

Sustainable Supply Chain Management

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The diagram consists of three concentric ovals. The outermost oval is light green and contains the word "Environment". Inside it is an orange oval containing the word "Society". The innermost oval is dark brown and contains the word "Economy". All text is in a white, sans-serif font.

Environment

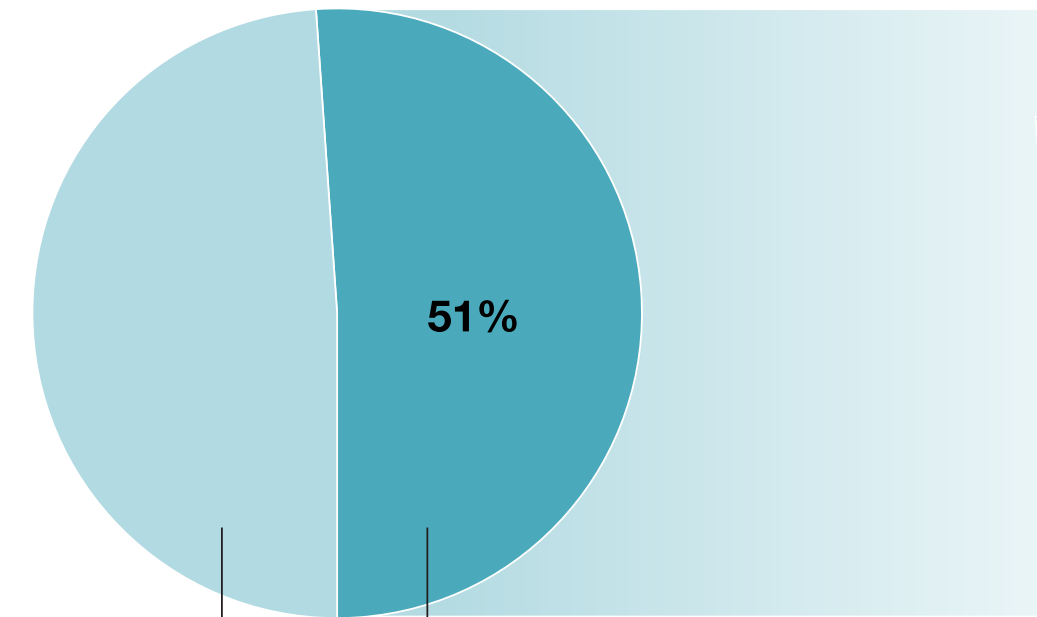
Society

Economy

Why?

Average for top 50 publicly traded consumer-packaged-goods (CPG) companies

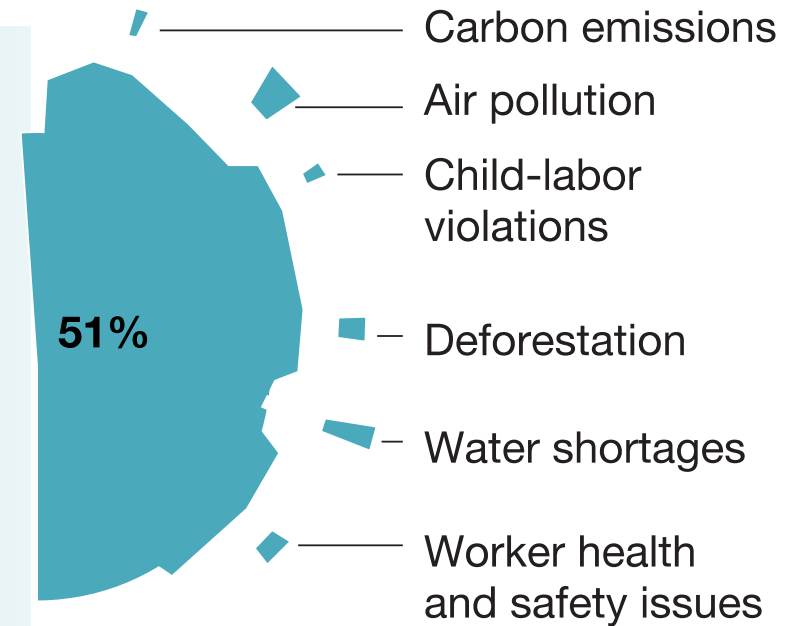
Half of the enterprise value for top CPG companies depends on expected growth ...



Present value
of current
cash flows¹

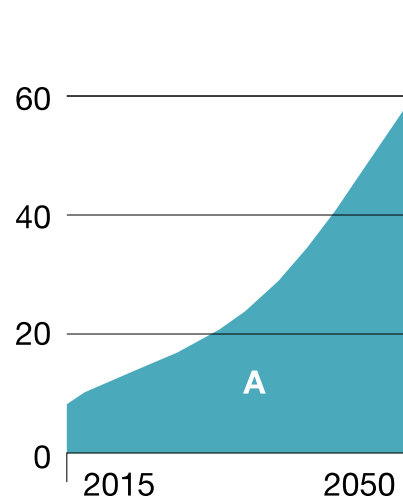
Present value
from expected
growth

... which is vulnerable to
being chipped away

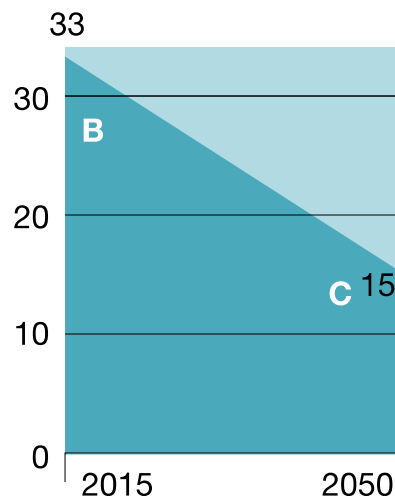


A	B	C	D	E
Globally, the CPG ¹ market is expected to grow at an average of 5.3% annually	In 2015, greenhouse-gas (GHG) emissions from CPG companies were approximately 33 GT CO ₂ e ²	The CPG industry must reduce its GHG emissions by more than half to meet 2050 targets	A massive reduction of CPG resource intensity, measured in metric tons of CO ₂ e per \$1,000 of revenue, is required	By 2050, CPG companies must reduce their GHG emissions 92%, relative to revenues

