Case Study - Sustainable Supply Chain, Geelong (Alcoa and Suppliers)

The Geelong Manufacturing Council (GMC) in association with Sustainability Victoria, engaged Business Shaper to undertake a sustainable supply chain feasibility study as the final deliverable of GMC's efficiency program. This study focused on a supply chain encompassing Geelong based Alcoa World Alumina Australia and Alcoa Australia Rolled Products (Alcoa) as the common customer, and nine local (Geelong-based) suppliers.

The participating suppliers were from a range of sectors including:
Manufacturing Engineers, Foundry Products; Parts and equipment suppliers, and consumables.

Initial information gathering meetings with Alcoa and representative suppliers were followed by two workshops, facilitated by Business Shaper.

Through active and guided participation, the workshops focused on discovering how sustainable business practices and supply chains can:

- lead to cost reductions
- strengthen local businesses and the community
- reduce supply chain aggregated impacts on the environment.

Project Description

The project aims were:

- Reduce waste throughout the entire supply chain (waste is defined as materials discarded, resource and labour inefficiencies, ineffective communication and pollution)
- Improve the environmental performance of all participants
- Strengthen the supply chain through closer communication, collaboration and more frequent dialogue

Process or Steps taken

The project consisted of a three step process:

A. Where are we now?

1. *Identify the main Geelong based suppliers to Alcoa and rank by scale of procurement ($ amount), energy consumed and waste generated.*
2. *Conduct site visits of several representative suppliers.*
3. *Conduct two workshops, addressing the following topics:*
   - *Expectations of participants*
   - *Understanding of sustainability*
   - *Overview of sustainable supply chains*
   - *Case study examples of sustainable supply chains*
   - *Tools to integrate sustainability (and supply chains) using a whole of company approach*
   - *Measurement, monitoring and reporting of sustainable business practices*
   - *Workshop 1- Exercise to assess the participants supply chain via interactive SWOT (Strengths – Weaknesses – Opportunities - Threats)*
   - *Workshop 2 - Analysis of SWOT, prioritisation of initiatives for improvement and confirmation of first workshop progress*

B. Where do we want to be?

1. *Determination of preferred outcomes through the expectations and SWOT*
2. *Validation through Workshop 2*

C. How to get there?

1. *Specific tangible actions identified in Workshop 2, leading to prioritised recommendations*
2. *Next steps for subsequent implementation – detailed in Supply Chain Feasibility Report*

Deliverables to support each phase:

- *Provision of workshop materials to participating companies.*
- *Development of a report with methodology, background material, analysis, findings and recommendations to GMC, SV, Alcoa and its suppliers.*

Results

Results and outcomes of the project (Phase 1) were:

- Increased level of awareness on issues relating to sustainability by suppliers (e.g. carbon price resulting in 17% electricity cost increases)
- Suppliers empowered to contribute to a more sustainable supply chain
- Strengthened relationships and positive open dialogue between Alcoa and supplier group. This is reflected by a commitment from Alcoa and suppliers to greater collaboration through:
  - educational workshops
  - skill transfer
  - site visits
  - development of a supplier feedback system by Alcoa
  - continuous communications program

  This is expected to lead to more favourable outcomes for all parties.
- Developed a list of prioritised actions to yield both short and long term commercial and environmentally positive outcomes.

Snapshot

Partner: Geelong Manufacturing Council

Project title: Sustainable Supply Chain Feasibility Study

Objective: To reduce both costs and environmental impact along specific supply chain

Plant type: N/A (whole of supply chain)

Technology description: integrated sustainable supply chain (technology, business, communication and collaboration)

$ saving: To be determined during implementation phase (expectations are for at least 10%, but need to use DuPont Decision Tree tool per business, to form more accurate assessment)

Environmental impact reduction: There is strong capacity for reducing environmental impact and there is evidence of this occurring already.

Since most of the participating suppliers either have made little/no progress regarding GhG emission reduction or do not have a good understanding of how to approach this, the implementation phase of the project (Phase 2) offers the opportunity to assess the potential benefit (environmentally and financially) and capacity for commensurate offsetting.

Downloads

Available in confidence to participating businesses (final report, with associated workshop presentation notes, and examples of templates and tools).

Links

For more information on reducing impacts in your business, visit www.resourcesmart.vic.gov.au