



# GREEN CAPITAL

ADVANCING CORPORATE SUSTAINABILITY  
AN INITIATIVE OF TOTAL ENVIRONMENT CENTRE

## Snapshot on a Sustainable Supply Chain



**Australian Government**

**Department of the Environment, Water, Heritage and the Arts**

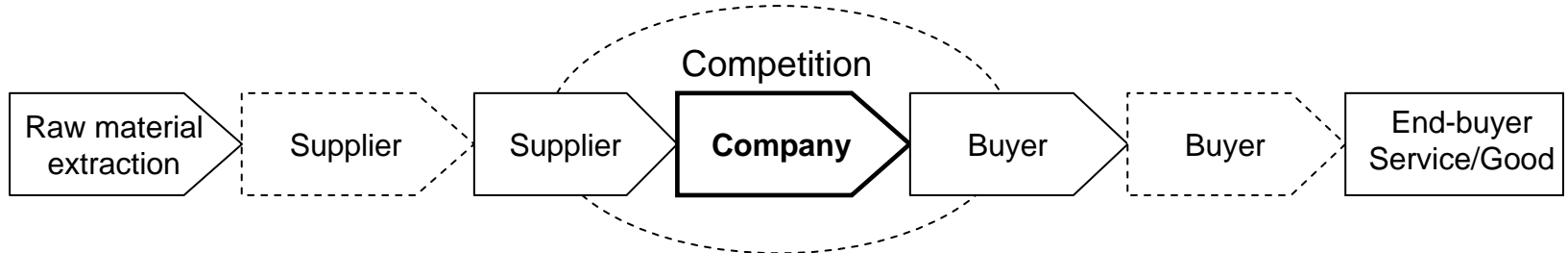


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## What is a Supply Chain?

A supply chain is a sequence of organisations and activities involved in producing and delivering a good or service.



The market place consists of the direct environment of a company, which can be viewed as the total value chain in which an organisation operates, including its competition. For a company to be able to exist it needs to offer enough value with their products or services for potential buyers. Making a profit enables a company to grow and develop new activities.

## Externalities: Environmental & Social Impacts

Social or environmental impacts aren't normally part of the market place. These factors are externalised.

*“The company’s legally defined mandate is to pursue relentlessly and without exception its own economic self-interest, regardless of the harmful consequences it might cause to others. “(The Economist, 2005)*

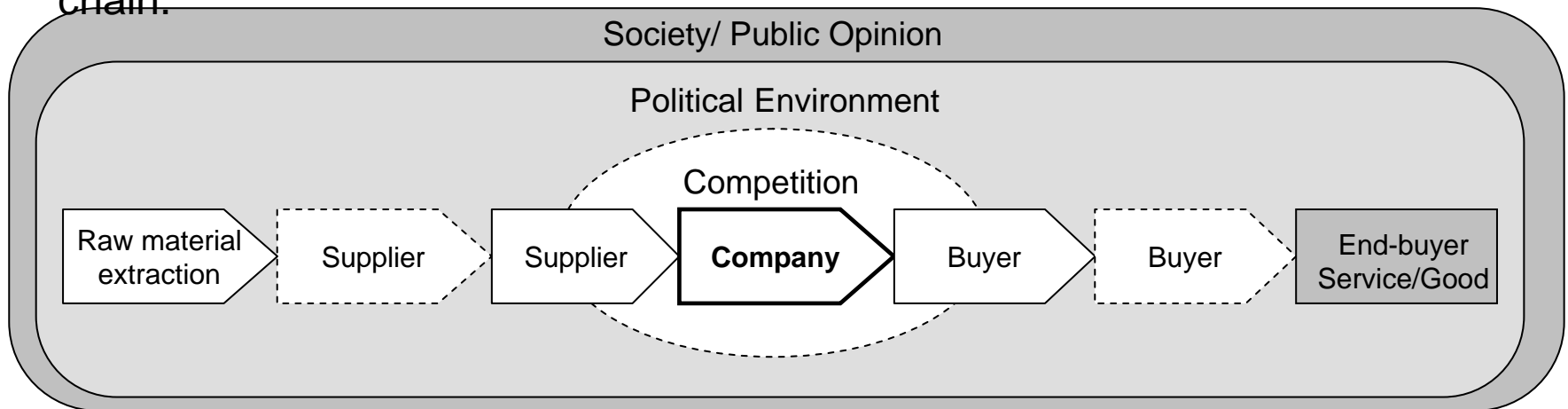
New thinking has occurred since the Australian findings 2006 noted that fiduciary responsibility does in fact hold directors accountable for environmental and social impacts of the corporation.

