time	❖ Data not available	
	❖ Employee turnover	❖ Data not available	
	❖ Community support (\$)	❖ Data not available	
	❖ Lost time injuries frequency rate	❖ 50% reduction year over year (0 by 2006)	
	❖ Medical treatment cases	❖ Data not available	
	❖ Lost time injuries severity rate	❖ 0 by 2006	
	❖ Recordable injuries	❖ 50% reduction year over year (1 by 2008)	
	❖ Occupational illnesses	❖ 0 by 2006	
	❖ Employee turnover	❖ 5% reduction by 2008	
	❖ NOSA audit ranking (WH&S management systems)	❖ Achieve 5 stars by 2008	
	❖ Donations and contributions	❖ Data not available	
	❖ Participation in social events	❖ Data not available	
	❖ Workforce numbers	❖ Data not available	
Economic	❖ Unplanned maintenance (number of hours of unplanned maintenance over number of total hours used for maintenance) *	❖ Data not available	
	❖ Operational + maintenance (O&M) costs cumulative year to date (YTD) *	❖ Data not available	
	❖ Total capital expenditure YTD with the operation of the power plant *	❖ Data not available	
	❖ Coal stocks (tons of coal in stock) *	❖ Data not available	
	❖ Total revenue	❖ Data not available	
	❖ Tax paid	❖ Data not available	
	❖ Salary paid	❖ Data not available	
	❖ Amount spent buying locally	❖ Data not available	
	❖ Amount spent with qualified contractors (\$)	❖ 80% reduction by 2005	
	❖ Reduction in contracting firms (number)	❖ 30% reduction by 2005	
	❖ Emergency breakdowns (number)	❖ Data not available	
	❖ % Schedule maintenance completed (in hours)	❖ 90% by 2006	
	❖ % Value added to product	❖ 54% by 2008	
	❖ % Work schedule (hours)	❖ Data not available	
	❖ Cost/ton	❖ \$975/ton by Jan 2004	

❖ Total cost of production	❖ Data not available
❖ Production (tons) or monthly saleable metal (\$)	❖ 550,000 by Jan 2004
❖ Stocks of aluminium (tons)	❖ Data not available
❖ Production efficiency	❖ Data not available
❖ Current efficiency (%)	❖ 93% by Jan 2004
❖ Power efficiency (KWh/Kg Al)	❖ 13.9 KWh/Kg Al by Jan 2004
❖ Workforce productivity (tons per person)	❖ 382 tons/person by Jan 2004
❖ % off-specification metal	❖ 2.5% by Jan 2004
❖ Capital expenditure	❖ Data not available

INTERNAL COMMUNICATION (INCLUDING INTERNAL REPORT)

37) Complete enclosed tables

a) Complete the table considering target groups of internal reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)

Organization 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Monthly	❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results
	Employees			
X	Investors/ Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Monthly	❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's

				<ul style="list-style-type: none"> ❖ performance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately) 	❖ Weekly	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve organization's performance
	Employees			
X	Investors/	❖ 5.3. Financial (separately)	❖ Monthly	❖ 7.2. Organisation's performance

	Shareholders	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately) 		<ul style="list-style-type: none"> against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve organization's performance
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ Monthly	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve

				organization's performance ❖ 7.9. Description of organization's activities, products and services
	Employees			
X	Investors/ Shareholders	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve organization's performance ❖ 7.8. Statement of the organization's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of organization's activities, products and services ❖ 7.11. Contribution of the performance evaluation process to the overall success of the organization
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organisation 17

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately) 	❖ Monthly	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Employees	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ As required	❖ 7.1. Organization's performance
X	Investors/ Shareholders	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5, Environmental (separately) 	❖ Every six months	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results ❖ 7.11. Contribution of the performance evaluation process to the overall success of the organization
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organisation 18

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷

X	Management representatives	❖ 5.1. Environmental, Workplace Health & Safety and Quality (integrated evaluation) ❖ 5.3. Financial (separately)	❖ Monthly	❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Employees	❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ Quarterly	❖ 7.2. Organisation's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Investors/ Shareholders	❖ 5.1. Environmental, Workplace Health & Safety and Quality (integrated evaluation) ❖ 5.3. Financial (separately)	❖ Annually	❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Contractors	❖ 5.7. Workplace Health & Safety (separately)	❖ Monthly	❖ 7.2. Organisation's performance against performance criteria ❖ 7.6. Cost savings or other financial results
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organisation 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ As required	❖ 7.2. Organisation's performance against performance criteria ❖ 7.3. Trends in organisation's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.10. Statement of

				organization's/SC's aspects and impacts
X	Employees	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ Weekly/daily	<ul style="list-style-type: none"> ❖ 7.3. Trends in organization's performance ❖ 7.6. Cost savings or other financial results
X	Investors/ Shareholders	<ul style="list-style-type: none"> ❖ 5.1. Environmental, Workplace Health & Safety and Quality (integrated evaluation) ❖ 5.2. Environmental, Economic, Social (integrated evaluation) ❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately) 	❖ Biannually	<ul style="list-style-type: none"> ❖ 7.1. Organization's/SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.6. Cost savings or other financial results
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organisation 20

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ Weekly	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Employees	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) 	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance

		❖ 5.7. Workplace Health & Safety (separately)		against performance criteria
X	Investors/ Shareholders	❖ 5.4. Economic (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ Quarterly	❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 37a - ORGANIZATIONS – CURRENT SITUATION

- ❖ Around 50% of the companies do not report PE to employees, and only one company reports PE to contractors.
- ❖ 86% of the companies report areas (financial, quality, WH&S and environment) separately. Only one company (14%) considers that they have a sustainability report. However this company only reports for the environmental area data that show compliance with the legislation, in the social area the information is only linked to WH&S and in the economic area all the information is linked to financial and quality data.

b) Complete the table considering target groups of internal reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SC (see question 23)

Organisation 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Monthly	❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance

				<ul style="list-style-type: none"> ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results
X	Employees	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts
X	Investors/Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Monthly	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach

				<ul style="list-style-type: none"> ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	Other organisations from your SC	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach

				<ul style="list-style-type: none"> ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)		<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance
X	Employees	❖ 5.2. Environmental, Economic, Social (integrated evaluation)		<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of SC's

				<p>commitment and efforts to improve performance</p> <ul style="list-style-type: none"> ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance
X	<p>Investors/Shareholders</p> <p>[Do you want bold type here?]</p>	❖ 5.2. Environmental, Economic, Social (integrated evaluation)		<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)		<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of SC's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			

	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your SC			
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance

				<ul style="list-style-type: none"> ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	Employees			
X	Investors/Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Biannually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organisation's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance

				<p>evaluation as part of the management approach</p> <ul style="list-style-type: none"> ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	Indigenous people			
	Welfare organisations			
	Neighbouring and regional communities			

	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	Other organizations from your SC	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities,

				products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 17

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ Biannually	❖ 7.2. SC's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Employees	❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ Biannually	❖ 7.1. SC's performance
X	Investors/Shareholders	❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ Biannually	❖ 7.2. SC's performance against performance criteria ❖ 7.6. Cost savings or other financial results ❖ 7.11. Contribution of the performance evaluation process to

				the overall success of the SC
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	Other organizations from your SC	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Every six months	❖ 7.1. SC's performance
	No internal reporting			
	Other:			
	Other:			
	Other:			

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve SC's performance
X	Employees	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve SC's performance
X	Investors/Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve SC's performance
X	Contractors			❖ 7.2. SC's performance against

				<ul style="list-style-type: none"> performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve SC's performance
	Indigenous people			
	Welfare organizations			
X	Neighbouring and regional communities	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve SC's performance
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.4. Legislative, regulatory and

	Health and Safety, Industrial Relations, etc)			other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve SC's performance
	Local, State and Federal Government			
X	Other organizations from your SC	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	❖ 7.2. SC's performance against performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve SC's performance
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Management representatives			
	Employees			

	Investors/Shareholders			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your SC			
X	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 20

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Employees	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria
X	Investors/Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria ❖ 7.6. Cost savings or other financial results
x	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety,			

	Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your SC			
	No internal reporting			
	Other:			
	Other:			
	Other:			

INTERVIEWER'S COMMENTS

- ❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 37b - SC - IMPROVED SITUATION

- ❖ 86% of the companies suggested that the SC needs to report internally to management representatives, employees, shareholders, contractors and other companies of the SC.
- ❖ All the companies want the SC report to triple bottom line (sustainability).

38) Complete enclosed tables

- a) Complete the table considering other types of internal communication (*) to interested parties than internal reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23 and observation 8).

Organization 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ As required
X	Employees	❖ 5.5. Environmental (separately)	❖ Monthly	❖ As required

		❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)		
X	Investors/ Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	
	Contractors			
	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ As required	❖ As required	❖ As required
X	Employees	❖ As required	❖ As required	❖ As required
X	Investors/ Shareholders	❖ As required	❖ As required	❖ As required
X	Contractors	❖ As required	❖ As required	❖ As required
	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve organization's performance ❖ 7.9. Description of organization's activities, products and services
X	Employees	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ Quarterly	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve organization's performance ❖ 7.8. Statement of the organization's commitment to performance evaluation as part of the management approach
	Investors/ Shareholders			
X	Contractors	<ul style="list-style-type: none"> ❖ 5.4. Economic (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance

				<ul style="list-style-type: none"> ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.7. Recommendations to improve organization's performance
	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 17

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ As required	❖ As required	❖ As required
X	Employees	❖ As required	❖ As required	❖ As required
	Investors/ Shareholders			
	Contractors			
	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 18

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Management representatives			
	Employees			
	Investors/ Shareholders			
	Contractors			
X	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately) 	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.10. Statement of organization's/SC's aspects and impacts
X	Employees	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ Weekly/daily	<ul style="list-style-type: none"> ❖ 7.3. Trends in organization's performance ❖ 7.6. Cost savings or other financial

				results
	Investors/ Shareholders			
	Contractors			
	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 20

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.4. Economic (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ Weekly	❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Employees	❖ 5.4. Economic (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Investors/ Shareholders	❖ 5.4. Economic (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ Quarterly	❖ 7.2. Organization's performance against performance criteria ❖ 7.6. Cost savings or other financial results
	Contractors			
	No internal reporting			
	Other:			
	Other:			
	Other:			

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 38a - ORGANIZATIONS – CURRENT SITUATION

❖ Internal communication inside all the companies is done when required, most of the time communicating separate areas.

b) Complete the table considering other types of internal communication (*) to interested parties than internal reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SC (see question 23 and observation 8).

Organization 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ As required
X	Employees	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ As required
X	Investors/Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ As required
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ As required
	Indigenous people			
	Welfare organisations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			

	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	Other organizations from your SC	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ As required
	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ As required	❖ As required	❖ As required
X	Employees	❖ As required	❖ As required	❖ As required
X	Investors/Shareholders	❖ As required	❖ As required	❖ As required
X	Contractors	❖ As required	❖ As required	❖ As required
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			

	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	Other organizations from your SC	❖ As required	❖ As required	❖ As required
	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance

				<ul style="list-style-type: none"> ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	Employees			
X	Investors/Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Biannually	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance

				<p>evaluation as part of the management approach</p> <ul style="list-style-type: none"> ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	Indigenous people			
	Welfare organisations			
	Neighbouring and regional communities			

	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	Other organizations from your SC	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities,

				products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	No internal reporting			
	Other:			
	Other:			
	Other:			

Organization 17

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately) ❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ As required	❖ As required
X	Employees	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ As required
	Investors/Shareholders			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			

	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your SC			
	No internal communication			
	Other:			
	Other:			
	Other:			

Organisation 18

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
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	Management representatives			
	Employees			
	Investors/Shareholders			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your SC			
X	No internal communication			
	Other:			
	Other:			
	Other:			

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Organization 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Management representatives			
	Employees			
	Investors/Shareholders			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	Other organizations from your SC	❖ 5.8. Quality (separately)	❖ Weekly	❖ 7.2. SC's performance against performance criteria

	No internal communication			
	Other:			
	Other:			
	Other:			

Organization 20

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Management representatives	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Employees	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria
X	Investors/Shareholders	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria ❖ 7.6. Cost savings or other financial results
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	❖ 7.2. SC's performance against performance criteria
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			

	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	Other organizations from your SC			
	No internal reporting			
	Other:			
	Other:			
	Other:			

INTERVIEWER'S COMMENTS

- ❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 38b - SC - IMPROVED SITUATION

- ❖ One company expressed the view that there is no necessity for other types of internal communication (other than reports) for the SC.
- ❖ Most of the companies suggest sustainability communication when required for the SC.
- ❖ The companies do not consider the community as a possible partner in an SC. This is one of the proposals of the research.

39) Complete enclosed tables

a) Complete the table considering target groups of external reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23)

Organisation 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance
X	Local, State and Federal Government	❖ 5.3. Financial (separately)	❖ Monthly	❖ 7.6. Cost savings or other financial results
	No external reporting			
	Other:			

	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
X	Contractors	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ Monthly	<ul style="list-style-type: none"> ❖ 7.2. Organization's performance against performance criteria ❖ 7.3. Trends in organization's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance
	Indigenous people			
	Welfare organisations			
X	Neighbouring and regional communities	❖ 5.5. Environmental (separately)	❖ Quarterly	<ul style="list-style-type: none"> ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.8. Statement of the organization's commitment to performance evaluation as part of the management approach
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research			

	institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.8. Statement of the organization's commitment to performance evaluation as part of the management approach
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organisations			
	Neighbouring and			

	regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Local, State and Federal Government	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	No external reporting			
	Other:			
	Other:			
	Other:			

Organisation 17

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			

	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
X	Financial institutions	❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately)	❖ Every six months	❖ 7.1. Organization's performance
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

Organization 18

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
x	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.1. Organization's performance
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

Organization 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.8. Quality (separately)	❖ Weekly	❖ 7.2. Organization's performance against performance criteria
X	Suppliers	❖ 5.8. Quality (separately)	❖ Weekly	❖ 7.2. Organization's performance against performance criteria
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No external reporting			
	Other:			

	Other:			
	Other:			

Organization 20

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ As required	❖ As required	❖ As required
X	Suppliers	❖ As required	❖ As required	❖ As required
X	Contractors	❖ As required	❖ As required	❖ As required
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ As required	❖ As required
	Local, State and Federal Government			

	No external reporting			
	Other:			
	Other:			
	Other:			

INTERVIEWER'S COMMENTS

- ❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 39a - ORGANIZATIONS – CURRENT SITUATION

- ❖ All the companies have external reports for regulatory agencies and the ones that are listed develop financial reports to the Australian Stock Exchange. Very important interested parties are left behind!
- ❖ The reports are developed when required.

- b) Complete the table considering target groups of external reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SC (see question 23)

Organisation 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
X	Neighbouring and regional communities	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities,

				products and services ❖ 7.10. Statement of SC's aspects and impacts
X	General public	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No reporting			
	Other:			
	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Monthly	❖ As required
	Suppliers			
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Monthly	❖ As required
	Indigenous people			
	Welfare organisations			
X	Neighbouring and regional communities	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	❖ As required
X	General public	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	❖ As required
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Quarterly	❖ As required
	Local, State and Federal Government			
	No reporting			

	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organisations			
X	Neighbouring and regional communities	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the

				<ul style="list-style-type: none"> ❖ management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities,

				<ul style="list-style-type: none"> ❖ products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
X	Local, State and Federal Government	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	No reporting			
	Other:			
	Other:			
	Other:			

Organization 17

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ⁶	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ Every six months	❖ 7.1. SC's performance
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
X	General public	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ Every six months	❖ 7.2. Organization's/SC's performance against performance
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
X	Financial institutions	❖ 5.3. Financial (separately) ❖ 5.4. Economic (separately)	❖ Annually	❖ 7.1. SC's performance
X	Regulatory and legislative bodies (EPA, Workplace	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety	❖ As required	❖ 7.2. SC's performance against performance

	Health and Safety, Industrial Relations, etc)	(separately)		
	Local, State and Federal Government			
	No reporting			
	Other:			
	Other:			
	Other:			

Organization 18

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	❖ 7.2. Organization's/SC's performance against performance
X	Suppliers	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	❖ 7.2. Organization's/SC's performance against performance
	Contractors			
	Indigenous people			
	Welfare organisations			
	Neighbouring and regional communities			
X	General public	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Annually	❖ 7.2. Organization's/SC's performance against performance
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative,			

	academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No reporting			
	Other:			
	Other:			
	Other:			

Organization 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			

	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	No reporting			
	Other:			
	Other:			
	Other:			

Organization 20

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ As required	❖ As required	❖ As required
X	Suppliers	❖ As required	❖ As required	❖ As required
X	Contractors	❖ As required	❖ As required	❖ As required

	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	<ul style="list-style-type: none"> ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately) 	❖ As required	❖ As required
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 39b - SC - IMPROVED SITUATION

- ❖ Most of the companies suggested sustainability reporting for the SC.
- ❖ One company expressed the view that the SC does not need to report externally!
- ❖ Many important interested parties are not suggested by the companies to receive reports such as suppliers, contractors, indigenous people, welfare organizations, trade unions, NGOs, etc.!

40) Complete enclosed tables

- a) Complete the table considering other types of external communication (*) to interested parties than external reporting, areas covered by each report, frequency and type of information provided – CURRENT SITUATION - FOR INDIVIDUAL ORGANIZATIONS (see question 23 and observation 8)

Organisation 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ As required	❖ As required	❖ As required
X	Suppliers	❖ As required	❖ As required	❖ As required
X	Contractors	❖ As required	❖ As required	❖ As required
	Indigenous people			
	Welfare organisations			
X	Neighbouring and regional communities	❖ As required	❖ As required	❖ As required
X	General public	❖ As required	❖ As required	❖ As required
X	Trade unions	❖ As required	❖ As required	❖ As required
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
X	Communications media	❖ As required	❖ As required	❖ As required
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace	❖ As required	❖ As required	❖ As required

	Health and Safety, Industrial Relations, etc)			
X	Local, State and Federal Government	❖ As required	❖ As required	❖ As required
	No external communication			
	Other:			
	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
X	Contractors	❖ As required	❖ As required	❖ As required
	Indigenous people			
	Welfare organizations			
X	Neighbouring and regional communities	❖ As required	❖ As required	❖ As required
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications			

	media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ As required	❖ As required	❖ As required
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Suppliers	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Contractors	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	Indigenous people			
	Welfare organisations			

X	Neighbouring and regional communities	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Local, State and Federal Government	❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	No external communication			
	Other:			
	Other:			
	Other:			

Organization 17

MARK THE	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR	TYPE OF INFORMATION PROVIDED ⁷
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INTERESTED PARTY			REPORTING PERIOD 6	
X	Purchasers/ Consumers/Customers	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Suppliers	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
X	General public	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Trade unions	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately) ❖ 5.7. Workplace Health & Safety (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
X	Financial institutions		❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Regulatory and legislative bodies (EPA, Workplace		❖ As required	❖ 7.2. Organization's performance against performance criteria

	Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
	No external communication			
	Other:			
	Other:			
	Other:			

Organization 18

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ Economic (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Suppliers	❖ Economic (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
X	Contractors	❖ Economic (separately)	❖ As required	❖ 7.2. Organization's performance against performance criteria
	Indigenous people			
	Welfare organisations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			

	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	<ul style="list-style-type: none"> ❖ 5.3. Financial (separately) ❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) 	❖ As required	❖ 7.1. Organization's performance
	Local, State and Federal Government			
	No external communication			
	Other:			
	Other:			
	Other:			

Organization 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			

	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	No external communication			
	Other:			
	Other:			
	Other:			

Organization 20

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ As required	❖ As required	❖ As required
X	Suppliers	❖ As required	❖ As required	❖ As required
X	Contractors	❖ As required	❖ As required	❖ As required
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			

	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ As required	❖ As required
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 40a - ORGANIZATIONS – CURRENT SITUATION

❖ What is common is that most of the organizations provide external communication when required. There is no common target group for those communications. However many important interested parties do not receive any kind of communication.

b) Complete the table considering other types of external communication (*) to interested parties than external reporting, areas covered by each report, frequency and type of information provided – IMPROVED SITUATION - FOR THE SC (see question 23 and observation 8)

Organisation 14

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organisations			
X	Neighbouring and regional communities	❖ As required	❖ Annually	<ul style="list-style-type: none"> ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety,			

	Industrial Relations, etc)			
	Local, State and Federal Government			
	No external communication			
	Other:			
	Other:			
	Other:			

Organization 15

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ Monthly	❖ As required
	Suppliers			
X	Contractors	❖ As required	❖ As required	❖ As required
	Indigenous people			
	Welfare organizations			
X	Neighbouring and regional communities	❖ As required	❖ As required	❖ As required
X	General public	❖ As required	❖ As required	❖ As required
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research			

	institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ As required	❖ As required	❖ As required
	Local, State and Federal Government			
	No reporting			
	Other:			
	Other:			
	Other:			

Organization 16

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial

				<p>results</p> <ul style="list-style-type: none"> ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
X	Suppliers	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to

				the overall success of the SC
X	Contractors	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	Indigenous people			
	Welfare organisations			
X	Neighbouring and regional communities	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial

				<p>results</p> <ul style="list-style-type: none"> ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
X	Business, administrative, academic and research institutions	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services

				<ul style="list-style-type: none"> ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
X	Communications media	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of

				<p>organization's commitment and efforts to improve performance</p> <ul style="list-style-type: none"> ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
X	Local, State and Federal Government	❖ 5.2. Environmental, Economic, Social (integrated evaluation)	❖ As required	<ul style="list-style-type: none"> ❖ 7.2. SC's performance against performance criteria ❖ 7.3. Trends in SC's performance ❖ 7.4. Legislative, regulatory and other interested parties' requirements compliance ❖ 7.5. Demonstration of organization's commitment and efforts to improve performance ❖ 7.6. Cost savings or other financial results ❖ 7.7. Recommendations to improve SC's performance ❖ 7.8. Statement of the SC's commitment to performance evaluation as part of the management approach ❖ 7.9. Description of SC's activities, products and services ❖ 7.10. Statement of SC's aspects

				and impacts ❖ 7.11. Contribution of the performance evaluation process to the overall success of the SC
	No external communication			
	Other:			
	Other:			
	Other:			

Organization 17

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately)	❖ As required	❖ As required
X	Suppliers	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately)	❖ As required	❖ As required
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			

	Communications media			
X	Financial institutions	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately)	❖ As required	❖ As required
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately)	❖ As required	❖ As required
X	Local, State and Federal Government	❖ 5.5. Environmental (separately) ❖ 5.6. Social (separately)	❖ As required	❖ As required
	No external communication			
	Other:			
	Other:			
	Other:			

Organization 18

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			
	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organisations			
	Neighbouring and regional communities			

	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	No external communication			
	Other:			
	Other:			
	Other:			

Organization 19

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
	Purchasers/ Consumers/Customers			

	Suppliers			
	Contractors			
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)			
	Local, State and Federal Government			
X	No external communication			
	Other:			
	Other:			
	Other:			

MARK THE INTERESTED PARTY	INTERESTED PARTY	AREAS COVERED BY THE REPORT ⁵	FREQUENCY OR REPORTING PERIOD ₆	TYPE OF INFORMATION PROVIDED ⁷
X	Purchasers/ Consumers/Customers	❖ As required	❖ As required	❖ As required
X	Suppliers	❖ As required	❖ As required	❖ As required
X	Contractors	❖ As required	❖ As required	❖ As required
	Indigenous people			
	Welfare organizations			
	Neighbouring and regional communities			
	General public			
	Trade unions			
	NGOs			
	Opinion leaders			
	Business, administrative, academic and research institutions			
	Communications media			
	Financial institutions			
X	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	❖ 5.5. Environmental (separately) ❖ 5.7. Workplace Health & Safety (separately) ❖ 5.8. Quality (separately)	❖ As required	❖ As required
	Local, State and Federal Government			
	No external reporting			
	Other:			
	Other:			
	Other:			

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INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 40b - SC - IMPROVED SITUATION

❖ No clear consensus in terms of suggestions.

41) Questions

a) Does your organization use the GRI 2002 to report performance (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS- CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes									
No	X	X	X	X	X	X	X	100%	
Other:									

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 41a – ORGANIZATIONS – CURRENT SITUATION

❖ All the companies answered that they did not use GRI. However none of them know GRI 2000.

b) Then, what would be the ideal situation for an SC in which your organisation would like to participate (for your SC to use the GRI 2002 to report performance) - mark in the column SC - IMPROVED SITUATION?

SC	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
----	----	----	----	----	----	----	----	-------	---

IMPROVED SITUATION									
ANSWERS									
Yes		X	X		X			43%	
No						X		14%	
Other: I do not know because I do not know the GRI reporting systems	X			X			X	43%	

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 41b - SC - IMPROVED SITUATION

❖ Even if they do not know the reporting system, when I showed them the report, 43% answered that they would like to see the SC using it.

42) Questions:

a) Does your organization convert performance data (complex internal data using KPIs) to a simple form of data for reporting or other forms of communication (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS - CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X		X		X	X	72%	
No			X		X			28%	

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 42a – ORGANIZATIONS – CURRENT SITUATION

❖ Most of the companies convert performance data (complex internal data using KPIs) to a simple form of data for reporting.

b) Then, what would be the ideal situation for an SC in which your organization would like to participate (for your SC to convert performance data to simple form of data for public reporting) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X		X	X	X	X	86%	
No			X					14%	

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 42b - SC - IMPROVED SITUATION

❖ Most of the companies want to see the SC converting performance data (complex internal data using KPIs) to a simple form of data for reporting

43) Show me the following information: performance indicator, respective performance criteria, respective data presented in the internal report and respective data presented in the public report

Organisation 14

ANSWERS AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)	EXPLANATION	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available

Organization 15

ANSWERS AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)	EXPLANATION	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available

Organization 16

ANSWERS AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)	EXPLANATION	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available

Organization 17

ANSWERS AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)	EXPLANATION	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available

Organization 18

ANSWERS AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)	EXPLANATION	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available

Organisation 19

ANSWERS AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)	EXPLANATION	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available

Organization 20

ANSWERS AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	DATA PRESENTED IN INTERNAL COMMUNICATION (e.g. report)	DATA PRESENTED IN EXTERNAL COMMUNICATION (e.g. report)	EXPLANATION	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Social	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available
Economic	❖ Data available not	❖ Data available not	❖ Data not available	❖ Data not available	❖ Data not available	❖ Data not available

INTERVIEWER'S COMMENTS

- ❖ It seems to me that they do not know how to do it.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 43

- ❖ None of the companies could provide data.

44) Questions:

a) Does your organization present the data for reporting or other forms of communication in any graphic or visual format (mark in the column ORGANIZATION - CURRENT SITUATION)? Then, what would be the ideal situation for an SC in which your organization would like to participate (for your SC to present the data for public reporting in any graphic format) - mark in the column SC - IMPROVED SITUATION?

ORGANIZATIONS- CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	
No									

If you answered yes in ORGANIZATION - CURRENT SITUATION, please show me some examples based in your experience.

ORGANISATIONS – CURRENT SITUATION	ANSWERS
14	❖ Data not available
15	❖ Data not available
16	❖ Data not available
17	❖ Data not available
18	❖ Data not available
19	❖ Data not available
20	❖ Use pies and time line

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 44a – ORGANIZATIONS – CURRENT SITUATION

❖ None of the companies could provide data but all of them stated they use graphic representation.

b) Then, what would be the ideal situation for an SC in which your organization would like to participate (for your SC to present the data for reporting or other forms of communication in any graphic or visual format - mark in the column SC - IMPROVED SITUATION?)

SC – IMPROVED SITUATION ANSWERS	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
	Yes	X	X	X	X	X	X	X	
No									

INTERVIEWER'S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 44b - SC - IMPROVED SITUATION

❖ All the companies want to see the SC presenting PE data in any graphic or visual format

45) Questions:

a) Do third party auditors verify your organisation’s public report (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS– CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X		X	X		X	X	72%	
No		X			X			28%	

INTERVIEWER’S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 45a – ORGANISATIONS – CURRENT SITUATION

❖ 72% have their report verified by a third party. However they only have their financial report verified.

b) Then, what would be the ideal situation for an SC in which your organisation would like to participate (to have your SC’s public report verified by third party auditors) - mark in the column SC - IMPROVED SITUATION?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X	X	X	X	X	X	100%	
No									

INTERVIEWER’S COMMENTS

❖ No comments.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 45b - SC - IMPROVED SITUATION

❖ All the companies want to see the PE reports of the SC verified by a third party.

MANAGEMENT REVIEW (EVALUATION OF PERFORMANCE IMPROVEMENT, DECISION-MAKING PROCESS TO IMPROVE PERFORMANCE OF THE ORGANIZATION/SC, EVALUATION AND IMPROVEMENT OF THE PERFORMANCE EVALUATION MANAGEMENT SYSTEMS OR PROCESS)

46) Questions:

a) Which type of approach does your organization use to develop management review and business decisions to improve performance and the management systems (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Top-down definition (process not known)	X	X		X		X	X	72% (28% scored it as very important)	
External help	X	X		X				43%	
Internal brainstorm meetings and workshops	X	X	X	X	X			72%	
Focus group meetings and workshops	X	X	X			X	X	72% (14% scored it as very important)	
No approach									
Other:									

INTERVIEWER'S COMMENTS

❖ Even if the companies are talking about interested parties' participation and sustainability, they are still using top-down definition in terms of decisions..

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 46a - ORGANIZATIONS – CURRENT SITUATION

❖ 72% of the companies use top-down definition, internal brainstorm and focus groups meetings.

b) Then, which would be the ideal type of approach that your SC would like to use to develop management review and business decisions to improve performance and the management systems (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Top-down definition (process not known)		X			X	X		43% (14% scored it as very important)	
External help		X				X		28%	
Internal brainstorm meetings and workshops		X	X	X	X			57%	
Focus group meetings and workshops	X	X	X	X		X	X	86% (14% scored it as very important)	
No approach									
Other:									

INTERVIEWER’S COMMENTS

❖ 43% of companies still want their SC to use a top-down decision making system.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 46b - SC - IMPROVED SITUATION

❖ 86% of the companies want to see the SC using focus group meetings with the purpose of discussing and taking business decisions for the SC.

47) Questions:

a) On what do you base your business decisions (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
General information		X			X		X	43%	
Experience	X	X	X	X	X	X	X	100%	
Reliable information (data)	X	X	X	X	X	X	X	100% (28% scored it as very important)	
Intuition		X			X	X	X	57%	
No approach									
Other:									
Other:									
Other:									

INTERVIEWER'S COMMENTS

❖ Intuition is still a very highly rated approach for taking decisions.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 47a - ORGANIZATIONS – CURRENT SITUATION

❖ 100% of the companies base their decision on reliable data and experience. However the companies are not monitoring all areas linked to sustainability.

b) Then, what would be the basis for business decisions for your SC (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES

ANSWERS								
General information		X			X		X	43%
Experience	X	X		X	X	X	X	86% (14% scored it as very important)
Reliable information (data)	X	X	X	X	X	X	X	100% (43% scored it as very important)
Intuition		X		X	X	X	X	72%
No approach								
Other:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

- ❖ Companies believe that intuition would be an approach to be used for making decisions. In my opinion it can be used only in conjunction with other approaches in specific cases.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 47b - SC - IMPROVED SITUATION

- ❖ 100% of the companies want to see the SC base the decisions on reliable data.

48) Questions:

a) Which steps are included in the current process of decision making in your organization (The following information is in a logical sequence) - mark in the column ORGANIZATION - CURRENT SITUATION?

ORGANISATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES

ANSWERS									
Recognition of decision required	X	X	X	X	X	X	X	100%	❖ Organisation 15: The person stated that the process is formal in only a few areas inside the organization
Evaluation of the causes	X	X	X	X	X	X	X	100%	
Development of alternatives	X	X	X	X	X	X	X	100%	
Selection of desired alternatives	X	X	X		X	X	X	86%	
Implementation of chosen alternative	X	X	X	X	X	X	X	100%	
No steps									
Other: Follow-up of the desired outcomes.							X	14%	
Other:									
Other:									

INTERVIEWER'S COMMENTS

❖ Important comment is the follow-up of the decisions taken.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 48a - ORGANIZATIONS – CURRENT SITUATION

❖ All the companies use the steps to take decisions (recognition of decision required, evaluation of the causes, development of alternatives, and selection of desired alternatives and implementation of chosen alternative).

b) Then, which would be the ideal steps that would be included in the process of decision-making in your SC (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES

ANSWERS									
Recognition of decision required	X	X	X	X	X	X	X	X	100%
Evaluation of the causes	X	X	X	X	X	X	X	X	100%
Development of alternatives	X	X	X	X	X	X	X	X	100%
Selection of desired alternatives	X	X	X	X	X	X	X	X	100%
Implementation of chosen alternative	X	X	X	X	X	X	X	X	100%
No steps									
Other: Follow-up of the desired outcomes.							X		14%
Other:									
Other:									

INTERVIEWER'S COMMENTS

- ❖ Important comment is the follow-up of the decisions taken.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 48b - SC - IMPROVED SITUATION

- ❖ All the companies want the SC to use all the steps to take decisions (recognition of decision required, evaluation of the causes, development of alternatives, selection of desired alternatives and implementation of chosen alternative).

49) Questions:

a) Which methods does your organization use to assist decision-making (mark in the column ORGANISATION - CURRENT SITUATION)?

ORGANISATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Cost-benefit analysis (evaluation of the monetary value of costs and technical benefits linked to actions – quantitative method)	X						X	28% (28% scored it as very important)	
Cost-benefit analysis (evaluation of the monetary value of costs and total benefits (technical, environmental, social and economic) linked to actions – qualitative and quantitative method)		X	X	X		X		57%	
Cost analysis (evaluation of the monetary value of costs linked to actions – quantitative method)									
Risk-benefit analysis {evaluation of cause (actions) and effect (impacts of the action – qualitative method)}	X					X	X	43% (14% scored it as very important)	

Checklists {evaluation of a list of aspects related to the decision to be taken and impact – qualitative method}							X	14%
Composite systems or the Kepner-Tregoe process (composition of all the methods presented before)	X					X		28%
No method								
Other:								
Other:								

INTERVIEWER’S COMMENTS

- ❖ 57% of the organizations answered that they use cost-benefit analysis (evaluation of the monetary value of costs and total benefits (technical, environmental, social and economic) linked to actions to assist decision-making. Based on what I saw through the interviews it does not look to me to be precise.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 49a - ORGANISATIONS – CURRENT SITUATION

- ❖ 57% of the organizations use benefit analysis (evaluation of the monetary value of costs and total benefits (technical, environmental, social and economic) linked to actions, 43% use risk-benefit analysis {evaluation of cause (actions) and effect (impacts) of the action and only 28% know and use Kepner-Tregoe.

b) Then, which would be the ideal type of methods that your SC would like to use to assist decision-making (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
-------------------------	----	----	----	----	----	----	----	-------	---

ANSWERS								
Cost-benefit analysis (evaluation of the monetary value of costs and technical benefits linked to actions – quantitative method)								
Cost-benefit analysis (evaluation of the monetary value of costs and total benefits (technical, environmental, social and economic) linked to actions – qualitative and quantitative method)					X		14%	
Cost analysis (evaluation of the monetary value of costs linked to actions – quantitative method)								
Risk-benefit analysis {evaluation of cause (actions) and effect (impacts of the action – qualitative method)}					X		14%	

Checklists {evaluation of a list of aspects related to the decision to be taken and impact – qualitative method}						X		14%
Composite systems or the Kepner-Tregoe process (composition of all the methods presented before)	X	X	X	X	X		X	86%
No method								
Other:								
Other:								
Other:								

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 49b - SC - IMPROVED SITUATION

❖ 86% wants the SC to use Kepner-Tregoe.

50) Questions:

a) What are the purposes for the decisions taken by your organization (mark in the column ORGANIZATION - CURRENT SITUATION)?

ORGANIZATIONS – CURRENT SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
---	----	----	----	----	----	----	----	-------	---

ANSWERS									
Maintain business performance (linked to operational and management issues)	X	X	X	X	X			72%	❖ Organisation 15: The person added that the personnel of the organisation need to improve the decision making process
Improve business performance (linked to operational and management issues)	X	X	X	X	X	X	X	100% (28% scored it as very important)	
Control and/or avoid business risks (linked to operational and management issues)	X	X		X	X	X	X	86%	
No purpose									
Other:									
Other:									
Other:									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 50a - ORGANIZATIONS – CURRENT SITUATION

❖ In general the companies take the decision with the purpose of maintaining, improving and controlling performance.

b) Then, what would be the ideal purposes for the decisions taken by your SC (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES

ANSWERS									
Maintain business performance (linked to operational and management issues)	X	X	X	X	X				72%
Improve business performance (linked to operational and management issues)	X	X	X	X	X	X	X		100% (28% scored it as very important)
Control and/or avoid business risks (linked to operational and management issues)	X	X	X	X	X	X	X		100%
No purpose									
Other:									
Other:									
Other:									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 50b - SC - IMPROVED SITUATION

❖ The companies want the SC to take decisions with the purpose of maintaining, improving and controlling performance.

51) Questions:

a) Indicate which is the frequency of management review used by your organization (mark in the column ORGANIZATION - CURRENT SITUATION).

ORGANISATIONS –	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
-----------------	----	----	----	----	----	----	----	-------	---

CURRENT SITUATION									
ANSWERS									
Monthly	X	X			X		X	57%	<ul style="list-style-type: none"> ❖ Organisation 14: General management subjects, monthly. Strategic ones, annually. ❖ Organisation 15: WH&S, monthly. Environment, quarterly. Quality, six months. All areas for the board, annually. Financial and quality, weekly. ❖ Organisation 16: For everything. ❖ Organisation 20: Monthly for financial and WH&S (for the board), quarterly for the forecast (adjustment of the annual budget), one year for the annual budget and weekly for profit and losses. However this depends of the stability of the business.
Three months		X	X				X	43%	
Six months		X		X				28%	
One year	X	X				X	X	57%	
No specific period						X		14%	
No frequency									
Other: Weekly for quality and financial		X						14%	
Other: Weekly for profit and losses (financial)							X	14%	

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 51a - ORGANISATIONS – CURRENT SITUATION

❖ Every company defines the frequency of management review based in their needs. No common or specific period can be defined.

b) Then, indicate which would be frequency of management review that would be used by your SC (mark in the column SC - IMPROVED SITUATION):

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Monthly		X			X		X	43%	<ul style="list-style-type: none"> ❖ Organization 15: Sustainability report. ❖ Organization 16: For everything.
Three months	X		X			X	X	57%	

Six months				X	X			28%	❖ Organization 18: The person expressed the view that at the first stages of the relation it could be monthly, and then biannually and when the relations become advanced it would be annually. ❖ Organisation 20: Monthly for financial and WH&S (for the board), quarterly for the forecast (adjustment of the annual budget), one year for the annual budget and weekly for profit and losses. However this depends of the stability of the business.
One year		X			X		X	43%	
No specific period									
No frequency									
Other: Weekly for profit and loses (financial)							X	14%	

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 51b - SC - IMPROVED SITUATION

❖ No common and specific period can be defined. The SC needs to define it based in the needs for it.

52) Do you agree with this statement: "It is important for every organization participating in a specific SC to speak the same language in terms of performance evaluation process" (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
	ANSWERS								
Yes	X	X	X	X	X	X	X	100%	❖ Organization 19: The PE process has to be understood by everyone but the KPIs can be different.
No									

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 52 - SC - IMPROVED SITUATION

❖ 100% of the companies agreed with the statement: "It is important for every organization participating in a specific SC to speak the same language in terms of performance evaluation process"

53) Do you think that the implementation of an umbrella performance evaluation management system (or process) for the entire SC would be a good approach to the management of the performance of the entire chain (mark in the column SC - IMPROVED SITUATION)?

SC – IMPROVED SITUATION	14	15	16	17	18	19	20	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS									
Yes	X	X		X	X	X	X	86%	
No			X					14%	

INTERVIEWER'S COMMENTS

❖ No comments

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 53 – SC – IMPROVED SITUATION

❖ 86% of the companies agreed with the statement that an umbrella PEMS for the entire SC would be ideal.

54) What suggestions could you give to integrate the performance evaluation of organizations participating in an SC (management structure, KPIs, reporting, engagement of interested parties, etc)? Please give examples.

ORGANISATIONS	ANSWERS
14	<ul style="list-style-type: none"> ❖ Important that the performance evaluation management system supports the operation of the SC and its organizations and does not tie them up. ❖ The management systems have to have ownership of the people who are supported by the systems and the system is developed in such a way that can be easily adapted to changes.
15	<ul style="list-style-type: none"> ❖ No suggestion
16	<ul style="list-style-type: none"> ❖ Each one understands their business properly. ❖ Develop similar culture to everyone. ❖ Clear reasons for partnership (with customers and suppliers). ❖ Top management support (of all participants of the SC).
17	<ul style="list-style-type: none"> ❖ Common reporting structure, communication system, performance evaluation process and KPIs.
18	<ul style="list-style-type: none"> ❖ It would be a democratic process
19	<ul style="list-style-type: none"> ❖ The suppliers of aluminium to us have the monopoly of the production and they do not want to talk with us. If so it would be wonderful.
20	<ul style="list-style-type: none"> ❖ It needs new defined structure of management and clear procedures to collect data and report performance. ❖ Partners need to speak the same language.

55) What other issues/questions related to the subject of organization/SC performance have I left out or should I have asked about? What are your answers to those issues/questions?

ORGANISATIONS	ANSWERS
14	❖ The subject was well covered by the questionnaire.
15	❖ No suggestion
16	❖ No suggestion
17	<ul style="list-style-type: none"> ❖ Most of the issues linked to the subject were covered by the questionnaire. ❖ Further studies in managing SC using collaboration as an approach. ❖ Use the performance evaluation system to identify and help to remove the “bottle neck” of the SC
18	❖ The subject was well covered by the questionnaire.
19	<ul style="list-style-type: none"> ❖ Partners need to be more transparent. ❖ Companies need to be real partners. ❖ Partners need to share technical support and marketing. ❖ We think we know what customers want but we do not know and we need to ask them as a company and as a SC.
20	❖ Ability to integrate different cultures (i.e. avoid crash of point of views).

3) Mark in the table (IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the list of areas ¹ that your organization intends to influence or be linked to when engaged in a consultation process by organizations/supply chains.

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	ACTIVITY LINKED TO THE AREAS ¹
	Social area
	Environmental area
	Economic area
	Social/environmental/economic areas at the same time
	Social/environmental areas
	Social/economic areas
	Environmental/social areas
	Other:
	Other:
	Other:

4) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the stakeholders that should be involved in any organization's/supply chain's consultation process (engagement and communication).

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	STAKEHOLDERS
	Management representatives
	Employees
	Investors/Shareholders
	Suppliers
	Consumers/customers/purchasers

	Contractors
	Indigenous people
	Welfare organizations
	Neighbouring and regional communities
	General public
	Trade unions
	NGOs
	Opinion leaders
	Business, administrative, academic and research institutions
	Communications media
	Financial institutions (insurers, lending institutions, etc)
	Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)
	Local, State and Federal Government
	Other organizations from your supply chain
	Other (from the Community, Government, etc):
	Other (from the Community, Government, etc):
	Other (from the Community, Government, etc):

5) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the best methods for organizations/supply chains to use to engage and obtain information/needs/values/views (consultation process) from stakeholders for the purpose of developing their strategic plans.

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	METHODS
	Community advisory groups
	Corporate advisory groups
	Internal surveys/questionnaires
	External surveys/questionnaires
	Direct questions/answers to target stakeholders (neighbours, regulatory bodies, customers, suppliers etc)
	Internal meetings and workshops
	Public meetings and workshops
	Focus groups meetings and workshops
	Employee suggestions program
	External suggestions program
	Market research
	Regulatory tracking and trending

	Participation in organization/supply chain and public interest groups
	Information from media and other sources of public information
	Review of public statements, internal programmes and initiatives of stakeholders
	External expert or consultancy firm
	Knowledge of internal expert
	Other:
	Other:
	Other:

6) Mark in the table (in the column written IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the best methods for organizations/supply chains to use to give feedback to the stakeholders from the consultation process.

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	METHODS (*)
	Statements (brochures, newspapers, magazines, etc)
	Direct answers to target stakeholders (neighbours, regulatory bodies, customers, suppliers etc)
	Internal meetings
	Public meetings
	Focus group meetings
	Speeches during events of organizations/supply chains and public interest groups
	Information through the media and other sources of public information (TV, brochures, newspapers, magazines, etc)
	Internal report
	Periodic public report of the performance at the end of the cycle of the performance evaluation of the organization/supply chain
	Other:
	Other:
	Other:

Note (*):

I. The feedback of the consultation process can be done through email, web page, personal contact, written form, etc. Please specify in front of the method how the feedback should be provided.

7) Do you think that a public report is a very good tool to give feedback from the consultation process?