Read more:

1. The Economist. 2005: Good corporate citizens believe that capitalism is wicked but redeemable. Vol. 374, Iss. 8410; Jan 22, 2005, p. 11-12.
2. Corporations and Markets Advisory Committee. The social responsibility of corporations. Dec. 2006  
[http://www.camac.gov.au/camac/camac.nsf/byHeadline/PDFFinal+Reports+2006/\\$file/CSR\\_Report.pdf](http://www.camac.gov.au/camac/camac.nsf/byHeadline/PDFFinal+Reports+2006/$file/CSR_Report.pdf)

## Internalise Externalities

To internalise the externalities (environmental and social harm) pressure on companies is built through *end-buyers* (purchasing resistance or ethical reasons), *the political environment* (law, taxes and other schemes) and from *civil society* (protests, NGO's, media, etc.). These forces have contributed to a growing wave of companies who aim for a sustainable organisation and supply chain.



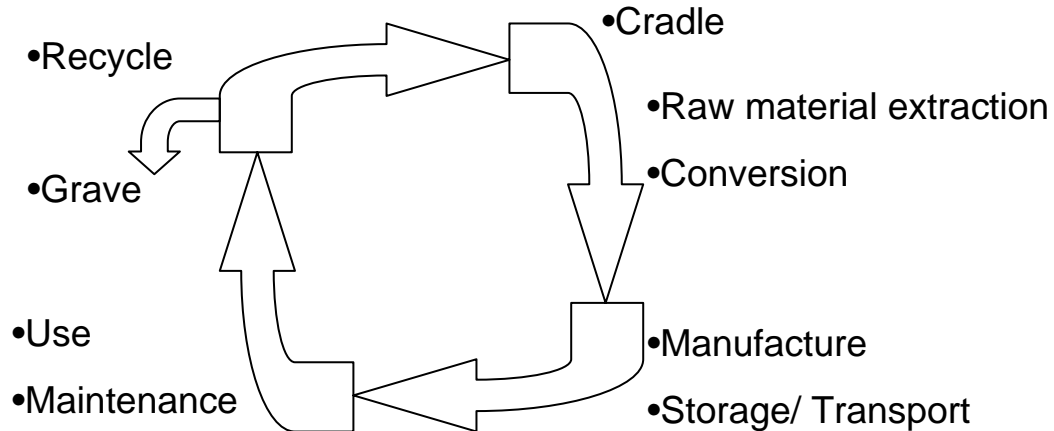
Watch/ read more:

1. Leonard, Annie. The story of Stuff. The Story of Stuff is a 20-minute, fast-paced, fact-filled look at the underside of our production and consumption patterns. Tides Foundation & Funders Workgroup for Sustainable Production and Consumption. 2007. [www.storyofstuff.com](http://www.storyofstuff.com)

## Sustainable Supply Chain

A sustainable supply chain is a sequence of organisations and activities involved in producing and delivering a good or service, who are explicitly improving the environmental and social impacts of their good or service as well as the in-financial benefits and costs.

Ideally, at the end of life of a product, the product, parts and/or materials return back into the supply chain as resources, which relieves the need for virgin materials and manufacturing steps, with their associated energy and pollution costs.