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	ANSWER
	Yes
	No

a) If no, please explain:

8) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the type of benefits of the consultation process (engagement and communication) for the stakeholders.

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	TYPE OF BENEFITS OF REPORTING PERFORMANCE
	Helps organization/supply chain to achieve its performance criteria and society/stakeholders to improve quality of life (socially, environmentally and economically)
	Increase awareness and dialogue about organization's/supply chain's performance
	Demonstration of organization's/supply chain's commitment and efforts to improving performance
	Provides the mechanism to respond to concerns and questions about the organization's/supply chain's performance
	Improvement of relations with organization/supply

	chain
	Helps to include in the organizations'/supply chain's plans the needs of the stakeholders
	Other:
	Other:
	Other:

9) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the ideal frequency for one entire cycle of the consultation process (from engagement until feedback, e.g. external reporting).

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	ANSWER
	Monthly
	Three months
	Six months
	One year
	No specific period
	Other:

10) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the type of information that you would like to see included in any type of feedback given by organization/supply chain to stakeholders as a result of the consultation process.

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	TYPE OF INFORMATION INCLUDED IN THE PUBLIC REPORTING
	Organization's/supply chain's performance
	Organization's/supply chain's performance against performance criteria
	Trends in organization's/supply chain's performance
	Legislative, regulatory and other stakeholders' requirements for compliance
	Demonstration of organization's/supply chain's commitment and efforts to improve performance
	Cost savings or other financial results

	Recommendations and actions to improve organization's/supply chain's performance based on the performance evaluation
	Statement of the organization's/supply chain's commitment to performance evaluation as part of the management approach
	Description of organization's/supply chain's activities, products and services
	Statement of organization's/supply chain's aspects and impacts
	KPIs
	Contribution of the performance evaluation process to the overall success of the organization/supply chain
	Other:
	Other:
	Other:

11) Do you think that the use of KPIs is a very good tool that can be used by organizations/supply chains to present data when giving feedback from the consultation process?

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	ANSWER
	Yes
	No

a) If no, please explain:

12) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the type of KPIs¹ that your organization would like to see organizations/supply chains taking into consideration when presenting feedback from the consultation process (e.g. public report).

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	KPIs ¹
	Related to environmental issues
	Related to social issues
	Related to economic issues
	Related to other issues:

13) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the type of characteristics of KPIs that your organization would like to see organizations/supply chains taking into consideration when defining KPIs.

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	IMPORTANT CHARACTERISTICS OF THE KPIs
	Consistent with policy
	Reliable because there are fewer assumptions when presenting information
	Easy to understand
	Easy to obtain data
	Able to provide information on current and future trends
	Sensitive to changes
	Useful for measuring performance against criteria
	Appropriate for management or operational efforts or the condition of the society/environment
	Other:
	Other:
	Other:

14) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAINS) the type of unit/characteristic of data for

KPIs that your organization would like to see organizations/supply chains taking into consideration when presenting feedback from the consultation process (e.g. public report).

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	UNIT/CHARACTERISTIC OF DATA
	Direct unit as tonnes of contaminant emitted
	Relative unit as tonnes of contaminant emitted per tonne of product manufactured
	Indexed: convert data to different unit
	Aggregated: combined value of data of the same type
	Weighted
	Only qualitative data
	Only quantitative data
	Qualitative and quantitative data
	Other:
	Other:
	Other:

15) Would you like to see performance reports using graph or text format to show the performance of the organization/supply chain?

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	ANSWER
	Graphs
	Text
	No representation
	Other:

a) Please explain your answer:

16) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS) the approaches to define sustainability KPIs that your organization would like to see organizations/supply chains taking into consideration when presenting feedback from the consultation process.

IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAINS	APPROACHES USED TO DEFINE SUSTAINABILITY KPIs
	Indicators that give information about all the areas (environmental, social and economic) at the same time
	Indicators that give information about at least two areas (environmental, social and economic) at the same time
	Indicators of one area but they are important to all types of stakeholders linked to the organization/supply chain
	Indicators of one area but they are important to the most important stakeholders linked to the organization/supply chain
	No approach
	Other:
	Other:
	Other:

17) Complete the enclosed table

- a) Show me some KPIs ¹ and their respective performance criteria for the environmental, social and economic areas that your organization would like to see organizations and their supply chain taking into consideration when presenting feedback from the consultation process (e.g. public report).

18) How do the activities of organizations/supply chains affect you or your community group (CONSIDER THE ENVIRONMENTAL AREA)? How does the performance of organizations/supply chains affect you or your community group (CONSIDER THE ENVIRONMENTAL AREA)?

QUESTIONNAIRE TO ACCESS INFORMATION FROM ORGANIZATIONS' / SUPPLY CHAINS' STAKEHOLDERS

INSTRUCTIONS FOR THE INTERVIEWER

- This questionnaire was developed to be completed by the interviewer.
- The interviewee has to give a direct answer without rationalization. The interviewee has to try to give the point of view of his/her organization in relation to the questions.
- Ask them to answer the questions related to supply chain based on a supply chain in which they participate or a supply chain that they have in mind.
- If there is any other information about each question that the interviewee wants/needs to add, write down on a parallel answer sheet using the same item number.
- Open questions can be recorded.
- This symbol, (*), means that there is a note just after the question. Numbers superscripted (¹ Or ²) are addressing issues that are described in the “Observations” section that is enclosed with the questionnaire.
- The tables to be completed are in the “Tables” section that is enclosed with the questionnaire.
- Use pencil to complete this questionnaire. This gives the opportunity for the interviewee and interviewer to change the answers.
- Explain your concept of performance evaluation management systems and the notion that every organization has a performance evaluation management system.
- Explain your concept of a supply chain and the notion that every organization participates in a supply chain.
- Explain your concept of performance evaluation management systems (process) for supply chains.
- The major field of this work is linked to the environmental area (the strength of the researcher and supervisor). However the work will also include knowledge related to social and economic areas.
- This questionnaire is based on 5W (what, why, when, who and where) 2H (how and how much) and 2S (show me procedures and data).

- Ask the professional of the organization at the end of the questionnaire if there is any question related to the subject that you should have asked that you did not.

OBSERVATION

OBSERVATION ¹

A. Use the table below to characterize the issues related to the three sustainable principles (This table is based on Global Reporting Initiative, “Global Reporting Initiative - Draft 2002 Sustainability reporting guidelines - 02 April 2002”. 2002, Amsterdam: Global Reporting Initiative and improved by the researcher).

B. See also the documents: ISO 14031, GRI, GEMI, among others related to sustainable principles and indicators.

C. The following table also shows areas and the respective issues that the organization/supply chain can use to develop KPIs

ISSUES RELATED TO THE SUSTAINABLE PRINCIPLES AND BUSINESS ENVIRONMENT		
Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)	Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)	Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)
<ul style="list-style-type: none"> • Environmental conditions • Environmental and risk management • Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water • Biodiversity • Emissions, effluents, and waste • Soil, air and water contamination, protection and conservation • Environmental design • Life cycle 	<ul style="list-style-type: none"> • Social conditions • Social and risk management • Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work ○ Decent wages ○ Human resources ○ Industrial relations ○ Health and safety (H&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment • Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction 	<ul style="list-style-type: none"> • Economic conditions • Economic and risk management • Quality (product quality and customer satisfaction) • Financial • Market • Growth • Customers/Purchasers/Consumers • Suppliers • Employees • Founders • Public sector • Shareholders/Investors

	<ul style="list-style-type: none"> ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ● Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption ○ General 	
--	--	--

COMMON ISSUES: FOR THE THREE AREAS

<ul style="list-style-type: none"> ● Focus organization/supply chain activities, products and services ● Suppliers' activities, products and services ● Consumers'/customers' activities, products and services ● Transporters' activities ● Other stakeholders ● CSR (business ethics) ● Corporate citizenship and governance ● Sustainable mechanisms ● Legislation ● Non-regulatory guidelines ● Compliance ● Stakeholders' satisfaction and well-being ● Other issues
--

TABLE

17) Complete the table

- a) Show me some KPIs ¹ and their respective performance criteria for the environmental, social and economic areas that your organization would like to see organizations and their supply chain taking into consideration when presenting feedback from the consultation process (e.g. public report).

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	OBSERVATION
Environmental			
Social			
Economic			

APPENDIX 7 - COMBINATION OF DATA FROM QUESTIONNAIRES (IP)

-

COMBINATION IN ONE QUESTIONNAIRE OF THE ANSWERS OF THE 13 QUESTIONNAIRES ANSWERED BY 13 INTERESTED PARTIES

-

**“QUESTIONNAIRE TO ACCESS INFORMATION FROM
ORGANISATIONS’/SUPPLY CHAINS’ INTERESTED PARTIES”**

NOTES AND INSTRUCTIONS:

- ❖ This document has the purpose of combining data for the evaluation of how interested parties want to be engaged in consultation processes of organizations/supply chains and receive feedback of this consultation processes. The evaluation also has the purpose of adding value to the suggested process for performance evaluation for organisations/supply chain.
- ❖ The answers obtained through the questionnaires contain information provided by the representative of organizations/groups (interested parties). It means that the information is based on the experience of the representative of those organisations/groups.
- ❖ The list of interested parties and respective organizations/groups can be seen in the table below:

INTERESTED PARTY NUMBER	PROFILE OF THE PERSON INTERVIEWED AND THE ENTITY FOR WHICH HE/SHE WORKS
1	❖ The professional works for the Gladstone City Council and she is responsible for issues linked to the sustainability of the community. Her major area of knowledge is environment. The Council provides public services for the community.
2	❖ The professional is responsible for coordinating activities of the Gladstone Entertainment Centre. He has vast knowledge in management of cultural entities. The Gladstone Entertainment Centre provides social entertainment for the community (e.g. – musical shows).
3	❖ The professional is responsible for coordinating activities of the Centre of Social Science Research located at Central Queensland University (CQU). The Centre and he are specialised in social research.
4	❖ The professional is responsible for coordinating activities of the Institute for Sustainable Regional Development located at Central Queensland University. He has background in sustainability issues. The Institute has the objective of articulating research to improve the sustainability of the community. It also has the whole [?] to integrate different areas of CQU and other entities outside the University in research linked to sustainability issues.
5	❖ The professional is responsible for coordinating activities of the Department of Families of Queensland Government. She has a background in social studies. The Department of Families is responsible for delivering social support to the community at the State level.
6	❖ The professional is responsible for coordinating activities of Anglicare in Gladstone. She has a background in social studies. Anglicare is a non-profit organization that delivers social support to the local community.
7	❖ The professional works in environmental projects for Calliope Landcare. She has a background in environmental studies. Calliope Landcare is a non-profit organisation that develops environmental projects in the Gladstone Region.
8	❖ The professional is responsible for coordinating activities of the State Development of the Queensland Government. He has considerable experience in management and economic issues. His department is responsible for enhancing economic development in Queensland.
9	❖ The professional is responsible for coordinating activities of the Community Advisory Services of the Gladstone City

	Council. She has a background in social studies. Her department provides social support for people from the local community.
10	❖ The professional is an inspector of the Environmental Protection Agency of Queensland. He has a background in environmental studies. His area inside EPA is responsible for regulating the environmental area in the State of Queensland.
11	❖ The professional is responsible for coordinating activities of the Sustainable Industry area of the Environmental Protection Agency of Queensland. He has a background in environmental studies. The area where he works is responsible for developing programs to help industries to improve performance towards sustainability.
12	❖ The professional represents Gladstone in the State Parliament. She has experience in the environmental and social area. The Parliament is the legislative body of Queensland.
13	❖ The professional belongs to the Aboriginal community. He has a small business in Gladstone and develops projects linked to Aboriginal issues.

- ❖ Every percentage that appears in this document is related to the number of interested parties that have marked one answer over the total number of interested parties that have participated in the research.
- ❖ Evaluation of the answers extracted from the questionnaires with organizations’/supply chain’ [Items marked with X are considered important items and items marked with X are considered very important items because the interviewee stressed that this item is more important than the others even if the other ones are important):

PART A – RAW DATA

1) Would you prefer to see organisations evaluating and reporting performance individually or as a network of interested parties?

INTERESTED PARTIES \ ANSWERS	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
As individual organization															❖ Interested party 9: The person had some concerns in answering the questionnaire because the subject (supply chain and performance evaluation) is not his/her area of knowledge. He/she did not relay in the intentions of the top management of industries in terms of actions on behalf of the community. The welfare organisations that work in Gladstone (Anglicare, Bindaree Lodge, Calliope Shire Council, CQ Personnel, Disability Services Queensland, Education Queensland, Gladstone City Council, Gladstone Community Linking Agency, Island Sands Neighbourhood Centre, Roseberry Youth Services, Stepping Stones
As a network of interested parties		X		X	X	X	X						X	46%	
Both (as individual organization and network of interested parties)	X		X					X		X	X	X		46%	

No performance or reporting																					Child Care Centre and Women’s Health Centre) formed the “Getting Real About Social Partnerships Network (GRASP)” with the intention of addressing their concerns about the social conditions in the region because of the disorganised growth in population and social problems due to the industrial boom in the region. The Group also has the intention of pressuring organizations for the participation of GRASP in consultation processes related to industrial expansion.
Other: I do not have knowledge to answer the question									X											8%	

a) Please explain your answer:

INTERESTED PARTIES	ANSWERS
1	❖ It is important to have information about an individual organization and the respective network of interested parties
2	❖ It is important to have information about the interaction of the participants in a network of interested parties (understand why organizations with like activities are interacting and forming clusters and how they are performing together)
3	❖ It is important to move to a more ecological sophisticated monitoring system as individual organizations and supply chains and understand the cumulative impacts within the network of interested parties
4	❖ It is important to show information as a network of interested parties because some of the parties (performance evaluation of individual organizations) do not show the whole (performance evaluation of the network of interested parties)
5	❖ The information as a network of interested parties is more contextual not isolated information
6	❖ Evaluating and reporting performance as a network of interested parties gives a more holistic view of the activities of organizations and their impact on the society, environment and economy (organizations form supply chains that are part of our community)
7	❖ Because it is difficult to integrate individual reports to understand the impacts of the network of interested parties (most of the time the language in terms of performance evaluation of many organizations is different)
8	❖ Individuals can see the impact of individual performance in the performance of the network of interested parties
9	❖ The person did not have knowledge to answer the question
10	❖ Members of the network of interested parties can affect each other in terms of environmental performance
11	❖ Reporting on both gives the whole of the network of interested parties view while not leaving out specifics of individual operations.
12	❖ Both have to be monitored because companies can impact (positively or negatively) on the environment/society as an individual entity or can impact together with their partners.
13	❖ People can understand the overall performance of the network of interested parties.

INTERVIEWER’S COMMENTS

- ❖ A hypothesis can be drawn that the industries are not concerned about the social conditions of the region.

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 1

- ❖ There is a balance in terms of two types of answers:
 - 46% - Only as a supply chain
 - 46% - As a network of interested parties and individual organizations

- ❖ However taking into account the explanation for the answers it can be seen that most of the people who answered only as a supply chain expect to understand the performance of the entire supply chain, the interaction between organizations within the chain, the influence of each organization’s performance on the performance of others and also if an individual organisation has a major impact.

- ❖ Then at the end the major parts of the answers are that the interested parties would prefer to see organizations/supply chain evaluating and reporting performance as a supply chain but also presenting information about individual organizations.

- ❖ There is an important comment from an interested party that says that he/she did not rely on the intentions of the top management of the companies in terms of actions on behalf of the community, based on his/her present and past experience. This person works for a welfare organization.

- 2) Do you think that the engagement of interested parties developed by some organizations/supply chains for the purpose of developing policies and strategies is an important step in the process of performance evaluation of organizations/supply chain?

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Yes	X	X	X	X	X	X	X	X	X	X	X	X	X	100%	
No															

a) If no, please explain:

INTERESTED PARTIES	ANSWERS
1	-
2	-
3	-
4	-
5	-
6	-
7	-
8	-

9	-
10	-
11	-
12	-

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF QUESTION 2

❖ 100% of the interested parties think that the engagement of interested parties developed by some organizations/supply chain for the purpose of developing policies and strategies is an important step in the process of performance evaluation of organizations/supply chain.

3) Mark in the table (IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the list of areas ¹ that your organization intends (in your opinion) to influence or be linked to when engaged in a consultation process by organizations/supply chain.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Social area		X				X								15%	
Environmental area										X				8%	
Economic area															
Social/ environmental/ economic areas at the same time	X		X	X		X		X		X	X	X	X	69%	
Social/ environmental areas							X							8%	
Social/ Economic areas					X				X					15%	
Environmental/ social areas															
Other:															

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 3

❖ 69% of the interviewees want their entities/groups to influence organizations/supply chain according to sustainable principles (the social, environmental and economic areas). However some of them want to give emphasis to their area of knowledge.

4) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the interested parties that should be involved in any organization's/supply chain's consultation process (the engagement of interested parties).

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Management representatives	X		X	X	X	X	X	X		X	X	X	X	85% (39% scored it as very important)	❖ Interested party 8: The person added information in relation to question 4: <ul style="list-style-type: none"> ○ Organizations do not like to mix commercial and social/environmental issues. It means they will develop two different consultation processes to two different target public groups (commercial and social/environmental). ○ Consultation depends of the type of project – it needs to weight the importance of social, environment and economy for each project – then the target group for the consultation depends on the weight of each area (environmental and/or social and/or economic) for each project.
Employees	X	X	X	X	X	X		X	X	X	X	X	X	92% (15% scored it as very important)	
Investors/ shareholders	X		X	X				X		X	X	X	X	61% (15% scored it as very important)	
Suppliers	X		X	X		X	X	X		X	X	X	X	77% (31% scored it as very important)	

Consumers/ customers/ purchasers	X	X	X	X	X	X	X	X		X	X		X	85% (39% scored it as very important)
Contractors	X		X	X			X		X	X			X	54% (31% scored it as very important)
Indigenous people	X		X	X	X		X	X	X	X	X	X	X	85% (15% scored it as very important)
Welfare organizations	X		X	X	X		X	X	X	X	X		X	77%
Neighbouring and regional communities	X		X	X	X		X	X		X	X		X	69% (15% scored it as very important)
General public	X	X	X	X	X	X	X	X	X	X	X		X	92% (8% scored it as very important)
Trade unions	X		X	X			X	X	X	X	X		X	69% (8% scored it as very important)
NGOs	X		X	X	X		X	X	X	X	X		X	77% (23% scored it as very important)

Opinion leaders	X		X	X	X		X	X	X	X	X		X	77%
Business, administrative, academic and research institutions	X	X	X	X			X	X		X	X		X	69% (15% scored it as very important)
Communications media	X			X			X		X	X			X	46% (8% scored it as very important)
Financial institutions (insurers, lending institutions, etc)	X			X			X		X	X			X	46% (8% scored it as very important)
Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)	X	X	X	X			X	X	X	X	X	X	X	85% (39% scored it as very important)
Local, State and Federal Government	X	X	X	X	X		X	X	X	X	X		X	85% (31% scored it as very important)
Other organizations from your network of interested parties			X	X	X		X	X		X	X		X	61% (8% scored it as very important)
Other (from the community, Government, etc):														

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 4

- ❖ The answers show that most of all the interested parties listed are important. One is a little bit more important than others but in general all of them are important. The most voted interested parties are:
 - Management representatives
 - Employees
 - Investors/
 - Shareholders
 - Suppliers
 - Consumers/customers/purchasers
 - Contractors
 - Indigenous people
 - Welfare organizations
 - Neighbouring and regional communities
 - General public
 - Trade unions
 - NGOs
 - Opinion leaders
 - Business, administrative, academic and research institutions
 - Regulatory and legislative bodies (EPA, Workplace Health and Safety, Industrial Relations, etc)
 - Local, State and Federal Government
 - Other organizations from your network of interested parties

- ❖ Communications media and financial institutions were considered important by only 43% of the interviewees. Shareholders were considered important for only 61% of them. It means that they do not see the importance of financial institutions and shareholders as components that financially support the institutions. It is a distortion for our contemporary world because our companies/supply chains are based on continual growth and profit. Thus during interaction between companies/supply chain and interested parties from the community maybe there will be collisions because some interested parties will not recognize the needs of the investors and financial institutions.

- ❖ The media is also important because those who control the information have considerable influence on our society. Their participation is essential because they control the community information system.

- ❖ Interested party 8 gave two other important pieces of information and they have to be taken into consideration:
 - Organizations do not like to mix commercial and social/environmental issues. It means they will develop two different consultation processes for two different target public areas (commercial and social/environmental)

- Consultation depends of the type of project – it needs to weight the importance of social, environment and economy for each project – then the target group for the consultation depends on the weight of each area (environmental and/or social and/or economic) for each project

❖ The comments made by this interested party show that in his experience the top management of the organizations think that the interested parties from the community are not prepared for consultation processes that would encompass issues linked to the economic area (principally financial).

5) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the best methods for organizations/supply chain to use to engage and obtain information/needs/values/views (consultation process) from interested parties for the purpose of developing their policies and strategies.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Community advisory groups	X		X			X	X	X	X	X			X	61% (8% scored it as very important)	❖ Interested party 8: The person added information in relation to question 5: <ul style="list-style-type: none"> ○ All methods are important depending on the type of project and target group.
Corporate advisory groups	X							X		X					
Internal surveys/ Questionnaires								X		X		X		23%	
External surveys/ Questionnaires		X	X					X	X	X	X			46%	
Direct questions/answers to target interested parties (neighbours, regulatory bodies, customers, suppliers etc)	X	X	X				X	X	X	X	X	X		69% (8% scored it as very important)	
Internal meetings and workshops		X						X		X				23%	

Public meetings and workshops	X					X	X	X	X					39% (8% scored it as very important)
Focus group meetings and workshops	X	X	X	X	X	X	X			X				61% (8% scored it as very important)
Employee suggestions program	X			X		X	X	X	X					46% (15% scored it as very important)
External suggestions program						X	X		X					23% (8% scored it as very important)
Market research			X	X			X		X					31% (8% scored it as very important)
Regulatory tracking and trending						X	X		X	X				31%
Participation in organization/ supply chain and public interest groups		X	X	X	X	X	X			X		X		61% (8% scored it as very important)
Information from media and other sources of public information	X						X							15%

Review of public statements, internal programmes and initiatives of interested parties	X			X				X					X	31%	
External expert or consultancy firm				X				X		X			X	31%	
Knowledge of internal expert				X			X	X		X				31%	
Other:															

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 5

- ❖ 69% of the interested parties from the community want to have their views/needs/concerns treated with direct consultation (personal interaction – most voted one).
- ❖ Essential methods that have very low scores are:
 - Internal meetings and workshops (23%)
 - Public meetings and workshops (39%)
 - Employee suggestions program (46%)
 - External suggestions program (23%)
 - Market research (31%)
 - Regulatory tracking and trending (31%)
 - Information from media and other sources of public information (15%)
 - Review of public statements, internal programmes and initiatives of interested parties (31%)
 - External expert or consultancy firm (31%)
 - Knowledge of internal expert (31%)
- ❖ Methods as regulatory are essential for any collection of data for organizations. This and the previous list of methods show community interested parties are not aware of some methods to obtain information.

❖ Interested party 8 contended that the type of approach will depend on each specific situation of the company/supply chain.

6) Mark in the table (in the column written IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the best methods for organizations/supply chain to use to give feedback to the interested parties from the consultation process.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Statements (brochures, newspaper, magazines, etc)	X	X		X	X				X	X			X	54%	
Direct answers to target interested parties (neighbours, regulatory bodies, customers, suppliers etc)	X	X	X			X	X	X		X	X	X	X	77% (15% scored it as very important)	
Internal meetings													X	8%	
Public meetings							X						X	2%	
Focus group meetings				X	X		X				X		X	39% (8% scored it as very important)	
Speeches during events of organizations/ supply chain and public interest groups		X			X									15%	

Information through the media and other sources of public information (TV, brochures, newspapers, magazines, etc)		X	X	X	X			X	X	X					54%
Internal report		X									X				15%
Periodic public report of the performance at the end of the cycle of the performance evaluation of the organisation/network of interested party	X		X	X	X	X	X	X	X	X	X	X	X		92%
Other:															

INTERVIEWER’S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 6

❖ The answers show that the interested parties would prefer to have personal answers and/or information from public reports (77%) and receive public report (92%).

7) Do you think that the public report is a very good tool to give feedback from the consultation process?

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Yes	X		X	X	X	X		X	X	X	X	X	X	85%	❖ Interested party 13: The person answered “No” because the actual

No		X					X							15%	reports are only marketing tools. However he/she said that the tool would be useful if properly used (report with simple and reliable information). Then the real answer is “Yes” because the person believes in the tool if well used.
----	--	---	--	--	--	--	---	--	--	--	--	--	--	-----	---

a) If no, please explain:

INTERESTED PARTIES	ANSWERS
1	
2	<ul style="list-style-type: none"> ❖ Public reports need a lot of resources to put together. They are not updated and the companies make them complicated. ❖ People do not read them and want more media information ❖ It is a legislative tool only and does not avoid mismanagement ❖ Then they are useful tools in the way that they are produced.
3	
4	
5	
6	
7	<ul style="list-style-type: none"> ❖ They tend to be advertising materials. ❖ The ideal report has to be very short (couples of pages).
8	
9	<ul style="list-style-type: none"> ❖ Even with a positive answer the person wants to add two comments: <ul style="list-style-type: none"> ○ Reports of maximum 2 pages. ○ Reports written in plain English.
10	
11	
12	<ul style="list-style-type: none"> ❖ Even with a positive answer the person wants to add two comments: <ul style="list-style-type: none"> ○ The companies need to be more transparent and have the ownership of their negative impacts.
13	<ul style="list-style-type: none"> ❖ Even with a positive answer the person wants to add two comments: <ul style="list-style-type: none"> ○ Companies use reports only as marketing tools and not to present useful and reliable information. ○ If reports were produced honestly with reliable information and including good and bad results of their activities, this would be a very powerful tool for reporting performance. The report has also to be audited.

INTERVIEWER’S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 7

- ❖ 85% of the interested parties think that a public report is a good tool in terms of feedback. Some interested parties answered “no” not because a public report is not a good tool but because they had negative experiences accessing reports in the past. It means that the reports they read were not well developed. In general the interested parties want simple, clear, transparent reports with honest and reliable information.

8) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the type of benefits of reporting performance.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Helps organization/network of interested party to achieve its performance criteria and society/ interested parties to improve quality of life (socially, environmentally and economically)	X	X	X	X	X	X	X	X	X	X	X	X	X	100% (15% scored it as very important)	
Increase awareness and dialogue about organization's/network of interested parties' performance			X			X	X	X			X			39% (8% scored it as very important)	

Demonstration of organization's/ network of interested parties' commitment and efforts to improving performance		X	X	X	X			X			X	X		54%
Provides the mechanism to respond to concerns and questions about the organization's/ network of interested parties' performance	X	X	X	X	X	X	X	X	X			X		77% (15% scored it as very important)
Improvement of relations with organization/ network of interested parties	X	X	X		X		X	X	X	X	X		X	77% (8% scored it as very important)
Helps to include in the organizations'/ network of interested parties' plans the needs of the interested parties	X	X	X	X				X	X	X			X	61%
Other: provides specific opportunity for internal reviews												X		8%

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 8

- ❖ Most of the statements are important as benefits of reporting according to the interested parties interviewed. The answers also show the importance of the information inside the reports for the interested parties. The following benefits included in this question are important for the interested parties:
 - Helps organization/ network of interested parties to achieve their performance criteria and society/ interested parties to improve quality of life (socially, environmentally and economically) – 100% of votes
 - Demonstration of organization's/ network of interested parties' commitment and efforts to improving performance – 54%
 - Provides the mechanism to respond to concerns and questions about the organization's/ network of interested parties' performance – 77%
 - Improvement of relations with organization/ network of interested parties – 77%
 - Helps to include in the organizations'/ network of interested parties' plans the needs of the interested parties – 61%

9) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the ideal frequency for the consultation process with interested parties.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Monthly								X						8%	❖ Interested party 8: The person answered 1 year for frequent reports and monthly for specific reports linked to specific and important issues.
Three months		X			X		X				X		X	39%	
Six months											X	X		15%	
One year	X			X		X		X			X			39% (8% scored it as very important)	
No specific period			X											8%	
Other: New project would require more frequent consultation for a specified period of time						X									

Other: Six-weekly meetings work well for community advisory panels							X										8%
Other: I do not know but 1 year is too long									X								8%
Other: As required by the activities of the company										X							8%

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 9

- ❖ There is a small tendency for one year for consultation (39%) and this leads also for a cycle of performance evaluation of one year.
- ❖ Important comment is that for specific and important issues it will need specific consultation or specific periods for consultation.

10) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the type of information that you would like to see included in any type of feedback given by organization/network of interested parties to interested parties as a result of the consultation process.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES	
ANSWERS																
Organisation's/ network of interested parties' performance																

Organization's/ network of interested parties' performance against performance criteria	X		X	X		X	X	X	X	X	X	X		77% (15% scored it as very important)
Trends in organization's/ network of interested parties' performance	X		X		X	X	X		X	X			X	69% (8% scored it as very important)
Legislative, regulatory and other interested parties' requirements for compliance	X		X			X		X	X			X	X	54%
Demonstration of organization's/ network of interested parties' commitment and efforts to improve performance					X			X			X		X	31%
Cost savings or other financial results						X	X					X	X	31%

Recommendations and actions to improve organization's/ network of interested parties' performance based on the performance evaluation	X	X			X	X	X	X			X	X	X	69% (8% scored it as very important)
Statement of the organization's/ network of interested parties' commitment to performance evaluation as part of the management approach							X				X		X	23%
Description of organization's/ network of interested parties' activities, products and services	X						X						X	23%
Statement of organization's/ network of interested parties' aspects and impacts							X		X				X	23%
KPIs	X		X	X	X	X	X	X		X	X	X	X	85% (8% scored it as very important)

Contribution of the performance evaluation process to the overall success of the organization/ Network of interested parties	X				X	X		X			X		X	46% (8% scored it as very important)
Other: Integration within the network of interested parties (e.g. partnerships, communication systems, etc)		X												8%
Other: Summary					X									8%

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 10

- ❖ It is clear that the interested parties want to see the performance data provided compared with a parameter for them to understand the level of attainment (77%).
- ❖ They also want to see in the reports present and future actions and results (69%), not statements from the organizations/supply chain about their commitment with a situation or actions.
- ❖ The interested parties are also not very worried about the financial health of the organizations/supply chain (only 31%).
- ❖ Interesting also is that they want direct information without explanation about the organizations/supply chain' activity/products/services. Only 23% of the interviewees answered that they would like to understand the organizations/supply chain activity/products/services
- ❖ However one interested party stated that he wanted to see the interactions of organisations within the chain.
- ❖ The following statements included in this question are others most important for the interested parties:

- Trends in organization's/network of interested parties' performance – 69%
- Legislative, regulatory and other interested parties' requirements for compliance – 54%
- KPIs – 85%

11) Do you think that the use of KPIs is a very good tool that can be used by organizations/supply chain to present data when giving feedback from the consultation process?

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Yes	X		X	X	X	X	X	X	X	X	X	X	X	92%	
No		X												8%	

a) If no, please explain:

INTERESTED PARTIES	ANSWERS
1	
2	<ul style="list-style-type: none"> ❖ In the experience of the interested parties it is necessary for much of the time to justify the information provided by KPIs ❖ It is necessary to develop better measurable information through new KPIs
3	
4	
5	
6	
7	
8	
9	
10	
11	

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS TO QUESTION 11

- ❖ 92% of the interested parties think that the use of KPIs is a very good tool that can be used by organizations/supply chain to present data when giving feedback from the consultation process.
- ❖ One interested party answered “no” not because the use of KPIs is not a good tool but because they had negative experiences with the use of KPIs.

12) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the type of KPIs ¹ that your organization (in your opinion) would like to see organizations/supply chain taking into consideration when presenting feedback from the consultation process (e.g. public report).

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Related to social area		X												8%	
Related to environmental issues		X												8%	
Related to economic issues		X												8%	
Related to social/ environmental/ economic issues at the same time	X		X	X		X	X	X	X	X	X	X	X	85%	
Related to social/ environmental issues															
Related to social/ economic issues					X									8%	
Related to environmental/ social issues															
Other:															

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 12

❖ Following the previous answers, 85% of the interested parties want to see organizations/supply chain presenting data according to sustainable principles.

13) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the type of characteristics of KPIs that your organization (in your opinion) would like to see organizations/supply chain taking into consideration when defining KPIs.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Consistent with policy	X			X	X	X		X		X			X	54% (8% scored it as very important)	
Reliable because there are fewer assumptions when presenting information			X	X	X		X	X	X				X	54% (8% scored it as very important)	
Easy to understand	X	X	X	X	X	X	X	X	X	X			X	85% (15% scored it as very important)	
Easy to obtain data		X		X	X		X	X	X	X			X	61%	
Able to provide information on current and future trends	X	X	X	X	X	X	X	X		X	X		X	85% (8% scored it as very important)	

Sensitive to changes			X	X	X		X	X			X	X	X	61% (15% scored it as very important)	
Useful for measuring performance against criteria		X	X	X	X		X	X		X	X	X	X	77% (8% scored it as very important)	
Appropriate to management or operational efforts or the condition of the society/ environment	X		X	X				X	X				X	X	54% (8% scored it as very important)
Other: Has to measure the important dimensions of change			X												8%

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 13

The answers provided were taken from tools used around the world to characterize or develop good KPIs. The answers confirm that interested parties want to see KPIs based on those parameters. They are:

- ❖ Consistent with policy
- ❖ Reliable because there are fewer assumptions when presenting information
- ❖ Easy to understand
- ❖ Easy to obtain data
- ❖ Able to provide information on current and future trends
- ❖ Sensitive to changes

- ❖ Useful for measuring performance against criteria
- ❖ Appropriate to management or operational efforts or the condition of the society/environment

14) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS/SUPPLY CHAIN) the type of unit/characteristic of data for KPIs that your organization (in your opinion) would like to see organizations/supply chain taking into consideration when presenting feedback from the consultation process (e.g. public report).

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Direct unit as tonnes of contaminant emitted			X	X	X	X				X		X		46%	
Relative unit as tonnes of contaminant emitted per tonne of product manufactured	X	X				X	X	X		X	X		X	61% (8% scored it as very important)	
Indexed: convert data to different unit										X				8%	
Aggregated: combined value of data of the same type															
Weighted										X				8%	
Only qualitative data															
Only quantitative data															
Qualitative and quantitative data	X	X	X		X	X		X	X	X	X	X	X	85%	

Other: quantitative data with written explanation				X														8%
Other: Both qualitative and quantitative but more qualitative							X											8%

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 14

The interested parties want to see information presented in a simple and understandable way through direct units or ratios (61%) based on quantitative and qualitative data (85%).

15) Would you like to see performance reports using graph or text format to show the performance of the organization/network of interested party?

INTERESTED PARTIES \ ANSWERS	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Graphs	X	X	X	X	X	X	X	X	X	X	X	X	X	100%	
Text			X	X						X	X	X		46%	
No representation															
Other:															

a) Please explain your answer:

INTERESTED PARTIES	ANSWERS
1	❖ No explanation
2	❖ Easier to understand. ❖ See trends, patterns and cycles. ❖ Short text brief notes.

3	❖ The person wants graphs with written explanation.
4	❖ Easier to understand.
5	❖ Easier to read and understand.
6	❖ Readily understand.
7	❖ Easier for the general public to understand.
8	❖ Easier to see and identify trends.
9	❖ Easier to understand (for general public).
10	❖ Graph or text depending on what is most suitable for the parameter.
11	❖ People vary in their capacity to assimilate information. Therefore both visual and text mediums should be used.
12	❖ The text can clarify and add information to data presented.
13	❖ Graphs are clearer. ❖ Texts most of the time are difficult to understand.

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 15

- ❖ The interested parties want data presented in a visual way through graphs for example (100%) and some want to see the graphs with text explanation in an easy way to read and understand.

16) Mark in the table (in the column IMPROVED SITUATION FOR ORGANIZATIONS / SUPPLY CHAIN) the approaches to define sustainability KPIs that your organization (in your opinion) would like to see organizations/supply chain taking into consideration when presenting feedback from the consultation process.

INTERESTED PARTIES	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
ANSWERS															
Indicators that give information about all the areas (environmental, social and economic) at the same time	X		X	X			X	X	X	X	X	X	X	77%	

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 16

There is a challenge for practitioners and researchers around the world: the development of single KPIs that encompass information of the three sustainable principles (environment, social and economic) at the same time. Many researches have been trying to develop them, but only a few recognized ones have been accepted worldwide. Even if it has been difficult to identify those types of KPIs the interested parties think they will be best to express the information they want to see as performance reporting (77%). Some interested parties (31%) recognize the difficulty of developing those KPIs and they answer that for actual stage of development of KPIs a possible definition for sustainability of KPIs (for organizations and supply chain) would be “indicators of one area that is important to the most important interested parties linked to the organisation/ network of interested party”.

17) Complete the table

- a) Show me some KPIs ¹ and their respective performance criteria for the environmental, social and economic areas that your organization (in your opinion) would like to see organizations and their network of interested parties taking into consideration when presenting feedback from the consultation process (e.g. public report).

Interested party 1

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Waste (all) ❖ Risk for the environment ❖ Management issues ❖ Use of natural resources 	<ul style="list-style-type: none"> ❖ Laws ❖ Benchmarking (based in other organizations/supply chain) ❖ Community values 	<ul style="list-style-type: none"> ❖ The person presented general ideas for indicators and criteria, not specific indicators
Social	<ul style="list-style-type: none"> ❖ Employment ❖ Impact on families ❖ Average work hours ❖ H&S issues ❖ Needs for entertainment ❖ Investment in benefits for the community 	<ul style="list-style-type: none"> ❖ Laws ❖ Benchmarking (based in other organizations/supply chain) ❖ Community values 	<ul style="list-style-type: none"> ❖ The person presented general ideas for indicators and criteria, not specific indicators
Economic	<ul style="list-style-type: none"> ❖ Number of jobs ❖ Income per family 	<ul style="list-style-type: none"> ❖ Laws ❖ Benchmarking (based in other organizations/supply chain) ❖ Community values 	<ul style="list-style-type: none"> ❖ The person presented general ideas for indicators and criteria, not specific indicators
Sustainability	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	

Interested party 2

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Environmental management issues ❖ Training 	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ The person presented needs/values for the group that they represent, not specific indicators or criteria ❖ The person wants indicators linked more to management than operational ones
Social	<ul style="list-style-type: none"> ❖ Social management issues ❖ Job offered ❖ Staff turnover ❖ % Investment in culture (sponsorship) ❖ Training 	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ The person presented needs/values for the group that they represent, not specific indicators or criteria ❖ The person wants indicators linked more to management than operational ones
Economic	<ul style="list-style-type: none"> ❖ Quality management issues ❖ Information about the structure of the organizations/network of interested parties ❖ Annual turnover ❖ Training 	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ The person presented needs/values for the group that they represent, not specific indicators or criteria ❖ The person wants indicators linked more to management than operational ones
Sustainability	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ No suggestion	❖ No suggestion	
Social	<ul style="list-style-type: none"> ❖ Equity (in terms of economic benefits) ❖ Income distribution ❖ Demographic changes ❖ People's perception about their place ❖ Crime ❖ Housing issues ❖ Community infrastructure (e.g. sports areas, roads) ❖ Traffic issues (e.g. accidents) ❖ Community interaction (e.g. education, training) ❖ Community capacity (people's ability to deal with change) ❖ Social capital (human resources in the community to initiate changes) 		❖ The person presented needs/values mixed with some indicators
Economic	❖ No suggestion	❖ No suggestion	
Sustainability	❖ Morbidity (people affected by disease)	❖ No suggestion	❖ The person suggested it as a sustainability indicator (cross all the three areas at the same time)

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Efficiency in the use of resources ❖ Water and air quality (liveability) ❖ Waste emitted ❖ Aesthetics (harmony in terms of beauty) of the environment in relation to the proper organization or its impact) 	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ The person presented needs/values mixed with some indicators
Social	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	
Economic	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	
Sustainability	<ul style="list-style-type: none"> ❖ Efficiency in the use of resources ❖ Water and air quality ❖ Waste emitted ❖ Aesthetics (harmony in terms of beauty) of the environment in relation to the proper organisation or its impacts) 	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ The person suggested that those indicators could be used as sustainability indicators because they are important for interested parties from different areas (areas linked to environmental, social and economic issues)

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ No suggestion	❖ No suggestion	
Social	<ul style="list-style-type: none"> ❖ Pleasant community ❖ Social infrastructure ❖ Employment opportunity for young people ❖ Housing affordability 	❖ Benchmarking taken from around the world	❖ The person presented needs/values for the group that they represent, not specific indicators or criteria
Economic	❖ No suggestion	❖ No suggestion	
Sustainability	❖ No suggestion	❖ No suggestion	

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Preventative solutions (not reactive ones) ❖ Clean air and water (liveability) 	<ul style="list-style-type: none"> ❖ Trends ❖ Previous performance added with percentage of improvement (e.g. 50% compared with the last year) 	<ul style="list-style-type: none"> ❖ The person presented needs/values for the group that they represent, not specific indicators or criteria
Social	<ul style="list-style-type: none"> ❖ Family support ❖ Entertainment ❖ Availability of transport for the community ❖ Preventative actions ❖ Recognition of the importance of the social sector ❖ Responses to community needs (e.g. training youths, packages to attract and keep good professionals) 	<ul style="list-style-type: none"> ❖ Trends ❖ Previous performance added with percentage of improvement (e.g. 50% compared with the last year) 	<ul style="list-style-type: none"> ❖ The person presented needs/values for the group that they represent, not specific indicators or criteria
Economic	<ul style="list-style-type: none"> ❖ Economic return for the community 	<ul style="list-style-type: none"> ❖ Trends ❖ Previous performance added with percentage of improvement (e.g. 50% compared with the last year) 	<ul style="list-style-type: none"> ❖ The person presented needs/values for the group that they represent, not specific indicators or criteria
Sustainability	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Air emissions 	<ul style="list-style-type: none"> ❖ Related to world's best practice ❖ Related to total air shed 	<ul style="list-style-type: none"> ❖ The person presented needs/values mixed with some indicators ❖ The person suggested that the indicators have to have meaning for the community
Social	<ul style="list-style-type: none"> ❖ Housing policy: <ul style="list-style-type: none"> ○ Number of new people moving to town ○ % of owners versus renters ❖ Local cost of living comparing with other areas 	<ul style="list-style-type: none"> ❖ Related to housing: <ul style="list-style-type: none"> ○ Maintain stability ○ Increase ownership ❖ Decrease cost of living 	<ul style="list-style-type: none"> ❖ The person presented needs/values mixed with some indicators ❖ The person suggested that the indicators have to have meaning for the community
Economic	<ul style="list-style-type: none"> ❖ High, medium and low incomes (% and numbers) 	<ul style="list-style-type: none"> ❖ Increase average income and decrease low income 	<ul style="list-style-type: none"> ❖ The person presented needs/values mixed with some indicators ❖ The person suggested that the indicators have to have meaning for the community
Sustainability	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Air quality: <ul style="list-style-type: none"> ○ Emissions of greenhouse gases/year displayed per \$ production ○ Ambient emissions of Sox /year displayed as a bar chart showing the defined air-shed limit as stated by the EPA ○ Ambient emissions of Nox /year displayed as a bar chart showing the defined air-shed limit as stated by the EPA ○ Ambient emissions of particulates /year displayed as a bar chart showing the defined air-shed capacity as stated by the EPA ○ Identify initiatives being developed or implemented ❖ Energy consumption: <ul style="list-style-type: none"> ○ Ergon sectorial usage rates – domestic (excluding industry) ○ Solar hot water rebate figures ○ Off peak power usage ○ Identify initiatives being developed or implemented ○ Ways people can save energy / cost savings 	<ul style="list-style-type: none"> ❖ Benchmark around the world 	<ul style="list-style-type: none"> ❖ The indicators were extracted from the document generated by the ‘Gladstone Regional Sustainability Group (GRSG)’. The person asked to extract ones that can be used by industries or adapted to industries. ❖ Indicators divided into areas.
Environmental	❖ Water:	❖ Benchmark around the	❖ The indicators were extracted from the document generated

	<ul style="list-style-type: none"> ○ Water demand / consumption(graph) <ul style="list-style-type: none"> ▪ graph - usage from renewable sources (desalination, recycled, reverse osmosis) ▪ graph - usage from Lake Awoonga) ○ Water quality – particulates at the dam ○ The economic implications of water treatment and reticulation ○ Identify initiatives being developed or implemented ○ Ways people can save water / cost savings ❖ Natural ecosystems & biodiversity: <ul style="list-style-type: none"> ○ Aerial photos (% land use) <ul style="list-style-type: none"> ▪ Port Curtis resource strategy ○ % of land cleared ○ Protected areas as a percentage of the total area 	world	<p>by the ‘Gladstone Regional Sustainability Group (GRSG)’.</p> <p>The person asked to extract ones that can be used by industries or adapted to industries.</p> <p>❖ Indicators divided into areas.</p>
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Environment	❖ Waste & recycling:	❖ Benchmark around the	❖ The indicators were extracted from the document generated
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	<ul style="list-style-type: none"> ○ Tonnes recyclables (per annum, per household) as a % of total rubbish (per annum, per household) ○ Tonnes general rubbish (per annum, per household) ○ Green waste tonnes (per annum, per household) ○ Waste water re-use and total volume of waste water discharged ○ Industry waste usage ○ Commercial waste usage ○ Identify initiatives being developed or implemented 	world	<p>by the ‘Gladstone Regional Sustainability Group (GRSG)’. The person asked to extract ones that can be used by industries or adapted to industries.</p> <ul style="list-style-type: none"> ❖ Indicators divided into areas.
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Economic	❖ Industry and infrastructure	❖ Benchmark around the	❖ The indicators were extracted from the document generated
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	<p>development:</p> <ul style="list-style-type: none"> ○ Production figures for each industry per year ○ No, type and value of social, cultural, industrial development approvals ○ No of business start ups (less closures) graphed in various business sectors ○ No of industries/businesses licensed to pollute ○ Commercial properties vacant ○ Identify initiatives being developed or implemented <p>❖ Employment and the economy:</p> <ul style="list-style-type: none"> ○ Cost of living trends ○ No of persons receiving income support payments ○ No of rent assistance applications ○ Average household income ○ No of vehicles sold ○ No of ticket sales – theatre, sporting events ○ Identify initiatives being developed or implemented 	<p>world</p>	<p>by the ‘Gladstone Regional Sustainability Group (GRSG)’.</p> <p>The person asked to extract ones that can be used by industries or adapted to industries.</p> <p>❖ Indicators divided into areas.</p>
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Economic	<ul style="list-style-type: none"> ❖ Agri-business: <ul style="list-style-type: none"> ○ Size and \$ value of agriculture in the region (including fisheries) ○ Identify initiatives being developed or implemented ❖ Building & planning: <ul style="list-style-type: none"> ○ Building approval numbers (GCC, MVSC, CSC) ○ Amount of parkland dedicated ○ Change in land use ○ Residential median purchase prices & rental costs, renovations compared to new buildings ○ No of houses & units in the region ○ Identify initiatives being developed or implemented ○ Vacancy rates for residential property 	❖ Benchmark around the world	<ul style="list-style-type: none"> ❖ The indicators were extracted from the document generated by the ‘Gladstone Regional Sustainability Group (GRSG)’. The person asked to extract ones that can be used by industries or adapted to industries. ❖ Indicators divided into areas.
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Economic	❖ Tourism & hospitality:	❖ Benchmark around the	❖ The indicators were extracted from the document generated
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	<ul style="list-style-type: none"> ○ No of visitors utilising the 3 info centres ○ Purpose of visitation survey – Domestic Market (Tourism QLD) ○ Purpose of visitation survey – International Market (Tourism QLD) ○ Motel Accommodation, type & No of rooms ○ No of flights and seats available (in & out) ○ No of tourism related businesses operating (no of charter vessels, passenger boats, etc) ○ Identify initiatives being developed or implemented 	world	<p>by the ‘Gladstone Regional Sustainability Group (GRSG)’. The person asked to extract ones that can be used by industries or adapted to industries.</p> <ul style="list-style-type: none"> ❖ Indicators divided into areas.
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Social	❖ Health:	❖ Benchmark around the	❖ The indicators were extracted from the document generated
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	<ul style="list-style-type: none"> ○ No of GP's and specialists / no of residents ○ New mental health cases over population ○ New cases of cancer over population ○ New cases of asthma over population ○ No of beds in hospitals – occupancy rates ○ Identify initiatives being developed or implemented ❖ Education & training: <ul style="list-style-type: none"> ○ No of schools and enrolment numbers ○ Uni & TAFE courses offered and enrolment numbers ○ No of new apprenticeships and trainees commencing trades or traineeships ○ Identify initiatives being developed or implemented ○ 	world	<p>by the 'Gladstone Regional Sustainability Group (GRSG)'. The person asked to extract ones that can be used by industries or adapted to industries.</p> <ul style="list-style-type: none"> ❖ Indicators divided into areas.
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Social	❖ Culture, sport and recreational	❖ Benchmark around the	❖ The indicators were extracted from the document generated
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	<p>activities:</p> <ul style="list-style-type: none"> ○ % Population utilising art gallery, library and theatre ○ No of active sporting and cultural clubs/associations operating ○ No of cultural events and attendance ○ No of sporting events and attendance ○ No of theatre events and attendance ○ Gallery attendance ○ Library borrowings ○ Identify initiatives being developed or implemented <p>❖ Law & order:</p> <ul style="list-style-type: none"> ○ Graffiti stats/vandalism reports – damage and repair costs, no of bins destroyed ○ Reported offences against persons, property & public order ○ Identify initiatives being developed or implemented 	<p>world</p>	<p>by the ‘Gladstone Regional Sustainability Group (GRSG)’”. The person asked to extract ones that can be used by industries or adapted to industries.</p> <p>❖ Indicators divided into areas.</p>
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Social	❖ Families:	❖ Benchmark around the	❖ The indicators were extracted from the document generated
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	<ul style="list-style-type: none"> ○ Community Advisory Service (CAS) <ul style="list-style-type: none"> ▪ No assisted through counselling ▪ No assisted through relief ▪ Crisis housing - no assisted applications & no of families assisted ▪ Tenancy advice ○ No of childcare agencies and places available ○ No of persons reliant on welfare as a percentage of population ○ Identify initiatives being developed or implemented ❖ Population: <ul style="list-style-type: none"> ○ Growth trends ○ Rate base – local rate payers & investors ○ Identify initiatives being developed or implemented ❖ Public well-being: <ul style="list-style-type: none"> ○ Level of environmental awareness ○ Perceived well-being ○ CRC ○ Industry public surveys – general questions could be collated ○ Do you feel safe 	<p>world</p>	<p>by the ‘Gladstone Regional Sustainability Group (GRSG)’.</p> <p>The person asked to extract ones that can be used by industries or adapted to industries.</p> <p>❖ Indicators divided into areas.</p>
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Sustainability	❖ No suggestion	❖ No suggestion	
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Interested party 9

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ No suggestion	❖ No suggestion	
Social	<ul style="list-style-type: none"> ❖ Unemployment rate (including youths, indigenous and disabled people) ❖ Satisfaction with social infrastructure 	❖ The person wants to see a benchmark taken from around the world	
Economic	❖ No suggestion	❖ No suggestion	
Sustainability	❖ No suggestion	❖ No suggestion	

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	❖ LCA performance	<ul style="list-style-type: none"> ❖ Energy per unit compared with others around the world ❖ Waste per unit compared with others around the world ❖ Air emissions per unit compared with others around the world ❖ Air conditioners per unit compared with others around the world 	
Social	❖ No suggestion	❖ No suggestion	
Economic	❖ No suggestion	❖ No suggestion	
Sustainability	❖ No suggestion	❖ No suggestion	

Interested party 11

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Emissions ❖ Occurrence of non compliance ❖ Eco efficiency involving waste, water and energy 	<ul style="list-style-type: none"> ❖ Role emissions per unit of production ❖ Events per year ❖ Usage per unit of production 	
Social	<ul style="list-style-type: none"> ❖ Staff turn over ❖ Sick leave ❖ Training 	<ul style="list-style-type: none"> ❖ % Change per year ❖ Days per year ❖ Courses per year per employee 	
Economic	<ul style="list-style-type: none"> ❖ Capacity to invest in new technology to reduce emissions ❖ Comparison with like industries in regard to performance 	<ul style="list-style-type: none"> ❖ Technology uptake ❖ Industry standard 	
Sustainability	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	

Interested party 12

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Air quality ❖ Water quality ❖ Water use ❖ Noise outputs ❖ Solid waste ❖ Liquid waste 	<ul style="list-style-type: none"> ❖ Benchmarking of the best companies in the developed world ❖ WHO standards ❖ Parameters from licence to operate 	
Social	<ul style="list-style-type: none"> ❖ Level of community support/involvement ❖ Job security (real +perceived) 	<ul style="list-style-type: none"> ❖ Comparison with previous years 	
Economic	<ul style="list-style-type: none"> ❖ Production cost ❖ Company placed in world commodity 	<ul style="list-style-type: none"> ❖ Comparison with previous years ❖ Comparison with like companies 	
Sustainability	<ul style="list-style-type: none"> ❖ No suggestion 	<ul style="list-style-type: none"> ❖ No suggestion 	

Interested party 13

INFORMATION AREA	PERFORMANCE INDICATOR	PERFORMANCE CRITERIA	ADDITIONAL INFORMATION PROVIDED BY THE INTERVIEWEES
Environmental	<ul style="list-style-type: none"> ❖ Number of times that interested parties participate in decision making over the amount of decision making taken by organizations (in the early stages of the process of decision making). ❖ Affects of decisions on our community. 	<ul style="list-style-type: none"> ❖ Benchmark based on information taken from similar industries around the world. ❖ Performance criteria have to be negotiated with interested parties. 	
Social	<ul style="list-style-type: none"> ❖ Number of times that interested parties participate in decision making over the amount of decision making taken by organizations (in the early stages of the process of decision making). ❖ Affects of decisions on our community. 	<ul style="list-style-type: none"> ❖ Benchmark based on information taken from similar industries around the world. ❖ Performance criteria have to be negotiated with interested parties. 	
Economic	<ul style="list-style-type: none"> ❖ Number of times that interested parties participate in decision making over the amount of decision making taken by organizations (in the early stages of the process of decision making). ❖ Affects of decisions on our community. 	<ul style="list-style-type: none"> ❖ Benchmark based on information taken from similar industries around the world. ❖ Performance criteria have to be negotiated with interested parties. 	

Sustainability	<ul style="list-style-type: none"> ❖ Number of times that interested parties participate in decision making over the amount of decision making taken by organizations (in the early stages of the process of decision making). ❖ Affects of decisions on our community. 	<ul style="list-style-type: none"> ❖ Benchmark based on information taken from similar industries around the world. ❖ Performance criteria have to be negotiated with interested parties. 	
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INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 17

- ❖ Most of the information provided by the interested parties is not KPIs but needs/values important for them. In most of the answers they concentrated their answers on the specific area of expertise. No new information was provided in terms of indicators or values/needs (new ideas). The information provided is currently available in general bibliography of the area. Important comments are:
 - The major part of the values/needs provided is linked to so-called condition indicators according to definition from ISO 14031:1999. Only one interested party (manager of one institution) showed interest in management indicators in the reports. However in his suggestion for indicators, most of them are condition indicators.
 - Most of the condition indicators presented are related to issues that, possibly, will benefit the community
 - The indicators presented by organizations/supply chain have to have meaning for the community (not just indicators only understood by the organizations/supply chain)
 - The major part of indicators provided by interested parties followed the definition presented as one of the answers of question 16: “Indicators of one area but they are important to the most important interested parties linked to the organization/ network of interested party”. They could not provide “Indicators that give information about all the areas (environmental, social and economic areas) at the same time” the answer most marked in question 16.
 - The interested parties want to see worldwide benchmarking performance as performance criteria and one interested party presented an interesting thought: Performance criteria have to be based on community values. They also want previous performance and information from organisations’ licence to operate as a comparison.
 - One interested party presented his ideas about why he think that indicators have to be based on Life Cycle approach
 - Only one interested party showed interest in the financial health of organizations/supply chain.

18) How do the activities of organizations/supply chain affect you or your community group/organisation (CONSIDER THE ENVIRONMENTAL AREA)? How does the performance of organizations/supply chain affect you or your community group/organisation (CONSIDER THE ENVIRONMENTAL AREA)?

INTERESTED PARTIES	ANSWERS
1	<ul style="list-style-type: none"> ❖ Some issues related to industrial organizations (e.g. shift work, growing necessity of labour and consumption of water during drought) generate negative impacts in the community and in our organization (e.g. family crisis, housing shortage and water shortage) and then our organization has to deal with more complaints and overload of services ❖ Some issues related to industrial organizations generate positive impacts for the community (e.g. economic growth, new jobs, improvement of the general standard of living, some new public facilities provided by organizations, high standards of environmental management and leading small companies to follow these high standards) ❖ Industrial organizations do not report properly and then the community and our organization have a negative perception of the organization
2	<ul style="list-style-type: none"> ❖ Healthy organizations/supply chain (employ several people, profitable and with own culture) generate economic growth that by cascade generates more interest in terms of entertainment ❖ Opposite situation generate less interest in terms of entertainment
3	<ul style="list-style-type: none"> ❖ As we are a research entity their activity affects the amount and focus of our research in relation to social, environmental and economic issues
4	<ul style="list-style-type: none"> ❖ Any pollution or action has a downstream impact. If we are close and/or related to them we will receive this type of effect because everyone is part of the same community (e.g. efficiency of the use of resources, value added to products or community, WH&S and employment conditions impact on the participants of our community) ❖ If the organizations are economically sustainable then the community in which we participate would be more economically sustainable ❖ The organizations need to give something back to the society in which they interact
5	<ul style="list-style-type: none"> ❖ Organizations need to plan more so they can impact less negatively on society ❖ Good performance increases community well-being in the context of less community stress/impact
6	<ul style="list-style-type: none"> ❖ Any change in performance generates impacts (positive or negative) in the community. More or less work for us.
7	<ul style="list-style-type: none"> ❖ My organization assists the community in the environmental area. Then I make the following points: <ul style="list-style-type: none"> ○ Demand for products justifies environmental harm (nowadays) ○ Environmentally friendly products are often expensive ○ Products advertised as environmentally friendly are often not environmentally friendly ○ Today it is difficult to obtain information about performance of supply chain ((including relationship to environmental issues)
8	<ul style="list-style-type: none"> ❖ Our role is to develop better businesses (including ones with fewer negative environmental and social impacts). As government we help business but we have to require their compliance with laws (including environmental and the ones linked to social) ❖ Organizational activities as a network of interested parties are positive because they improve the economic health of the community ❖ We provide financial support for organizations that are not economically healthy
9	<ul style="list-style-type: none"> ❖ The new big businesses in town are attracting people who are trying to find jobs. Then there is an overload of work for my organization in

	<p>terms of provision of social services because those people need to satisfy their basic necessities.</p> <ul style="list-style-type: none"> ❖ The increase of pollution increases health problems that create more work for our organization ❖ The new big business are not contributing properly to the local community (return to use the infrastructure of the region)
10	<ul style="list-style-type: none"> ❖ Fewer environmentally friendly organizations – more pollution – more environmental and social problems – more work for EPA e.g. – the use of coal sulphur content by local organizations (cost less for the company) produce more SO2 and generate health problems for the local population
11	<ul style="list-style-type: none"> ❖ There are tolls and procedures that can be used by organizations to improve the environment: <ul style="list-style-type: none"> ○ Waste management and utilization. ○ Resource productivity. ○ Energy efficiency. ○ Water usage
12	<ul style="list-style-type: none"> ❖ Linked to the environmental area: The discharge of pollutants and the production of noise by local companies have compromised the quality of life around the region. Close control must be ensured to enable families to live in the region. Local residents do not support employment without an acceptable quality of life. ❖ Linked to the economic area: The new companies brought more permanent positions ❖ Linked to the social area: The new constructions are pressuring the cost of living in the region (e.g. housing). The issues were not well planned by companies and governments
13	<ul style="list-style-type: none"> ❖ Social: <ul style="list-style-type: none"> ○ They have been helping to destroy our history and cultural heritage. ○ Fences are impediments for our social interactions, hunts, ceremonies, etc. ○ Some benefits are the employment of indigenous people, business with indigenous people and development of programmes for the indigenous community.

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS OF THE QUESTION 18

- ❖ Most of the answers given by interested parties are linked to their area of expertise. It can be seen from the answers that many of them, principally the ones linked to welfare organizations, have negative views of the organizations/supply chain due to the impact of their activities on society.
- ❖ The interested parties have had past and present negative experience with organizations/supply chain (e.g. the actual experience in Gladstone shows that neither government or business plans social impacts and because of new constructions, a number of social problems increased and/or appeared). Then they have been facing an overload of work due to the negative impact of some businesses in Gladstone. In their opinion organizations/supply chain have to give more back to the community.
- ❖ Summarizing they are saying that the organizations/supply chain do not look after the community. They only use the community for their own interests. These interested parties also do not believe in the intentions of the top management of the organizations in helping the community. However more than one person stated that healthy organisations/supply chain normally generate healthier communities. One interested party made an important point showing that

organizations/supply chain are not very transparent and they do not engage interested parties and report properly. This situation leads to a negative perception from the community in relation to the organizations/supply chain.

19) What suggestions could you give to integrate the performance evaluations of organizations participating in a network of interested parties (management structure, KPIs, reporting, engagement of interested parties, etc)? Please give examples.

INTERESTED PARTIES	ANSWERS
1	❖ Better communication among themselves and with interested parties
2	❖ The develop of same culture in organizations that help to integrate them because: <ul style="list-style-type: none"> ○ Improve trust ○ They talk the same language ○ Have same ethics and behaviours (and maybe procedures) ○ Improve communication
3	❖ Organizations in a network of interested parties have to develop similar performance criteria for senior mangers with the purpose of integrating organisations' performance
4	❖ Similar KPIs ❖ Engagement of interested parties ❖ Develop a close loop of the production systems (using LCA and natural capitalism approaches)
5	❖ Use the same language ❖ Similar KPIs
6	❖ Engagement of interested parties helps to develop appropriate KPI (owned by the organization and interested parties) that lead to more sustainable partnerships between organizations and interested parties ❖ The process of performance evaluation is as important as the outcome to use it (better performance)
7	❖ One large network of interested parties report
8	❖ Commitment to share information ❖ Specific KPIs for specific issues and a set of similar ones ❖ Process to obtain, characterize and combine information for a network of interested parties
9	❖ No suggestions
10	❖ The use of LCA as an approach for managing and reporting activities
11	❖ Consistency of approach at all levels to allow comparison and effective evaluation ❖ Level of ownership of the process by participants should be strong ❖ Performance evaluations should be done in objective data ❖ Utilize evaluations (certification) together with self assessment to extract maximum benefit of process
12	❖ Use of similar language in terms of KPIs ❖ Similar KPIs have to be used by individual companies with specific ones for each type and size of business.
13	❖ No suggestions

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS TO QUESTION 19

Summarizing the answers, we have:

- ❖ Better communication within the supply chain and with interested parties
- ❖ The use of similar language in terms of performance evaluation process, KPIs, performance criteria among participants of the chains
- ❖ Improve and develop similar culture in terms of partnership among the participants of the chain
- ❖ The use of LCA for evaluation within the chains
- ❖ Enhance process to give ownership of the KPIs to interested parties
- ❖ One report for the whole chain

20) Are there any other issues/questions related to the subject of organisation/network of interested party performance that I left out or that I should have asked about?

INTERESTED PARTIES	ANSWERS
1	❖ No suggestion
2	❖ No suggestion
3	❖ Performance has to be measured on an ecosystem basis (combined with the measurement systems for the network of interested parties)
4	❖ Use the approach of natural capitalism for performance evaluation of organizations/supply chain: <ul style="list-style-type: none"> ○ Close loop systems ○ Minimal biological footprint ○ Return services to the community
5	❖ No suggestion
6	❖ No suggestion
7	❖ No suggestion
8	❖ Take into consideration that the drivers for change in a network of interested parties are economic issues
9	❖ No suggestion
10	❖ No suggestion
11	❖ Monitoring ❖ Certification and evaluation ❖ Network of interested party disruption and resilience or adaptability
12	❖ No suggestion
13	❖ Historically indigenous people have not been involved in decision making related to industrial actions. The involvement of our people in

decision-making process related to industrial activities would be beneficial for the indigenous community and for the whole community

INTERVIEWER'S COMMENTS

OTHER COMMENTS FROM THE ANSWERS TO QUESTION 20

- ❖ It is also necessary for organizations/supply chain to return more to their community.
- ❖ Another important comment is that for our contemporary society, the key driver for change is economic.

APPENDIX 8 - MATERIAL FOR PARTICIPANTS - WORKSHOP PART

**SPECIFIC LETTER OF INVITATION FOR
ORGANISATION 8 (FOCUS ORGANISATION)**

12th February 04

Mr. Peter R Budd – Superintendent – Materials & Procurement
Boyne Smelters Ltd
Handley Drive
Boyne Island, QLD 4680 Australia

Re: Proposal to undertake a joint project with BSL on performance evaluation.

Dear Mr. Budd,

On behalf of the research team from CQU, I would like to present our proposal for the continuation of the performance evaluation research project with Boyne Smelters Ltd.

The aim of this project is to assist BSL and other participants among a network of interested parties to develop a partnership as the basis for the implementation of a sustainability performance evaluation management system (SPEMS) across the network. For this research, the “Network of Interested Parties (NIP)” is defined as a close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities.

The proposed project uses a workshop approach as outlined below. The researcher in consultation with Boyne Smelters will prepare each workshop. We would endeavour to involve, as part of the NIP, one or more companies in your supply chain as well as key interested parties – including community representatives.

If you require further information, please give me a call on (07) 4970 7348.

I would appreciate confirmation of your participation in this project at your earliest convenience.

Kind regards,

Jose Flavio Coelho
Central Queensland University
Gladstone Engineering Centre
PO Box 1319 - Gladstone - QLD - 4680 - AUSTRALIA
Phone +61 07 4970 7348
f.coelho@cqu.edu.au
<http://www.engineering.cqu.edu.au>

LETTER OF INVITATION (for other organisations)

We would like to invite you (or your champion team) to participate in the pilot project “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTIES (NIP) TO IMPROVE PERFORMANCE”.

Your participation is important for the project.

The project to develop the partnership within the NIP is divided into 3 workshops. *The workshops will be held on 1st, 8th and 15th of June 2004* at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2). The schedule and detailed content of the workshops and a request for information about your organization that your team should take to the workshop will be sent to you on 22nd of May 2004, through email. If you decide to participate in the project we would like to ask you to commit to come to every workshop because if you miss one the NIP will not have your valuable input.

Confirm your (or your champion team’s) participation with Flavio Coelho through email f.coelho@cqu.edu.au or through the phone (07)4970.7348 as soon as possible (deadline on 22nd of May 2004).

Please inform:

NAME OF THE ORGANIZATION	NAME (OR NAMES) OF THE PARTICIPANTS FROM YOUR ORGANIZATION	POSITION OF EACH PARTICIPANT	TELEPHONE NUMBER OF EACH PARTICIPANT FOR CONTACT	EMAIL OF EACH PARTICIPANT FOR CONTACT

LETTER OF INVITATION (for interested parties)

We would like to invite you to participate in the pilot project “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTIES (NIP) TO IMPROVE PERFORMANCE”.

Your participation is important for the project.

The project to develop the partnership within the NIP is divided into 3 workshops. *The workshops will be held on 1st, 8th and 15th of June 2004* at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2). The schedule and detailed content of the workshops and the request for information about your organization that you should take to the workshops will be sent to you on 22nd of May 2004, through email. If you decide to participate in the project we would like to ask you to commit to come to every workshop because if you miss one the NIP will not have your valuable input.

Confirm your participation with Flavio Coelho through his email f.coelho@cqu.edu.au or through the phone (07)4970.7348 as soon as possible (deadline on 22nd of May 2004).

Please inform:

- ❖ Name of the organization (if it is the case).
- ❖ Your name.
- ❖ Position held in the organization (if it is the case).
- ❖ Telephone for contact.
- ❖ Email for contact.

INFORMATION ABOUT THE RESEARCH PROJECT

1 – TITLE OF THIS PROJECT

THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTIES (NIP) TO IMPROVE PERFORMANCE

2 – AIM OF THIS PROJECT

The aim of this project is to assist participants within a network of interested parties (NIP) to develop a partnership as the basis for the implementation of a sustainability performance evaluation management system (SPEMS) across the network.

NOTE: This project is one of the steps of the research project that has been developed by Flavio Coelho within his PhD project at Central Queensland University.

3 - INTRODUCTION

The sustainability of organizations is directly linked to the continual improvement of business performance through the management of their activities according to sustainable principles and takes into consideration the needs and values of their interested parties. However, if the improvement of business performance is to be achieved, improved methodologies for the development and implementation of a performance evaluation (PE) process that takes into consideration sustainable principles are required. Such methodologies have to be applicable to individual entities and supply chains. Supply chains are important because it is becoming increasingly recognized that overall supply chain performance is a means of adding value and competitive advantage to all businesses in the chain through improved economic, social and environmental outcomes.

The researcher, Flavio Coelho, has been undertaking a research project with organizations participating in a supply chain linked to aluminium production in Gladstone, Queensland, Australia. The aim of the research is to develop an improved PE model or process. The researchers have developed the term *sustainability performance evaluation management system* or SPEMS to define this improved model and understand the term to mean: a “sustainability performance evaluation management system (SPEMS)” that will assist companies and their supply chains to enhance business performance and evaluation. SPEMS is a management system with a focus on performance evaluation where sustainability means that organizations want to drive their activities to become *sustainability friendly*.

Different companies have different understandings of the term supply chain. Some understand a supply chain as a major company with direct and indirect suppliers linked to produce a product or service. Others identify the supply chain as encompassing a supplier, manufacturer and customer. Frequently the link within a supply chain is seen as a straight line of companies that produce a specific product or service. More recently the “supply chain” is seen as a network of companies working together. This research identified the need to extend the concept of a network of companies working together to include important interested parties. A “Network of interested parties (NIP)” is therefore defined by the researchers to be *a close*

cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures This term, “Network of Interested Parties (NIP)” has been used in place of supply chain in the research and in this project.

In the previous steps of the research a version 1 model for SPEMS was developed. This version 1 model is based in the AS/NZS ISO 14031:2000 (Environmental Performance Evaluation - EPE). This standard focuses primarily on environmental performance. The concepts encompassed within the standard have been expanded by the researcher to encompass aspects related to other activities and areas of organizational influence including: economic, production (quality), occupational health & safety, social and cultural aspects. The model provides individual companies and NIPs with a common unifying language. The model also provides a process that NIPs and the individual company members can use. It can also be used as an umbrella SPEMS for the entire NIP in an advanced stage of development. It is not essential in both cases that industries implement the full model but it is important for each industry within an NIP to understand and use the basic concepts of the model.

The researcher used a questionnaire within an NIP formed by Boyne Smelters Ltd – BSL (Aluminium Smelter); Queensland Alumina Ltd – QAL (Alumina Refinery); Smorgon Steel Recycling (ferrous and non-ferrous recycler); Gladstone Power Station – NRG (energy provider); Monadelphous (provider of engineering services); Toll North (transporter); Capral Aluminium (Manufacturer of Aluminium profiles) with the intention to identify necessary changes and improvements to the version 1 model for SPEMS. Based in the evaluation of the answers of the questionnaires and the version 1 model, a version 2 model for SPEMS was developed.

The next step of the research is the development of a pilot project, this proposed project, with the intention to assist participants within a network of interested parties (NIP) develop a partnership as the basis for the implementation of a sustainability performance evaluation management system (SPEMS) across the NIP and supply information for the researcher for the improvement of the SPEMS model.

4 – OUTLINE OF THIS PROJECT

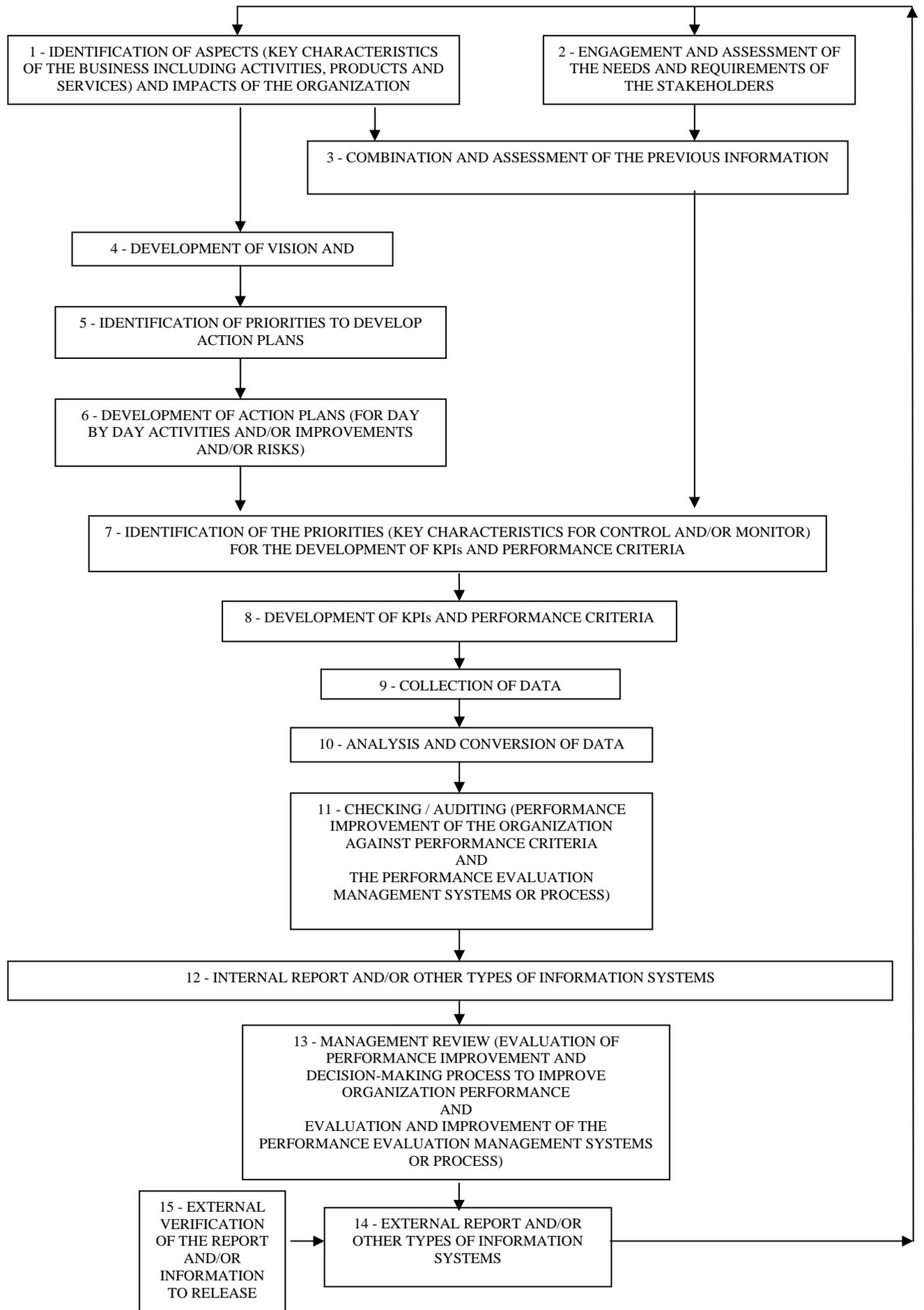
The NIP for this project will include BSL, other companies associated with BSL (BSL supply chain) and representatives of the community. The program to develop the partnership within the NIP will be divided into workshop modules. Each company will need to identify a ‘champion team’ of two people to participate in the workshops.

The principal researcher, Flavio Coelho, will be the facilitator of the workshops. Dr Moy will assist as necessary.

The workshops will be based on the Version 2 model for performance evaluation depicted below. With reference to the following Figure, you will note that the implementation of an improved PE system involves as early steps the identification of existing KPIs and engagement with interested parties. This in turn leads to the development of the NIP partnership – the primary outcome of this project.

The conclusions of this project will help the research team to improve the version 2 model for performance evaluation (PE) for it to become an advanced sustainability performance evaluation management system (SPEMS). The partnership developed through the facilitated project will provide a base from which to continue the implementation of the full SPEMS. If time permits, additional details will be provided to assist the NIP to achieve full implementation of the SPEMS.

**VERSION 2 MODEL FOR PERFORMANCE EVALUATION (PE) –
MULTI ORGANISATION WITHIN NETWORKS OF INTERESTED PARTIES (NIP)**



Some important definitions needed to understand some concepts included in the research are presented:

- ❖ Network: an interconnected or interrelated chain, group, or system (Merriam-Webster year of publication?).
- ❖ Interested parties: Person or group having an interest in the performance or success of an organization. A group can comprise an organization, a part thereof, or more than one organization (ISO 9000:2000).
- ❖ Partnership: The state of being a partner (Merriam-Webster year?).
- ❖ Partner: One who is associated in any function, act, or course of action (Oxford English Dictionary – Year?).
- ❖ Network of interested parties (NIP): Close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures. Partnership needs ownership by all participants.

5 - PROJECT TIMEFRAME

It is proposed that the workshops within the project take place on 1st, 8th and 15th of May 2004.

6 – STEPS OF THE PROJECT

WHAT	HOW	WHERE	WHOM	WHEN	OBJECTIVES OF EACH STEP
<p>Step 3 –</p> <ul style="list-style-type: none"> ❖ Workshop where each company brings to the meeting for discussion a general explanation of their business and their KPIs (social, environmental and economic). ❖ Each interested party brings to the meeting a list of needs that they believe is important for sustainable performance of NIPs. ❖ It is also suggested that the NIP will agree, during the workshop, on critical terminology, including: sustainability, sustainability indicators, partnership, transparency, network and interested parties. This is important because it was identified from the questionnaires that different interested parties have different levels of understanding of these and other terms. 	First workshop	Gladstone Engineering Centre or other venue as agreed with BSL	Representatives from BSL, its NIP and community representatives chosen in consultation between BSL and the researcher	First week of April (8 hours workshop – the length of the workshop can be adapted depending the availability of the companies)	<ul style="list-style-type: none"> ❖ Bring together the interested parties of the Gladstone Aluminium Industry. ❖ Agree about the NIP and key terminologies. ❖ Start the process of NIP partnership development. ❖ Improve understanding of the needs of the participants of the NIP.
<p>Step 4 –</p> <ul style="list-style-type: none"> ❖ Workshop where the participants of the NIP will agree on an initial list of sustainability KPIs & relevant performance assessment criteria. The 	Second workshop	Gladstone Engineering Centre or other venue as agreed	The researcher, the representatives of the NIP	Third week of April (8 hours workshop – the length of	<ul style="list-style-type: none"> ❖ Clarify and agree on the KPIs that will be used by the NIP in further implementing the SPEMS. ❖ Start to gain agreement to continue the development and implementation of

<p>NIP will use these to measure, evaluate, communicate about and report performance.</p>		<p>with BSL</p>		<p>the workshop can be adapted depending the availability of the companies)</p>	<p>SPEMS.</p>
<p>Step 5 –</p> <ul style="list-style-type: none"> ❖ Workshop where the participants of the NIP will agree on an initial list of sustainability KPIs & relevant performance assessment criteria. The NIP will use these to measure, evaluate, communicate about and report performance. ❖ Progress partnership development by working towards the implementation of the SPEMS (through the development of working plan for the implementation and establishment of a structure for the NIP). 	<p>Third workshop</p>	<p>Gladstone Engineering Centre or other venue as agreed with BSL</p>	<p>The researcher, the representatives of the NIP</p>	<p>Third week of April (8 hours workshop – the length of the workshop can be adapted depending the availability of the companies)</p>	<ul style="list-style-type: none"> ❖ Clarify and agree on the KPIs that will be used by the NIP in further implementing the SPEMS. ❖ Gain agreement to continue the development and implementation of SPEMS. ❖ Plan for implementation and structure for the NIP. ❖ Confirm effective partnership is in place.

LIST OF TERMS AND DEFINITIONS

PARTNERSHIP

- ❖ Merriam-Webster: The state of being a partner.
- ❖ Oxford: The fact or condition of being a partner; association or participation or an association of two or more persons for the carrying on of a business, of which they share the expenses, profit, and loss.

PARTNER

- ❖ Merriam-Webster: One who shares or one associated with another especially in an action
- ❖ Oxford: One who is associated in any function, act, or course of action; one who takes part with another or others in doing something; an associate, colleague or one who has a share or part with another or others; one who is associated with another or others in the enjoyment or possession of anything

NETWORK

- ❖ Merriam-Webster: an interconnected or interrelated chain, group, or system
- ❖ Oxford: To engage in social or professional ‘networking’. Then, ‘networking’ is the action of representing in a network a system of interconnected events, processes, etc., esp. in the planning of complex projects or sequences of operations.

INTERESTED PARTIES

- ❖ ISO:
 1. Individual or group concerned with or affected by the performance of an organization (ISO 14001:1996)
 2. Person or group having an interest in the performance or success of an organization. A group can comprise an organization, a part thereof, or more than one organization (ISO 9000:2000)

OWNERSHIP

- ❖ Merriam-Webster: the state, relation, or fact of being an owner
- ❖ Oxford: The fact or state of being an owner

NETWORK OF INTERESTED PARTNERS

- ❖ Network of interested parties (partners) is defined in the research as close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures. Partnership needs ownership by all participants of the network.

SUSTAINABILITY (World Commission on Environment and Development, 1987)

- ❖ ” Development, which meets the needs of the present without compromising the ability of future generations to meet their own needs“

SUSTAINABILITY (Organizational Sustainability)

- ❖ The attainment of organizational goals taking into consideration the needs of the interested parties (NOTE: This concept is an attempt to define sustainability for contemporary organizations. It works as a step in the direction of the definition given by the World Commission).

SUSTAINABILITY INDICATORS

- ❖ Indicators of one area but they are important to the most important interested parties linked to the organization/network of interested parties (NOTE: This concept is an attempt to define sustainability indicators).

TRANSPARENCY

- ❖ Merriam-Webster: The quality or state of being transparent.
- ❖ Oxford: The state or quality or condition of being transparent

TRANSPARENT

- ❖ Merriam-Webster: Free from pretence or deceit and readily understood.
- ❖ Oxford: Frank, open, candid.

CONFIDENTIALITY

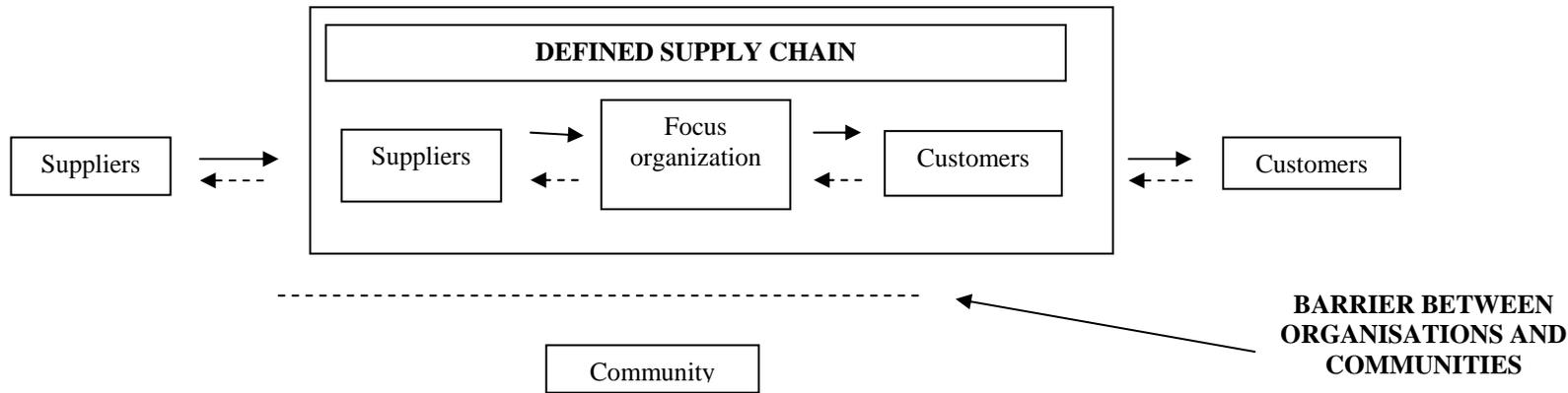
- ❖ Oxford: State of being confidential.

CONFIDENTIAL

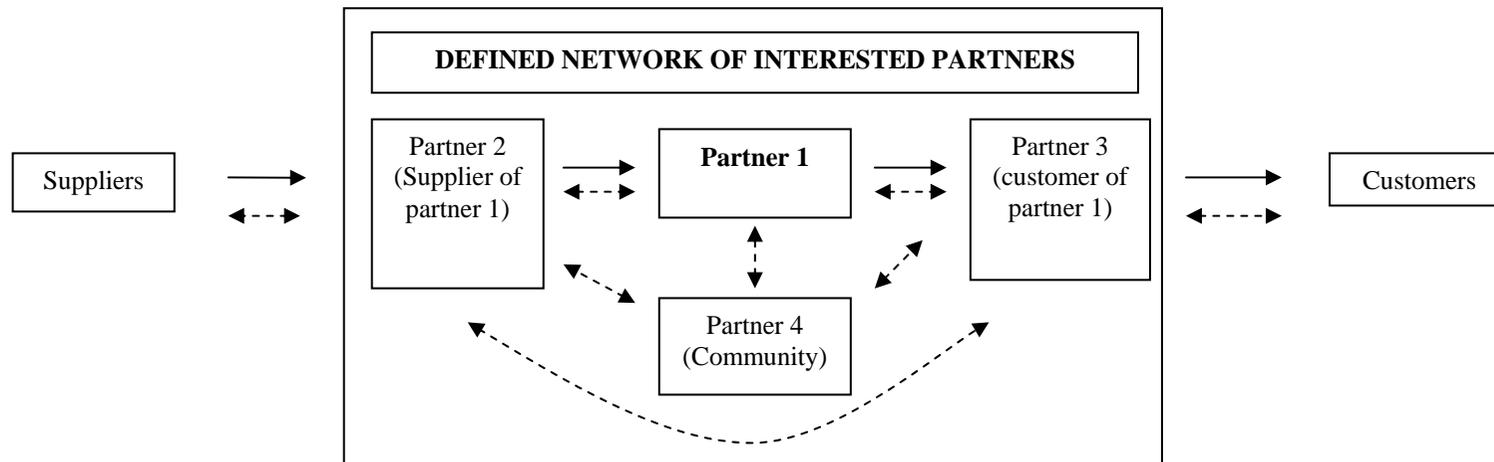
- ❖ Merriam-Webster: Containing information whose unauthorized disclosure could be prejudicial to the interest of someone (organization/group)

THE DIFFERENCE BETWEEN NETWORK OF INTERESTED PARTNERS (NIP) AND SUPPLY CHAINS

BASIC SUPPLY CHAIN - FOCUS ORGANIZATION AND SUPPLIERS, CUSTOMERS AND COMMUNITY (USUAL APPROACH FOR SUPPLY CHAIN)



NETWORK OF INTERESTED PARTNERS, SUPPLIERS, CUSTOMERS AND COMMUNITY (NEW APPROACH DEVELOPED WITHIN THE RESEARCH)



NOTE:

- This arrow shows flux of products/services
- This arrow shows the flux of information (sometimes one organization imposes demands on others and the arrows changes directions when considering basic NIP)
- The information flows in both directions when establishing a NETWORK (full communication system)

TABLE OF SUSTAINABILITY - ISSUES LINKED TO THE SUSTAINABILITY OF ORGANIZATIONS/COMMUNITIES -- based on

<p align="center">Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)</p>	<p align="center">Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)</p>	<p align="center">Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)</p>
<ul style="list-style-type: none"> ⌘ Environmental conditions ⌘ Environmental and risk management ⌘ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ⌘ Biodiversity ⌘ Emissions, effluents and waste ⌘ Soil, air and water contamination, protection and conservation ⌘ Environmental design ⌘ Life cycle 	<ul style="list-style-type: none"> ⌘ Social conditions ⌘ Social and risk management ⌘ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Workplace, Health and safety (WH&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment ⌘ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ⌘ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption 	<ul style="list-style-type: none"> ⌘ Economic conditions ⌘ Economic and risk management ⌘ Quality (product quality and customer satisfaction) ⌘ Financial ⌘ Market ⌘ Growth ⌘ Customers/ Purchasers/ Consumers ⌘ Suppliers ⌘ Employees ⌘ Founders ⌘ Public Sector ⌘ Shareholders/ Investors

COMMON ONES: FOR THE THREE AREAS

<ul style="list-style-type: none"> ⌘ Focus organization/network of interested parties activities, products and services ⌘ Suppliers' activities, products and services ⌘ Consumers'/customers' activities, products and services ⌘ Transporters' activities ⌘ Other interested parties ⌘ CSR (business ethics) ⌘ Corporate citizenship and governance 	<ul style="list-style-type: none"> ⌘ Sustainable mechanisms ⌘ Legislation ⌘ Non-regulatory guidelines ⌘ Compliance ⌘ Community education and awareness ⌘ Interested parties' satisfaction and well-being ⌘ Other issues
--	--

BASIC RULES FOR THE WORKSHOP

Note: In this document the terminology Network of Interested Parties (NIP) is used in the place of Supply Chain. This new terminology will be discussed during the workshops.