Read more:

1. McDonough, W. & M. Braungart. Cradle to Cradle - Remaking the way we make things. North Point Press. 2002

## Why would a company want to work on a sustainable supply chain?

1. Greater market appeal
2. Increased efficiency reduces costs
3. Greater retention and hiring of top talent
4. Improved risk management
5. Higher shareholder returns
6. Greater investor appeal
7. Increased sales and brand security
8. Comply with legislation now and prepare for possible future regulation

Read more:

1. New Zealand Business Council for Sustainable Development. A business guide to a sustainable supply chain. Nov. 2003. [www.nzbcسد.org.nz/supplychain](http://www.nzbcسد.org.nz/supplychain)
2. Willard, Bob. The Sustainability Advantage. Seven Business Benefits of a Triple Bottom Line. New Society Pbl. 2002

## Sustainable Supply Chain Strategies

### **1. Risk Management - Procurement**

Requiring and selecting suppliers who are reducing their environmental and social impact - through the power of your purchasing

### **2. Cost Reduction - Internal Operations**

Using cleaner or more efficient practices in all operations

### **3. Innovation - Product Development**

Developing new products/ services that consider environmental and social issues

### **4. Reverse logistics - End-of-Life Management**

Retrieve end-of-life waste or goods and add value

## 1. Risk Management - Procurement

- Risk management through procurement policies requires suppliers to reduce their environmental impact and/or improve their social impacts. This protects the company, but does not encourage innovation.
- ISO 9000 is a family of standards for quality management systems and can be used as an aid in this process.
- It is a complex task to monitor and it can be expensive for suppliers

Read more:

1. International Organisation for Standardization (ISO):  
[http://www.iso.org/iso/iso\\_catalogue/management\\_standards/iso\\_9000\\_iso\\_14000.htm](http://www.iso.org/iso/iso_catalogue/management_standards/iso_9000_iso_14000.htm)

## 1. Risk Management - Procurement Checklist

- Do you have a code of conduct/standards of engagement for suppliers?
- Do you set targets for suppliers?
- Do you assess existing suppliers against defined criteria?
- Do you assess new suppliers against defined criteria?
- Do you require your suppliers to have external certification?
- Do you work with your suppliers to develop environmental and social solutions?
- Do you audit your suppliers?
- Have you selected suppliers because of their sustainable standards?
- Have you deselected suppliers because of their environmental or ethical behaviour?
- Do you observe, use external validation and test documentation to validate your suppliers' response?
- Do you collate and record measurements and data?
- Have you increased/decreased your procurement team because of new sustainable procurement procedures?
- Is procurement represented in a board function?

Read more:

New Zealand Business Council for Sustainable Development. A business guide to a sustainable supply chain.  
Nov. 2003. [www.nzbcscd.org.nz/supplychain](http://www.nzbcscd.org.nz/supplychain)



## 2. Cost Reduction - Internal Operations

- Reduce costs through greater efficiency in: logistics, technologies (manufacturing), organisational/office systems, using fewer raw materials, creating less overall waste, etc.
  - Organisational/Office systems
    - Greening office: IT systems, appliances, paper use,
    - Staff awareness programs, rethinking operational practices
  - Manufacturing
    - Reducing inventory stocks
    - Moving to a just-in-time/lean manufacturing model
    - Energy use reduction
    - Re-manufacturing of used and recycled parts and materials
  - Optimising transportation and packaging (GPS, fuel efficient technologies, reduce travel distances, efficient packaging and modularisation)

### 3. Innovation - Product Development

- Development of new products and services that are:
  - Based around a more sustainable supply chain
    - Organic produce
    - Fair trade products
    - Ethical investment funding
  - Result from collaboration between members of the supply chain
    - Biodegradable plastics
  - Design for the Environment
    - Using a life cycle perspective (cradle-to-cradle)
    - Looking at modularity (IKEA) and design for remanufacturing (Fuji Xerox)

## 4. Reverse logistics - End-of-Life Management

- Products can become part of either a take-back or recycling scheme
  - Products are either:
    - Discarded by the consumer and go to landfill
    - Recycled by the consumer and picked up by municipal waste collection
    - Returned to a designated collection point or retrieved by a third party/ producer
  - The two main activities are re-manufacture (high value waste) and recycling (lower value waste)
  - Current barriers are investment and infrastructure based.