1. Every participant of the NIP will have the same level of responsibility and authority within the decisions to be taken by and for the NIP
2. When possible consensus will be reached about issues linked to the NIP
3. If not possible 80% of the votes from participants will be considered the decision taken by and for the NIP
4. The facilitator will have the power to interfere in some discussions during the workshops with the purpose to put the workshops on track. This has the intention to avoid discussions that will postpone the conclusion of some tasks during workshops. The discussions could be redirected by the facilitator to other opportunities within or outside the workshops
5. The facilitator will have the power to redefine time for some tasks and presentations
6. The facilitator will inform participants during the development of tasks and presentation that they have only 5 more minutes to finish the tasks or presentations
7. Each organization/group will define the level of confidentiality that they will use during the workshops (NOTE: The level of confidentiality of each organization/group needs to be clear to every participant of the NIP)

**SUGGESTION FOR THE IDENTIFICATION OF
THE CHAMPION TEAM FOR THE WORKSHOPS**

The champion team must be formed by:

- 1 team leader who has good knowledge of the performance evaluation system and business performance of the company.
- 1 professional who deals with suppliers and/or customers.
- 1 person who controls the operation of the business.

NOTE: All the professionals need to be committed to the project and have the autonomy to take decisions in the name of their company.

LETTER OF SUPPORT

Gladstone, ____ / July / 2003

José Flávio Guerra Machado Coelho - PhD Student
Central Queensland University
Gladstone Engineering Centre
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Ref: PhD Research Project: Jose Flavio Coelho

Mr. Jose Flavio Coelho,

I am sending this letter to confirm that our organization is happy to participate in your project according to the information provided in the documents “INFORMATION ABOUT THE RESEARCH PROJECT FOR ORGANIZATIONS” and Consent Form.

Sincerely,

Name of the person authorising cooperation:

Position:

Name of the organization:

Contact details:

CONSENT FORM

Anonymity

The confidentiality of the results of this study is assured. Under no circumstances will your name appear in publications associated with this research. Your results will be provided to you in both written and verbal form with no one else being given your results unless you request it.

THROUGHOUT THE COURSE OF THE PROPOSED RESEARCH PROGRAM,
YOU ARE FREE TO WITHDRAW AT ANY TIME FOR WHATEVER REASON

Enquiries

Any enquiries or concerns about the proposed research can be directed to the researcher by ringing at work (07)4970.7348, at home (07)4972.2468, by e-mail at f.coelho@cqu.edu.au or by writing to: Jose Flavio Coelho, Central Queensland University, Gladstone Campus, PO Box 1319, GLADSTONE, QLD 4680.

Freedom to Withdraw

I have read the above information. The nature, the demands, risks and benefits of the project have been explained to me. I knowingly assume the risks involved, and understand that I may withdraw my consent and discontinue participation at any time without penalty or loss of benefit to myself. In signing this consent form I am not waiving my legal claims, rights or remedies. A copy of the consent form will be given to me.

NAME: _____

SIGNATURE: _____

DATE: _____

CONTACT DETAILS: _____

Feedback information

Please tick your choice:

- I wish to receive plain English feedback of my participation
- I do not wish to receive plain English feedback of my participation

Please contact Central Queensland University's Research Service Office (phone: 4923-2607) should there be any concerns about the nature and/or conduct of this research project.

APPENDIX 9 - MATERIAL FOR WORKSHOP 1

INVITATION FOR THE WORKSHOP 1

We would like to invite you to participate in **THE FIRST WORKSHOP** of the pilot project “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTIES (NIP) TO IMPROVE PERFORMANCE”.

The workshop will be held on 1st of June 2004, starting at 8:00AM, at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2).

Your participation is important for the project.

FIND ENCLOSED THE SCHEDULE OF THE WORKSHOP AND THE TASKS THAT YOU HAVE TO PREPARE FOR THE WORKSHOP. The tasks include some suggestions (you can follow or not) on how to prepare and present information about your company. Try to keep your presentation as short as possible (you do not need to use the entire length of time available for you in the workshop). We suggest you or your organization/group prepare the material in a written form so that you can develop a smaller presentation and the participants of the workshop will not miss any important information because we can photocopy the material for everyone.

If you need additional information, please contact Flavio Coelho through his email f.coelho@cqu.edu.au or through the phone (07)4970.7348.

TASKS TO BE COMPLETED BY THE PARTICIPANTS FROM INDUSTRIES BEFORE THE WORKSHOP 1

OBJECTIVES OF WORKSHOP 1:

- ❖ Understand the main objectives of the project
- ❖ Introduce all participants and their organization (brief introduction)
- ❖ Understand the activities of all organizations/groups represented in the NIP
- ❖ Agree about key terminologies
- ❖ Start the process of NIP partnership development

GENERAL NOTES:

- ❖ In this document the terminology Network of Interested Parties (NIP) is used in the place of Supply Chain. This new terminology will be discussed during the workshops.
- ❖ If you want to present something through computer and video projector, please send the file two days before each workshop. Remember that the workshops will be on 1st, 8th and 15th of June 2004.
- ❖ Organizations/groups will define the level of information they will provide during the workshops (consider the level of confidentiality that your organization/group want to use).
- ❖ There will be available for presentation:
 - Computer and video projector
 - Overhead projector
 - Flip-chart
 - White board.

TASKS

1. Prepare a brief introduction about your organization/group and yourself for the opening section of the first workshop (do it in a written form that the facilitator can copy to others). Questions to be answered in your introduction:
 - What is your name?
 - What is the name of the organization/group that you represent?
 - Who are you?
 - What is your role?

NOTE:

- ❖ This task will be present in activity 2 of the workshop
2. Prepare a small presentation about your organization/group (do it in a written form that the facilitator can copy to others).
 - Answer the questions:
 - What does your organization/group do?

- Why is this project important for your organization/group?
- What do you expect from this project and the future Network of Interested Parties?
- What would be the major objectives of this NIP?
- Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
- Use the guide that is included in the enclosed ADDITIONAL MATERIAL, letter “b”: *Guide to Provide General Information About the Organisation* to present more information (do not forget to use information from the table marked as letter “a” when requested in the letter “b”: *General Information About the Organisation*)

NOTE:

- ❖ This is a suggestion on how to present the information in a way so that everyone can understand the organisations/group, using the same parameters.
- ❖ This task will be presented in activities 3, 4 and 5 of the workshop

ADDITIONAL MATERIAL

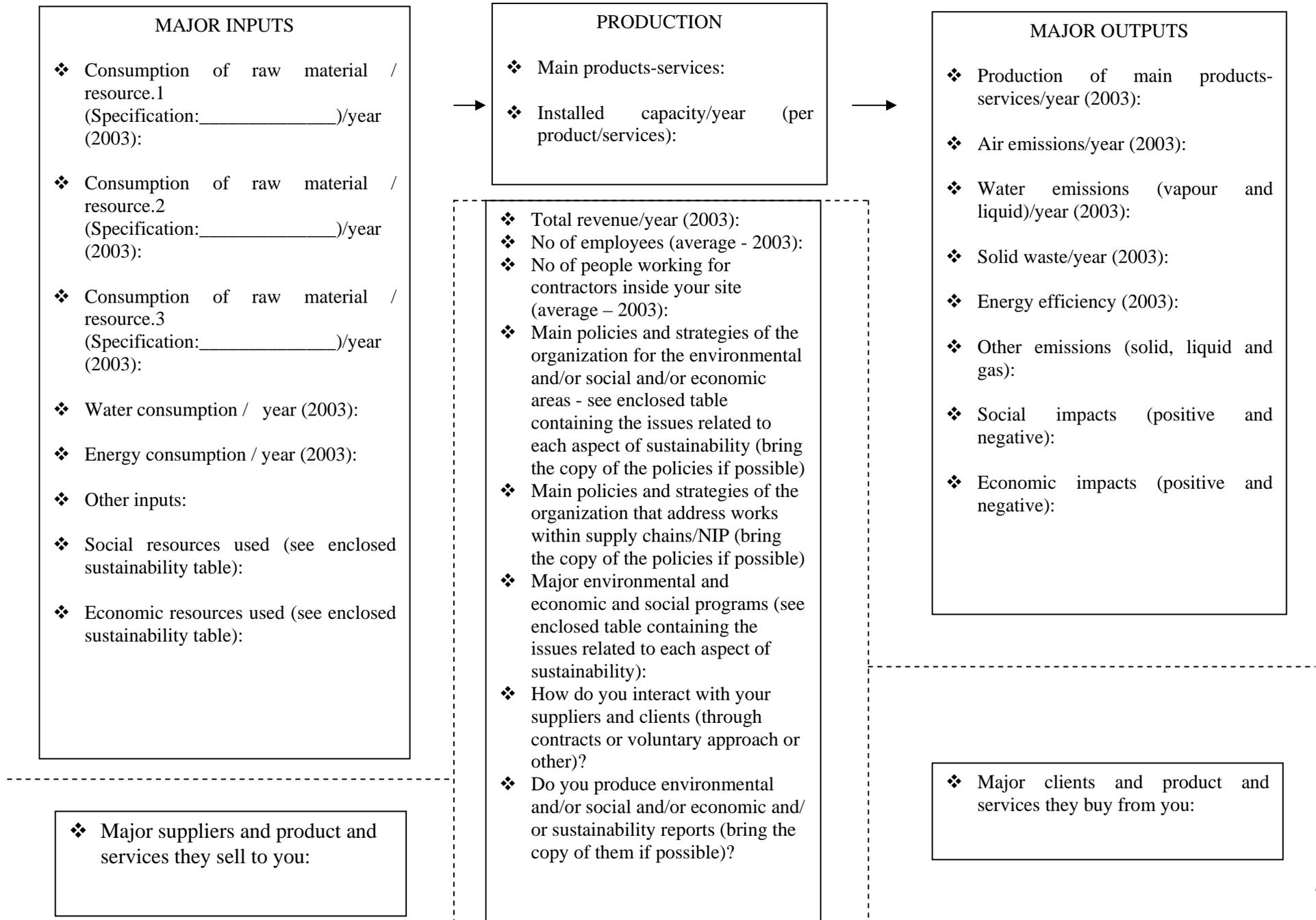
a) *Table: Issues Linked to the Sustainability of Organizations (This Table Was Based On The Document Global Reporting Initiative, “Global Reporting Initiative - Draft 2002 Sustainability Reporting Guidelines - 02 April 2002”. 2002, Amsterdam: Global Reporting Initiative And Improved By The Research Team).*

ISSUES LINKED TO THE SUSTAINABILITY OF ORGANISATIONS		
Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)	Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)	Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)
<ul style="list-style-type: none"> ❖ Environmental conditions ❖ Environmental and risk management ❖ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ❖ Biodiversity ❖ Emissions, effluents and waste ❖ Soil, air and water contamination, protection and conservation ❖ Environmental design 	<ul style="list-style-type: none"> ❖ Social conditions ❖ Social and risk management ❖ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Health and safety (H&S) ○ Training and 	<ul style="list-style-type: none"> ❖ Economic conditions ❖ Economic and risk management ❖ Quality (product quality and customer satisfaction) ❖ Financial ❖ Market ❖ Growth ❖ Customers/ Purchasers/ Consumers ❖ Suppliers ❖ Employees

<ul style="list-style-type: none"> ❖ Life cycle 	<ul style="list-style-type: none"> education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment ❖ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ❖ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices 	<ul style="list-style-type: none"> ❖ Founders ❖ Public Sector ❖ Shareholders/Investors
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	<ul style="list-style-type: none"> ○ Indigenous rights ○ Corruption 	
COMMON ONES: FOR THE THREE AREAS		
<ul style="list-style-type: none"> a) Focus organization/network of interested parties' activities, products and services b) Suppliers' activities, products and services c) Consumers'/customers' activities, products and services d) Transporters' activities e) Other interested parties f) CSR (business ethics) g) Corporate citizenship and governance h) Sustainable mechanisms i) Legislation j) Non-regulatory guidelines k) Compliance l) Interested parties' satisfaction and well-being m) Other issues 		

b) Guide to Provide General Information About the Organisation (inform what you think is relevant for the NIP to know – present information about the part of your business that is linked to this NIP)



TASKS TO BE COMPLETED BY THE PARTICIPANTS FROM INTERESTED PARTIES BEFORE THE WORKSHOP 1

OBJECTIVES OF WORKSHOP 1:

- ❖ Understand the main objectives of the project
- ❖ Introduce all participants and their organization (brief introduction)
- ❖ Understand the activities of all organizations/groups represented in the NIP
- ❖ Agree about key terminologies
- ❖ Start the process of NIP partnership development

GENERAL NOTES:

- ❖ In this document the terminology Network of Interested Parties (NIP) is used in the place of Supply Chain. This new terminology will be discussed during the workshops.
- ❖ If you want to present something through computer and video projector, please send the file two days before each workshop. Remember that the workshops will be on 1st, 8th and 15th of June 2004.
- ❖ Organizations/groups will define the level of information they will provide during the workshops (consider the level of confidentiality that your organization/group want to use).
- ❖ There will be available for presentation:
 - Computer and video projector
 - Overhead projector
 - Flip-chart
 - White board.

TASKS

1. Prepare a brief introduction about your organization/group and yourself for the opening section of the first workshop (do it in a written form that the facilitator can copy to others). Questions to be answered in your introduction:
 - What is your name?
 - What is the name of the organization/group that you represent?
 - Who are you?
 - What is your role?

NOTE:

- ❖ This task will be present in activity 2 of the workshop
2. Prepare a small presentation about your organization/group (do it in a written form that the facilitator can copy to others). You can prepare it by answering the questions:
 - What does your organization/group do?
 - Which sector of the society would your organization/group represent within the NIP?
 - Why is this project important for your organization/group?
 - What do you expect from this project and the future Network of Interested Parties?
 - How could your organization/group add value to this NIP?
 - Which areas linked to sustainability (environment and/or social and/or economic – see the below table *Issues Linked to the Sustainability of Organisations*) would your organization/group influence within the NIP?

- What would be the major objectives of this NIP?
- Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?

NOTE:

- ❖ This is a suggestion on how to present the information in a way so that everyone can understand the organizations/group, using the same parameters.
- ❖ This task will be presented in the activities 6, 7, 8, 9, 10, 11 and 12 of the workshop.

ADDITIONAL MATERIAL

Table: Issues Linked to the Sustainability of Organizations (This Table Was Based On The Document Global Reporting Initiative, “Global Reporting Initiative - Draft 2002 Sustainability Reporting Guidelines - 02 April 2002”. 2002, Amsterdam: Global Reporting Initiative And Improved By The Research Team).

ISSUES LINKED TO THE SUSTAINABILITY OF ORGANIZATIONS		
Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)	Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)	Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)
<ul style="list-style-type: none"> ❖ Environmental conditions ❖ Environmental and risk management ❖ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ❖ Biodiversity ❖ Emissions, effluents and waste ❖ Soil, air and water contamination, protection and conservation ❖ Environmental design ❖ Life cycle 	<ul style="list-style-type: none"> ❖ Social conditions ❖ Social and risk management ❖ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Health and safety (H&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment ❖ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) 	<ul style="list-style-type: none"> ❖ Economic conditions ❖ Economic and risk management ❖ Quality (product quality and customer satisfaction) ❖ Financial ❖ Market ❖ Growth ❖ Customers/Purchasers/Consumers ❖ Suppliers ❖ Employees ❖ Founders ❖ Public Sector ❖ Shareholders/Investors

	<ul style="list-style-type: none"> ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ❖ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption 	
COMMON ONES: FOR THE THREE AREAS		
<ul style="list-style-type: none"> n) Focus organization's/network of interested parties' activities, products and services o) Suppliers' activities, products and services p) Consumers'/customers' activities, products and services q) Transporters' activities r) Other interested parties s) CSR (business ethics) t) Corporate citizenship and governance u) Sustainable mechanisms v) Legislation w) Non-regulatory guidelines x) Compliance y) Interested parties' satisfaction and well-being z) Other issues 		

PLAN FOR WORKSHOP 1

Facilitator: Jose Flavio Coelho

a) Details for the workshop

Note: In this document the terminology Network of Interested Parties (NIP) is used in the place of Supply Chain. This new terminology will be discussed during the workshops.

TIME	ACTIVITY	OBJECTIVES	LENGTH OF TIME	NECESSARY RESOURCES	OTHER INFORMATION
<i>Morning</i>					
8:00 – 8:15	1 – Welcome + registration + informal conversation		15 min		❖ Please do not be late
8:15 – 9:00	2 – Presentation of the project and introduction of the representatives of the organizations	<ul style="list-style-type: none"> ❖ Understanding of the main objectives of the project ❖ Introducing all participants and their organization (brief introduction) 	45 min	<ul style="list-style-type: none"> ❖ Proposal ❖ SPEMS version 2 ❖ Diagram of the NIP ❖ Computer ❖ Projector ❖ Flip chart ❖ Overhead projector ❖ White board 	<ul style="list-style-type: none"> ❖ Explanation of Flavio’s role in this project (explain rules for the workshop and ask approval by the participants) ❖ Explanation of the background of Flavio ❖ Explanation of the entire PhD ❖ Explanation of this project (this project belongs to the participants and is a spiral of improvement). ❖ Brief introduction about yourself (participant) and organization. Questions to be answered in your introduction: <ul style="list-style-type: none"> ○ What is your name? ○ What is the name of the organisation/group that you represent?

					<ul style="list-style-type: none"> ○ Who are you? ○ What is your role? <p>❖ Complete the PARTNERSHIP TABLE</p>
9:00 – 9:20	3 – Presentation of BSL business	❖ Understanding of BSL business	15 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	<p>❖ Small presentation about your business (do it in a written form that the facilitator can copy to others).</p> <ul style="list-style-type: none"> ○ Answer the questions: <ul style="list-style-type: none"> ▪ What does your organization/group do? ▪ Why is this project important for your organization/group? ▪ What do you expect from this project and the future Network of Interested Parties? ▪ What would be the major objectives of this NIP? ▪ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP? ○ Presentation of additional information of your organization/group based in the document <i>Guide to Provide General Information About the Organisation</i> (included in TASKS TO BE COMPLETED BY THE

					PARTICIPANTS FROM INDUSTRIES BEFORE THE WORKSHOP 1)
9:20 – 9:40	4 – Presentation of CLEANWAY business	❖ Understanding of CLEANWAY business	15 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). <ul style="list-style-type: none"> ○ Answer the questions: <ul style="list-style-type: none"> ▪ What does your organization/group do? ▪ Why is this project important for your organization/group? ▪ What do you expect from this project and the future Network of Interested Parties? ▪ What would be the major objectives of this NIP? ▪ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP? ○ Presentation of additional information of your organization/group based in the document <i>Guide to Provide General Information About the Organisation</i> (included in TASKS TO BE COMPLETED BY THE PARTICIPANTS FROM

					INDUSTRIES BEFORE THE WORKSHOP 1)
9:40 – 10:00	5 – Presentation of COLLEX business	❖ Understanding of COLLEX business	15 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). <ul style="list-style-type: none"> ○ Answer the questions: <ul style="list-style-type: none"> ▪ What does your organization/group do? ▪ Why is this project important for your organization/group? ▪ What do you expect from this project and the future Network of Interested Parties? ▪ What would be the major objectives of this NIP? ▪ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP? ○ Presentation of additional information of your organisation/group based in the document <i>Guide to Provide General Information About the Organisation</i> (included in

					TASKS TO BE COMPLETED BY THE PARTICIPANTS FROM INDUSTRIES BEFORE THE WORKSHOP 1)
10:00 – 10:15	COFFEE BREAK		15 min		
10:15 – 10:30	6 – Presentation of the activities of the Observer	❖ Understanding of the activities of the organization/group	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). Answer the questions: <ul style="list-style-type: none"> ○ What does your organization/group do? ○ Which sector of the society would your organization/group represent within the NIP? ○ Why is this project important for your organization/group? ○ What do you expect from this project and the future Network of Interested Parties? ○ How could your organization/group add value to this NIP? ○ Which areas linked to sustainability (environmental and/or social and/or economic) would your organization/group influence within the NIP? ○ What would be the major objectives of

					<p>this NIP?</p> <ul style="list-style-type: none"> ○ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
10:30 – 10:45	7 - Presentation of the activities of the Port Curtis Waterwatch	❖ Understanding of the activities of the organization/group	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	<p>❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). Answer the questions:</p> <ul style="list-style-type: none"> ○ What does your organization/group do? ○ Which sector of the society would your organization/group represent within the NIP? ○ Why is this project important for your organization/group? ○ What do you expect from this project and the future Network of Interested Parties? ○ How could your organization/group add value to this NIP? ○ Which areas linked to sustainability (environmental and/or social and/or economic) would your organization/group influence within the

					<p>NIP?</p> <ul style="list-style-type: none"> ○ What would be the major objectives of this NIP? Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
10:45 – 11:00	8 – Presentation of the activities of the Boyne Island Environmental Education Centre	❖ Understanding of the activities of the organization/group	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based in the tasks for the workshop	<p>❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). Answer the questions:</p> <ul style="list-style-type: none"> ○ What does your organization/group do? ○ Which sector of the society would your organization/group represent within the NIP? ○ Why is this project important for your organization/group? ○ What do you expect from this project and the future Network of Interested Parties? ○ How could your organization/group add value to this NIP? ○ Which areas linked to sustainability (environmental and/or social and/or economic) would your

					<p>organization/group influence within the NIP?</p> <ul style="list-style-type: none"> ○ What would be the major objectives of this NIP? ○ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
11:00 – 11:15	9 – Presentation of the activities of State Development	❖ Understanding of the activities of the organization/group	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	<p>❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). Answer the questions:</p> <ul style="list-style-type: none"> ○ What does your organization/group do? ○ Which sector of the society would your organization/group represent within the NIP? ○ Why is this project important for your organization/group? ○ What do you expect from this project and the future Network of Interested Parties? ○ How could your organization/group add value to this NIP? ○ Which areas linked to sustainability

					<p>(environmental and/or social and/or economic) would your organization/group influence within the NIP?</p> <ul style="list-style-type: none"> ○ What would be the major objectives of this NIP? ○ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
11:15 – 11:30	10 – Presentation of the activities of the EPA	❖ Understanding of the activities of the organization/group	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based in the tasks for the workshop	<p>❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). Answer the questions:</p> <ul style="list-style-type: none"> ○ What does your organization/group do? ○ Which sector of the society would your organisation/group represent within the NIP? ○ Why is this project important for your organization/group? ○ What do you expect from this project and the future Network of Interested Parties? ○ How could your organization/group add

					<p>value to this NIP?</p> <ul style="list-style-type: none"> ○ Which areas linked to sustainability (environmental and/or social and/or economic) would your organisation/group influence within the NIP? ○ What would be the major objectives of this NIP? ○ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
11:30 – 11:45	11 – Presentation of the activities of CQU	❖ Understanding of the activities of the organization/group	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based in the tasks for the workshop	<p>❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). Answer the questions:</p> <ul style="list-style-type: none"> ○ What does your organization/group do? ○ Which sector of the society would your organization/group represent within the NIP? ○ Why is this project important for your organization/group? ○ What do you expect from this project and the future Network of

					<p>Interested Parties?</p> <ul style="list-style-type: none"> ○ How could your organization/group add value to this NIP? ○ Which areas linked to sustainability (environmental and/or social and/or economic) would your organization/group influence within the NIP? ○ What would be the major objectives of this NIP? ○ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
11:45 – 12:00	12 – Presentation of the activities of the Community Noise and Odour Committee	❖ Understanding of the activities of the organization/group	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based in the tasks for the workshop	<p>❖ Small presentation about your organization/group (do it in a written form that the facilitator can copy to others). Answer the questions:</p> <ul style="list-style-type: none"> ○ What does your organization/group do? ○ Which sector of the society would your organization/group represent within the NIP? ○ Why is this project important for your organization/group?

					<ul style="list-style-type: none"> ○ What do you expect from this project and the future Network of Interested Parties? ○ How could your organization/group add value to this NIP? ○ Which areas linked to sustainability (environmental and/or social and/or economic) would your organization/group influence within the NIP? ○ What would be the major objectives of this NIP? ○ Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?
12:00 – 13:00	LUNCH		60 min		
<i>Afternoon</i>					
13:00 – 14:00	13 – Study circles with the intention to define the terms: network of interested parties or partners (supply chain), partnership, transparency, confidentiality,	❖ Starting to agree about key terminologies.	60 min	❖ Flip chart ❖ White board	❖ Formation of groups of five people, preferably one person linked to each pillar of sustainability.

	sustainability, sustainability indicators.				
14:00 – 14:30	14 – Presentation by the researcher of the terms used in the research	❖ Give the participants more understanding of the terms	30 min	<ul style="list-style-type: none"> ❖ List of terms used in the research for sustainability, sustainability indicators, partnership, transparency, network and interested parties.\ ❖ Computer ❖ Projector ❖ Flip chart ❖ Overhead projector ❖ White board 	
14:30 – 15:00	15 – Study circles with the intention to define the terms: network of interested parties or partners (supply chain), partnership, transparency, confidentiality, sustainability, sustainability indicators	❖ Agree about key terminologies.	45 min	❖ All the terms defined before	❖ Formation of groups of five people, preferably one person linked to each pillar of sustainability
15:00 – 15:15	COFFEE BREAK		15 min		
15:15 – 16:00	16 - Study circles with the intention to define the terms: network of interested parties or partners (supply chain), partnership, transparency, confidentiality, sustainability, sustainability indicators	❖ Agree about key terminologies.	45 min	<ul style="list-style-type: none"> ❖ Flip chart ❖ White board 	<ul style="list-style-type: none"> ❖ Formation of only one group. ❖ Activity done to reach the best definitions for the group through consensus or vote ❖ One participant using the flip chart and writing down the best definitions
16:00 – 16:30	17 –	❖ Start the process of NIP	30 min	❖ Flip chart	❖ Questions to be answered:

	Organizations/groups address their impression about the partnership and establish the commitment to continue the process of partnership through answering questions	partnership development.		<ul style="list-style-type: none"> ❖ White board ❖ One person from the group to write down the answers 	<ul style="list-style-type: none"> ○ What are the benefits of partnership inside an NIP? ○ What are the impediments for partnership inside an NIP? ○ Any suggestion for the improvement of the implementation of partnership? ○ Are you committed to continue the workshops and the development of partnership? ○ Any one missing in this NIP? <ul style="list-style-type: none"> ❖ Activity done through brainstorming with one participant writing down the answers
16:30 – 16:45	18 – Evaluations and request of activities for the next workshop	<ul style="list-style-type: none"> ❖ Evaluations and preparation for workshop 2 	15 min	<ul style="list-style-type: none"> ❖ Tasks for workshop 2 ❖ Computer ❖ Projector ❖ Flip chart ❖ Overhead projector ❖ White board 	<ul style="list-style-type: none"> ❖ Complete the PARTNERSHIP TABLE ❖ Complete the EVALUATION OF THE WORKSHOP

LIST OF TERMS

PARTNERSHIP

- ❖ Merriam-Webster: The state of being a partner.
- ❖ Oxford: The fact or condition of being a partner; association or participation or an association of two or more persons for the carrying on of a business, of which they share the expenses, profit, and loss.

PARTNER

- ❖ Merriam-Webster: One that shares or one associated with another especially in an action
- ❖ Oxford: One who is associated in any function, act, or course of action; one who takes part with another or others in doing something; an associate, colleague or one who has a share or part with another or others; one who is associated with another or others in the enjoyment or possession of anything

NETWORK

- ❖ Merriam-Webster: an interconnected or interrelated chain, group, or system
- ❖ Oxford: To engage in social or professional 'networking'. Then, 'Networking' is the action of representing in a network a system of interconnected events, processes, etc., esp. in the planning of complex projects or sequences of operations.

INTERESTED PARTIES

- ❖ ISO:
 1. Individual or group concerned with or affected by the performance of an organization (ISO 14001:1996)
 2. Person or group having an interest in the performance or success of an organization. A group can comprise an organization, a part thereof, or more than one organization (ISO 9000:2000)

OWNERSHIP

- ❖ Merriam-Webster: the state, relation, or fact of being an owner
- ❖ Oxford: The fact or state of being an owner

NETWORK OF INTERESTED PARTIES (PARTNERS)

- ❖ Network of interested parties (partners) is defined in the research as close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures. Partnership needs ownership by all participants of the network.

SUSTAINABILITY (World Commission on Environment and Development, 1987)

- ❖ " Development, which meets the needs of the present without compromising the ability of future generations to meet their own needs"

SUSTAINABILITY (Organisational Sustainability)

- ❖ The attainment of organisational goals taking into consideration the needs of the interested parties (NOTE: This concept is an attempt to define sustainability for the contemporary organizations. It works as a step in the direction of the definition given by the World Commission).

SUSTAINABILITY INDICATORS

- ❖ Indicators of one area but they are important to the most important interested parties linked to the organization/network of interested parties (NOTE: This concept is an attempt to define sustainability indicators).

TRANSPARENCY

- ❖ Merriam-Webster: The quality or state of being transparent.
- ❖ Oxford: The state or quality or condition of being transparent

TRANSPARENT

- ❖ Merriam-Webster: Free from pretence or deceit and readily understood.
- ❖ Oxford: Frank, open, candid.

CONFIDENTIALITY

- ❖ Oxford: State of being confidential.

CONFIDENTIAL

- ❖ Merriam-Webster: Containing information whose unauthorized disclosure could be prejudicial to the interest of someone (organisation/group)



Central Queensland
UNIVERSITY
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Faculty of Engineering & Physical Systems

*The Development of Partnership Within
a Network of Interested Parties (NIP) to
Improve Performance – Workshop 1*

SPOTLIGHT PILOT PROJECT

Researcher: José Flavio G. M. Coelho
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Supervisors: Prof. David Moy and Engineer Rod Edwards

EVALUATION - WORKSHOP 1

INSTRUCTIONS: Mark your answer and then make comments about your answer

1. Did the workshop attain its objectives?

- 100% of its objectives
- 75% of its objectives
- 50% of its objectives
- 25% of its objectives
- 0% of its objectives

Comments _____

2. Was the workshop planned properly to attain its objectives? _____

- Workshop very well planned
- Workshop well planned
- Workshop reasonably well planned
- Workshop not well planned
- Workshop badly planned

Comments _____

3. Did the facilitator assist the workshop properly to attain its objectives?

- Workshop very well driven
- Workshop well driven
- Workshop reasonably well driven
- Workshop not well driven
- Workshop badly driven

Comments _____

EVALUATION OF THE DEVELOPMENT OF THE PARTNERSHIP

Number	Parameters	Score	0	5	10
1	Definition of partnership: Have the participants of the NIP reached a consensus of the term partnership?				
2	Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?				
3	Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?				
4	Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?				
5	Your trust in others: What is your level of trust in other organizations' participants in the NIP				
6	Trust within the NIP: What is the level of trust among participants of the NIP?				
7	Your transparency: What is the level of transparency that you apply when presenting information to the NIP?				
8	Transparency within the NIP: What is the level of transparency among participants of the NIP?				
9	Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?				
10	Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?				
11	Structure of the NIP: Is the structure of the NIP defined?				
12	Resources for the NIP: Are the resources for the NIP defined?				
13	Scope of the NIP: is the scope of the NIP identified?				
14	Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?				
15	Your level of communication: Do you inform other organizations'/groups' participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes, is processed and a feedback given)?				
16	Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?				31
17	Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?				

Instructions:

1. Mark an X in the best score for each answer in your opinion (at this point of the workshop).

Evaluation of the parameters:

1. Definition of partnership: Have the participants of the NIP reached a common definition for the term partnership?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

2. Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

3. Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?

Scores

- ❖ 0 = Not prepared to commit yet
- ❖ 5 = Want to commit but need to participate more to decide
- ❖ 10 = 100% Committed

4. Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?

Scores

- ❖ 0 = No commitment among participants
- ❖ 5 = Medium level of commitment
- ❖ 10 = 100% Committed

5. Your trust in others: What is your level of trust in other organizations' participants in the NIP

Scores

- ❖ 0 = Do not trust
- ❖ 5 = Some degree of trust
- ❖ 10 = Trust 100%

6. Trust within the NIP: What is the level of trust among participants of the NIP?

Scores

- ❖ 0 = No trust among participants
- ❖ 5 = Medium level of trust
- ❖ 10 = Trust reached the level of 100%

7. Your transparency: What is the level of transparency that you apply when presenting information to the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

8. Transparency within the NIP: What is the level of transparency among participants of the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

9. Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?

Scores

- ❖ 0 = All information is confidential
- ❖ 5 = Some information is confidential
- ❖ 10 = There is no confidential information

10. Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

11. Structure of the NIP: Is the structure of the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

12. Resources for the NIP: Are the resources for the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

13. Scope of the NIP: is the scope of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

14. Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?

Scores

- ❖ 0 = Objectives not defined
- ❖ 5 = Objectives reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

15. Your level of communication: Do you inform other organizations'/groups' participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes, is processed and a feedback is given)?

Scores

- ❖ 0 = Is there any information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them (information flows in both directions)

16. Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided. It can also happen when other participants send information to our organization/group and our organization/group does not give any feedback to the source of information about the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them. Vice versa also happens (information flows in both directions)

17. Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?

Scores

- ❖ 0 = KPIs not defined
- ❖ 5 = KPIs reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

APPENDIX 10 - MATERIAL FOR WORKSHOP 2

INVITATION FOR WORKSHOP 2

We would like to invite you to participate in **THE SECOND WORKSHOP** of the pilot project “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTIES (NIP) TO IMPROVE PERFORMANCE”.

The workshop will be on 8TH of June 2004, starting at 8:00AM, at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2).

Your participation is important for the project.

THE SCHEDULE OF THE WORKSHOP AND THE TASKS THAT YOU HAVE TO PREPARE FOR THE WORKSHOP WERE GIVEN TO YOU IN THE LAST WORKSHOP Try to keep your presentation as short as possible (you do not need to use the entire length of time available for you in the workshop). We suggest you or your organization/group prepare the material in a written form so that you can develop a smaller presentation and the participants of the workshop will not miss any important information because we can photocopy the material for everyone.

Following the suggestion given in the first workshop, we are going to add an activity at the beginning of the workshop 2. We are going to develop basic scope and objectives for the NIP. PLEASE ARRIVE ON TIME (8:00AM) FOR US TO DEVELOP THIS ACTIVITY WITHOUT COMPROMISING THE REST OF THE TASKS OF THE DAY.

I have enclosed the report related to the first workshop. It is a draft and I would appreciate it if you would make improvements and send me it back. I will try to have the final version for the second workshop.

If you need additional information, please contact Flavio Coelho through his email f.coelho@cqu.edu.au or through the phone (07)4970.7348.

TASKS TO BE COMPLETED BY THE PARTNERS FROM INDUSTRIAL ORGANIZATIONS BEFORE THE WORKSHOP 2

OBJECTIVES OF WORKSHOP 2:

- ❖ Understand the individual needs of organizations/groups that have participated in the NIP
- ❖ Understand the individual KPIS and performance criteria used by organizations/groups.
- ❖ Understand the needs of the organizations/groups in relation to the NIP
- ❖ Understand the KPIS and performance criteria suggested by the organizations/groups for the NIP
- ❖ Clarify and agree on KPIS and performance criteria that will be used by the NIP
- ❖ Clarify the changes in individual organization's vision, policy(ies) and the rest of the strategic plan(s)
- ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP

GENERAL NOTES:

- ❖ If you want to present something through computer and video projector, please send the file two days before each workshop. Remember that the workshops will be on 1st, 8th and 15th of June 2004.
- ❖ There will be available for presentation:
 - Computer and video projector
 - Overhead projector
 - Flip-chart
 - White board.
- ❖ Organizations/groups will define the level of information they will provide during the workshops (consider the level of confidentiality that your organization/group wants to use).
- ❖ Remember that we are dealing with the real world. We want to improve and evaluate performance of the NIP. We want to identify basic KPIs and performance criteria for the NIP. The project is at the beginning and the suggestion is to try to keep indicators as simple as possible and in small numbers. As the project is a spiral of improvement, the NIP can identify later additional KPIs and performance criteria.
- ❖ KPI is (definition taken from AS/NZS ISO 14031:2000 and adapted by the research team): "Specific expression that provides information about an organization's performance".
- ❖ Performance Criteria is (definition taken from AS/NZS ISO 14031:2000 and adapted by the research team): "Objective, target, or other intended level of performance set by the management of the organization and used for the purpose of performance evaluation".

- ❖ Remember to use the table included in the additional information to clarify the areas that KPIs cover. We can suggest that the NIP will deal with sustainability KPIs.
- ❖ Sustainability KPIs is (initial definition developed by the research team): “Indicators of one area (economic or environmental or social) but they are important to the most important interested parties linked to the organization/network of interested parties”.
- ❖ As a suggestion you can use the following set of parameters to evaluate if the indicator is well identified:
 - First set of parameters: See if the indicator is consistent with policy and/or reliable because there are fewer assumptions when presenting information and/or easy to understand and/or easy to obtain data and/or able to provide information on current and future trends and/or sensitive to changes and/or useful for measuring performance against criteria and appropriate to management and/or operational efforts or the condition of the society/environment
 - Second set of parameters: See if the indicator are operational indicators and/or management indicators and/or condition indicators and/or pressure indicators and/or response indicators and/or state indicators and/or lead indicators and/or lag indicators and/or aspect indicators and/or impact indicators
 - Third set of parameters: Indicators that give information about all the areas (environmental, social and economic) at the same time and/or indicators that give information about at least two areas (environmental, social and economic) at the same time and/or indicators of one area but they are important to all types of interested parties linked to the organization/network of interested parties and/or indicators of one area but they are important to the most important interested parties linked to the organization/network of interested parties

TASKS

1. Answer the following questions and present the answers in workshop 2 (do it in a written form that the facilitator can copy to others):
 - Which changes do you think will be necessary in the vision, policy(ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within an NIP?
 - Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)?
 - Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of the strategic plan(s)?
2. Prepare a list of the major KPIs and performance criteria that your organization/group has used (KPIs in the environmental, economic and social areas according to the table “a”). Do it in a written form that the facilitator can copy to others.

3. Prepare a list of the major KPIs and performance criteria that your organization/group has suggested for the NIP (KPIs in the environmental, economic and social areas according to the table “a” – also known as sustainability KPIs). Do it in a written form that the facilitator can copy to others.
4. Prepare a list of needs of your organization/group in relation to the NIP (things that you want from the NIP and where you do not have KPIs developed for those needs). Do it in a written form that the facilitator can copy to others.

ADDITIONAL MATERIAL

Table: Issues Linked to the Sustainability of Organizations (This Table Was Based On The Document Global Reporting Initiative, “Global Reporting Initiative - Draft 2002 Sustainability Reporting Guidelines - 02 April 2002”. 2002, Amsterdam: Global Reporting Initiative And Improved By The Research Team).

ISSUES LINKED TO THE SUSTAINABILITY OF ORGANIZATIONS		
Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)	Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)	Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)
<ul style="list-style-type: none"> ❖ Environmental conditions ❖ Environmental and risk management ❖ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ❖ Biodiversity ❖ Emissions, effluents and waste ❖ Soil, air and water contamination, protection and conservation ❖ Environmental design ❖ Life cycle 	<ul style="list-style-type: none"> ❖ Social conditions ❖ Social and risk management ❖ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Health and safety (H&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment ❖ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture 	<ul style="list-style-type: none"> ❖ Economic conditions ❖ Economic and risk management ❖ Quality (product quality and customer satisfaction) ❖ Financial ❖ Market ❖ Growth ❖ Customers/ Purchasers/ Consumers ❖ Suppliers ❖ Employees ❖ Founders ❖ Public Sector ❖ Shareholders/ Investors

	<ul style="list-style-type: none"> ❖ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption 	
<p>COMMON ONES: FOR THE THREE AREAS</p>		
<ul style="list-style-type: none"> ❖ Focus organization's/network of interested parties' activities, products and services ❖ Suppliers' activities, products and services ❖ Consumers'/customers' activities, products and services ❖ Transporters' activities ❖ Other interested parties ❖ CSR (business ethics) ❖ Corporate citizenship and governance ❖ Sustainable mechanisms ❖ Legislation ❖ Non-regulatory guidelines ❖ Compliance ❖ Interested parties' satisfaction and well-being ❖ Other issues 		

TASKS TO BE COMPLETED BY THE PARTNERS FROM OTHER ORGANIZATIONS/GROUPS BEFORE THE WORKSHOP 2

OBJECTIVES OF WORKSHOP 2:

- ❖ Understand the individual needs of organizations/groups that have participated in the NIP
- ❖ Understand the individual KPIS and performance criteria used by organizations/groups.
- ❖ Understand the needs of the organizations/groups in relation to the NIP
- ❖ Understand the KPIS and performance criteria suggested by the organizations/groups for the NIP
- ❖ Clarify and agree on KPIS and performance criteria that will be used by the NIP
- ❖ Clarify the changes in individual organization's vision, policy(ies) and the rest of the strategic plan(s)
- ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP

GENERAL NOTES:

- ❖ If you want to present something through computer and video projector, please send the file two days before each workshop. Remember that the workshops will be on 1st, 8th and 15th of June 2004.
- ❖ There will be available for presentation:
 - Computer and video projector
 - Overhead projector
 - Flip-chart
 - White board.
- ❖ Organizations/groups will define the level of information they will provide during the workshops (consider the level of confidentiality that your organization/group wants to use).
- ❖ Remember that we are dealing with the real world. We want to improve and evaluate performance of the NIP. We want to identify basic KPIs and performance criteria for the NIP. The project is at the beginning and the suggestion is to try to keep indicators as simple as possible and in small numbers. As the project is a spiral of improvement, the NIP can identify later additional KPIs and performance criteria.
- ❖ KPI is (definition taken from AS/NZS ISO 14031:2000 and adapted by the research team): “Specific expression that provides information about an organization's performance”.
- ❖ Performance Criteria is (definition taken from AS/NZS ISO 14031:2000 and adapted by the research team): “Objective, target, or other intended level of performance set by the management of the organization and used for the purpose of performance evaluation.
- ❖ Remember to use the table included in the additional information to clarify the areas that KPIs cover. We can suggest that the NIP will deal with sustainability KPIs.
- ❖ Sustainability KPIs is (initial definition developed by the research team): “Indicators of one area (economic or environmental or social) but they are important to the most important interested parties linked to the organization/network of interested parties”.
- ❖ As a suggestion you can use the following set of parameters to evaluate if the indicator is well identified:
 - First set of parameters: See if the indicator is consistent with policy and/or reliable because there are fewer assumptions when presenting information and/or easy to understand and/or easy to obtain data and/or able to provide information on current and future trends and/or sensitive to changes and/or useful

- for measuring performance against criteria and appropriate to management and/or operational efforts or the condition of the society/environment
- Second set of parameters: See if the indicator is an operational indicator and/or management indicator and/or condition indicator and/or pressure indicator and/or response indicator and/or state indicator and/or lead indicator and/or lag indicator and/or aspect indicator and/or impact indicator
- Third set of parameters: Indicators that give information about all the areas (environmental, social and economic) at the same time and/or indicators that give information about at least two areas (environmental, social and economic) at the same time and/or indicators of one area but they are important to all types of interested parties linked to the organization/network of interested parties and/or indicators of one area but they are important to the most important interested parties linked to the organization/network of interested parties.

TASKS

1. Answer the following questions and present the answers in workshop 2 (do it in a written form that the facilitator can copy to others):
 - Which changes do you think will be necessary in the vision, policy(ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within an NIP?
 - Which changes do you think will be necessary in the vision, policy(ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)?
 - Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)?

2. Prepare a list of issues where you think that the NIP needs to manage, control, monitor, evaluate performance and report internally and externally (issues linked to the environmental, economic and social areas according to table “a”). Remember that we are dealing with the real world and we want, at this stage, to manage, control, evaluate performance and report internally and externally the major issues linked to the NIP (Do it in a written form that the facilitator can copy to others). The NIP will evaluate if those issues addressed by you are relevant for the NIP and try to identify KPIs and performance criteria that will help the NIP to evaluate its performance or the impact of its activities in relation to those issues. If you have already identified the KPIs and performance criteria for those issues, bring them.

3. Prepare a list of needs of your organization/group in relation to the NIP (things that you want from the NIP). See that tasks 2 and 3 can be seen as the same task. However this third task has the focus in YOUR needs in relation to the NIP. The NIP will evaluate if those needs addressed by you are relevant for the NIP and try to identify KPIs and performance criteria that will help the NIP to evaluate its performance or the impact of its activities in relation to those needs. If you have already identified the KPIs and performance criteria for those needs, bring them (Do it in a written form that the facilitator can copy to others).