## Example 1: Climatex; Environmentally Intelligent Textile

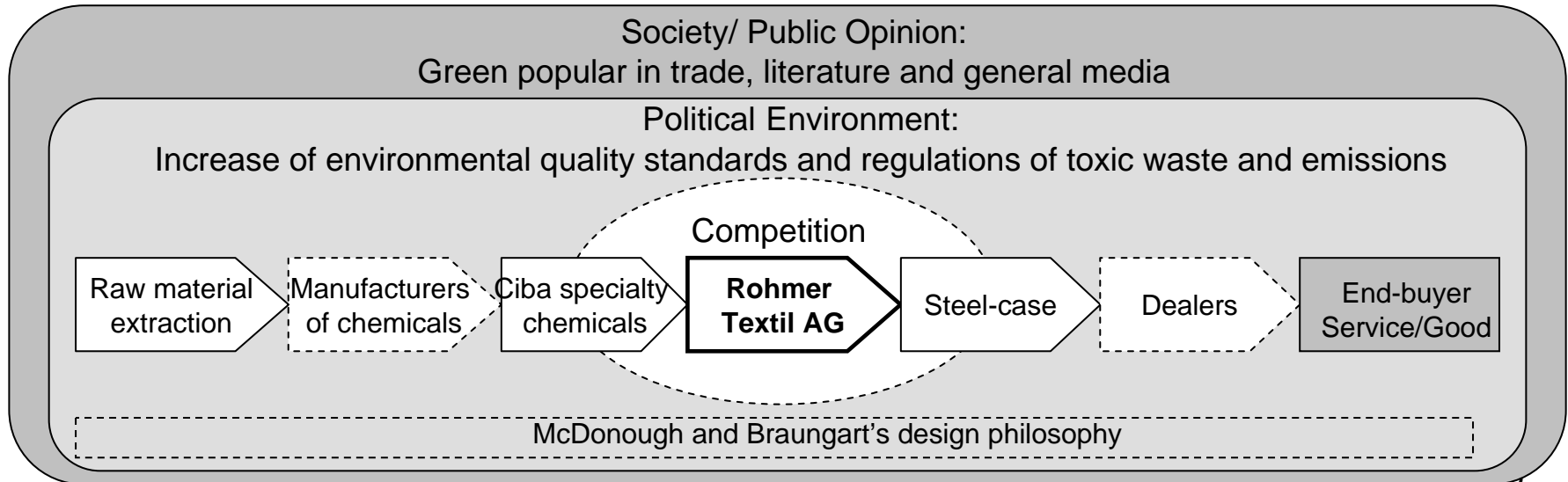


DesignTex, a commercial interiors textile company, joined with spinner Rohner Textil AG and environmentally intelligent designers McDonough and Braungart, to design an environmentally responsible and aesthetically unique fabric. They produced Climatex based on a cradle-to-cradle philosophy, which is totally made from organic nutrients and is designed for disassembly, remanufacture, and continuous reuse. The fabric is strong, it can 'breathe' and it is made from a mixture of safe, pesticide-free plant and animal fibres. The water coming out of the factory is pollutant free and cleaner than the original. Additional side benefits of the process were that employees began to use rooms, that were previously reserved for hazardous-chemical storage, for recreation and additional workspace. The new fabrics are considered a huge success in the marketplace as well.