ADDITIONAL MATERIAL

- a) *Table: Issues Linked to the Sustainability of Organizations (This Table Was Based On The Document Global Reporting Initiative, “Global Reporting Initiative - Draft 2002 Sustainability Reporting Guidelines - 02 April 2002”. 2002, Amsterdam: Global Reporting Initiative And Improved By The Research Team).*

ISSUES LINKED TO THE SUSTAINABILITY OF ORGANIZATIONS		
Area: NATURAL ENVIRONMENT	Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)	Area: ECONOMIC ENVIRONMENT

(related to environmental aspects and impacts)		(related to economic aspects and impacts)
<ul style="list-style-type: none"> ❖ Environmental conditions ❖ Environmental and risk management ❖ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ❖ Biodiversity ❖ Emissions, effluents and waste ❖ Soil, air and water contamination, protection and conservation ❖ Environmental design ❖ Life cycle 	<ul style="list-style-type: none"> ❖ Social conditions ❖ Social and risk management ❖ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Health and safety (H&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment ❖ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ❖ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption 	<ul style="list-style-type: none"> ❖ Economic conditions ❖ Economic and risk management ❖ Quality (product quality and customer satisfaction) ❖ Financial ❖ Market ❖ Growth ❖ Customers/Purchasers/Consumers ❖ Suppliers ❖ Employees ❖ Founders ❖ Public Sector ❖ Shareholders/Investors
<p>COMMON ONES: FOR THE THREE AREAS</p>		
<ul style="list-style-type: none"> ❖ Focus organization's/network of interested parties' activities, products and services ❖ Suppliers' activities, products and services ❖ Consumers'/customers' activities, products and services ❖ Transporters' activities ❖ Other interested parties ❖ CSR (business ethics) ❖ Corporate citizenship and governance ❖ Sustainable mechanisms ❖ Legislation ❖ Non-regulatory guidelines ❖ Compliance ❖ Interested parties' satisfaction and well-being ❖ Other issues 		

PLANS FOR WORKSHOP 2

Facilitator: Jose Flavio Coelho

a) Details for the workshop

<i>TIME</i>	<i>ACTIVITY</i>	<i>OBJECTIVES</i>	<i>LENGTH OF TIME</i>	<i>NECESSARY RESOURCES</i>	<i>OTHER INFORMATION</i>
<i>Morning</i>					
8:00 – 8:15	1 – Welcome + registration + informal conversation		15 min		❖ Please do not be late
8:15 – 8:30	2 – Presentation of the answers of some questions, KPIs and performance criteria used by BSL, KPIs and performance criteria suggested by BSL for the NIP and needs of BSL in relation to the NIP	<ul style="list-style-type: none"> ❖ Understanding KPIs and performance criteria used by BSL, KPIs and performance criteria suggested by BSL for the NIP and needs of BSL in relation to the NIP ❖ Clarify the changes in individual organizations' vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within a NIP? ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according real sustainable

					<p>principles (see the table included in this document under the title “Additional Material”)?</p> <ul style="list-style-type: none"> ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of the strategic plan(s)? <p>❖ Presentation of KPIs and performance criteria used by BSL, KPIs and performance criteria suggested by BSL for the NIP and needs of BSL in relation to the NIP according to TASKS TO BE COMPLETED BY THE PARTNERS BEFORE THE WORKSHOP 2</p>
8:30 – 8:45	<p>3 – Presentation of the answers of some questions and KPIs and performance criteria used by CLEANWAY, KPIs and performance criteria suggested by CLEANWAY for the NIP and needs of CLEANWAY in relation to the NIP</p>	<ul style="list-style-type: none"> ❖ Understanding KPIs and performance criteria used by CLEANWAY, KPIs and performance criteria suggested by CLEANWAY for the NIP and needs of CLEANWAY in relation to the NIP ❖ Clarify the changes in individual organization’s vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, 	10 min presentation and 5 min for questions	<ul style="list-style-type: none"> ❖ Documentation from the organization/group based on the tasks for the workshop 	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within a NIP? ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of

		policy(ies) and the rest of the strategic plan(s) for the NIP			<p>your organization/group to address the development of the activities according real sustainable principles (see the table included in this document under the title “Additional Material”)?</p> <ul style="list-style-type: none"> ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)? <p>❖ Presentation of KPIs and performance criteria used by CLEANWAY, KPIs and performance criteria suggested by CLEANWAY for the NIP and needs of CLEANWAY in relation to the NIP according to TASKS TO BE COMPLETED BY THE PARTNERS BEFORE THE WORKSHOP 2</p>
8:45 – 9:00	4 – Presentation of the answers of some questions, KPIs and performance criteria used by COLLEX, KPIs and performance criteria suggested by COLLEX for the NIP and needs of COLLEX in relation to the NIP	<ul style="list-style-type: none"> ❖ Understanding KPIs and performance criteria used by COLLEX, KPIs and performance criteria suggested by COLLEX for the NIP and needs of COLLEX in relation to the NIP ❖ Clarify the changes in 	10 min presentation and 5 min for questions	❖ Documentation from the organisation/group based in the tasks for the workshop	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to

		<p>individual organizations' vision, policy(ies) and the rest of the strategic plan(s)</p> <ul style="list-style-type: none"> ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 			<p>address the work as partner within a NIP?</p> <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according real sustainable principles (see the table included in this document under the title “Additional Material”)? ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)? <ul style="list-style-type: none"> ❖ Presentation of KPIs and performance criteria used by COLLEX, KPIs and performance criteria suggested by COLLEX for the NIP and needs of COLLEX in relation to the NIP according to the TASKS TO BE COMPLETED BY THE PARTNERS BEFORE THE WORKSHOP 2
9:00 – 9:15	5 – Presentation of the answers of some questions, issues that the	<ul style="list-style-type: none"> ❖ Understanding issues that the NIP needs to manage, control, 	10 min presentation and 5 min	<ul style="list-style-type: none"> ❖ Documentation from the organization/group 	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others):

	<p>NIP needs to manage, control, monitor, evaluate performance and report and the needs of the OBSERVER in relation to the NIP</p>	<p>monitor, evaluate performance and report and the needs of your organization in relation to the NIP</p> <ul style="list-style-type: none"> ❖ Clarify the changes in individual organizations' vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 	<p>for questions</p>	<p>based on the tasks for the workshop</p>	<ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within an NIP? ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)? ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of the strategic plan(s)? ❖ Presentation of issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the OBSERVER in relation to the NIP according to the TASKS TO BE COMPLETED BY
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					THE PARTNERS BEFORE THE WORKSHOP 2
9:15 – 9:30	6 – Presentation of the answers of some questions, issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the PORT CURTIS WATERWATCH in relation to the NIP	<ul style="list-style-type: none"> ❖ Understanding issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of your organization in relation to the NIP ❖ Clarify the changes in individual organizations’ vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 	10 min presentation and 5 min for questions	<ul style="list-style-type: none"> ❖ Documentation from the organization/group based on the tasks for the workshop 	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within a NIP? ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)? ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)? ❖ Presentation of issues that the

					NIP needs to manage, control, monitor, evaluate performance and report and the needs of the PORT CURTIS WATERWATCH in relation to the NIP according to the TASKS TO BE COMPLETED BY THE PARTNERS BEFORE THE WORKSHOP 2
9:30 – 9:45	7 – Presentation of the answers of some questions, issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE in relation to the NIP	<ul style="list-style-type: none"> ❖ Understanding issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of your organization in relation to the NIP ❖ Clarify the changes in individual organisations’ vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 	10 min presentation and 5 min for questions	<ul style="list-style-type: none"> ❖ Documentation from the organization/group based on the tasks for the workshop 	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within a NIP? ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)?

					<ul style="list-style-type: none"> ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of the strategic plan(s)? ❖ Presentation of issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE in relation to the NIP according to the TASKS TO BE COMPLETED BY THE PARTNERS BEFORE WORKSHOP 2
9:45 – 10:00	8 – Presentation of the answers of some questions, issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the STATE DEVELOPMENT in relation to the NIP	<ul style="list-style-type: none"> ❖ Understanding issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of your organization in relation to the NIP ❖ Clarify the changes in individual organizations' vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based in the tasks for the workshop	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within a NIP? ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the

					<p>development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)?</p> <ul style="list-style-type: none"> ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of the strategic plan(s)? <p>❖ Presentation of issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the STATE DEVELOPMENT in relation to the NIP according to the TASKS TO BE COMPLETED BY THE PARTNERS BEFORE THE WORKSHOP 2</p>
10:00 – 10:15	COFFEE BREAK		15 min		
10:15 - 10:30	9 – Presentation of the answers of some questions, issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the EPA in relation to the NIP	<ul style="list-style-type: none"> ❖ Understanding issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of your organization in relation to the NIP ❖ Clarify the changes in individual organizations’ vision, policy(ies) and the rest of strategic plan(s) 	10 min presentation and 5 min for questions	<ul style="list-style-type: none"> ❖ Documentation from the organization/group based on the tasks for the workshop 	<ul style="list-style-type: none"> ❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within an NIP? ○ Which changes do you

		❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP			<p>think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)?</p> <ul style="list-style-type: none"> ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)? <p>❖ Presentation of issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the EPA in relation to the NIP according to the TASKS TO BE COMPLETED BY THE PARTNERS BEFORE WORKSHOP 2</p>
10:30 – 10:45	10 – Presentation of the answers of some questions, issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of CQU in relation to the NIP	❖ Understanding issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of your organization in relation to the NIP	10 min presentation and 5 min for questions	❖ Documentation from the organization/group based on the tasks for the workshop	❖ Answer the questions (do it in a written form that the facilitator can copy to others): <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of

		<ul style="list-style-type: none"> ❖ Clarify the changes in individual organisations' vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 			<p>your organization/group to address the work as partner within an NIP?</p> <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)? ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of the strategic plan(s)? <p>❖ Presentation of issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the CQU in relation to the NIP according to the TASKS TO BE COMPLETED BY THE PARTNERS BEFORE WORKSHOP 2</p>
10:45 – 11:00	11 – Presentation of the	❖ Understanding issues	10 min	❖ Documentation	❖ Answer the questions (do it in

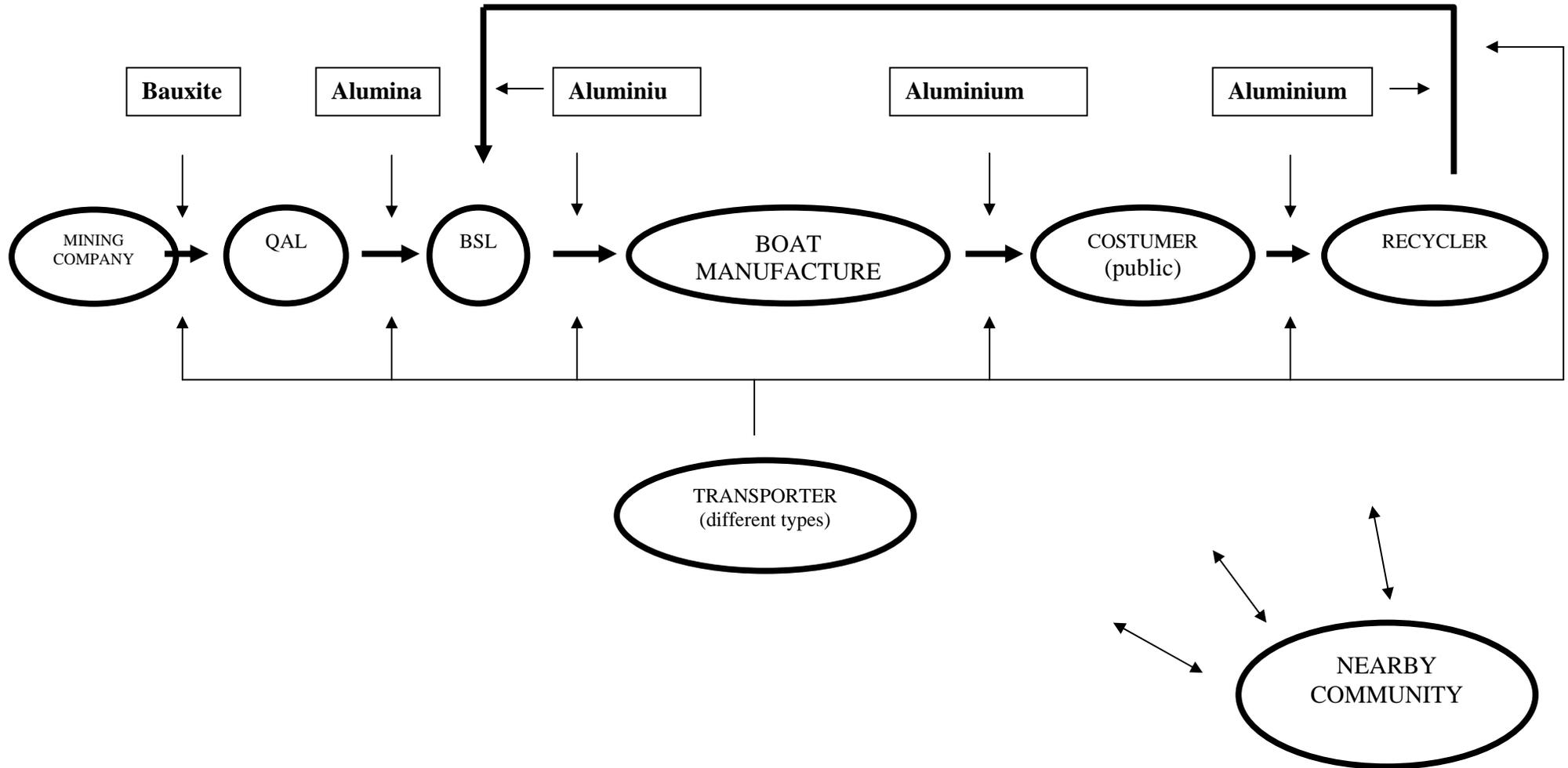
	<p>answers of some questions, issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the COMMUNITY NOISE AND ODOUR COMMITTEE in relation to the NIP</p>	<p>that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of your organization in relation to the NIP</p> <ul style="list-style-type: none"> ❖ Clarify the changes in individual organization's vision, policy(ies) and the rest of the strategic plan(s) ❖ Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP 	<p>presentation and 5 min for questions</p>	<p>from the organization/group based on the tasks for the workshop</p>	<p>a written form that the facilitator can copy to others):</p> <ul style="list-style-type: none"> ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within an NIP? ○ Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title "Additional Material")? ○ Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)? <p>❖ Presentation of issues that the NIP needs to manage, control, monitor, evaluate performance and report and the needs of the COMMUNITY NOISE AND</p>
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					ODOUR COMMITTEE in relation to the NIP according to the TASKS TO BE COMPLETED BY THE PARTNERS BEFORE WORKSHOP 2
11:00 – 11:15	12 – Presentation of some KPIs by the researcher	❖ Suggestion of KPIs	10 min presentation and 5 min for questions	<ul style="list-style-type: none"> ❖ KPIs suggested by the researcher ❖ Computer ❖ Projector ❖ Flip chart ❖ Overhead projector ❖ White board 	
11:15 – 12:00	13 – Study circles for the development of KPIs and performance criteria according to sustainable principles (economic issues)	Clarify and agree on the KPIs that will be used by the NIP in further implementing the SPEMS.	45 min	<ul style="list-style-type: none"> ❖ Flip chart ❖ White board 	❖ Formation of groups of five people, preferably one person linked to each pillar of sustainability.
12:00 – 13:00	LUNCH		60 min		
<i>Afternoon</i>					
13:00 – 14:00	14 – Study circles for the development of KPIs and performance criteria according to sustainable principles (environmental issues)	Clarify and agree on the KPIs that will be used by the NIP in further implementing the SPEMS.	60 min	<ul style="list-style-type: none"> ❖ Flip chart ❖ White board 	❖ Formation of groups of five people, preferably one person linked to each pillar of sustainability.
14:00 – 15:00	15 – Study circles for the development of KPIs and	Clarify and agree on the KPIs that will be used by	60 min	<ul style="list-style-type: none"> ❖ Flip chart ❖ White board 	❖ Formation of groups of five people, preferably one person

	performance criteria according to sustainable principles (social issues)	the NIP in further implementing the SPEMS.			linked to each pillar of sustainability.
15:00 – 15:15	COFFEE BREAK		15 min		
15:15 – 16:30	16 - Study circles for the development of KPIs and performance criteria according to sustainable principles	❖ Agree on the KPIs that will be used by the NIP in further implementing the SPEMS.	45 min	<ul style="list-style-type: none"> ❖ Flip chart ❖ White board 	<ul style="list-style-type: none"> ❖ Formation of only one group. ❖ Activity done to reach the KPIs and performance criteria for the NIP through consensus or vote ❖ One participant using the flip chart and writing down the KPIs and performance criteria for the NIP
16:30 – 16:45	17 – Evaluations and request of activities for the next workshop	❖ Evaluations and preparation for workshop 3	15 min	<ul style="list-style-type: none"> ❖ Tasks for workshop 2 ❖ Computer ❖ Projector ❖ Flip chart ❖ Overhead projector ❖ White board 	<ul style="list-style-type: none"> ❖ Questions to be answered: <ul style="list-style-type: none"> ○ Any suggestion for the improvement of the implementation of partnership? ○ Are you committed to continue the workshops and the development of partnership? ❖ Complete the PARTNERSHIP TABLE ❖ Complete the EVALUATION OF THE WORKSHOP

ADDITIONAL MATERIAL 1 - KPIs

NIP IN GLADSTONE – IDENTIFICATION OF SOME KPIs
(Analysis based on bauxite, alumina and aluminium)





No	INDICATOR	TYPE	ORGANIZATION THAT SUGGESTED IT
1	<i>Quantity of water per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
2	<i>Quantity of water reused per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
3	<i>Quantity of processed, recycled or reused materials used per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
4	<i>Quantity of energy used per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
5	<i>Quantity of waste per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
6	<i>Quantity of specific emissions per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
7	Duration of product use	OPI	ISO
8	<i>Concentration of a specific contaminant in ambient air/water/land at selected monitoring locations</i>	<i>ECI</i>	<i>ISO</i>
9	<i>Number of achieved objectives and targets</i>	<i>MPI</i>	<i>ISO</i>
10	Material input per service unit	P	OECD
11	Total waste generation	P	OECD
12	Avoidance of emissions/waste related to water or soil/noise in the environment	S	OECD
13	Avoidance of overall land use needed for materials extraction	S	OECD
14	<i>A description of the programme, activity or policy instrument under consideration</i>	<i>R</i>	<i>OECD</i>
15	Recommendation for response-actions supporting continuous improvement	R	OECD
16	Total material use	-	GRI
17	Percentage of materials used that are wastes	-	GRI
18	Direct energy use segmented by primary source	-	GRI
19	Total water use	-	GRI
20	Greenhouse gas emissions	-	GRI
21	Total amount of waste by type and destination	-	GRI
22	<i>Significant environmental impacts of principal products/services</i>	-	<i>GRI</i>



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4	<i>Quantity of energy used per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
5	<i>Quantity of waste per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
6	<i>Quantity of specific emissions per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
7	Duration of product use	OPI	ISO
8	<i>Concentration of a specific contaminant in ambient air/water/land at selected monitoring locations</i>	<i>ECI</i>	<i>ISO</i>
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14	<i>A description of the programme, activity or policy instrument under consideration</i>	<i>R</i>	<i>OECD</i>
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14	<i>A description of the programme, activity or policy instrument under consideration</i>	<i>R</i>	<i>OECD</i>
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21	Total amount of waste by type and destination	-	GRI
22	<i>Significant environmental impacts of principal products//services</i>	<i>-</i>	<i>GRI</i>



No	INDICATOR	TYPE	ORGANISATION THAT SUGGESTED
1			
2			
3			
4	Quantity of energy used per year (use of the product)!!!!		ISO (adaptation)
5			
6	Quantity of specific emissions per year or per unit of duration of product use (use of the product)!!!!		ISO (adaptation)
7	<i>Duration of product use</i>		<i>ISO (adaptation)</i>
8	<i>Concentration of a specific contaminant in ambient air/water/land at selected monitoring locations!!!!</i>		<i>ISO (adaptation)</i>
9			
10			
11			
12			
13			
14			
15			
16			
17			
18	Direct energy use (use of the product)!!!!		GRI (adaptation)
19			
20	Greenhouse gas emissions (area where the customer uses the product)!!!!!!!!!!!!		GRI (adaptation)
21			
22	Significant environmental impacts of principal products/services (related to the activity to use it)!!!!		GRI (adaptation)



No	INDICATOR	TYPE	ORGANISATION THAT SUGGESTED
1	<i>Quantity of water per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
2	<i>Quantity of water reused per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
3	<i>Quantity of processed, recycled or reused materials used per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
4	<i>Quantity of energy used per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
5	<i>Quantity of waste per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
6	<i>Quantity of specific emissions per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
7	Duration of product use	OPI	ISO
8	<i>Concentration of a specific contaminant in ambient air/water/land at selected monitoring locations</i>	<i>ECI</i>	<i>ISO</i>
9	<i>Number of achieved objectives and targets</i>	<i>MPI</i>	<i>ISO</i>
10	Material input per service unit	P	OECD
11	Total waste generation	P	OECD
12	Avoidance of emissions/waste related to water or soil/noise to the environment	S	OECD
13	Avoidance of overall land use needed for materials extraction	S	OECD
14	<i>A description of the programme, activity or policy instrument under consideration</i>	<i>R</i>	<i>OECD</i>
15	Recommendation for response-actions supporting continuous improvement	R	OECD
16	Total material use	-	GRI
17	Percentage of materials used that are wastes	-	GRI
18	Direct energy use segmented by primary source	-	GRI
19	Total water use	-	GRI
20	Greenhouse gas emissions	-	GRI
21	Total amount of waste by type and destination	-	GRI
22	<i>Significant environmental impacts of principal products//services</i>	<i>-</i>	<i>GRI</i>



No	INDICATOR	TYPE	ORGANISATION THAT SUGGESTED
1	<i>Quantity of water per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
2	<i>Quantity of water reused per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
3	<i>Quantity of processed, recycled or reused materials used per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
4	<i>Quantity of energy used per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
5	<i>Quantity of waste per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
6	<i>Quantity of specific emissions per year or per unit of product/service</i>	<i>OPI</i>	<i>ISO</i>
7	Duration of product use	OPI	ISO
8	<i>Concentration of a specific contaminant in ambient air/water/land at selected monitoring locations</i>	<i>ECI</i>	<i>ISO</i>
9	<i>Number of achieved objectives and targets</i>	<i>MPI</i>	<i>ISO</i>
10	Material input per service unit	P	OECD
11	Total waste generation	P	OECD
12	Avoidance of emissions/waste related to water or soil/noise to the environment	S	OECD
13	Avoidance of overall land use needed for materials extraction	S	OECD
14	<i>A description of the programme, activity or policy instrument under consideration</i>	<i>R</i>	<i>OECD</i>
15	Recommendation for response-actions supporting continuous improvement	R	OECD
16	Total material use	-	GRI
17	Percentage of materials used that are wastes	-	GRI
18	Direct energy use segmented by primary source	-	GRI
19	Total water use	-	GRI
20	Greenhouse gas emissions	-	GRI
21	Total amount of waste by type and destination	-	GRI
22	<i>Significant environmental impacts of principal products//services</i>	<i>-</i>	<i>GRI</i>

BASIC EVALUATION

- The indicators presented are from the documents GRI, ISO and OECD. They are more or less the same indicators but presented in different ways. It does not mean that I would suggest their use directly in any company or NIP in the way they are presented. For each case I would like them to take these indicators and adapt them to their company or NIP. I have also some suggestions on a different way to present them and also some small additions.
- As you can see the most important indicators are similar for all organizations.

<i>Quantity of water per year or per unit of product/service</i>
<i>Quantity of water reused per year or per unit of product/service</i>
<i>Quantity of processed, recycled or reused materials used per year or per unit of product/service</i>
<i>Quantity of energy used per year or per unit of product/service</i>
<i>Quantity of waste per year or per unit of product/service</i>
<i>Quantity of specific emissions per year or per unit of product/service</i>
<i>Duration of product use (not for everyone)</i>
<i>Concentration of a specific contaminant in ambient air/water/land at selected monitoring locations</i>
<i>Number of achieved objectives and targets</i>
<i>A description of the programme, activity or policy instrument under consideration</i>
<i>Significant environmental impacts of principal products/services</i>

- The costumers are members of the community but as costumers they have different necessities. They have specific needs as users of the product (then some indicators for them are different). As general participants of the community the indicators marked in red for most of the organizations can be used for the community (because the needs are similar – however the way to present the data to the public would be different from the way to present the data inside the company)
- The community is interested in the impact of the activities of the companies on their environment (air, soil, water, built environment, biodiversity, etc). Then, again, the indicators marked in red can be used.
- A general classification of the community would be (also their interest in the NIP):
 - Costumers – most of the time interested in the organization that provides the product/service
 - Nearby community - interested in the entire NIP but lost on how to define responsibilities
 - Employers – most of the time interested in their company
 - Employees – most of the time interested in their company
 - Shareholders – most of the time interested in their company
 - Government - interested in the entire NIP
 - Indirect suppliers - interested in some parts of the entire NIP
- In my opinion the interest of the community in part of the NIP or the entire NIP is only a question of the holistic view. If they are educated, they become worried about the entire NIP

ADDITIONAL MATERIAL 2 - KPIs

ECONOMIC/FINANCIAL

- ROA - RETURN ON ASSETS (Business profitability);
- ROS - RETURN ON SALES (Profit);
- TURN OVER (Investment efficiency);
- ROE – RETURN ON EQUITY (Shareholders' money profitability);
- EVA – ECONOMIC VALUE ADDED (Value added to the shareholders' money);

SOCIAL (INTERNAL TO THE ORGANIZATION)

- Index of employee satisfaction (access through a questionnaire);
- Index of shareholder satisfaction (access through a questionnaire);

SOCIAL (EXTERNAL TO THE ORGANIZATION - AREA AND POPULATION DEFINED AS THE INFLUENCE OF THE ORGANIZATION)

- Index of community satisfaction (access through a questionnaire);
- Rate of population growth (area and population defined as the influence of the organization);
- Energy use/capita;
- Water use/capita;
- Income/capita;
- Unemployment rate;
- Adult literacy rate;
- Under 5 mortality rate;
- Disabled people rate (due to illness or accident);

CULTURAL (INTERNAL)

- % of trained employees (general awareness in quality, environment and occupational health and safety);
- Employee values and necessities (access through a questionnaire);
- Shareholder values and necessities (access through a questionnaire);

CULTURAL (EXTERNAL - AREA AND POPULATION DEFINED AS THE INFLUENCE OF THE ORGANIZATION)

- % of trained people from the community (general awareness in quality, environment and occupational health and safety);
- Community values and necessities (access through a questionnaire);
- Client values and necessities (access through a questionnaire);

QUALITY/ ENVIRONMENT/ OCCUPATIONAL HEALTH AND SAFETY (H&S)

- Index of client satisfaction (access through a questionnaire);
- Preventative non-conformance/Corrective non-conformance;
- Non-conformance concluded/Non-conformance found;
- Unitary cost of production
- Unitary price of production;
- Real production/Theoretical production (maximum capacity of production);
- Real sales [Real production – (Lost Production + Devolutions)]/ Theoretical production (maximum capacity of production);
- Market participation;
- Index of aggregation for the environment (index constructed based on the information of the major environmental indicators);
- Index of resource utilization (index constructed based on the information of the ratios of the most important resources used by the organization – labour, raw materials, inputs);
- Number of environmental and H&S violations;
- Number of emergency situations that occurred;
- Number of (quality, environment and H&S) programs on budget and on time/number of programs on development;
- % of employees with good health (medical evaluation);
- Number of complaints because of H&S or environmental issues (per type);
- Rate of accident frequency with lost time (per type);
- Rate of accident frequency rate without lost time (per type);
- Rate of illness frequency (per type);
- Rate of lost time frequency (due to illness or accident);



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*The Development of Partnership Within
a Network of Interested Parties (NIP) to
Improve Performance – Workshop 2*

SPOTLIGHT PILOT PROJECT

Researcher: José Flavio G. M. Coelho
f.coelho@cqu.edu.au and (07) 4970.7348

Supervisors: Prof. David Moy and Engineer Rod Edwards

EVALUATION - WORKSHOP 2

INSTRUCTIONS: Mark your answer and then make comments about your answer

1. Did the workshop attain its objectives?

- 100% of its objectives
- 75% of its objectives
- 50% of its objectives
- 25% of its objectives
- 0% of its objectives

Comments _____

2. Was the workshop planned properly to attain its objectives? _____

- Workshop very well planned
- Workshop well planned
- Workshop reasonably well planned
- Workshop not well planned
- Workshop badly planned

Comments _____

3. Did the facilitator assist the workshop properly to attain its objectives?

- Workshop very well driven
- Workshop well driven
- Workshop reasonably well driven
- Workshop not well driven
- Workshop badly driven

Comments _____

EVALUATION OF THE DEVELOPMENT OF THE PARTNERSHIP

Number	Parameters	Score	0	5	10
1	Definition of partnership: Have the participants of the NIP reached a consensus of the term partnership?				
2	Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?				
3	Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?				
4	Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?				
5	Your trust in others: What is your level of trust in other organizations' participants in the NIP				
6	Trust within the NIP: What is the level of trust among participants of the NIP?				
7	Your transparency: What is the level of transparency that you apply when presenting information to the NIP?				
8	Transparency within the NIP: What is the level of transparency among participants of the NIP?				
9	Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?				
10	Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?				
11	Structure of the NIP: Is the structure of the NIP defined?				
12	Resources for the NIP: Are the resources for the NIP defined?				
13	Scope of the NIP: is the scope of the NIP identified?				
14	Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?				
15	Your level of communication: Do you inform other organizations/groups participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes, is processed and a feedback given)?				
16	Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?				39
17	Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?				

Instructions:

1. Mark an X in the best score for each answer in your opinion (at this point of the workshop).

Evaluation of the parameters:

1. Definition of partnership: Have the participants of the NIP reached a common definition for the term partnership?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

2. Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

3. Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?

Scores

- ❖ 0 = Not prepared to commit yet
- ❖ 5 = Want to commit but need to participate more to decide
- ❖ 10 = 100% Committed

4. Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?

Scores

- ❖ 0 = No commitment among participants
- ❖ 5 = Medium level of commitment
- ❖ 10 = 100% Committed

5. Your trust in others: What is your level of trust in other organisations participants in the NIP

Scores

- ❖ 0 = Do not trust
- ❖ 5 = Some degrees of trust
- ❖ 10 = Trust 100%

6. Trust within the NIP: What is the level of trust among participants of the NIP?

Scores

- ❖ 0 = No trust among participants
- ❖ 5 = Medium level of trust
- ❖ 10 = Trust reached the level of 100%

7. Your transparency: What is the level of transparency that you apply when presenting information to the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

8. Transparency within the NIP: What is the level of transparency among participants of the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

9. Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?

Scores

- ❖ 0 = All information is confidential
- ❖ 5 = Some information is confidential
- ❖ 10 = There is no confidential information

10. Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

11. Structure of the NIP: Is the structure of the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

12. Resources for the NIP: Are the resources for the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

13. Scope of the NIP: is the scope of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

14. Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?

Scores

- ❖ 0 = Objectives not defined
- ❖ 5 = Objectives reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

15. Your level of communication: Do you inform other organizations/groups participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes, is processed and a feedback is given)?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them (information flows in both directions)

16. Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided. It can also happen when other participants send to our organization/group information and our organization/group does not give any feedback to the source of information about the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them. Vice versa also happens (information flows in both directions)

17. Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?

Scores

- ❖ 0 = KPIs not defined
- ❖ 5 = KPIs reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

APPENDIX 11 - MATERIAL FOR WORKSHOP 3

INVITATION FOR THE WORKSHOP 3

We would like to invite you to participate in **THE THIRD WORKSHOP** of the pilot project “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTIES (NIP) TO IMPROVE PERFORMANCE”.

The workshop will be on 15TH of June 2004, starting at 8:00AM, at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2).

Your participation is important for the project.

THE SCHEDULE OF THE WORKSHOP AND THE TASKS THAT YOU HAVE TO PREPARE FOR THE WORKSHOP WERE GIVEN TO YOU IN THE LAST WORKSHOP.

I have enclosed the report related to the second workshop. It is a draft and I would appreciate it if you could make improvements, if necessary, and send it back to me.

If you need additional information, please contact Flavio Coelho through his email f.coelho@cqu.edu.au or through the phone (07)4970.7348.

TASKS TO BE COMPLETED BY EVERYONE BEFORE WORKSHOP 3

OBJECTIVES OF WORKSHOP 3:

- ❖ Define vision, policies and basic action plans for the NIP (if necessary), including dates
- ❖ Define structures for the NIP and for the implementation of the SPEMS (it will be a committee formed by representatives of each company with chairperson and secretary or one company leading the NIP?)
- ❖ Define table of responsibilities within the NIP and for the implementation of SPEMS
- ❖ Define financial and other resources for the NIP and for the implementation of SPEMS
- ❖ Define the cycle of each performance evaluation of the NIP and the meetings to evaluate performance
- ❖ Define communication systems (internal and external)
- ❖ Define the necessity of training within the NIP (address the necessity of training inside each company)
- ❖ Define the documentation system and its control (including records)
- ❖ Define the scope and objectives of the NIP (improve the ones already defined)
- ❖ Obtain commitment from everyone to continue the development of partnership and implementation of SPEMS within the NIP.

GENERAL NOTES:

- ❖ If you want to present something through computer and video projector, please send the file two days before each workshop. Remember that the workshops will be on 1st, 8th and 15th of June 2004.
- ❖ There will be available for presentation:
 - Computer and video projector
 - Overhead projector
 - Flip-chart
 - White board.
- ❖ Organizations/groups will define the level of information they will provide during the workshops (consider the level of confidentiality that your organization/group wants to use).
- ❖ Remember that we are dealing with the real world. **WE ARE GOING TO DEVELOP A BASIC STRUCTURE FOR THE CONTINUATION OF THIS PROJECT**

TASKS

- ❖ We are going to define a structure for the NIP. Question: Do you want to continue the development of partnership and implementation of SPEMS within the NIP?
- ❖ Read the objectives of the workshop and prepare your suggestions for the workshop (to be discussed with others)

PLANS FOR WORKSHOP 3

Facilitator: Jose Flavio Coelho

a) Details for the workshop

<i>TIME</i>	<i>ACTIVITY</i>	<i>OBJECTIVES</i>	<i>LENGTH OF TIME</i>	<i>NECESSARY RESOURCES</i>	<i>OTHER INFORMATION</i>
<i>Morning</i>					
8:00 – 8:15	1 – Welcome + registration + informal conversation	❖ Continue the project or not?	15 min		<ul style="list-style-type: none"> ❖ Please do not be late ❖ We are going to define a structure for the NIP. Question: Do you want to continue the development of partnership and implementation of SPEMS for the NIP? ❖ Presentation EXCEL – Evaluation of partnership and report from workshop 2
8:15 – 8:45	2 - Study circles for the definition of (if necessary): <ul style="list-style-type: none"> ❖ Vision ❖ Policies ❖ Action plans 	❖ Define vision, policies and basic action plans for the NIP (if necessary), including dates	30 min	❖ Documentation from the organization/group based on the tasks for the workshop	<ul style="list-style-type: none"> ❖ Activity done to reach the objective through consensus or vote ❖ One participant using the flip chart and writing down the definitions from the group
8:45 – 9:30	3 - Study circles for the definition of: <ul style="list-style-type: none"> ❖ Structure for the NIP and for the implementation of the SPEMS (it will be a committee formed by representatives of each company with 	<ul style="list-style-type: none"> ❖ Define structure for the NIP and for the implementation of the SPEMS ❖ Define table of responsibilities within the NIP and for the implementation of SPEMS 	45 min	❖ Documentation from the organization/group based on the tasks for the workshop	<ul style="list-style-type: none"> ❖ Formation of only one group. ❖ Activity done to reach the objective through consensus or vote ❖ One participant using the flip chart and writing down the definitions from the group

	<p>chairperson and secretary or one company leading the NIP?)</p> <ul style="list-style-type: none"> ❖ Responsibilities within the NIP and for the implementation of SPEMS 				
9:30 – 10:00	<p>4 – Study circles for the definition of (if necessary):</p> <ul style="list-style-type: none"> ❖ Financial and other resources for the NIP and for the implementation of SPEMS ❖ The cycle of each performance evaluation of the NIP and the meetings to evaluate performance 	<ul style="list-style-type: none"> ❖ Define financial and other resources for the NIP and for the implementation of SPEMS ❖ Define the cycle of each performance evaluation of the NIP and the meetings to evaluate performance 	30 min	<ul style="list-style-type: none"> ❖ Documentation from the organization/group based on the tasks for the workshop 	<ul style="list-style-type: none"> ❖ Formation of only one group. ❖ Activity done to reach the objective through consensus or vote ❖ One participant using the flip chart and writing down the definitions from the group
10:00 – 10:15	COFFEE BREAK		15 min		
10:15 - 10:45	<p>5 – Study circles for the definition of (if necessary):</p> <ul style="list-style-type: none"> ❖ Communication systems (internal and external) ❖ The necessity of training within the NIP (address the necessity of training inside each company) 	<ul style="list-style-type: none"> ❖ Define communication systems (internal and external) ❖ Define the necessity of training within the NIP (address the necessity of training inside each company) 	30 min	<ul style="list-style-type: none"> ❖ Documentation from the organization/group based on the tasks for the workshop 	<ul style="list-style-type: none"> ❖ Formation of only one group. ❖ Activity done to reach the objective through consensus or vote ❖ One participant using the flip chart and writing down the definitions for the group
10:45 – 11:15	<p>6 - Study circles for the definition of (if necessary):</p> <ul style="list-style-type: none"> ❖ Documentation 	<ul style="list-style-type: none"> ❖ Define documentation system and its control (including records) ❖ Define scope and 	30 min	<ul style="list-style-type: none"> ❖ Documentation from the organization/group based on the tasks 	<ul style="list-style-type: none"> ❖ Formation of only one group. ❖ Activity done to reach the objective through consensus or vote

	<p>system and its control (including records)</p> <ul style="list-style-type: none"> ❖ Scope and objectives of the NIP (improve the ones already defined) 	<p>objectives of the NIP (improve the ones already defined)</p>		<p>for the workshop</p>	<ul style="list-style-type: none"> ❖ One participant using the flip chart and writing down the definitions for the group
11:15 – 11:30	<p>7 – Open time for discussion of important issues defined by the participants of the NIP</p>	<ul style="list-style-type: none"> ❖ Clarify doubts, etc 	15 min		
11:30 – 12:00	<p>8 – Evaluations of this workshop and the entire series of workshops</p>	<ul style="list-style-type: none"> ❖ Evaluations 	30 min	<ul style="list-style-type: none"> ❖ Computer ❖ Projector ❖ Flip chart ❖ Overhead projector ❖ White board 	<ul style="list-style-type: none"> ❖ Questions to be answered: <ul style="list-style-type: none"> ○ Any suggestion for the improvement of the implementing of partnership? ○ Any one (organization/group) missing in the NIP? ○ Are you committed to continue the development of partnership and implementation of SPEMS for the NIP? ❖ Complete the PARTNERSHIP TABLE ❖ Complete the EVALUATION OF THE WORKSHOP ❖ NOTE: Do not forget to define levels of confidentiality, transparency, etc and document them.
12:00 – 13:00	<p>LUNCH</p>		60 min		
<p><i>Afternoon</i></p>					
13:00 –	<p>9 – To be defined by the participants</p>				



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*The Development of Partnership Within
a Network of Interested Parties (NIP) to
Improve Performance – Workshop 3*

SPOTLIGHT PILOT PROJECT

Researcher: José Flavio G. M. Coelho
f.coelho@cqu.edu.au and (07) 4970.7348

Supervisors: Prof. David Moy and Engineer Rod Edwards

EVALUATION - WORKSHOP 3

INSTRUCTIONS: Mark your answer and then make comments about your answer

1. Did the workshop attain its objectives?

- 100% of its objectives
- 75% of its objectives
- 50% of its objectives
- 25% of its objectives
- 0% of its objectives

Comments _____

2. Was the workshop planned properly to attain its objectives? _____

- Workshop very well planned
- Workshop well planned
- Workshop reasonably well planned
- Workshop not well planned
- Workshop badly planned

Comments _____

3. Did the facilitator assist the workshop properly to attain its objectives?

- Workshop very well driven
- Workshop well driven
- Workshop reasonably well driven
- Workshop not well driven
- Workshop badly driven

Comments _____

EVALUATION OF THE DEVELOPMENT OF THE PARTNERSHIP

Number	Parameters	Score	0	5	10
1	Definition of partnership: Have the participants of the NIP reached a consensus of the term partnership?				
2	Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?				
3	Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?				
4	Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?				
5	Your trust in others: What is your level of trust in other organisations participants in the NIP				
6	Trust within the NIP: What is the level of trust among participants of the NIP?				
7	Your transparency: What is the level of transparency that you apply when presenting information to the NIP?				
8	Transparency within the NIP: What is the level of transparency among participants of the NIP?				
9	Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?				
10	Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?				
11	Structure of the NIP: Is the structure of the NIP defined?				
12	Resources for the NIP: Are the resources for the NIP defined?				
13	Scope of the NIP: is the scope of the NIP identified?				
14	Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?				
15	Your level of communication: Do you inform other organizations/groups participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes, is processed and feedback given)?				
16	Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?				11
17	Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?				

Instructions:

1. Mark an X in the best score for each answer in your opinion (at this point of the workshop).

Evaluation of the parameters:

1. Definition of partnership: Have the participants of the NIP reached a common definition for the term partnership?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

2. Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

3. Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?

Scores

- ❖ 0 = Not prepared to commit yet
- ❖ 5 = Want to commit but needs to participate more to decide
- ❖ 10 = 100% Committed

4. Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?

Scores

- ❖ 0 = No commitment among participants
- ❖ 5 = Medium level of commitment
- ❖ 10 = 100% Committed

5. Your trust in others: What is your level of trust in other organizations' participants in the NIP

Scores

- ❖ 0 = Do not trust
- ❖ 5 = Some degrees of trust
- ❖ 10 = Trust 100%

6. Trust within the NIP: What is the level of trust among participants of the NIP?

Scores

- ❖ 0 = No trust among participants
- ❖ 5 = Medium level of trust
- ❖ 10 = Trust reached the level of 100%

7. Your transparency: What is the level of transparency that you apply when presenting information to the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

8. Transparency within the NIP: What is the level of transparency among participants of the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

9. Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?

Scores

- ❖ 0 = All information is confidential
- ❖ 5 = Some information is confidential
- ❖ 10 = There is no confidential information

10. Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

11. Structure of the NIP: Is the structure of the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

12. Resources for the NIP: Are the resources for the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

13. Scope of the NIP: is the scope of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

14. Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?

Scores

- ❖ 0 = Objectives not defined
- ❖ 5 = Objectives reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

15. Your level of communication: Do you inform other organizations/groups participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes, is processed and feedback is given)?

Scores

- ❖ 0 = There is any information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them (information flows in both directions)

16. Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided. It can also happen when other participants send information to our organization/group and our organization/group does not give any feedback to the source of information about the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them. Vice versa also happens (information flows in both directions)

17. Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?

Scores

- ❖ 0 = KPIs not defined
- ❖ 5 = KPIs reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

APPENDIX 13 - REPORT FOR THE WORKSHOP 1

NOTE: INDICATOR (KPI) OF PARTNERSHIP (the scores related to this KPI go from “0” = no conditions to develop partnership until “10” = the best condition to develop partnership):

- ❖ **At the beginning of the project (workshop 1) the score was around 3**
- ❖ **At the end of workshop 1 the score was around 5**

1. PROJECT: “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTNERS (NIP) TO IMPROVE PERFORMANCE”.

2. LOCATION: 1st of June 2004 at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2).

3. PARTICIPANTS:

- 1) Peter Budd, BSL
- 2) Karen Swemmer, BSL
- 3) Glen Pryce, BSL
- 4) Joan Burns, BSL
- 5) Peter Argust, BSL / COMALCO
- 6) John Powell, CLEANWAY
- 7) Chris O’Neil, CLEANWAY
- 8) Brian Hansen, COLLEX
- 9) Norm Maskiell, COLLEX
- 10) Chris Tanzer, COLLEX
- 11) Alan McNeal, OBSERVER
- 12) Anna Hitchcock, PORT CURTIS WATERWATCH
- 13) Terry Rudder, BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE
- 14) Tereza Wilkie, BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE
- 15) Les Salter, STATE DEVELOPMENT AND INNOVATION
- 16) David Moy, CQU
- 17) Rod Edwards, CQU
- 18) Jose Flavio Coelho, CQU

4. OBJECTIVES OF THE WORKSHOP:

- 1) Understand the main objectives of the project

- 2) Introduce all participants and their organization (brief introduction)
- 3) Understand the activities of all organizations/groups represented in the NIP
- 4) Agree about key terminologies
- 5) Start the process of NIP partnership development

5. ANSWERS OF THE QUESTIONS (TASK INCLUDED IN THE INTRODUCTION OF EACH ORGANIZATION/GROUP BY THE PARTICIPANTS WITHIN THE WORKSHOP 1)

<p>QUESTIONS</p> <p>COMPANIES</p>	<p>a) What does your organization/group do?</p>	<p>b) Why is this project important for your organization/group?</p>	<p>c) What would be the major objectives of this NIP?</p>	<p>d) What do you expect from this project and the future Network of Interested Parties?</p>	<p>e) Do you think that the use of a common language in terms of performance evaluation for all participants of the NIP helps to integrate the NIP?</p>
<p>STATE DEVELOPMENT</p>	<ul style="list-style-type: none"> ❖ Implement State Govt policies on Business and Industry ❖ Seek business intelligence and feed back ❖ Facilitate development of business networks 	<ul style="list-style-type: none"> ❖ The organization has identified that the current relationship between major industry and suppliers in Gladstone is a barrier to efficiency and potential business growth (e.g. export opportunities) 	<ul style="list-style-type: none"> ❖ Develop KPIs and performance criteria that are relevant and meet best practice. 	<ul style="list-style-type: none"> ❖ First stage in developing a template as the basis of better business cooperation in the region 	<ul style="list-style-type: none"> ❖ Yes
<p>WATERWATCH</p>	<ul style="list-style-type: none"> ❖ Waterwatch Queensland is a community based network who focuses on: <ul style="list-style-type: none"> ○ Waterway 	<ul style="list-style-type: none"> ❖ Often the source of supply is forgotten when assessing environmental impact from a 	<ul style="list-style-type: none"> ❖ Ensure the long-term environmental sustainability of BSL's supply chain. Ensure 	<ul style="list-style-type: none"> ❖ Better understanding of BSL's industrial processes. 	<ul style="list-style-type: none"> ❖ This may not be achievable as we all have such different focuses. Not necessarily helpful to understanding to

	<p>monitoring through collaborative partnerships</p> <ul style="list-style-type: none"> ○ Community learning about the health of waterways and catchments ○ Informed and responsible action and involvement to achieve healthy waterways. 	<p>particular industry or business. We need to consider both upstream and downstream effects of any activity.</p>	<p>BSL's good work isn't undermined by using environmentally unfriendly products.</p>		<p>force inappropriate terminology, or try to measure immeasurable.</p>
<p>BOYNE SMELTERS</p>	<ul style="list-style-type: none"> ❖ Ownership <ul style="list-style-type: none"> ○ Consortium of companies - including Comalco (59%), Sumitomo Light Metals, YKK, Mitsubishi, Sumitomo Chemicals ❖ Personnel <ul style="list-style-type: none"> ○ Employees & Contractors 1450 ❖ Production <ul style="list-style-type: none"> ○ 540,000tpa - 22kg 	<ul style="list-style-type: none"> ❖ Builds sustainable relationships ❖ Aligns objectives of all partners leading to better outcomes ❖ Helps to prevent problems from occurring eg: environmental, community, etc ❖ Accurate information known to all ❖ Better understanding of full supply chain 	<ul style="list-style-type: none"> ❖ All partners contribute & add value ❖ Value added to all participants ❖ Trust between partners ❖ Accurate and timely communication ❖ Focus on prevention of problems not just treatment ❖ Identify & utilise opportunities ❖ Reduce rework and waste eg: efficiency gains 	<ul style="list-style-type: none"> ❖ Sustainable relationships ❖ A model to be used with other supply chains that supports sustainability goals ❖ To better understand opportunities that exist ❖ Provide economies of scale ❖ To learn – how to get it right ❖ Reduce rework and waste (i.e.: Learn manufacturing principles) 	<ul style="list-style-type: none"> ❖ YES - this is critical for understanding

	<p>Ingot (70%), Billet & Tbar</p> <ul style="list-style-type: none"> ❖ Markets <ul style="list-style-type: none"> ○ Thailand, Indonesia, Malaysia, Hong Kong, Taiwan, Japan, USA, Australia ❖ History <ul style="list-style-type: none"> ○ Plant commissioned 1982 ○ Major Expansion 1997 				
CLEANWAY	<ul style="list-style-type: none"> ❖ Cleanway is Australia's largest and most experienced waste manager organisation. 	<ul style="list-style-type: none"> ❖ We are in a unique position in performing our services at the end of the supply chain. ❖ Our performance is closely observed by our business partners, industry watch dogs and community groups. ❖ Brings BSL & Cleanway. 	<ul style="list-style-type: none"> ❖ Broad based economic progress of the region without loss of quality of life and environment. 	<ul style="list-style-type: none"> ❖ A closer working relationship with BSL, Comalco, Rio Tinto and the supply chain (NIP). ❖ Cleaner communications with other interested parties. 	<ul style="list-style-type: none"> ❖ We believe a common language is critical for our understanding.
COLLEX	<ul style="list-style-type: none"> ❖ The company is 	<ul style="list-style-type: none"> ❖ Collex is 	<ul style="list-style-type: none"> ❖ Identify the 	<ul style="list-style-type: none"> ❖ Derive a 	<ul style="list-style-type: none"> ❖ It is imperative in the

	<p>one of Australia's leading Environmental Services companies providing services in the fields of waste management and industrial services.</p>	<p>convinced that partnerships to improve performance is the preferred way of achieving the common business objectives and when chartered and implemented effectively, such an arrangement will produce outstanding results for all participants. We totally embrace this opportunity of working on a broader base with BSL (Comalco) because:</p> <ul style="list-style-type: none"> ▪ All efforts will be focused on common goals + achievement of what is traditionally considered not possible, ▪ Together we can set new benchmarks for safety, cost effectiveness, environmental management, community 	<p>outcomes that each stakeholder/business unit is seeking to achieve.</p> <ul style="list-style-type: none"> ❖ What products/services are they able to provide. ❖ What systems/management structure they do have in place to support existing services and expanded services. ❖ To identify the vision/strategies from the NIP to establish priorities and to develop and implement action plans to identify risks and favourable outcomes. ❖ Develop control/measurement through KPIs ❖ Develop a partnership for the implementation of SPEMS 	<p>comprehensive understanding of the social, community and environmental aspects and concerns from the NIP. This will enable us to introduce performance evaluation measures that address any concerns that they may have.</p> <ul style="list-style-type: none"> ❖ Derive a comprehensive understanding of the economic conditions that impact on the plant such as material cost, fluctuations in the commodity market and production interruptions. ❖ Develop good relationships within the NIP with a view to becoming partners in performance. ❖ Establish a systematic documented action plan approach to enhancing performance associated with existing contract work and applying the same measurement 	<p>nature of this endeavour that the use of a common language be employed where there is a variety of experience and expertise. For communication to be effective, the common lingo should be employed at the outset of this project and be used not only to the end, but as an ongoing initiative of all parties. This will ensure that any miscommunication of misunderstanding will be minimised. A common language will also ensure that all parties are on a level playing field and will have excellent understanding of what is being measured and how it is being measured.</p>
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		<p>involvement and employee empowerment</p> <ul style="list-style-type: none"> ▪ Jointly we will utilise breakthrough thinking to identify and incorporate innovation to the maximum extent possible ▪ We will have an opportunity to achieve an exceptional reward for exceptional performance ▪ Our management's focus will be directed at continual improvement relationship, the existing prospect of ongoing business opportunities. 		<p>methodology to any expanded roles that may be agreed.</p>	
COMALCO	<ul style="list-style-type: none"> ❖ Fully owned subsidiary of Rio Tinto ❖ Manages Rio Tinto's interests in bauxite, alumina, 	<ul style="list-style-type: none"> ❖ Strategic commitment to sustainable development (Rio Tinto is sector leader of Dow 	❖	❖	❖

	<p>and aluminium.</p> <ul style="list-style-type: none"> ❖ Australian HQ, but Global operations and markets 	<p>Jones Sustainability Index)</p> <ul style="list-style-type: none"> ❖ Success depends on performance in meeting expectations ❖ Comalco processes are resource intensive and generate significant 'by products'. ❖ Suppliers are part of our business ❖ Easy to engage and agree on principles, difficult to find common and consistent language and measures that are meaningful across all locations but maintain local flexibility. ❖ 			
<p>BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE</p>	<ul style="list-style-type: none"> ❖ The Centre offers innovative and dynamic programs tailored to the unique needs of each school group. It provides educational 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ 	<ul style="list-style-type: none"> ❖ Yes, on the proviso that that language would 'have meaning' to parties outside the NIP. This would facilitate expedient reporting and accountability

	<p>leadership in environmental education and develops environmentally responsible attributes and attitudes in the citizens of tomorrow's society.</p>				<p>processes for members required to report to other authorities. This is also essential to ensure that the community understands the functions of the NIP.</p>
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6. GROUPS FORMED DURING THE WORKSHOP 1 TO DEVELOP GROUP TASKS

❖ GROUP 1:

- Les Salter, STATE DEVELOPMENT AND INNOVATION
- John Powell, CLEANWAY
- Norm Maskiell, COLLEX
- Jose Flavio Coelho, CQU
- Tereza Wilkie, BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE
- Peter Budd, BSL

❖ GROUP 2:

- Rod Edwards, CQU
- Karen Swemmer, BSL
- Chris O'Neil, CLEANWAY
- Chris Tanzer, COLLEX
- Glen Pryce, BSL

❖ GROUP 3:

- Joan Burns, BSL
- Peter Argust, BSL / COMALCO
- Brian Hansen, COLLEX
- Anna Hitchcock, PORT CURTIS WATERWATCH
- Terry Rudder, BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE

6. DEVELOPMENT OF THE DEFINITION (TASK DURING THE WORKSHOP 1)

NOTE:

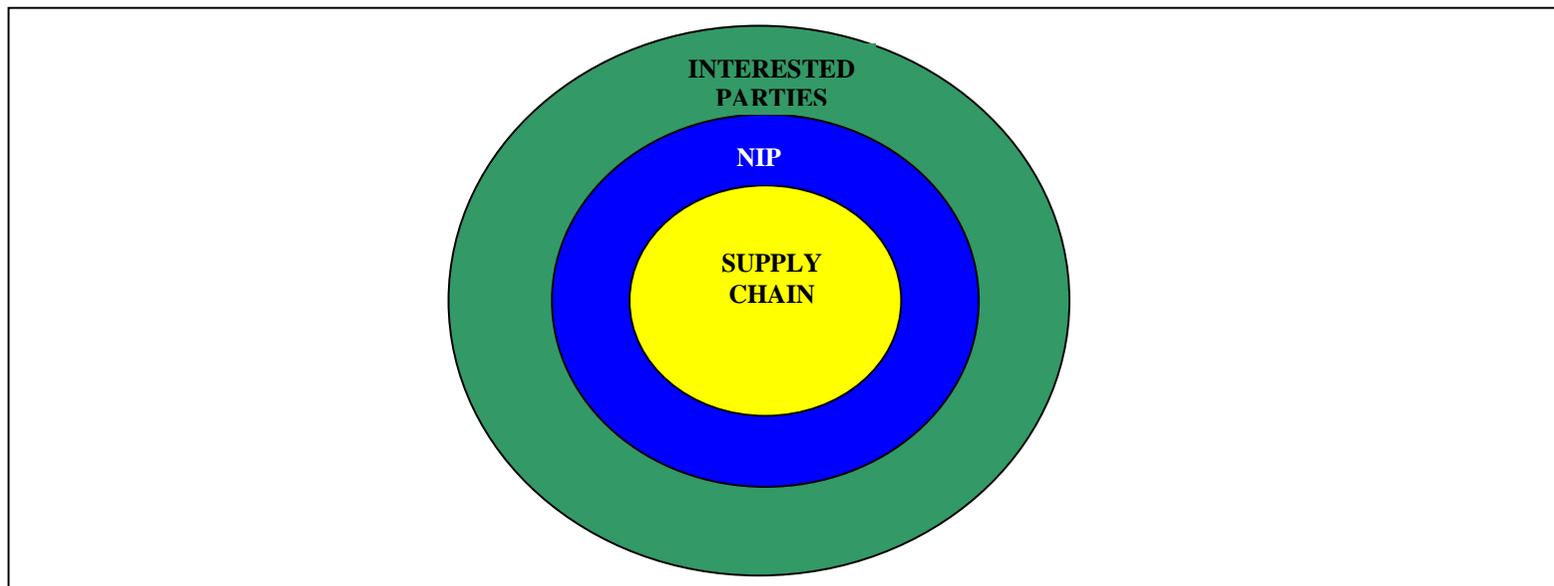
- ❖ Definitions reached by consensus.

a) NETWORK OF INTERESTED PARTNERS (NIP)

Partnership among interested parties where there are common goals and the partners share risks, responsibilities, resources and rewards.

NOTE:

- ❖ The initial term was network of interested parties. However the participants of the NIP improved the term and it was defined that the new term would be NETWORK OF INTERESTED PARTNERS.
- ❖ For the purpose of understanding the definition of NIP, the participants of the workshop found it necessary to clarify the concepts of:
 - **SUPPLY CHAIN:**
 - Linear subset of NIP
 - Principally commercial focus
 - **INTERESTED PARTIES:**
 - Individual or group concerned with or affected by the performance of an organization (ISO 14001:1996)
 - Person or group having an interest in the performance or success of an organization. A group can comprise an organization, a part thereof, or more than one organization (ISO 9000:2000)
- ❖ For the purpose of understanding the definition of NIP, the participants of the workshop found it necessary to develop an scheme showing the relations between NIP, supply chain and interested parties:



b) PARTNERSHIP

Active participation in sharing risks, responsibilities, rewards and resources and achieving common goals based on trust and value adding.

c) TRANSPARENCY

It is based on trust, honesty, accuracy, relevance and timeliness in sharing information.

NOTE:

❖ This is more an explanation than a definition.

d) CONFIDENTIALITY

It **contains** information whose unauthorized disclosure could be prejudicial to the interest of the partners of the NIP. Issues directly related to confidentiality:

- Quantity of data provided
- Clear flagging of what is “confidential”
- Advance release of information
- Privacy

e) SUSTAINABILITY (for NIP)

It is the attainment of NIP goals, now and in the future, taking into consideration the needs of current and future interested and affected parties.

f) SUSTAINABILITY (World Commission on Environment and Development, 1987)

” Development, which meets the needs of the present without compromising the ability of future generations to meet their own needs“

g) SUSTAINABILITY INDICATORS

Indicators of one area but they are important to the most important interested parties linked to the organization/network of interested parties.

7. ANSWERS TO THE QUESTIONS (TASK INCLUDED IN THE END SECTION OF THE WORKSHOP 1)

NOTE:

- ❖ The answers were reached by consensus.

a) What are the benefits of partnership inside an NIP?

- ❖ Equality
- ❖ Work within an NIP will improve individual outcomes
- ❖ New and currently unidentified outcomes/opportunities will arise from the NIP (e.g. economies of scale)
- ❖ Access to specialist resources
- ❖ Better community
- ❖ Improved relations
- ❖ Continuous environmental, social and economic improvements.

b) What are the impediments for partnership inside a NIP?

- ❖ Competition among NIP members
- ❖ Willingness to change
- ❖ Perceptions of community
- ❖ Time to stay involved
- ❖ Management of process

c) Any suggestion for the improvement of the implementation of partnership?

- ❖ No suggestions

d) Are you committed to continue the workshops and the development of partnership?

- ❖ Everyone said “yes”

e) Any one missing in this NIP?

- ❖ Councils (were invited but could not come)
- ❖ EPA (was invited but could not come)
- ❖ WH&S representatives
- ❖ Welfare organisations
- ❖ BSL noise and odour committee members (were invited but could not come)

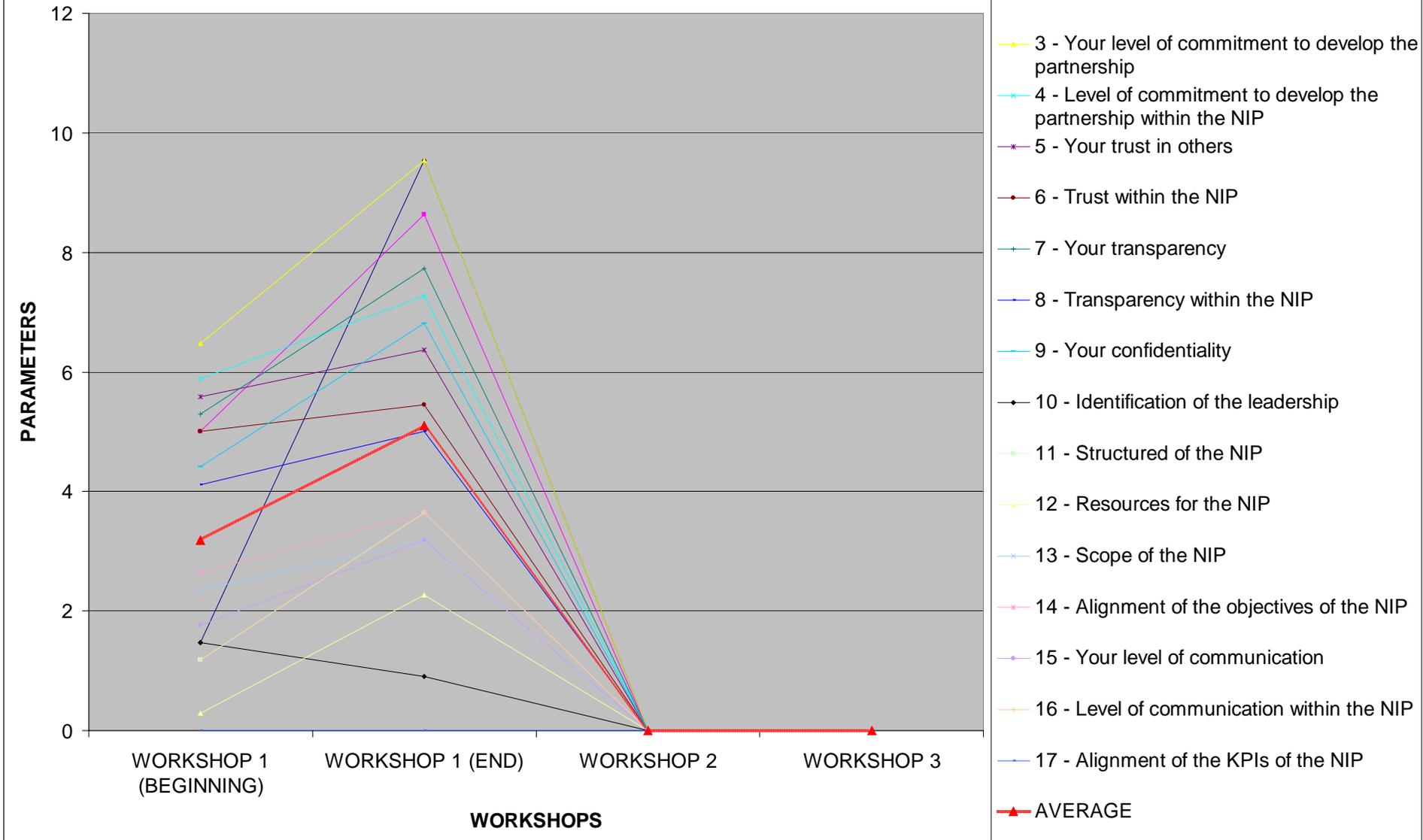
- ❖ Aboriginal people (will be invited at a more advanced stage of the project)

8. EVALUATION OF THE WORKSHOP BY THE PARTICIPANTS

INFORMATION QUESTIONS	ANSWERS					NUMBER OF ANSWERS	AVERAGE	COMMENTS
	100%	75%	50%	25%	0%			
1. Did the workshop attain its objectives?	5 people	6	-	-	-	11	100% of the participants answered that the workshop attained between 75% and 100% of its objectives (86% of its objectives as an average)	<ul style="list-style-type: none"> ❖ Still working towards our objective ❖ Went a long way towards achieving them. I'm sure as barriers come down, outputs will improve. New concept to many ❖ Relationship developing very well ❖ Common language also ❖ NIP a process understood ❖ Set high expectations and almost met them ❖ I saw the objective as establishing relationship
2. Was the workshop planned properly to attain its objectives?	6	5	-	-	-	11	100% of the participants answered that the planning for the workshop was between well planned and very well planned (there was an tendency in the direction of very well planned)	<ul style="list-style-type: none"> ❖ Yes, well planned ❖ Key factor was that participants were allowed to develop understanding of issues or a path that enabled understanding ❖ Extensive notes – good explanations ❖ Good – went smoothly ❖ Enjoyed debates ❖ Instructions for the groups (study groups) were not very clear to all
3. Did the facilitator assist the workshop properly to attain its objectives?	5	6	-	-	-	11	100% of the participants answered that the assistance given by the facilitator for the success of the workshop was between well driven and very well driven (there was an tendency in the direction of well driven)	<ul style="list-style-type: none"> ❖ Would have been helpful to have an overview of the three workshops ❖ High level of interest and participation ❖ Difficult to drive diverse group – well done ❖ Open, clear communication

9. EVALUATION OF THE PARTNERSHIP

PARTNERSHIP EVALUATION



NOTE:

- ❖ We developed two evaluations. One at the beginning of workshop 1 and the other at the end of workshop 1. As can be seen the average of the parameters to evaluate the partnership increased from 3 (beginning of workshop 1) to around 5 (end of workshop 1).
- ❖ The parameters used were:
 1. Definition of partnership: Have the participants of the NIP reached a common definition for the term partnership?
Scores
 - ❖ 0 = Term not defined
 - ❖ 5 = Definition reached through the vote of the majority
 - ❖ 10 = Definition reached through consensus
 2. Definition of NIP: Have the participants of the NIP reached a consensus for the term NIP?
Scores
 - ❖ 0 = Term not defined
 - ❖ 5 = Definition reached through the vote of the majority
 - ❖ 10 = Definition reached through consensus
 3. Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?
Scores
 - ❖ 0 = Not prepared to commit yet
 - ❖ 5 = Want to commit but needs to participate more to decide
 - ❖ 10 = 100% Committed
 4. Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?
Scores
 - ❖ 0 = No commitment among participants
 - ❖ 5 = Medium level of commitment
 - ❖ 10 = 100% Committed
 5. Your trust in others: What is your level of trust in other organizations participants in the NIP
Scores
 - ❖ 0 = Do not trust
 - ❖ 5 = Some degrees of trust
 - ❖ 10 = Trust 100%
 6. Trust within the NIP: What is the level of trust among participants of the NIP?
Scores
 - ❖ 0 = No trust among participants

- ❖ 5 = Medium level of trust
- ❖ 10 = Trust reached the level of 100%

7. Your transparency: What is the level of transparency that you apply when presenting information to the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

8. Transparency within the NIP: What is the level of transparency among participants of the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

9. Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?

Scores

- ❖ 0 = All information is confidential
- ❖ 5 = Some information is confidential
- ❖ 10 = There is no confidential information

10. Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

11. Structure of the NIP: Is the structure of the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

12. Resources for the NIP: Are the resources for the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

13. Scope of the NIP: is the scope of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

14. Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?

Scores

- ❖ 0 = Objectives not defined
- ❖ 5 = Objectives reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

15. Your level of communication: Do you inform other organizations/groups participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes in, is processed and feedback is given)?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them (information flows in both directions)

16. Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided. It can also happen when other participants send information to our organization/group and our organization/group does not give any feedback to the source of information about the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them. Vice versa also happens (information flows in both directions)

17. Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?

Scores

- ❖ 0 = KPIs not defined
- ❖ 5 = KPIs reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

APPENDIX 14 - REPORT FOR THE WORKSHOP 2

NOTE: INDICATOR (KPI) OF PARTNERSHIP (the scores related to this KPI go from “0” = no conditions to develop partnership until “10” = the best condition to develop partnership):

- ❖ At the beginning of the project (workshop 1) the score was around 3
- ❖ At the end of workshop 1 the score was around 5
- ❖ At the end of workshop 2 the score was around 6.3

1. PROJECT: “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTNERS (NIP) TO IMPROVE PERFORMANCE”.

2. LOCATION: 8th of June 2004 at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2).

3. PARTICIPANTS:

- 1) Peter Budd, BSL
- 2) Karen Swemmer, BSL
- 3) Joan Burns, BSL
- 4) Chris O’Neil, CLEANWAY
- 5) Gavin Tunstall, CLEANWAY
- 6) Jim Penny, CLEANWAY
- 7) Brian Hansen, COLLEX
- 8) Norm Maskiell, COLLEX
- 9) Chris Tanzer, COLLEX
- 10) Anna Hitchcock, PORT CURTIS WATERWATCH
- 11) Teresa Wilkie, BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE
- 12) Les Salter, STATE DEVELOPMENT AND INNOVATION
- 13) David Moy, CQU
- 14) Rod Edwards, CQU
- 15) Jose Flavio Coelho, CQU

4. OBJECTIVES OF THE WORKSHOP:

- 1) Understand the individual needs of organizations/groups that have participated in the NIP
- 2) Understand the individual KPIS and performance criteria used by organizations/groups.
- 3) Understand the needs of the organizations/groups in relation to the NIP
- 4) Understand the KPIS and performance criteria suggested by the organizations/groups for the NIP
- 5) Clarify and agree on KPIS and performance criteria that will be used by the NIP
- 6) Clarify the changes in individual organizations' vision, policy(ies) and the rest of the strategic plan(s)
- 7) Clarify the need to develop vision, policy(ies) and the rest of the strategic plan(s) for the NIP

5. DEVELOPMENT OF THE OBJECTIVES AND THE SCOPE OF THE NIP

a) Objectives of the NIP

- 1) Help organizations within the NIP to achieve sustainable business (this achievement has to be done taking into consideration the alignment of the objectives of all interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community)
- 2) Improve partnership among participants of the NIP
- 3) Implement and maintain Sustainability Performance Evaluation Management System for the NIP
- 4) Contribution and addition of value to the NIP by all partners of the NIP
- 5) Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste)
- 6) Community acceptance of the organizations and activities involved
- 7) Keep community informed about NIP's activities (through good communication processes)
- 8) Dynamic and measurable improvement of performance of the NIP and individual organizations (this will benefit as long term employment for the community and long term benefit for all participants pf the NIP)
- 9) The NIP is a proactive entity, not a reactive one
- 10) Identify and define use of opportunities
- 11) Recognize innovations and manage them (the management will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business)
- 12) Develop appropriate levels of trust among all partners

NOTE: It was suggested that it is necessary to improve the definition of Sustainability (for the NIP) for the inclusion of the notion of the sustainability ecological elements on it and the necessity of the NIP to take those elements into consideration when developing its activities. The partners will set a date and event to improve the definition.

b) Scope of the NIP

- 1) The focus is BSL and its commercial and community partners
- 2) Initial look at waste management and recovery and the identification of individual and NIP KPIs

6. ANSWERS TO THE QUESTIONS DURING WORKSHOP 2

<p>QUESTIONS</p> <p>COMPANIES</p>	<p>a) Which changes do you think will be necessary in the vision, policy(ies) and the rest of the strategic plan(s) of your organization/group to address the work as partner within an NIP?</p>	<p>b) Which changes do you think will be necessary in the vision, policy (ies) and the rest of the strategic plan(s) of your organization/group to address the development of the activities according to real sustainable principles (see the table included in this document under the title “Additional Material”)?</p>	<p>c) Do you think that it will be important for each NIP to define its own vision, policy (ies) and the rest of strategic plan(s)?</p>
<p>WATERWATCH</p>	<ul style="list-style-type: none"> ❖ None, Waterwatch already serves on similar committees to promote good outcomes for waterways. It also increases our involvement with local industry, who supplies operating funds. 	<ul style="list-style-type: none"> ❖ None, we already work towards this goal. 	<ul style="list-style-type: none"> ❖ Yes, because without it, the meetings will not achieve anything, and the group will lose members.
<p>BOYNE SMELTERS</p>	<ul style="list-style-type: none"> ❖ Yes, some 	<ul style="list-style-type: none"> ❖ Yes, some 	<ul style="list-style-type: none"> ❖ Yes, these should have targets, KPIs and key activities
<p>CLEANWAY</p>	<ul style="list-style-type: none"> ❖ We believe that existing visions, policies and strategic plans of our organization are consistent with the pre requisites of a NIP. ❖ Our SP at a local level may need to include a definition of goals from the NIP if they differ largely from the National outlook. 	<ul style="list-style-type: none"> ❖ Visions and Policies need to be continually scrutinised. ❖ Through consultation we will continue to develop strategies that enhance existing outlooks and practices. 	<ul style="list-style-type: none"> ❖ Each party needs to define their own goals, but areas may exist within these goals that would remain confidential / not relevant to members of the NIP.
<p>COLLEX</p>	<ul style="list-style-type: none"> ❖ It is our belief that there is a reasonable degree of alignment in vision, policies and strategic objectives evidenced in the responses provided by (NIP) in 	<ul style="list-style-type: none"> ❖ As in previous response, due to the commonality that has already been demonstrated, we believe that it is simply a matter of the partners reaching agreement on the strategic 	<ul style="list-style-type: none"> ❖ For the NIP to be effective and sustainable there must be a common set of objectives. Without that the development, implementation and maintenance of the SPEMS will be less

	workshop one. Therefore we believe that there is insignificant change required to address the issues as a partner within a NIP.	objectives, policies and the desired outcomes of the NIP.	effective.
BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE	❖ No changes – perhaps some reconsideration and reprioritization to better reflect our role as a partner	❖ No changes – we believe we are the partner best placed to support the NIP in addressing an issue not linked to sustainability in the “Global reporting Initiative” table – the issue of educating the community about sustainability	❖ Yes – we believe all partners probably have these developed in the context of themselves as their own corporate entity. Further, we foresee a possible need for the development of a parallel set of definitions that define themselves in the context of the NIP (i.e. – as a partner not an individual).
CQU	❖ None – our role as a partner within an NIP would require us to contribute to the work of the NIP based on our expertise and to be informed from the work of the NIP so that we can continuously improve our course materials and, where appropriate, work with other NIP partners or the NIP itself on research projects where we have the skills. This is entirely consistent with the strategic approach of the James Goldston Faculty of Engineering and Physical Systems.	❖ None – CQU Engineering Faculty is already committed to integrating sustainability practices into our teaching, research and community involvement.	❖ Each NIP will require an agreed approach to achieving the goals set by the members. While resources will most probably come from the partners the setting of goals and actions plans will require a strategic planning process for the NIP as an entity.

NOTE: IT WAS DECIDED BY THE PARTICIPANTS OF THE NIP THAT THE NIP SHOULD DEVELOP ITS OWN VISION, POLICES AND ACTION PLANS.

7. IDENTIFICATION OF KPIs AND PERFORMANCE CRITERIA

NOTE:

- ❖ Performance criteria = objectives, target, or intended level of performance set by the management of the organization and use for the purpose of performance evaluation (ISO 14031:1999)
- ❖ Key performance indicator (KPI) = specific expression that provides information about an organization’s performance (ISO 14031:1999)

KPIs FOR THE ENVIRONMENTAL AREA

AREA	LINKED TO OBJECTIVE(S)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Regulation	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste (objective 5) ❖ The NIP is a proactive entity, not a reactive one (objective 9) 	a) Licence non-compliance	a) "0"	
2) Internal environmental management	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste (objective 5) ❖ The NIP is a proactive entity, not a reactive one (objective 9) 	a) Incidents b) Contamination of soil, air and water c) Number of audits d) Environmental culture	a) Severity and numbers b) Severity and numbers c) ? d) ?	<ul style="list-style-type: none"> ❖ Driven by maintenance ❖ Contaminants in recycling ❖ LCA
3) Training and policy enforcement	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ The NIP is a proactive entity, not a reactive one (objective 9) 	a) Number of employee incidents b) Training program evaluation c) Survey of staff d) % of staff trained	a) "0" b) ? c) ? d) ?	
4) Communication	<ul style="list-style-type: none"> ❖ Help organisations within the NIP to 	a) Participation in ECOFEST and Clean-up		

	<p>achieve sustainable business (this achievement has to be done taking into consideration the alignment of the objectives of all interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community) - (objective 1)</p> <ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 4) ❖ Community acceptance of the organizations and activities involved (objective 6) ❖ Keep community informed about NIP's activities (through good communication processes) - (objective 7) 	<p>Australia b) Information distributed c) Survey</p>		
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KPIs FOR THE SOCIAL AREA

AREA	LINKED TO OBJECTIVE(s)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Workplace people	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste (objective 5) 	a) People leaving from budget position (staff turnover)	a) < 8% (2004)	<ul style="list-style-type: none"> ❖ Impacts on families ❖ Community interaction/involvement ❖ Measures job satisfaction ❖ Impacts on SME ❖ Pay rates relativity ❖ Hope NIP helps to increase turnover ❖ Loss of skills
2) Impact on community	<ul style="list-style-type: none"> ❖ Community acceptance of the organizations and activities involved (objective 6) ❖ Keep community informed about NIP's activities (through good communication processes) - (objective 7) 	<ul style="list-style-type: none"> a) Involvement and participation b) Well-being c) Community complaints d) Survey data 	<ul style="list-style-type: none"> a) ? b) ? c) 70% resolved (towards zero in 2008) d) % > baseline 	<ul style="list-style-type: none"> ❖ Complaints from vexatious perception and prior employees ❖ Involve community
3) Community awareness	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Keep community informed about NIP's activities (through good communication processes) - (objective 7) 	<ul style="list-style-type: none"> a) Survey data b) Focus group c) Information distributed 	<ul style="list-style-type: none"> a) ? (do a baseline assessment) b) ? c) ? 	
4) WHS	<ul style="list-style-type: none"> ❖ Help organizations within the NIP to achieve sustainable business (this 	<ul style="list-style-type: none"> a) Lost time injuries b) Reportable injuries c) Near misses 	<ul style="list-style-type: none"> a) Frequency rates b) Frequency rates c) Frequency rates 	

	<p>achievement has to be done taking into consideration the alignment of the objectives of all interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community) - (objective 1)</p> <ul style="list-style-type: none"> ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 4) ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste (objective 5) 			
5) Community contribution	<ul style="list-style-type: none"> ❖ Community acceptance of the organizations and activities involved (objective 6) ❖ Keep community informed about NIP's activities (through good communication processes) - (objective 7) 	<ul style="list-style-type: none"> a) Rehabilitation process b) Sponsorship c) Educational programs 	<ul style="list-style-type: none"> a) ? b) ? c) ? 	

	<ul style="list-style-type: none"> ❖ Dynamic and measurable improvement of performance of the NIP and individual organisations (this will benefit as long term employment for the community and long term benefit for all participants of the NIP) - (objective 8) 			
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KPIs FOR THE ECONOMIC AREA

AREA	LINKED TO OBJECTIVE(s)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Market growth	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste (objective 5) 	a) Increase of business due to NIP participation	a) Yes/no	<ul style="list-style-type: none"> ❖ Spin-offs due to community acceptance
2) Efficiency and productivity (cost control)	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Improve efficiency and productivity of the participants of the NIP and as a whole 	a) \$ Spent on waste management services	a) Decrease in 6% per year	<ul style="list-style-type: none"> ❖ Better packaging ❖ Diversion from landfill ❖ Schedule maintenance to reduce cost opportunities

	(including the development of better use of resources and reduction of emissions/waste) (objective 5)			
3) Continuity of business	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Dynamic and measurable improvement of performance of the NIP and individual organizations (this will benefit as long term employment for the community and long term benefit for all participants of the NIP) - (objective 8) ❖ Recognize innovations and manage them (the management will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business) - (objective 11) 	<ul style="list-style-type: none"> a) Proportion of contracts renewed b) Average contract duration 	<ul style="list-style-type: none"> a) 100% renewed (normal is 2 years contract + 1 year renewed) b) > 3 years 	<ul style="list-style-type: none"> ❖ Capital investment (has to match contract duration which for sustainability has to be 7 years contract + 3 year renewed) ❖ Security services for community ❖ Safety performance ❖ Secure jobs ❖ Knowledge retention ❖ New technology
4) Resource recovery	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP and as a whole 	<ul style="list-style-type: none"> a) % diverted from disposal b) tons to landfill 	<ul style="list-style-type: none"> a) ? b) ? 	<ul style="list-style-type: none"> ❖ NIP goal not just BSL ❖ Properly segregated can make diversion and recovery better

	<p>(including the development of better use of resources and reduction of emissions/waste) - (objective 5)</p> <p>❖ Recognize innovations and manage them (the management will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business) - (objective 11)</p>			❖ Either source or transfer station segregation
5) Total waste	❖ Improve efficiency and productivity of the participants of the NIP and as a whole (including the development of better use of resources and reduction of emissions/waste (objective 5)	a) Quantity per ton Aluminium produced	a) ?	
6) Profitability	❖ Help organizations within the NIP to achieve sustainable business (this achievement has to be done taking into consideration the alignment of the objectives of all	a) Return on investment	a) ?	❖ Profitable cost sustainable economically – important for the NIP

	<p>interested parties of the NIP and the development by the NIP of education and awareness programs about sustainability issues for the community) - (objective 1)</p> <ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 4) 			
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GENERAL KPIs

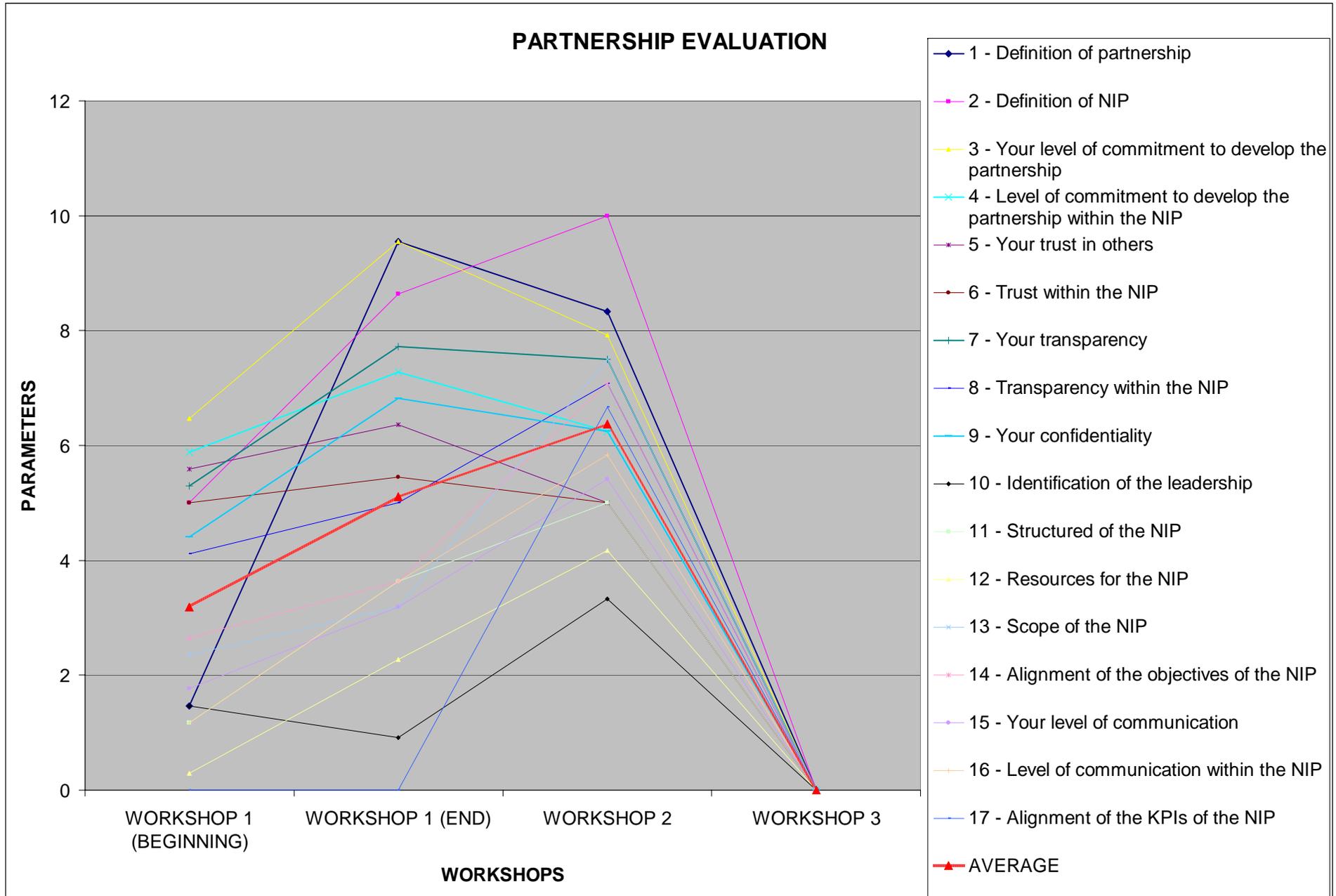
AREA	LINKED TO OBJECTIVE(s)	KPI	PERFORMANCE CRITERIA	KEY POINTS
1) Trust within NIP	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Develop appropriate levels of trust among all partners (objective 12) 	<p>a) NIP self evaluation b) Achievement of NIP goals</p>	<p>a) ? b) ?</p>	
2) Identify opportunities	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 2) ❖ Implement and maintain Sustainability Performance Evaluation Management System for the NIP (objective 3) ❖ Identify and define use of opportunities (objective 10) 	<p>a) Description</p>	<p>a) ?</p>	

NOTE: The list of KPIs needs improvements to become operational.

8. EVALUATION OF THE WORKSHOP BY THE PARTICIPANTS

INFORMATION QUESTIONS	ANSWERS					NUMBER OF ANSWERS	AVERAGE	COMMENTS
	100%	75%	50%	25%	0%			
1. Did the workshop attain its objectives?	2 people	10	0	0	0	12	100% of the participants answered that the workshop attained between 75% and 100% of its objectives (79% of its objectives as an average)	<ul style="list-style-type: none"> ❖ Good ❖ NIP objectives were not planned but completed anyway for Workshop 2 ❖ KPI need to be refined but we made a good start
2. Was the workshop planned properly to attain its objectives?	5	5	2	0	0	12	83% of the participants answered that the planning for the workshop was between well planned and very well planned (there was an equal number of answers for well planed and very well planned)	<ul style="list-style-type: none"> ❖ Good
3. Did the facilitator assist the workshop properly to attain its objectives?	7	4	1	0	0	12	92% of the participants answered that the assistance given by the facilitator for the success of the workshop was between well driven and very well driven (there was an tendency in the direction of very well driven)	<ul style="list-style-type: none"> ❖ Good

9. EVALUATION OF THE PARTNERSHIP



NOTE:

- ❖ We developed three evaluations. One at the beginning of workshop 1, one at the end of workshop 1 and one at the end of workshop 2. As can be seen the average of the parameters to evaluate the partnership increased from 3 (beginning of workshop 1) to around 6.3 (end of workshop 2).
- ❖ The parameters used were:

1. Definition of partnership: Have the participants of the NIP reached a common definition for the term partnership?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

2. Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

3. Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?

Scores

- ❖ 0 = Not prepared to commit yet
- ❖ 5 = Wants to commit but needs to participate more to decide
- ❖ 10 = 100% Committed

4. Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?

Scores

- ❖ 0 = No commitment among participants
- ❖ 5 = Medium level of commitment
- ❖ 10 = 100% Committed

5. Your trust in others: What is your level of trust in other organizations' participants in the NIP

Scores

- ❖ 0 = Do not trust
- ❖ 5 = Some degrees of trust
- ❖ 10 = Trust 100%

6. Trust within the NIP: What is the level of trust among participants of the NIP?

Scores

- ❖ 0 = No trust among participants
- ❖ 5 = Medium level of trust
- ❖ 10 = Trust reached the level of 100%

7. Your transparency: What is the level of transparency that you apply when presenting information to the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

8. Transparency within the NIP: What is the level of transparency among participants of the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

9. Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?

Scores

- ❖ 0 = All information is confidential
- ❖ 5 = Some information is confidential
- ❖ 10 = There is no confidential information

10. Identification of the leadership: Is the leadership (by one organization or by a committee formed by organizations) of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

11. Structure of the NIP: Is the structure of the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

12. Resources for the NIP: Are the resources for the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority

- ❖ 10 = Identified through consensus

13. Scope of the NIP: is the scope of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

14. Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?

Scores

- ❖ 0 = Objectives not defined
- ❖ 5 = Objectives reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

15. Your level of communication: Do you inform other organizations/groups participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes in, is processed and feedback is given)?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them (information flows in both directions)

16. Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?

Scores

- ❖ 0 = There is no information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided. It can also happen when other participants send information to our organization/group and our organization/group does not give any feedback to the source of information about the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them. Vice versa also happens (information flows in both directions)

17. Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?