## Example 1: Climatex; Environmentally Intelligent Textile

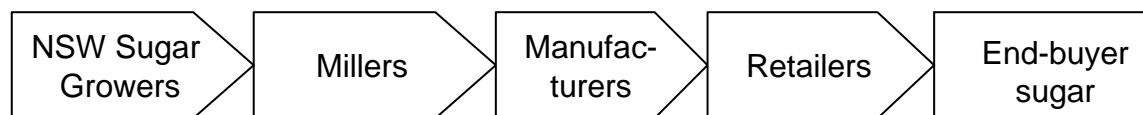
The whole supply chain had to be changed in order to innovate the fabric, which is plotted in the supply chain below embedded in a political and public environment. The public played a role, but the political environment was the dominant stimulant that led to a smart innovative answer.





## Example 2: Sugar Link project: Towards a Sustainable Sugar Supply Chain

Sugar sold as a bulk commodity limits the opportunities for producers to differentiate themselves, which constrains their ability to hedge against fluctuating commodity prices. Therefore, working with other operators has become imperative for enhancing brand visibility and assurance, as well as integrating and synchronising activities. For that reason NSW sugar growers have started sharing knowledge and building a more robust collaborative platform with their chain partners.



Current initiatives are, amongst other things: wastewater management strategies, electricity cogeneration, increase range of products with increased market value, consumer awareness, best practice guidelines farm management

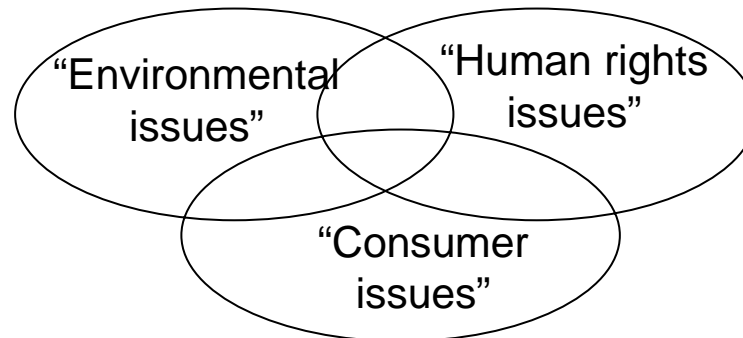
Read more:

1. Woodhead, A. Rethinking supply chain collaboration. Green Capital's supply chain mgmt forum. August 2007. 16 [http://greencapital.org.au/index.php?option=com\\_docman&task=doc\\_download&gid=94](http://greencapital.org.au/index.php?option=com_docman&task=doc_download&gid=94)
2. Sugarlink: Towards a Sustainable Sugar Supply Chain: <http://www.sunshinesugar.com.au/pdf/SugarLinkReport.pdf>

## Example 3: China, Human rights & Environmental Supply Chain Issues



Neat categorisations are impossible. Human rights are inseverable; globalisation has made our impacts all the more apparent.



In China externalities are becoming more obvious: air and water pollution, chemical contamination (in products), low “un-livable” wages, child labour.

Read more:

1. Diviney, E., S. Lillywhite. Ethical threads. Corporate Social Responsibility in the Australian Garment Industry. Brotherhood of St. Laurence. 2007  
[http://www.bsl.org.au/pdfs/Diviney&Lillywhite\\_ethical\\_threads.pdf](http://www.bsl.org.au/pdfs/Diviney&Lillywhite_ethical_threads.pdf)

## Example 3: China, Human rights & Environmental Supply Chain Issues



Companies that outsource manufacturing activities or import products from China, especially from unbranded smaller companies, are at risk of violating human rights and/or environmental issues through their supply chain.

### **How can responsible companies mitigate these risks and take advantage of the opportunities?**

- Adopt the Global Reporting Initiative/ UN Global Compact
- Insist on independent verification of your supply chain
- Promote performance through participation in, for example, the Corporate Responsibility Index (Australia)
- Set continuous improvement goals and share these with your suppliers
- Support standard-setting in your industry
- Formalise a take back policy to show customers you are accountable for both ends of your supply chain.