Scores

- ❖ 0 = KPIs not defined
- ❖ 5 = KPIs reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

APPENDICES

APPENDIX 1 – KPIs brought to the workshop by COLLEX

1) INTERNAL KPIs

a) Environmental

- ❖ Waste diverted from traditional landfill
- ❖ % Recycled or used in a beneficial reuse program
- ❖ Emissions- Odour –Dust
- ❖ Water Use
- ❖ Energy use
- ❖ Noise
- ❖ Environmental Incidents
- ❖ \$ Spent on R & D establishing alternate technologies

NOTE: IT SHOULD BE NOTED THAT ALL OF THE ABOVE HAVE EITHER A DIRECT OR INDIRECT SOCIAL IMPACT.

b) Social

- ❖ Staff retention/turnover
- ❖ Training and personal development
- ❖ Employee satisfaction
- ❖ Internal promotion
- ❖ Customer feedback
- ❖ Safety performance (LTI's, MTI's, First Aid cases
- ❖ Near miss incidents

c) Economic

- ❖ Business growth and sustainability
- ❖ Markets by sector – Contract value and duration
- ❖ Service quality- Complaints by category
- ❖ Accident/Incident frequency by category and cost
- ❖ Fuel prices- Litres used per hour
- ❖ Supplier non conformance
- ❖ Workers Compensation as a percentage of labour
- ❖ Revenue
- ❖ EBIT
- ❖ ROFE
- ❖ Utilisation of equipment
- ❖ Services /lifts per hour

- ❖ Maintenance cost per hour
- ❖ Disposal cost per tonne
- ❖ Tonnes collected
- ❖ Compaction/density of waste- Landfill

2) SUGGESTED KPIs FOR THE NIP

The list of KPI's performance criteria would no doubt include a cross section of the responses provided by all of the partners. It would not be the function of one partner or organization to determine the performance measures. This should be part of today's workshop.

3) NEEDS IN RELATION TO THE NIP

The outcomes that we would seek to achieve are as we provided in our Workshop 1 submission. There has been no change in our objectives.

APPENDIX 2 – KPIs brought to the workshop by WATERWATCH

1) INTERNAL KPIs

Waterwatch Queensland:

- ❖ Waterway monitoring through collaborative partnerships
- ❖ Community learning about the health of waterways and catchments
- ❖ Informed and responsible action and involvement to achieve healthy
- ❖ Waterways

Waterwatch Port Curtis (Milestones and Key Performance Indicators):

- ❖ Achieve on-ground environmental action programs:
 - Maintenance and expansion of the Toadbuster program within seasonal limits,
 - Maintenance and expansion of the Adopt-a-Creek program and
 - Continuance of annual activities such as Science Challenge and Catchment Crawl.
- ❖ Provide education programs for schools and the community. Provide an educational visit for 1000 students/adults per calendar year or 250 per quarter.
- ❖ Promotion of Waterwatch events and activities through the media. Achieve at least eight media articles each year or two per quarter.
- ❖ Achieving corporate sponsorship :
 - Gain corporate sponsorship each year to continue the Waterwatch Calendar and
 - Waterwatch Operating Funds at current levels or better.

NOTE: A copy of my latest 6-monthly report addressing milestones and KPI's is available in electronic form on request. (It is not confidential, but awkward to print out)

2) SUGGESTED KPIs FOR THE NIP

- ❖ Achieve a vision statement
- ❖ Achieve an on-ground project to address the vision.

3) NEEDS IN RELATION TO THE NIP

- ❖ Gain measurable input into BSL's actions and planning to achieve Waterwatch's aim of improvement in our waterways either through education programs or on-ground action.

APPENDIX 3 – KPIs brought to the workshop by CQU

1) INTERNAL KPIs

Most of the issues on the list are potentially important – I don't have any basis on which to choose the more relevant ones.

2) SUGGESTED KPIs FOR THE NIP

Most of the issues on the list are potentially important – I don't have any basis on which to choose the more relevant ones.

3) NEEDS IN RELATION TO THE NIP

Information on the needs of the NIP will be important in informing our teaching and research opportunities

APPENDIX 4 – KPIs brought to the workshop by CLEANWAY

2) SUGGESTED KPIs FOR THE NIP

a) Natural Environmental

- ❖ Environmental & risk management - KPI “regulatory compliance” (Performance measure – reports, audits, licences in place)

b) Social environment

- ❖ Labour Practices – KPI “HR management” (Performance measure – IR events, training program, productivity)

c) Economic environment

- ❖ Financial - KPI “Cost control” (Performance measure – achieve set targets, direct and indirect)

3) NEEDS IN RELATION TO THE NIP

- ❖ Business Growth
- ❖ Strengthen our position in the supply chain.

APPENDIX 5 – KPIs brought to the workshop by Boyne Island Environmental Education Centre (BIEEC)

2) SUGGESTED KPIs FOR THE NIP

As stated in workshop 1, we do not feel that the “Global Reporting Initiative” table adequately addresses the issue of Education. If the NIP is to have any significant partnership with the community the issue of educating the community about sustainability is critical.

To further illustrate this, the following is a contemporary list of educational issues and initiatives directly related to educating communities about sustainability:

- **Globally:** The United Nations have declared the period 2005 – 2015 the “Decade of Education for Sustainability”; Environment and Schools Initiative - Europe (www.ensi.org); Eco Schools - Europe (www.eco-schools.org/); Green Schools - Sweden & USA (www.ase.org/greenschools/about.htm); Enviro Schools - New Zealand (www.enviroschools.org.nz/)
- **In Australia:** Sustainable Schools – Australia (www.deh.gov.au/education/nap/neen/projects.html#sustainable); **National Action Plan** - Environmental Education for a Sustainable Future (www.deh.gov.au/education); National agreed common elements for sustainable schools; Sustainable schools trials in NSW (www.curriculumsupport.nsw.edu.au/enviroed/) and Victoria (www.gould.edu.au)
- **In Queensland:** “Charter for Sustainability” identifies SEVEN CHALLENGES for schools focused through considerations of “Energy Smart, Earth Smart (biodiversity), Waste Smart and Water Smart”.
 - Cultural Shift
 - Building Schools
 - Asset Management
 - Utilities
 - Managing Contracts
 - Partnerships for Success
 - The Educational Component – Curriculum.

☞ *Every member of the NIP has the capacity to partner with schools for direct influence in managing, controlling, evaluating performance and reporting in some of these ‘challenge’ areas. As such, we believe that Community Education should be added to the table of “Draft Sustainability Reporting Guidelines” in as an issue common to all Areas.*

☞ *As stated already, we see ourselves as the partner best placed to support the NIP in addressing this educational responsibility.*

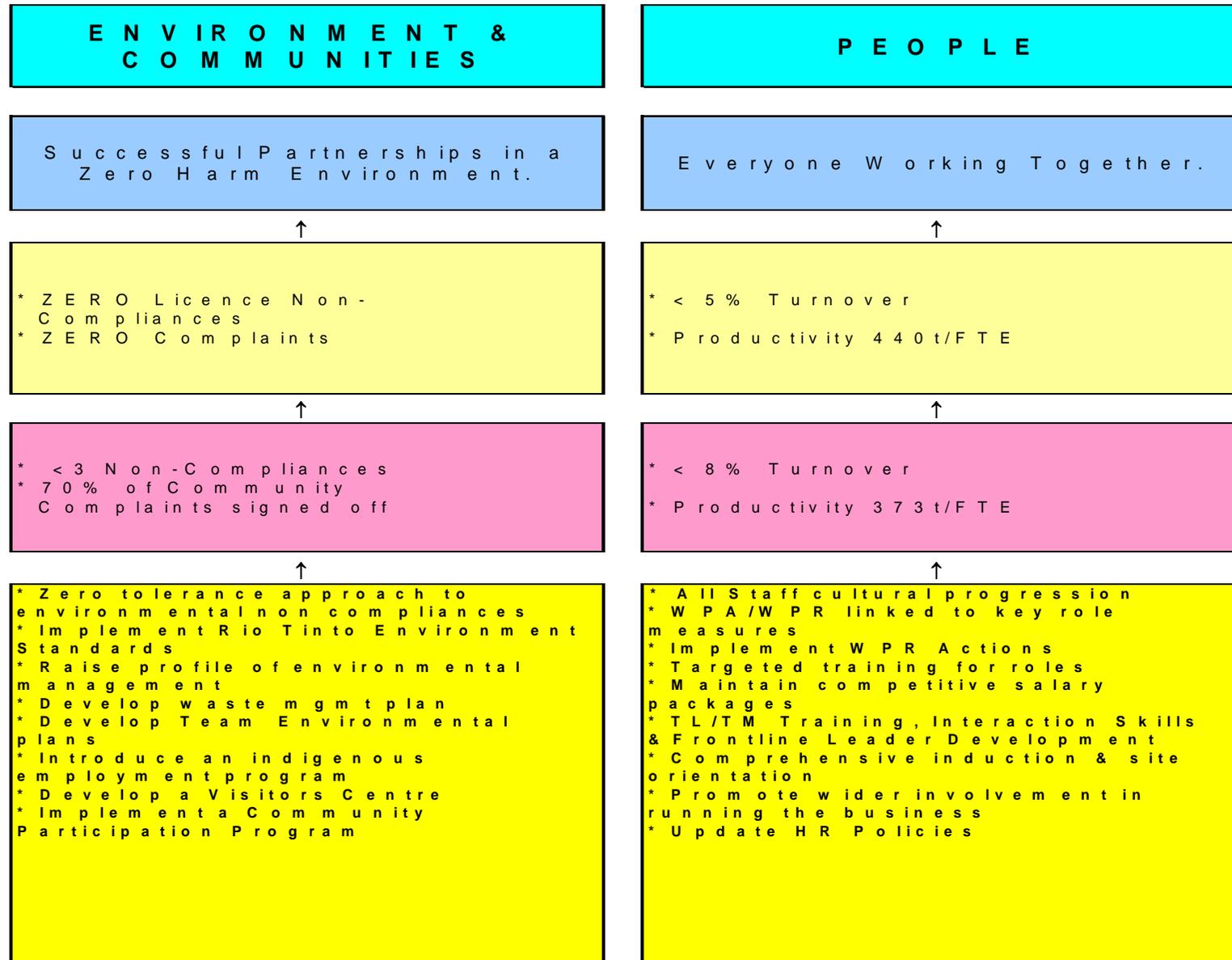
3) NEEDS IN RELATION TO THE NIP

Our needs from the NIP involve supporting BIEEC's development as a Sustainable School. We believe this support could take the following forms:

- ❖ Strategic support in providing expert advice in developing our Environmental management Policies and Plans.
- ❖ Operational support in accessing experts within partner organizations to advice and assist in auditing our school's current environmental performance in the areas of waste, water, energy and biodiversity. Once baseline data are established, assist in developing, achieving, reviewing and revising targets.
- ❖ Providing similar support for schools working in partnership with BIEEC to develop as a regional "HUB" for the delivery of sustainable schools.

APPENDIX 6 – KPIs brought to the workshop by Boyne Smelters (BSL)

1) INTERNAL KPIs





BSL - Delivering Smelter Excellence

MISSION STATEMENT

To create the most sustainable value from our resources and relationships.

PILLARS	HEALTH & SAFETY	ENVIRONMENT & COMMUNITIES	PEOPLE	COST & REVENUE	MANUFACTURING and QUALITY	ENGINEERING & TECHNOLOGY
VISION	ZERO Harm.	Successful Partnerships in a Zero Harm Environment.	Everyone Working Together.	Lowest Sustainable Cost Maximum Revenue through Value Add.	Maximise Sustainable Value from Saleable tonnes	Delivering Future Opportunity
2008 TARGET	* ZERO Lost Time Injury * ZERO Occ. Illness * 5 Star NOSA Rating	* ZERO Licence Non-Compliances * ZERO Complaints	* < 5% Turnover * Productivity 440/FTE	* \$ 1,156 /tonne * A\$20m net revenue value add	* Saleable Tonnes - 565,045 tpa * Value Added Tonnes > 294,400 tpa * Zero Performance Defaults * Zero Internal Non-conformances	* On time, on budget & performing * 100 % Agreed project deliverables at completion * 90% Projects completed to approved schedule and cost
2004 PLAN	* < 6 LTI's * < 12 Recordable Injuries * 15 Occ. Illness * 4 Star NOSA Rating	* <3 Non-Compliances * 70% of Community Complaints signed off	* < 8% Turnover * Productivity 388/FTE	* \$1,091/tonne * A\$5m net revenue value add	* Saleable Tonnes 539,565 t * Value Added Tonnes 199,604t	* CAR's by December (80%) * 90 % Agreed project deliverables at completion * 60% Projects completed to approved schedule and cost
KEY INITIATIVES	<ul style="list-style-type: none"> * Create a better safety culture * Health & safety management system development * Implement One Comalco Health Standards * Implement 5S * Introduce Take 5 and 'Red Zone' for personal risk assessment * Improved induction and training for staff & contractors * Proactive contractor management to reduce their risk * Celebrate H&S achievements through positive recognition 	<ul style="list-style-type: none"> * Zero tolerance approach to environmental non compliances * Implement Rio Tinto Environment Standards * Raise profile of environmental management * Develop waste mgmt plan * Develop Team Environmental plans * Introduce an indigenous employment program * Develop a Visitors Centre * Implement a Community Participation Program 	<ul style="list-style-type: none"> * All Staff cultural progression * WPA/WPR linked to key role measures * Implement WPR Actions * Targeted training for roles * Maintain competitive salary packages * TL/TM Training, Interaction Skills & Frontline Leader Development * Comprehensive induction & site orientation * Promote wider involvement in running the business * Update HR Policies 	<ul style="list-style-type: none"> * Improve business planning & reporting * Reduce controllable costs * Utilise Six Sigma for major projects with initiatives covering: <ul style="list-style-type: none"> Energy efficiency Raw material price and usage Maintenance structure and asset reliability Contractor control and planning Operating supplies standardisation and control * Maintain sound financial records and procedures to ensure good Corporate Governance * Develop Team Cost Reduction Plans 	<ul style="list-style-type: none"> * Increase value add production * Integrated site planning * Leveraged IPMS * Implement Asset Strategy * Stability of Lines 1, 2 & 3 * IPMS in Carbon * CBF3 1&2 Rebuild & optimisation * Commissioning on G4 * Metal Flow Project 	<ul style="list-style-type: none"> * Integrated technology plan * Implement One Comalco Project Systems * Enabling projects <ul style="list-style-type: none"> - SAS anode hanger - Bigger AP30 anode - RF37 - Line 3 6th Rx - RF24 - 3rd Homogeniser - VDC Quick Turnaround Table - CCS3 Implemented L3 - CTM & Crane Infrastructure
SYSTEMS AND TOOLS	Change Management	Communications Systems	Staff Employment	mySAP	Six Sigma Knowledge/Document Mngt	Business Planning

2) SUGGESTED KPIs FOR THE NIP

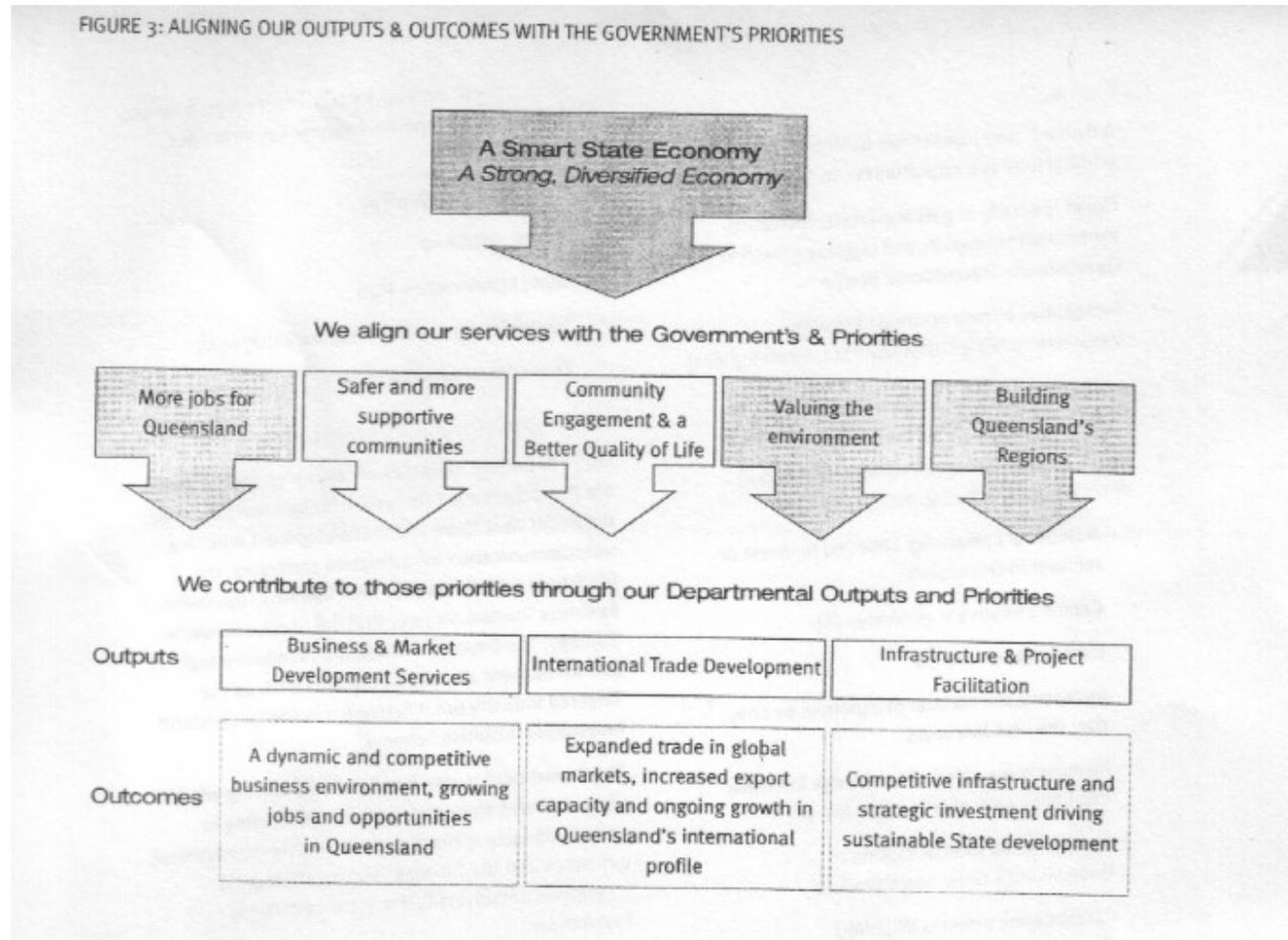
- ❖ All partners contribute & add value
- ❖ All partners receive value
- ❖ Trust between partners
- ❖ Accurate and timely communication
- ❖ Focus on prevention of problems not just treatment
- ❖ Identify & utilise opportunities
- ❖ Reduce rework and waste eg: efficiency gains
- ❖ Sustainability through Business Relationships

3) NEEDS IN RELATION TO THE NIP

- ❖ A model to be used with other supply chains that supports sustainability goals
- ❖ To better understand opportunities that exist
- ❖ Provide economies of scale
- ❖ To learn – how to get it right
- ❖ Reduce rework and waste ie: Lean manufacturing principles
- ❖ Sustainable relationship/s

APPENDIX 7 – KPIs brought to the workshop by STATE DEVELOPMENT

1) INTERNAL KPIs



6.2 DELIVERY OF SERVICES

Outcomes

- A dynamic and competitive business environment, growing jobs and opportunities in Queensland
- Expanded trade in global markets, increased export market capacity and ongoing growth in Queensland's international profile
- Competitive infrastructure and strategic investment driving sustainable State development

Key Performance Indicators (aligned with the Department's outputs and outcomes)

- Business and industry development (support provided, growth measured):
 - Number of companies attracted to invest or reinvest in Queensland
 - Capital investment generated (\$)
 - Exports generated (\$)
 - Increasing the number of exporters by 20% over the next five years
 - Increasing the value of knowledge intensive exports by 50% over the next five years
 - Increasing the ratio of exports to Queensland's Gross State Product
 - Infrastructure projects (Number)
 - Capital value of Infrastructure projects (\$) - public/private
 - Number of jobs generated

Strategies

The Department delivers its services through a range of strategies and programs. Some key strategies include:

- Manufacturing Strategy
- Export Solutions
- State Infrastructure Plan
- Strategies for small to medium enterprises
- Public Private Partnerships

Other Strategies and Programs

Other important examples of strategies and programs are the Indigenous Economic Development Program, the North West Queensland Development Initiative, telecommunication infrastructure strategies, the Gladstone Growth Management Initiative, the Cairns Business Tourism Strategy and the Service Industries Strategy. The Department also offers industry support and investment attraction programs such as the Targeted Industry Grant Scheme and the Queensland Investment Incentive Scheme.

The Department is also involved in advancing whole-of-government strategies such as contributing to natural resource management and waste management outcomes and the Growing Tourism strategy, to strengthen and diversify the State's economic foundations.

APPENDIX 15 - REPORT FOR WORKSHOP 3

NOTE:

- a) **INDICATOR (KPI) OF PARTNERSHIP** (the scores related to this KPI go from “0” = no conditions to develop partnership until “10” = the best condition to develop partnership):
- ❖ At the beginning of the project (beginning of workshop 1) the score was around 3
 - ❖ At the end of workshop 1 the score was around 5
 - ❖ At the end of workshop 2 the score was around 6.3
 - ❖ At the end of workshop 3 the score was around 8

b) **Next meeting of the NIP:**

- ❖ It will be on 13/July/2004 (further details will be forward to you by Peter Budd, BSL)
- ❖ The meeting will be in the afternoon, for 3 hours and, the venue will be informed later
- ❖ Agenda:
 - Identification of new participants and actual participants who do not want to continue in the NIP
 - Review of KPIs, KRAs and action plan
 - Creation of the name of this pilot NIP

1. PROJECT: “THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTNERS (NIP) TO IMPROVE PERFORMANCE”.

2. LOCATION: 18th of June 2004 at Central Queensland University, Gladstone Marina (Engineering Building - studio 1 & 2).

3. PARTICIPANTS:

- 1) Peter Budd, BSL
- 2) Karen Swemmer, BSL
- 3) Joan Burns, BSL
- 4) Glen Pryce, BSL
- 5) Chris O’Neil, CLEANWAY
- 6) Gavin Tunstall, CLEANWAY
- 7) Jim Penny, CLEANWAY
- 8) Norm Maskiell, COLLEX
- 9) Chris Tanzer, COLLEX

- 10) Anna Hitchcock, PORT CURTIS WATERWATCH
- 11) Terry Rudder, BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE
- 12) Les Salter, STATE DEVELOPMENT AND INNOVATION
- 13) David Moy, CQU
- 14) Rod Edwards, CQU
- 15) Jose Flavio Coelho, CQU

4. OBJECTIVES OF THE WORKSHOP:

- 1) Define vision, policies and basic action plans for the NIP (if necessary), including dates
- 2) Define structure for the NIP and for the implementation of the SPEMS (it will be a committee formed by representatives of each company with chairperson and secretary or one company leading the NIP?)
- 3) Define table of responsibilities within the NIP and for the implementation of SPEMS
- 4) Define financial and other resources for the NIP and for the implementation of SPEMS
- 5) Define the cycle of each performance evaluation of the NIP and the meetings to evaluate performance
- 6) Define communication systems (internal and external)
- 7) Define the necessity of training within the NIP (address the necessity of training inside each company)
- 8) Define documentation system and its control (including records)
- 9) Define scope and objectives of the NIP (improve the ones already defined)
- 10) Get commitment from everyone to continue the development of partnership and implementation of SPEMS within the NIP.

5. BASIC STRUCTURED OF THE NIP

COMMITTEE

The committee that will manage the NIP will be formed by at least 1 representative of each organization/group participant in the NIP. Each organization/group will define its representative for each situation or event (NOTE: Invitations to other interested parties would be done by any organization/group at their discretion).

LENGTH OF EACH CYCLE OF PERFORMANCE EVALUATION (CYCLE USING SPEMS), REVIEW OF THE PERFORMANCE OF NIP AND DECISION MAKING

The length of each cycle of performance evaluation (cycle using SPEMS), review of the performance of the NIP and decision making process for the NIP will be done by the committee at least every six months.

CHAIRPERSON AND SECRETARY OF THE COMMITTEE

The position of Chairperson and Secretary of the committee will rotate for every meeting among the participants of the committee. BSL will support the activities of the Chairperson and Secretary.

NOTE: BSL will indicate among its personnel the Chairperson and Secretary for at least the four first meetings of the Committee.

DOCUMENTATION SYSTEM AND RECORDS OF THE NIP

Flavio Coelho will pass on the three reports related to the workshops to Peter Budd from BSL. At this stage there is no defined system for documentation and records but Peter Budd will be responsible for it. Further definition in terms of document control and records needs to be undertaken by the NIP.

COMMUNICATION SYSTEM

At this stage there is no defined system for communication within participants of the NIP. Email is the actual tool and manner used to exchange information among participants of the NIP (there is a list of participants in the appendix of this report). Further definition in terms of a communication system within the NIP needs to be defined. Further definition in terms of an external communication system about NIP's issues, needs to be defined.

6. NIP - VISION, MISSION, SCOPE, OBJECTIVES, GUIDELINES AND TABLE OF SUSTAINABILITY

VISION

Leaders in partnership for sustainability of our business, community and environment

MISSION

Engage partners to add value while conserving resources

SCOPE OF THE NIP

- 1) The focus is BSL and its commercial and community partners
- 2) Initial look at waste management and recovery and the identification of individual's and NIP's KPIs

OBJECTIVES OF THE NIP

- 1) Help organizations within the NIP to achieve sustainable business
- 2) Align the objectives of all interested parties of the NIP
- 3) Develop education and awareness programs about sustainability issues for the community
- 4) Improve partnership among participants of the NIP
- 5) Implement and maintain the Network of Interested Partners (NIP) and Sustainability Performance Evaluation Management System (SPEMS) for the NIP
- 6) Contribution and addition of value to the NIP by all partners of the NIP
- 7) Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste
- 8) Gain community acceptance of the organizations and activities involved
- 9) Keep community informed about NIP's activities
- 10) Develop effective two way communication processes
- 11) Dynamic and measurable improvement of performance of the NIP and individual organizations (Note: This will provide benefit as long term employment for the community and benefit for all participants of the NIP)
- 12) Identify and use opportunities
- 13) Recognize innovations and manage them (Note: The NIP will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business)
- 14) Develop education and awareness programs about sustainability issues for the NIP

GUIDELINES

Partners will/are:

- 1) Always act with integrity and respect for each other, community and environment
- 2) Equal

- 3) Have transparency in communication and actions based on agreed levels of confidentiality
- 4) Be mindful of corporate and community responsibilities
- 5) Be active participants and add value
- 6) Promote and use innovative ideas
- 7) Seek consensus/accept compromise
- 8) Include by invitation other interested parties
- 9) Review membership of NIP as required
- 10) Attend meetings when convened to reflect the needs of the NIP
- 11) Ensure the NIP remain a proactive entity

TABLE OF SUSTAINABILITY

ISSUES LINKED TO THE SUSTAINABILITY OF ORGANISATIONS/COMMUNITIES

<p align="center">Area: NATURAL ENVIRONMENT (related to environmental aspects and impacts)</p>	<p align="center">Area: SOCIAL ENVIRONMENT (related to social aspects and impacts)</p>	<p align="center">Area: ECONOMIC ENVIRONMENT (related to economic aspects and impacts)</p>
<ul style="list-style-type: none"> ⌘ Environmental conditions ⌘ Environmental and risk management ⌘ Natural resources: <ul style="list-style-type: none"> ○ Materials ○ Energy ○ Water ⌘ Biodiversity ⌘ Emissions, effluents and waste ⌘ Soil, air and water contamination, protection and conservation ⌘ Environmental design ⌘ Life cycle 	<ul style="list-style-type: none"> ⌘ Social conditions ⌘ Social and risk management ⌘ Labour practices: <ul style="list-style-type: none"> ○ Employment and decent work conditions ○ Decent wages ○ Human resources ○ Industrial relations ○ Health and safety (H&S) ○ Training and education ○ Diversity and equal opportunity ○ Internal culture ○ Opportunity for entertainment ⌘ Community issues: <ul style="list-style-type: none"> ○ Consumer health and safety (protection) ○ Product and services declaration ○ Advertising ○ Respect for privacy ○ Customer satisfaction ○ Bribery and corruption ○ Political contributions ○ Community participation ○ External culture ⌘ Human rights: <ul style="list-style-type: none"> ○ Strategy and management ○ Non-discrimination ○ Freedom of association and collective bargaining ○ Child labour ○ Forced and compulsory labour ○ Disciplinary practices ○ Security practices ○ Indigenous rights ○ Corruption 	<ul style="list-style-type: none"> ⌘ Economic conditions ⌘ Economic and risk management ⌘ Quality (product quality and customer satisfaction) ⌘ Financial ⌘ Market ⌘ Growth ⌘ Customers/ Purchasers/ Consumers ⌘ Suppliers ⌘ Employees ⌘ Founders ⌘ Public Sector ⌘ Shareholders/ Investors
<p>COMMON ONES: FOR THE THREE AREAS</p>		
<ul style="list-style-type: none"> ⌘ Focus organization's/network of interested parties' activities, products and services ⌘ Suppliers' activities, products and services ⌘ Consumers'/customers' activities, products and services ⌘ Transporters' activities ⌘ Other interested parties ⌘ CSR (business ethics) ⌘ Corporate citizenship and governance 		<ul style="list-style-type: none"> ⌘ Sustainable mechanisms ⌘ Legislation ⌘ Non-regulatory guidelines ⌘ Compliance ⌘ Community education and awareness ⌘ Interested parties' satisfaction and well-being ⌘ Other issues

7. ACTION PLAN (S) FOR THE NIP AND RESPECTIVE KPIS, KRAs AND PERFORMANCE CRITERIA

NOTE:

- ❖ The list of KPIs needs improvements to become operational.
- ❖ This table (that was developed in workshop 3) needs to be revised with the objective to level the information developed about KPIs during workshop 3 and 2
- ❖ In this table the KPIs were developed based on the action plan(s) of the NIP (did not take into consideration the KPIs developed during workshop2)
- ❖ Performance criteria = objectives, target, or intended level of performance set by the management of the organization and use for the purpose of performance evaluation (ISO 14031:1999)
- ❖ Key performance indicator (KPI) = specific expression that provides information about an organization's performance (ISO 14031:1999)
- ❖ Key related area (KRA) = This term needs to be better defined by the NIP but in the view of the researcher it is an area, aspect or impact of the organization, management or operational issue linked to the organization and/or anything that the management of the organisation feels that it is necessary to control, measure and manage
- ❖ Additional information provided by the researcher. In his experience, there are three areas that can be managed within an organization: day-by-day activities, improvements and risks/emergencies. In workshop 2 the group used the objectives of the NIP to develop general KPIs that are linked to day-by-day activities and situations that need improvement. In workshop 3 (see the following table) the NIP developed KPIs for programs and projects that are linked to improvements of the activities and services of the organisations.

KRA (in this table it is considered a PROGRAM)	INTERMEDIATE STEPS OR PROJECTS	LINKED TO OBJECTIVE (of the NIP)	WHEN	RESPONSIBLE	COSTS AND BENEFITS	OTHER RESOURCES	KPI (expression that provides information about performance)	PERFORMANCE CRITERIA (objectives, target, or intended level of performance)	KEY POINTS AND NOTES
1) Continue to implement the SPEMS within the NIP	1.1) Review the KPIs and KRAs developed during workshop 2 and 3	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ Now	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ Need to be revised in the next meeting of the NIP
	1.2) Implement KPIs	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.3) Collect data (based on the KPIs)	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 to 6 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?

	1.4) Evaluate data against performance criteria	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 to 6 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.5) Review the performance and the process of performance evaluation and decision making process for the NIP	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 6 months	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.6) Communicate results (internally and externally)	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ 3 months (internally) and 6 months (externally)	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
	1.7) Identify other NIP's programs and projects	❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5)	❖ Now	❖ All	❖ ?	❖ ?	❖ ?	❖ ?	❖ ?
2) General education/a wareness about "Industry & The Environment"	2.1) Info board	❖ Objectives 2, 3, 4, 6, 8, 9, 12 and 14	❖ 3 months	❖ Terry (BIEEC) + Jo (BSL) + Teresa (BIEEC)	❖ Time cost ❖ Quantify the resource value	❖ Nil	❖ Chosen media ❖ Community feedback	❖ ?	❖ ?
	2.2) Review NIP: ❖ Participants ❖ Current programs ❖ What media work best ❖ Other opportunities	❖ Objectives 2, 3, 4, 6, 8, 9, 12 and 14	❖ Now	❖ All	❖ Time cost ❖ Use of current communications	❖ Nil	❖ Group consensus (NIP)	❖ ?	❖ ?

3) Waste minimisation as a diversion from landfill	3.1) Paper products	❖ All objectives	❖ Now	❖ Chris O (CLEAN WAY) + all	❖ Time cost ❖ Community PR benefits ❖ Industry knowledge/network ❖ \$ benefits	❖ Councils (Gladstone and Calliope) ❖ CQ Local Government Association	❖ % diverted from landfill ❖ \$ income from recycled paper	❖ ?	❖ ?
	3.2) Timber products	❖ All objectives	❖ 3 months	❖ Glen (BSL) + Chris O (CLEAN WAY) + Chris T (COLLEX)	❖ Time cost ❖ Community PR benefits ❖ Resource management benefits ❖ \$ benefits	❖ Chep pallets ❖ Toll transport	❖ % diverted from landfill ❖ Reduction in stockpile ❖ Tonnes beneficially ❖ Reused	❖ ?	❖ ?
	3.3) Identify value adding opportunities for waste	❖ All objectives	❖ 6 months	❖ Les Salter (SD) + Glen (BSL)	❖ Time cost ❖ Community PR benefits ❖ Environment benefits ❖ \$ benefits	❖ CRC ❖ Transpacific	❖ Identify opportunities	❖ ?	❖ ?
4) Review and improve service contracts	4.1) Review current arrangements	❖ Objectives 1, 2, 4, 5, 6, 7, 10, 11, 13 and 14	❖ 6 months	❖ BSL and BSL's commercial partners	❖ Enhanced relationship ❖ Improved transparency ❖ Time cost	❖ Nil	❖ % of contracts renewed ❖ Cost reduction commitment ❖ Average duration of contract	❖ ?	❖ ?
5) Enhance processes and practices in industrial cleaning	5.1) Water use and quality	❖ All objectives	❖ 3 months	❖ Glen (BSL) + Chris T (COLLEX) + Anna (WATER WATCH)	❖ Time cost ❖ \$ benefit for BSL ❖ Better quality water	❖ R & D ❖ Veolia ❖ EPA	❖ Reduced consumption ❖ Recyclable	❖ ?	❖ ?

	5.2) Planning/scheduling of services	❖ All objectives	❖ Now	❖ BSL and BSL's commercial partners	❖ Time cost ❖ Reduce \$ costs ❖ Benefits for workforce	❖ BSL's Other contracts	❖ Reduction in labour costs ❖ Reduction in Full Time Equivalent Employees (FTES) ❖ Reduction in inductions ❖ Improved safety performance	❖ ?	❖ ?
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8. KPIS, KRAs AND PERFORMANCE CRITERIA DEVELOPED BASED ONLY IN THE OBJECTIVES (workshop 2) THAT NEED TO BE REVISED

NOTE:

- ❖ The list of KPIs needs improvements to become operational.
- ❖ This table (that was developed in workshop 2) needs to be revised with the objective to level the information developed about KPIs during workshop 2 and 3
- ❖ In this table the KPIs were developed based only in the objectives of the NIP (did not take into consideration the action plan for the NIP)
- ❖ Performance criteria = objectives, target, or intended level of performance set by the management of the organisation and use for the purpose of performance evaluation (ISO 14031:1999)
- ❖ Key performance indicator (KPI) = specific expression that provides information about an organization's performance (ISO 14031:1999)
- ❖ Key related area (KRA) = This term needs to be better defined by the NIP but in the view of the researcher it is an area, aspect or impact of the organization, management or operational issue linked to the organization and/or anything that the management of the organization feels that it is necessary to control, measure and manage.
- ❖ Additional information provided by the researcher. In his experience, there are three areas that can be managed within an organisation: day-by-day activities, improvements and risks/emergencies. In workshop 2 the group used the objectives of the NIP to develop general KPIs that are linked to day-by-day activities and situations that need improvement. In workshop 3 (see the previous table) the NIP developed KPIs for programs and projects that are linked to improvements of the activities and services of the organizations.

KPIs FOR THE ENVIRONMENTAL AREA

KRA (in this table the KPIs were developed based only in the objectives of the NIP)	INTERMEDIATE STEPS OR PROJECTS	LINKED TO OBJECTIVE (of the NIP)	WHEN	RESPONSIBLE	COSTS AND BENEFITS	OTHER RESOURCES	KPI (expression that provides information about performance)	PERFORMANCE CRITERIA (objectives, target, or intended level of performance)	KEY POINTS AND NOTES
1) Regulation	❖ ?	❖ Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste (objective 7)	❖ ?	❖ ?	❖ ?	❖ ?	a) Licence non-compliance	a) "0"	❖ ?
2) Internal environmental management	❖ ?	❖ Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste (objective 7)	❖ ?	❖ ?	❖ ?	❖ ?	a) Incidents b) Contamination of soil, air and water c) Number of audits d) Environmental culture	a) severity and numbers b) severity and numbers c) ? d) ?	❖ Driven by maintenance ❖ Contaminants in recycling ❖ LCA
3) Training and policy enforcement	❖ ?	❖ Improve partnership among participants of the NIP (objective 4)	❖ ?	❖ ?	❖ ?	❖ ?	a) Number of employee incidents b) Training program evaluation c) Survey of staff d) % of staff trained	a) "0" b) ? c) ? d) ?	❖ ?
4) Communication	❖ ?	❖ Develop education and awareness programs about sustainability issues for the community (objective 3) ❖ Improve partnership among participants of the	❖ ?	❖ ?	❖ ?	❖ ?	a) Participation in ECOFEST and Clean-up Australia b) Information distributed c) Survey	❖ ?	❖ ?

		<ul style="list-style-type: none"> ❖ NIP (objective 4) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 6) ❖ Gain community acceptance of the organizations and activities involved (objective 8) ❖ Keep community informed about NIP's activities (objective 9) ❖ Develop effective two way communication processes (objective 10) 							
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KPIs FOR THE SOCIAL AREA

KRA (in this table the KPIs were developed based only on the objectives of the NIP)	INTERMEDIATE STEPS OR PROJECTS	LINKED TO OBJECTIVE (of the NIP)	WHEN	RESPONSIBLE	COSTS AND BENEFITS	OTHER RESOURCES	KPI (expression that provides information about performance)	PERFORMANCE CRITERIA (objectives, target, or intended level of performance)	KEY POINTS AND NOTES
1) Workplace people		<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste (objective 7) 	❖ ?	❖ ?	❖ ?	❖ ?	a) People leaving from budget position (staff turnover)	a) < 8% (2004)	<ul style="list-style-type: none"> ❖ Impacts on families ❖ Community interaction/ involvement ❖ Measures job satisfaction ❖ Impacts on SME ❖ Pay rates relativity

									<ul style="list-style-type: none"> ❖ Hope NIP helps to increase turnover ❖ Loss of skills
2) Impact on community	❖ ?	<ul style="list-style-type: none"> ❖ Gain community acceptance of the organizations and activities involved (objective 8) ❖ Keep community informed about NIP's activities (objective 9) 	❖ ?	❖ ?	❖ ?	❖ ?	<ul style="list-style-type: none"> a) Involvement and participation b) Well-being c) Community complaints d) Survey data 	<ul style="list-style-type: none"> a) ? b) ? c) 70% resolved (towards zero in 2008) d) % > baseline 	<ul style="list-style-type: none"> ❖ Complaints from vexatious, perception and prior employees ❖ Involve community
3) Community awareness	❖ ?	<ul style="list-style-type: none"> ❖ Improve partnership among NIP's participants (objective 4) ❖ Keep community informed about NIP's activities (objective 9) 	❖ ?	❖ ?	❖ ?	❖ ?	<ul style="list-style-type: none"> a) Survey data b) Focus group c) Information distributed 	<ul style="list-style-type: none"> a) ? (do a baseline assessment) b) ? c) ? 	❖ ?
4) WHS	❖ ?	<ul style="list-style-type: none"> ❖ Help organizations within the NIP to achieve sustainable business (objective 1) ❖ Align the objectives of all interested parties of the NIP (objective 2) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 6) ❖ Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste (objective 7) 	❖ ?	❖ ?	❖ ?	❖ ?	<ul style="list-style-type: none"> a) Lost time injuries b) Reportable injuries c) Near misses 	<ul style="list-style-type: none"> a) Frequency rates b) Frequency rates c) Frequency rates 	❖ ?
5) Community contribution	❖ ?	<ul style="list-style-type: none"> ❖ Gain community acceptance of the organizations and activities involved 	❖ ?	❖ ?	❖ ?	❖ ?	<ul style="list-style-type: none"> a) Rehabilitation process b) Sponsorship c) Educational 	<ul style="list-style-type: none"> a) ? b) ? c) ? 	❖ ?

		<ul style="list-style-type: none"> ❖ (objective 8) Keep community informed about NIP's activities (objective 9) ❖ Dynamic and measurable improvement of performance of the NIP and individual organizations (NOTE: This will benefit as long term employment for the community and long term benefit for all participants pf the NIP) - (objective 11) 					programs		
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KPIs FOR THE ECONOMIC AREA

KRA (in this table the KPIs were developed based only on the objectives of the NIP)	INTERMEDIATE STEPS OR PROJECTS	LINKED TO OBJECTIVE (of the NIP)	WHEN	RESPONSIBLE	COSTS AND BENEFITS	OTHER RESOURCES	KPI (expression that provides information about performance)	PERFORMANCE CRITERIA (objectives, target, or intended level of performance)	KEY POINTS AND NOTES
1) Market growth	❖ ?	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 4) ❖ Improve efficiency and productivity of the participants 	❖ ?	❖ ?	❖ ?	❖ ?	a) Increase of business due to NIP participation	a) Yes/no	❖ Spin-offs due to community acceptance

		of the NIP while improving the use of resources and reduction of emissions/waste (objective 7)							
2) Efficiency and productivity (cost control)	❖ ?	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 4) ❖ Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste (objective 7) 	❖ ?	❖ ?	❖ ?	❖ ?	a) \$ spend on waste management services	a) decrease in 6% per year	<ul style="list-style-type: none"> ❖ Better packaging ❖ Diversion from landfill ❖ Schedule maintenance to reduce cost opportunities
3) Continuity of business	❖ ?	<ul style="list-style-type: none"> ❖ Improve partnership among participants of the NIP (objective 4) ❖ Dynamic and measurable improvement of performance of the NIP and individual organizations (NOTE: This will benefit as long term employment for the community and long term benefit for all participants of the NIP) - (objective 11) ❖ Recognize innovations and manage them (NOTE: The NIP will take into 	❖ ?	❖ ?	❖ ?	❖ ?	a) Proportion of contracts renewed b) Average contract duration	a) 100% renewed (normal is 2 years contract + 1 year renewed) b) > 3 years	<ul style="list-style-type: none"> ❖ Capital investment (has to match contract duration which for sustainability has to be 7 years contract + 3 year renewed) ❖ Security services for community ❖ Safety performance ❖ Secure jobs ❖ Knowledge retention ❖ New technology

		consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business) - (objective 13)							
4) Resource recovery	❖ ?	<ul style="list-style-type: none"> ❖ Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste - (objective 7) ❖ Recognize innovations and manage them (the management will take into consideration intellectual property, technology involved, benefits of the innovation for the community, commercialisation and the way the NIP and participants do business) - 	❖ ?	❖ ?	❖ ?	❖ ?	a) % diverted from disposal b) tons to landfill	a) ? b) ?	<ul style="list-style-type: none"> ❖ NIP goal not just BSL ❖ Properly segregated can make diversion and recovery better ❖ Either source or transfer station segregation

		(objective 11)							
5) Total waste	❖ ?	❖ Improve efficiency and productivity of the participants of the NIP while improving the use of resources and reduction of emissions/waste - (objective 7)	❖ ?	❖ ?	❖ ?	❖ ?	a) Quantity per ton Aluminium produced	a) ?	❖ ?
6) Profitability	❖ ?	<ul style="list-style-type: none"> ❖ Help organizations within the NIP to achieve sustainable business - (objective 1) ❖ Align the objectives of all interested parties of the NIP - (objective 2) ❖ Improve partnership among participants of the NIP (objective 4) ❖ Contribution and addition of value to the NIP by all partners of the NIP (objective 6) 	❖ ?	❖ ?	❖ ?	❖ ?	a) Return on investment	a) ?	❖ Profitable cost sustainably – important for the NIP

GENERAL KPIs

KRA (in this table the KPIs were developed based only on the objectives of the NIP)	INTERMEDIATE STEPS OR PROJECTS	LINKED TO OBJECTIVE (of the NIP)	WHEN	RESPONSIBLE	COSTS AND BENEFITS	OTHER RESOURCES	KPI (expression that provides information about performance)	PERFORMANCE CRITERIA (objectives, target, or intended level of performance)	KEY POINTS AND NOTES
6) Trust within NIP	❖ ?	❖ Improve partnership among participants of the NIP (objective 4)	❖ ?	❖ ?	❖ ?	❖ ?	a) NIP self evaluation b) Achievement of NIP goals	a) ? b) ?	❖ ?
7) Identify opportunities	❖ ?	❖ Improve partnership among participants of the NIP (objective 4) ❖ Implement and maintain the NIP and SPEMS for the NIP (objective 5) ❖ Identify and use opportunities (objective 12)	❖ ?	❖ ?	❖ ?	❖ ?	a) Description	a) ?	❖ ?