Read more:

1. Who's sweat is on your clothes. 22/10/2007  
[http://action.amnesty.org.au/china/comments/whose\\_sweat\\_is\\_on\\_your\\_clothes/](http://action.amnesty.org.au/china/comments/whose_sweat_is_on_your_clothes/)

## What steps should you take?

1. Identify your supply chain
2. Make sustainable development part of business strategy
3. Start measuring and reporting on your footprint
4. Identify initiatives throughout the organisation which can get everyone involved
5. Cooperate, select and innovate with the different parties in your supply chain



## References/ Reading more

- Amnesty International. Who's sweat is on your clothes. 22/10/2007  
[http://action.amnesty.org.au/china/comments/whose\\_sweat\\_is\\_on\\_your\\_clothes/](http://action.amnesty.org.au/china/comments/whose_sweat_is_on_your_clothes/)
- Corporations and Markets Advisory Committee. The social responsibility of corporations. Dec. 2006  
[http://www.camac.gov.au/camac/camac.nsf/byHeadline/PDFFinal+Reports+2006/\\$file/CSR\\_Report.pdf](http://www.camac.gov.au/camac/camac.nsf/byHeadline/PDFFinal+Reports+2006/$file/CSR_Report.pdf)
- Diviney, E., S. Lillywhite. Ethical threads. Corporate Social Responsibility in the Australian Garment Industry. Brotherhood of St. Laurence. 2007  
[http://www.bsl.org.au/pdfs/Diviney&Lillywhite\\_ethical\\_threads.pdf](http://www.bsl.org.au/pdfs/Diviney&Lillywhite_ethical_threads.pdf)
- Leonard, Annie. The story of Stuff. The Story of Stuff is a 20-minute, fast-paced, fact-filled look at the underside of our production and consumption patterns. Tides Foundation & Funders Workgroup for Sustainable Production and Consumption. 2007  
[www.storyofstuff.com](http://www.storyofstuff.com)
- Macmahon, Rohan. Sustainability Inc. Supply Chain Management seminar. Amnesty International (Australia) Business Group. August 2007
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- New Zealand Business Council for Sustainable Development. A business guide to a sustainable supply chain. Nov. 2003  
[www.nzbcSD.org.nz/supplychain](http://www.nzbcSD.org.nz/supplychain)
- Simpson, Dayna. Green Supply Chain Strategies. Faculty of Business and Economics, Monash University, August 2007

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- The Economist. 2005: Good corporate citizens believe that capitalism is wicked but redeemable. Vol. 374, Iss. 8410. Jan 22, 2005. p. 11-12.
- Willard, Bob. The Sustainability Advantage. Seven Business Benefits of a Triple Bottom Line. New Society Pbl. 2002
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- Woodhead, A., R. Quirk, D. Cunninham, G. Macolm and B. Land. SugarLink: Towards a Sustainable Sugar Supply Chain. Bureau of Rural Sciences. Canberra. Australia. 2006  
<http://www.sunshinesugar.com.au/pdf/SugarLinkReport.pdf>

### **TEC releases on supply chain issues**

- Mobile Phone recycling scheme [http://www.tec.org.au/index.php?option=com\\_content&task=view&id=581&Itemid=270](http://www.tec.org.au/index.php?option=com_content&task=view&id=581&Itemid=270)
- Sydney City e-waste Recycling [http://www.tec.org.au/index.php?option=com\\_content&task=view&id=542&Itemid=270](http://www.tec.org.au/index.php?option=com_content&task=view&id=542&Itemid=270)
- Action on Computer Recycling Laws  
[http://www.tec.org.au/index.php?option=com\\_content&task=view&id=488&Itemid=270](http://www.tec.org.au/index.php?option=com_content&task=view&id=488&Itemid=270)  
[http://www.tec.org.au/index.php?option=com\\_content&task=view&id=492&Itemid=270](http://www.tec.org.au/index.php?option=com_content&task=view&id=492&Itemid=270)

For more information please contact  
Total Environment Centre- Green Capital  
Irmine van der Geest/ Danielle Domone  
+61 2 9261 3566