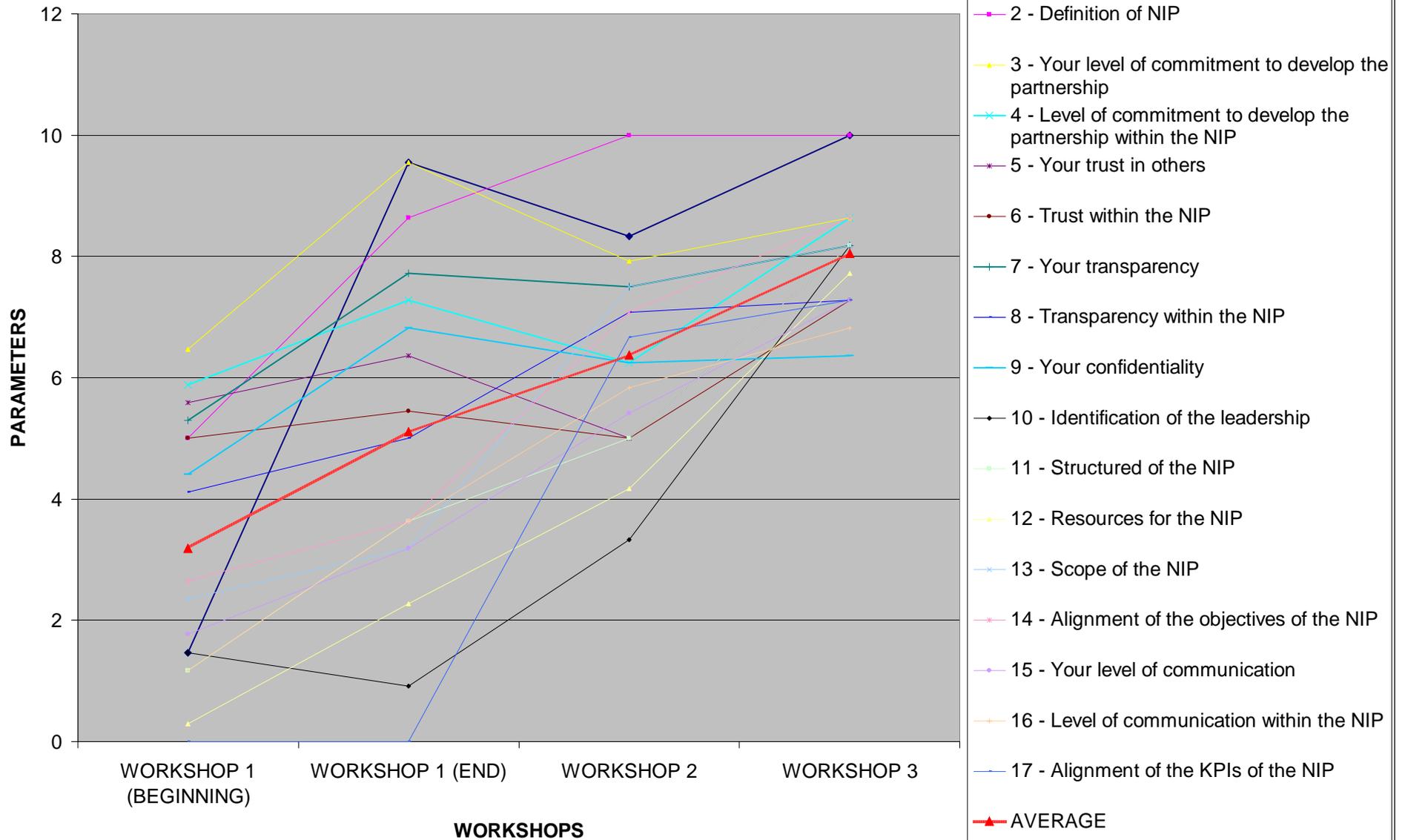
8. EVALUATION OF THE WORKSHOP BY THE PARTICIPANTS

INFORMATION QUESTIONS	ANSWERS					NUMBER OF ANSWERS	AVERAGE	COMMENTS
	100%	75%	50%	25%	0%			
1. Did the workshop attain its objectives?	6 people	3	1	1	0	11	82% of the participants answered that the workshop attained between 75% and 100% of its objectives (82%)	❖ Time an issue ❖ The workshop may even have exceeded these

							of its objectives as an average)	
2. Was the workshop planned properly to attain its objectives?	4	7	0	0	0	11	100% of the participants answered that the planning for the workshop was between well planned and very well planned (there was an tendency in the direction very well planned)	<ul style="list-style-type: none"> ❖ Great facility at CQU ❖ Material very good
3. Did the facilitator assist the workshop properly to attain its objectives?	5	6	0	0	0	11	100% of the participants answered that the assistance given by the facilitator for the success of the workshop was between well driven and very well driven (there was an tendency in the direction of well driven)	<ul style="list-style-type: none"> ❖ Facilitator removing himself from NIP and sharing authority ❖ Kept the group moving ❖ Effective handover to the group meant the facilitation well reduced in this workshop

9. EVALUATION OF THE PARTNERSHIP

PARTNERSHIP EVALUATION



NOTE:

- ❖ We developed 4 evaluations. One at the beginning of workshop 1, one at the end of workshop 1, one at the end of workshop 2 and one at the end of workshop 3. As can be seen the average of the parameters to evaluate the partnership increased from 3 (beginning of workshop 1) to around 8 (end of workshop 3).
- ❖ The parameters used were:

1. Definition of partnership: Have the participants of the NIP reached a common definition for the term partnership?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

2. Definition of NIP: Have the participants of the NIP reached a consensus of the term NIP?

Scores

- ❖ 0 = Term not defined
- ❖ 5 = Definition reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

3. Your level of commitment to develop the partnership: What is your level of commitment to develop the partnership?

Scores

- ❖ 0 = Not prepared to commit yet
- ❖ 5 = Wants to commit but needs to participate more to decide
- ❖ 10 = 100% Committed

4. Level of commitment to develop the partnership within the NIP: What is the level of commitment among participants of the NIP to develop the partnership?

Scores

- ❖ 0 = No commitment among participants
- ❖ 5 = Medium level of commitment
- ❖ 10 = 100% Committed

5. Your trust in others: What is your level of trust in other organizations' participants in the NIP

Scores

- ❖ 0 = Do not trust
- ❖ 5 = Some degrees of trust
- ❖ 10 = Trust 100%

6. Trust within the NIP: What is the level of trust among participants of the NIP?

Scores

- ❖ 0 = No trust among participants
- ❖ 5 = Medium level of trust
- ❖ 10 = Trust reached the level of 100%

7. Your transparency: What is the level of transparency that you apply when presenting information to the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

8. Transparency within the NIP: What is the level of transparency among participants of the NIP?

Scores

- ❖ 0 = Low level of transparency
- ❖ 5 = Medium level of transparency
- ❖ 10 = Totally transparent

9. Your confidentiality: What is the level of confidentiality that you apply when presenting information to the NIP?

Scores

- ❖ 0 = All information is confidential
- ❖ 5 = Some information is confidential
- ❖ 10 = There is no confidential information

10. Identification of the leadership: Is the leadership (by one organisation or by a committee formed by organisations) of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

11. Structure of the NIP: Is the structure of the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

12. Resources for the NIP: Are the resources for the NIP defined?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

13. Scope of the NIP: is the scope of the NIP identified?

Scores

- ❖ 0 = Not identified
- ❖ 5 = Identified through the vote of the majority
- ❖ 10 = Identified through consensus

14. Alignment of the objectives of the NIP: Is there consensus about the objectives of the NIP among the participants?

Scores

- ❖ 0 = Objectives not defined
- ❖ 5 = Objectives reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

15. Your level of communication: Do you inform other organisations/groups participants of the NIP about specific issues and then try to have feedback of the information provided (in a good communication system the information goes, is processed and a feedback is given)?

Scores

- ❖ 0 = There is any information flowing yet
- ❖ 5 = Information flows only from our organization/group to other participants of the NIP and our organisation/group does not receive feedback related to the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them (information flows in both directions)

16. Level of communication within the NIP: Do you think that the information flows in both directions between participants of the NIP?

Scores

- ❖ 0 = There is any information flowing yet
- ❖ 5 = Information flows only from our organisation/group to other participants of the NIP and our organization/group does not receive feedback related to the information provided. It can also happen when other participants send information to our organization/group and our organization/group does not give any feedback to the source of information about the information provided (information flows only in one direction)
- ❖ 10 = Information flows from our organization/ group to others within the NIP and our organization/group receives feedback from them. Vice versa also happens (information flows in both directions)

17. Alignment of the KPIs of the NIP: Is there consensus about the KPIs of the NIP among the participants?

Scores

- ❖ 0 = KPIs not defined
- ❖ 5 = KPIs reached through the vote of the majority
- ❖ 10 = Definition reached through consensus

APPENDICES

APPENDIX 1 – BASIC EXPLANATION OF THIS PROJECT

1 – TITLE OF THIS PROJECT

THE DEVELOPMENT OF PARTNERSHIP WITHIN A NETWORK OF INTERESTED PARTNERS (NIP) TO IMPROVE PERFORMANCE

2 – AIM OF THIS PROJECT

The aim of this project is to assist participants within a network of interested partners (NIP) to develop a partnership as the basis for the implementation of a sustainability performance evaluation management system (SPEMS) across the network.

NOTE: This project is one of the steps of the research project that has been developed by Flavio Coelho within his PhD project at Central Queensland University.

3 – OUTLINE OF THIS PROJECT

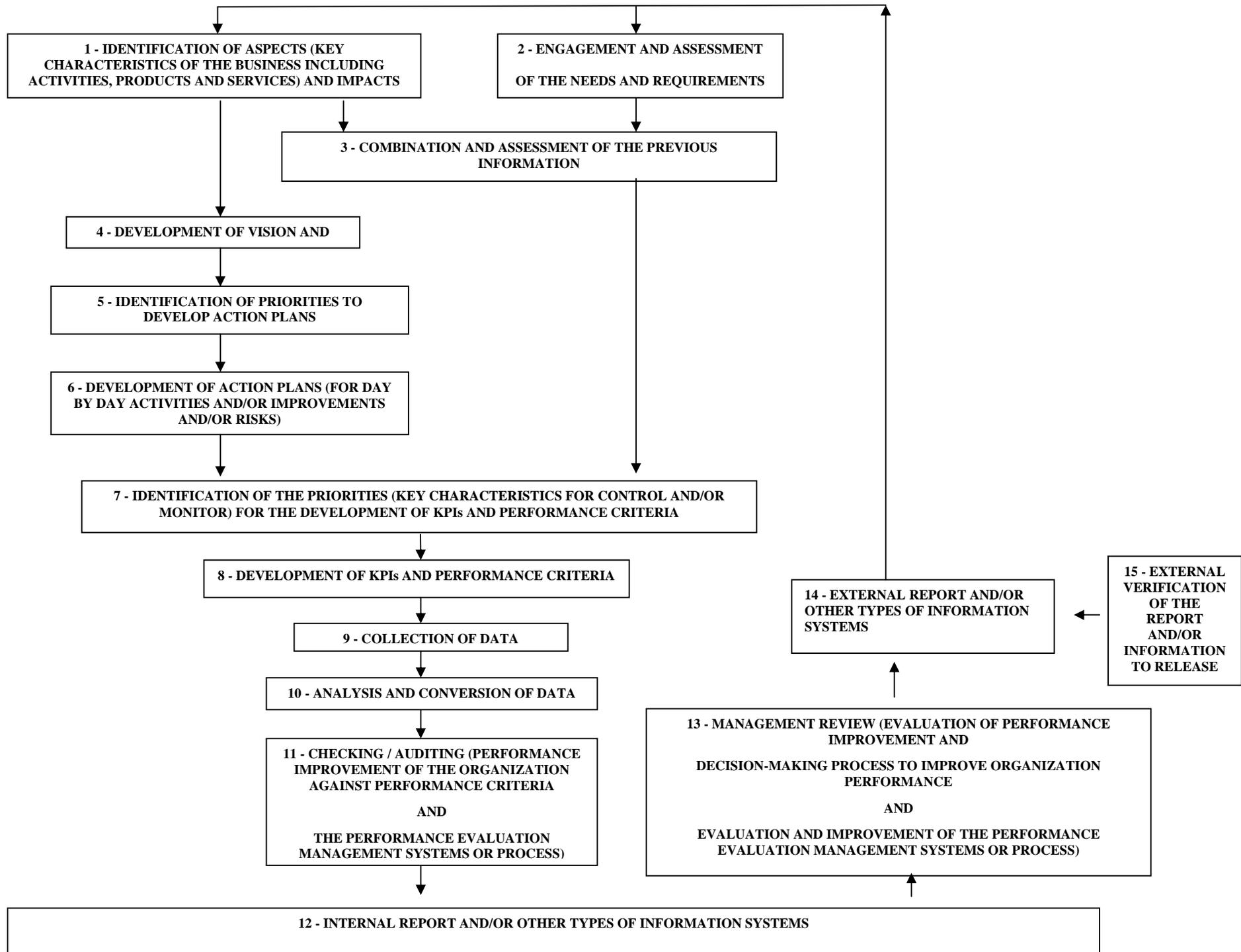
The NIP for this project will include BSL, other companies associated with BSL (BSL supply chain) and representatives of the community. The program to develop the partnership within the NIP will be divided into workshop modules. Each company will need to identify a ‘champion team’ of two people to participate in the workshops.

The principal researcher, Flavio Coelho, will be the facilitator of the workshops. Dr Moy will assist as necessary.

The workshops will be based on the Version 2 model for performance evaluation depicted below. With reference to the following Figure, you will note that the implementation of an improved PE system involves as early steps the identification of existing KPIs and engagement with interested partners. This in turn leads to the development of the NIP partnership – the primary outcome of this project.

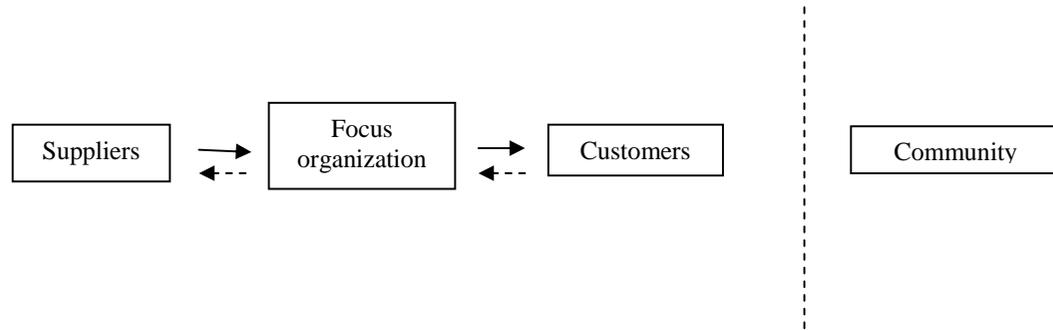
The conclusions of this project will help the research team to improve the version 2 model for performance evaluation (PE) for it to become an advanced sustainability performance evaluation management system (SPEMS). The partnership developed through the facilitated project will provide a base from which to continue the implementation of the full SPEMS. If time permits, additional details will be provided to assist the NIP to achieve full implementation of the SPEMS.

4 - VERSION 2 MODEL FOR PERFORMANCE EVALUATION (PE) – MULTI ORGANISATION WITHIN NETWORKS OF INTERESTED PARTNERS (NIP)

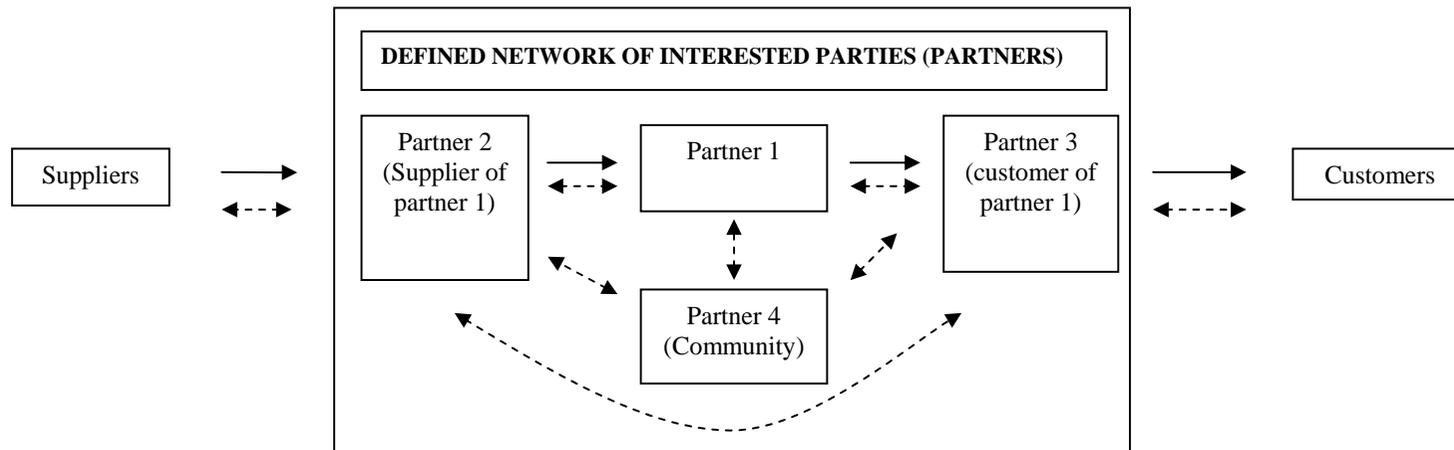


APPENDIX 2 – THE DIFFERENCE BETWEEN NETWORK OF INTERESTED PARTNERS (NIP) AND SUPPLY CHAIN

BASIC SUPPLY CHAIN - FOCUS ORGANIZATION AND SUPPLIERS, CUSTOMERS AND COMMUNITY



NETWORK OF INTERESTED PARTNERS AND SUPPLIERS, CUSTOMERS AND COMMUNITY



NOTE:

- This arrow shows flux of products/services
- This arrow shows the flux of information
- The information flows in both directions when establishing a NETWORK (full communication system)

APPENDIX 3 – FULL LIST OF PARTICIPANTS OF ALL WORKSHOPS

ORGANISATIONS/ GROUPS SUGGESTED FOR THE WORKSHOPS	NAME	POSITION	TELEPHONE	EMAIL	RESPONSIBILITY AT THE WORKSHOP	OBSERVATIONS
1. BSL	Peter Budd	Superintendent Strategic Procurement	4973.0269	peter.budd@comalco.riotinto.com.au	Participant	Engaged
2. BSL	Karen Swemmer	Contracts Officer	4973.0558	karen.swemmer@comalco.riotinto.com.au	Participant	Engaged
3. BSL	Glen Pryce	Environmental Scientist	4973.0110 or 04.38.78.05.09	Glen.Pryce@comalco.riotinto.com.au	Participant	Engaged
4. BSL	Joan Burns	Specialist Site Work	4973.0407 or 04.17.79.76.91	Joann.Burns@comalco.riotinto.com.au	Participant	Engaged
5. BSL / COMALCO	Peter Argust	Manager Sustainable Development	3867.1677	Peter.Argust@comalco.riotinto.com.au	Participant	Engaged
6. CLEANWAY	John Powell	Relieving Gladstone Manager	04.07.16.42.12	chris.oneil@cleanaway.com.au	Participant	Engaged
7. CLEANWAY	Chris O'Neil	Gladstone Area Manager	4979.4877	chris.oneil@cleanaway.com.au	Participant	Engaged
8. CLEANWAY	Jim Penny	Central Queensland Technical, Safety & Environmental Manager	4927.1600	jim.penny@cleanaway.com.au	Participant	Engaged
9. CLEANWAY	Gavin Tunstall	Central Queensland Manager	0419873188	gavin.tunstall@cleanway.com.au	Participant	Engaged
10. COLLEX	Brian Hansen	Gladstone Manager	04.18.73.09.90 4979.1900	bhansen@collex.com.au	Participant	Engaged
11. COLLEX	Norm Maskiell	Development Manager	04.13.45.33.03 3275.0107	nmaskiell@collex.com.au	Participant	Engaged
12. COLLEX	Chris Tanzer	Qld Manager	3275.0161	ctanzer@collex.com.au	Participant	Engaged
13. COMMUNITY NOISE AND ODOUR COMMITTEE	Mark Dowley	Member	4972.3600 04.21.10.58.25	mark_feg@tpg.com.au	Participant	Engaged but did not participate
14. OBSERVER	Alan McNeal	Reporter	4970.3030	newsroom@gladstoneobserver.com.au	Participant	Engaged
15. PORT CURTIS WATERWATCH	Anna Hitchcock	Port Curtis Waterwatch Coordinator	04.12.50.27.98	pcwaterwatch@hotmail.com	Participant	Engaged
16. BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE	Terry Rudder	Acting Principal	4973.7312	trudd4@eq.edu.au	Participant	Engaged
17. BOYNE ISLAND ENVIRONMENTAL EDUCATION CENTRE	Tereza Wilkie	Administrative Officer	4973.7312	twilk48@eq.edu.au	Participant	Engaged
18. STATE DEVELOPMENT AND INNOVATION	Les Salter	Senior Officer	4971.2300	les.salter@sd.qld.gov.au	Participant	Engaged
19. EPA	Arthur Dahl	Senior Enviro Officer	4971.6509	arthur.dahl@epa.qld.gov.au	Participant	Engaged but did not participate
20. RECRUITMENT FIRM	-	-	-	-	-	Was not engaged
21. CALLIOPE SHIRE COUNCIL	-	-	-	-	-	Was not engaged
22. CQU	David Moy	PhD supervisor	04.11.87.14.60	davidmoy@optushome.com.au	Observer and Facilitator	Engaged
23. CQU	Rod Edwards	PhD supervisor	04.17.79.08.41	r.edwards@cqu.edu.au	Participant	Engaged
24. CQU	Jose Flavio Coelho	PhD researcher	4970.7348	f.coelho@cqu.edu.au	Facilitator and Participant	Engaged
25. CQU	Bobby Harreveld	Research fellow	4930.6369	b.harreveld@cqu.edu.au	Evaluator of the Workshop	Engaged but did not participate

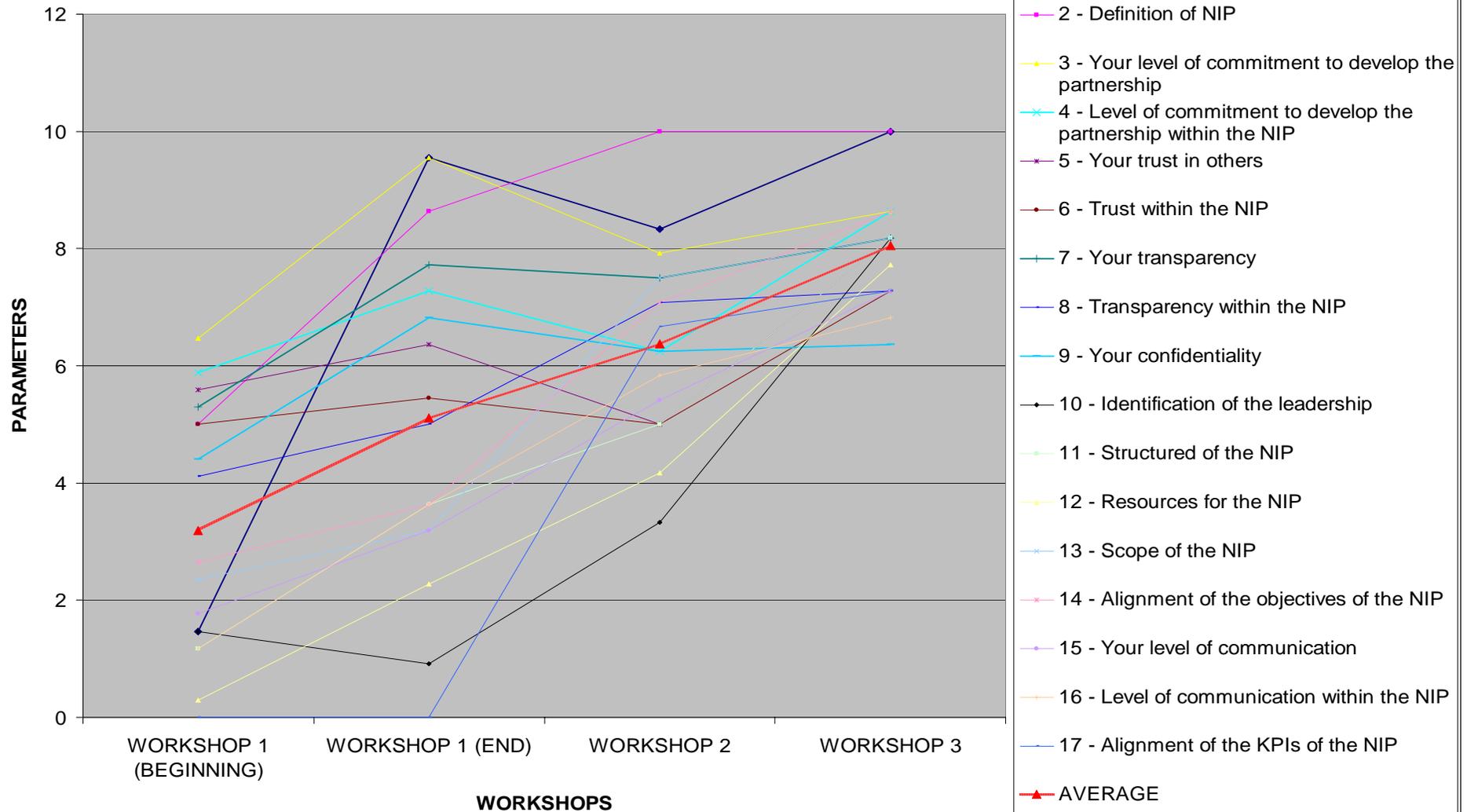
APPENDIX 16 - REPORT FOR ORGANIZATION 8 –
FINAL REPORT FOR ORGANIZATION 8 ABOUT THE WORKSHOPS AND CONTINUATION OF THE PROJECT - 18/06/04

- ❖ Expected outcomes of the project/workshops arranged in our meeting at BSL on 10/05/04:
 - Reach step 8 of the SPEMS (Sustainability Performance Evaluation Management Systems) model
 - Interested parties will, become partners within an NIP (Network of Interested Partners)
 - Commitment to continue the project
 - A committee or other structure to manage the continuation of the project (chair + secretary + table of responsibilities + funds +other resources)
 - Action plan for the continuation of the implementation according SPEMS model

- ❖ Outcomes attained:
 - All

- ❖ Evaluation of the partnership:
 - NOTE: We developed 4 evaluations. One at the beginning of workshop 1, one at the end of workshop 1, one at the end of workshop 2 and one at the end of workshop 3. As can be seen the average of the parameters to evaluate the partnership increased from 3 (beginning of workshop 1) to around 8 (end of workshop 3).

PARTNERSHIP EVALUATION



- ❖ In the view of the researcher, companies would manage three areas: day-by-day activities, improvements and risks/emergencies. The KPIs have to address important issues for the organisations/NIP in all of those areas.
- ❖ There is one company that is not really engaged in the partnership. This information has to be taken with the intention to improve the partnership with this company, not the opposite. At least they were honest about it.
- ❖ I expected to see a broader approach/system in terms of KPIs for this NIP. An NIP where other companies (from other areas) could start to participate in the partnership without any problem. Another issue is the engagement of interested parties from the community to become partners. If we define very specific NIPs, they cannot participate in all of them. The suggestion is to have a major NIP addressing general issues where the community participates and very specific NIPs for each specific aspect of business (but linked to the major NIP. Remember that each partner can be seen as a department of your company.
- ❖ Thank you very much indeed for your help.
- ❖ Congratulations for your courage in developing the project and challenging the traditional approaches in terms of supply chains' relationships.
- ❖ I will be happy to continue to help.

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APPENDIX 17 – COMPARISON AND EVOLUTION OF SPEMS

This table shows the comparison and evolution of the SPEMS during the research. The wordings in italics demonstrate the last concept incorporated in the model and its stage of incorporation.

COMMENTS ABOUT THE 'PE PROCESS'	PE (version 1 model)	SPEMS (version 2 model)	SPEMS (version 3 model)
GENERAL ISSUES	<i>Inclusion of the idea that the PE model could be applied in any size and kind of organization.</i>	Maintenance of the idea that the SPEMS model could be applied in any size and kind of organization and NIP.	Maintenance of the idea that the SPEMS model could be applied in any size and kind of organizations and NIP.
PDCA	<i>Adoption of the approach used in the ISO standards, the "Plan – Do – Check – Act" (PDCA) approach or tool.</i>	Maintenance of the PDCA approach as a way for continuous improvement of performance and the process of performance evaluation of IO and NIP.	Maintenance of the PDCA approach as a way for continuous improvement of performance and the process of performance evaluation of IO and NIP.
SUSTAINABILITY	<p>The major area of knowledge of the research has been environment. However he has studied issues linked to sustainability and has decided to include in the PE issues linked to social and economic. The issues linked to each area of sustainability which have been included in the PE (version 1 model) have been:</p> <ul style="list-style-type: none"> ❖ Environment: all issues but only linked with compliance with legal requirements. ❖ Social: WH&S issues. ❖ Economic: financial & quality issues. 	Incorporate in the SPEMS the entire concept of the areas of sustainability according the Table of Sustainability, but not only the focus in areas such as WH&S, financial, quality and environmental compliance (according PE - version 1 model) but in the entire range of areas within sustainability. However the PE (version 1 model) has incorporated the idea of sustainability of individual organizations. The new SPEMS, version 2 model, has had to extend the view for a combined sustainability of commercial organizations of an NIP. The idea or concept would only be related to commercial organizations, not to interested parties.	<i>Incorporate in the SPEMS the concept that the entire NIP needs to be sustainable, based on the parameters presented in the Table of Sustainability (See Appendix 20), not only some entities participants of the NIP.</i>
MANAGEMENT SYSTEMS	<i>Be ideal for companies that have already implemented management systems. However it could be implemented in companies without management systems in place.</i>	Maintenance of the concept it is ideal for companies and NIPs that have already implemented management systems. However it could be implemented in companies and NIPs without management systems in place.	Maintenance of the idea that it could be implemented in IO and NIP with or without management systems in place.
MANAGEMENT SYSTEMS	<i>Inclusion of the approach that if implemented in companies without management systems in place, the new model would help organizations to upgrade the PE model for it to become a management system with emphasis in performance.</i>	Maintenance of the approach that if implemented in companies or NIPs without management systems in place, the new model would help organizations or NIPs to upgrade the SPEMS model for it to become a management system with emphasis in performance.	Maintenance of the approach that if implemented in companies or NIPs without management systems in place, the new model would help organizations or NIPs to upgrade the SPEMS model for it to become a management system with emphasis in performance.

SIMILAR LANGUAGE AND ABLE TO CASCADE	<i>Inclusion of the idea that companies in an SC wouldn't have to implement the full PE model but at least to understand each step of the model to interact with other participants of the SC.</i>	Maintenance of the idea that companies in an NIP wouldn't have to implement the full SPEMS model but at least to understand each step of the model to interact with other participants of the NIP.	Maintenance of the idea that companies in an NIP wouldn't have to implement the full SPEMS model but at least to understand each step of the model to interact with other participants of the NIP.
SIMILAR LANGUAGE AND ABLE TO CASCADE	Be conceptualised to be used as a similar language for commercial organizations working within an SC. It means that organizations would implement it in their companies and they would be able to understand the PE model and performance data of other companies. It also means to standardize the language performance evaluation.	<i>Incorporation of the idea that the SPEMS (version 2 model) would also be implemented as umbrella management systems for an entire NIP. PE (version 1 model) has only carried out the idea that the PE would only work as similar language (standard PE model) for performance evaluation within the NIP. SPEMS (version 2 model) has carried out both ideas.</i>	Maintenance of the idea that the SPEMS would be implemented as umbrella management for the entire NIP or as similar language among individual entities.
SIMILAR LANGUAGE AND ABLE TO CASCADE		<i>Inclusion of procedures to allow the SPEMS model to be cascaded inside organizations and/or within an NIP.</i>	Maintenance of procedures to allow the SPEMS model to be cascaded inside organizations and/or within a NIP.
VOLUNTARY, COLLABORATIVE AND IMPOSITION APPROACH	Incorporation of the idea that the participation of organizations in an SC has to be voluntary.	Maintenance of the idea that the participation of organizations in an NIP has to be voluntary and collaborative.	<i>Incorporation of the idea that the participation of organizations in an NIP has to be not only voluntary and collaborative but also fully democratic.</i>
VOLUNTARY, COLLABORATIVE AND IMPOSITION APPROACH	Be developed to be used as a collaborative approach by participants of an SC. The usual company-suppliers and company-customers relationship guided by impositions (e.g. contracts) would not exist.	<i>Incorporation of the idea of the use of imposition, and not only collaborative approach, between company-suppliers (or NIP-suppliers) and company-customers (or NIP-customers) in some specific relationship situations. Explanation: The SPEMS (version 1 model) has included the idea of an ideal process of relationship between company-suppliers and company-customers using only collaborative approach and no imposition (e.g. contract). The answers from the questionnaire have demonstrated SPEMS (version 2 model) would have to include impositions in some specific relationship situations. It has been a necessary step back in terms of concepts of relationship between company-suppliers and company-customers based in the practical experience of companies.</i>	Maintenance of the idea of the use of imposition, and not only collaborative approach, between company-suppliers (or NIP-suppliers) and company-customers (or NIP-customers) in some specific relationship situations.
MANAGEMENT STRUCTURE	Inclusion of the idea that a committee	Incorporation of the idea that every NIP	<i>Inclusion of the idea that all participants</i>

	formed by representatives of the commercial organizations of the SC would manage the PE model of the entire SC. Every commercial company would have the same importance within the SC and power in terms of decisions of the SC.	has a dominant and focus company with major interest within the NIP that would drive the activities of the NIP.	<i>of NIP would exercise the same level of power in the committee. However the NIP and committee would be formed by multi organizations and interested parties, including a larger variety of community interested parties, as partners in the NIP. The interested parties would have the same level of power as other entities participants in the NIP.</i>
STRATEGIC PLAN	Inclusion of the procedures to develop vision, policy and action plan in the early stages of the formation of a SC.	Inclusion of procedures for the development of vision policies and action plans in the early stages of the formation of an NIP. However most of the participants of a NIP have already developed their own vision, policies and action plans. Then the procedures have to include the combination and fusion of those components in one vision, policies and action plans for the entire NIP.	<i>Return of the steps related to “plan phase” (vision, policies and action plans) of SPEMS (version 2 model) for the approach shown in SPEMS (version 1 model). It means that version 3 model would have the same “plan phase” of SPEMS (version 1 model). However, in step 4 of the SPEMS (version 3 model the development and improvement of scope and main objectives of the activities of individual organizations and NIP) has been included. It means inclusion of procedures for the identification of clear objectives and scope (boundaries for PE) for each NIP in the early stages of the implementation of the SPEMS.</i>
STRATEGIC PLAN		<i>Inclusion of the idea of the use of sustainability scorecard as pillars for business planning and performance evaluation.</i>	Maintenance of the idea of the use of sustainability scorecard as pillars for business planning and performance evaluation.
STRATEGIC PLAN		<i>Inclusion of the approach of the use of the tool called SIPOC (See Figure 29) to help organizations and NIPs to identify requirements and measurements between company/department/group (and its activities) and customers and suppliers linked to them (tool to identify key characteristics of the businesses).</i>	Maintenance of the approach of the use of the tool called SIPOC (See Figure 29) to help organizations and NIP to identify requirements and measurements between company/department/group (and its activities) and customers and suppliers linked to them (tool to identify key characteristics of the businesses).
STRATEGIC PLAN		<i>Inclusion of the idea of the development of PE planned together with a five years general business plan (divided by year) and periodical forecasts.</i>	Maintenance of the idea of the development of PE planned together with a five years general business plan (divided by year) and periodical forecasts.
STRATEGIC PLAN		<i>Inclusion of documented procedures for the important steps of the SPEMS. The</i>	Maintenance of documented procedures for the important steps of the SPEMS. The

		<i>importance has to be determined by organizations/NIP using the PE model.</i>	importance has to be determined by organizations/NIP using the PE model.
KPI AND PERFORMANCE CRITERIA	Be designed to provide management of individual organizations or NIP with reliable and verifiable information on an ongoing basis to determine whether an organization's or SC's performance has been meeting the criteria set by the management and help them attain the business goals in a more objective way.	<i>Inclusion of procedures to help IO and NIP to develop sets of similar indicators or KPI and performance criteria within the SPEMS model that would work as similar language among the participants of an NIP. It is also important to emphasise in the procedures the importance to keep historical data for the evaluation of performance.</i>	Maintenance of the use of procedures to help IO and NIP to develop sets of similar indicators or KPI and performance criteria within the SPEMS model that would work as similar language among the participants of a NIP. It is also important to emphasize in the procedures the importance of keeping historical data for the evaluation of performance.
KPI AND PERFORMANCE CRITERIA	I	<i>Inclusion of procedures for KPI expressing the importance of the use of ratios approach that would show the numeric value of the numerator and denominator.</i>	Maintenance of procedures for KPI expressing the importance of the use of ratios approach that would show the numeric value of the numerator and denominator.
PARTNERSHIP AND COMMUNITY INTERACTION	At that stage of the research, the model has had a superficial view of partnership among participants within an SC. However the partnership would be formed by commercial organizations and the communities would only be considered as SC's external interested parties.	Inclusion of some interested parties as partners in the PE processes of NIP. Explanation: In the version 2 model the community interested parties that have been chosen to participate in the NIP have become partners in the NIP's activities.	<i>Inclusion of steps and procedures that would permeate all stages of the SPEMS for the development and enhancement of partnership among participants of the NIP. The development and enhancement of partnership in all stages of the development of SPEMS has been considered the key factor for the success of the SPEMS model of an NIP. It is also important fort the incorporation of the idea that the interested parties from the community would enter in the NIP as interested parties and based in their commitment with the NIP they would become a partner within the NIP or not.</i>
PARTNERSHIP AND COMMUNITY INTERACTION	Inclusion of communication with interested parties from the community.	<i>Development of a communication system (not only reports) within the SPEMS model. A suggestion for a reporting tool framework is the use of an international and recognized tool for performance reporting called GRI(Global Reporting Initiative - GRI 2002b). The information provided has to be objective and simple in the view of the interested parties.</i>	Maintenance of a communication system.
PARTNERSHIP AND COMMUNITY INTERACTION	Inclusion of the engagement and consultation with interested parties from the community.	<i>Inclusion of engagement and consultation with a wider range of interested parties (others than the partners) in subjects</i>	Maintenance of engagement and consultation system.

		<i>related to the activities, products, services and performance of IO/NIP and feedback process (e.g. reports) of the engagement and performance of NIP and IO.</i>	
PARTNERSHIP AND COMMUNITY INTERACTION		<i>Inclusion of procedures to break the barrier that has existed between IO/NPIs and community. A possible solution would be the inclusion of procedures in the early steps of SPEMS for the development of partnership among participants of a NIP.</i>	Maintenance of procedures to break the barrier that has existed between IO/NPIs and community. A possible solution would be the inclusion of procedures in the early steps of SPEMS for the development of partnership among participants of a NIP.
NEW TERMS AND DEFINITIONS		<p>Incorporate in the SPEMS some terms and respective definitions with the intention to level the concepts for the users of the SPEMS. The terms and definitions are:</p> <ul style="list-style-type: none"> ❖ Sustainability for organizations: Attain objectives taking into consideration the needs of the interested parties. ❖ Sustainability KPI: Indicators of one area (social or economic or environmental) but they are important to the most important interested parties linked to the organization/network of interested partners. ❖ Network of interested partners (substituting supply chain in this research): close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide rewards and failures. Partnership needs ownership by all participants of the network. ❖ Some terms have been taken from the literature: <ul style="list-style-type: none"> ○ Network: <ul style="list-style-type: none"> ▪ An interconnected or interrelated chain, group, or system (Merriam-Webster Online Dictionary) 	<p><i>Improvement of the definition of terms for organizations such as sustainability, sustainability for organizations, sustainability indicators or KPI, network of interested partners and definition of the terms partnership, transparency and confidentiality.</i></p> <p><i>The final terms and definitions are:</i></p> <ul style="list-style-type: none"> ❖ <i>Sustainability for organizations: Attainment of objectives taking into consideration the needs of the interested parties.</i> ❖ <i>Sustainability indicators (KPI) for organizations: Indicators from each of the areas of sustainability - namely social, economic and environmental – that are considered to address the priority issues identified by the ‘primary’ interested parties linked to the organization / network of interested partners. Primary is taken to refer to: those interested parties that have direct links with the partners or who are directly affected by, or have impact on, the activities of any or all of the partners.</i> ❖ <i>Network of interested partners (NIP): Close cooperation or partnership among interested parties where there are specified objectives, rights and responsibilities and the partners exchange resources and divide</i>

		<ul style="list-style-type: none"> ▪ To engage in social or professional ‘networking’. Then, ‘Networking’ is the action of representing in a network a system of interconnected events, processes, etc., especially in the planning of complex projects or sequences of operations (Oxford English Dictionary 2004). ○ Interested parties: <ul style="list-style-type: none"> ▪ Individual or group concerned with or affected by the performance of an organization (International Organization for Standardization 2004b) ▪ Person or group having an interest in the performance or success of an organization. A group can comprise an organization, a part thereof, or more than one organization (International Organization for Standardization 2000b) ○ Partnership: <ul style="list-style-type: none"> ▪ The state of being a partner (Merriam-Webster Online Dictionary). ▪ The fact or condition of being a partner; association or participation or an association of two or more persons for the carrying on of a business, of which they share the expenses, profit, and loss (Oxford English Dictionary 2004). ○ Partner: <ul style="list-style-type: none"> ▪ One that shares or one associated with another 	<p><i>rewards and failures. Partnership needs ownership by all participants of the network.</i></p> <ul style="list-style-type: none"> ❖ <i>Sustainability performance evaluation management systems or sustainability performance evaluation management system model (SPEMS): It is a management system with a focus on performance evaluation where sustainability means that organizations want to drive their activities to become sustainability friendly. SPEMS can assist companies and their supply chains to enhance business performance and evaluation.</i> ❖ <i>A “sustainability friendly” company has been defined by the researchers as: a company that drives its activities so as to actively include taking into consideration the needs of the interested parties.</i>
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		<p>especially in an action (Merriam-Webster Online Dictionary)</p> <ul style="list-style-type: none"> ▪ One who is associated in any function, act, or course of action; one who takes part with another or others in doing something; an associate, colleague or one who has a share or part with another or others; one who is associated with another or others in the enjoyment or possession of anything (Oxford English Dictionary 2004) ○ Ownership: <ul style="list-style-type: none"> ▪ The state, relation, or fact of being an owner (Merriam-Webster Online Dictionary) ▪ The fact or state of being an owner (Oxford English Dictionary 2004) 	
VERIFICATION OF INFORMATION RELEASED	Inclusion of the idea of third part - verification of external reports	<i>Inclusion of third part verification of most important feedback systems within the PE with the intention to give reliability for the information provided for external interested parties. In this model the verification is not only related to external reports but also to all important information, in the evaluation of the company that would be released to interested parties.</i>	Maintenance of third part verification of most important feedback systems within the PE with the intention to give reliability for the information provided for external interested parties.
RESOURCES AND RESPONSIBILITIES		<i>Inclusion of procedures for the definition of resources and responsibilities within participants in the early stages of the formation of NIP.</i>	Maintenance of procedures for the definition of resources and responsibilities within participants in the early stages of the formation of NIP.
LCA		<i>Inclusion of the approach of the use of Life Cycle Assessment (LCA) for the identification of key characteristics of the businesses.</i>	Maintenance of the approach of the use of Life Cycle Assessment (LCA) for the identification of key characteristics of the businesses.
OWNERSHIP		<i>Incorporation of the idea that the participants of the organizations/NIP need</i>	Maintenance of the idea that the participants of the organizations/NIP need

		<i>to construct their SPEMS with the intention to have ownership of the SPEMS</i>	to construct their SPEMS with the intention to have ownership of the SPEMS
GENERAL MANAGEMENT ISSUES		<i>Inclusion of procedures to help the engagement of top management in the formation and development of activities of NIP.</i>	Maintenance of procedures to help the engagement of top management in the formation and development of activities of NIP.
DECISION MAKING		<i>Inclusion of procedures to follow-up of the decisions taken for IO and NIP.</i>	Maintenance of procedures to follow-up of the decisions taken for IO and NIP.