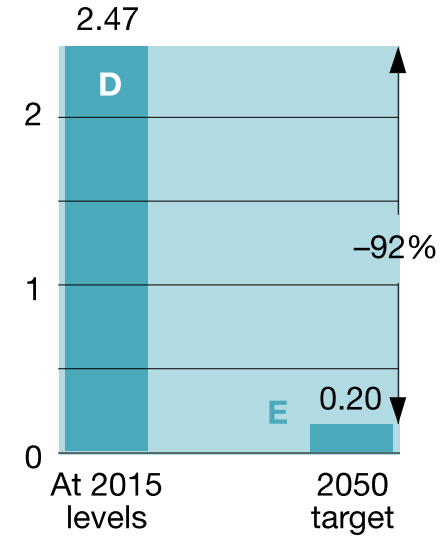
CPG market size,³
\$ trillion



Emissions target,⁴
gigatons of CO₂e



Carbon intensity in 2050,
metric tons of CO₂e per \$1,000



¹Consumer packaged goods.

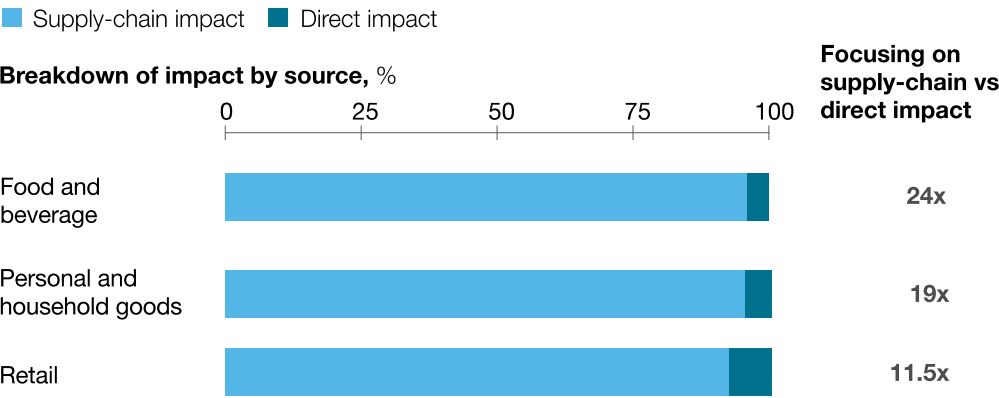
²Gigatons of CO₂ equivalent.

³Based on estimated 5.3% annual growth of global CPG market from 2013 to 2025 (\$7.5 trillion in 2013).

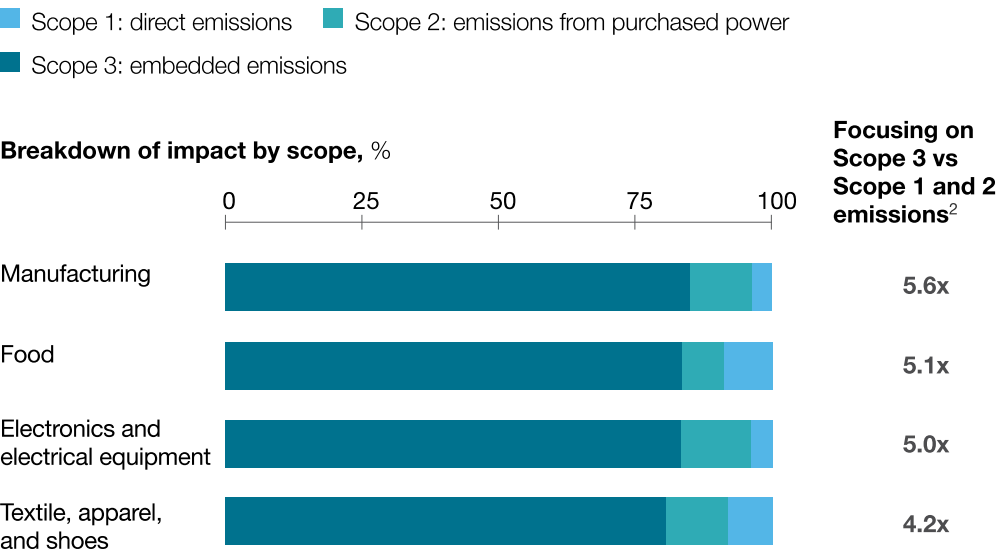
⁴Based on 41–72% reduction in GHG emissions by 2050 required to maintain warming at below 2°C (2.1% annual reduction). Estimated consumer goods-related GHG emissions, from sourcing raw materials through disposal, were ~33 GT CO₂e in 2015.

Most of the environmental impact associated with the consumer sector is embedded in supply chains.

>90% of natural capital impact (eg, affecting air, soil, land) of consumer sector is in supply chains



>80% of greenhouse-gas (GHG) emissions in most consumer-goods categories are in supply chains¹



Only 25% of companies engage their suppliers to address Scope 3 emissions

1. Legal

Operate within
the law

Do “what is
required”

2. Ethical

Operate with
integrity

Do “what is right”

3. Responsible

Operate
responsibly

Do “more good”
and “less bad”

4. Sustainable

Operate within
natural and social
thresholds

Do “what lasts”

Legal



Ethical



Responsible

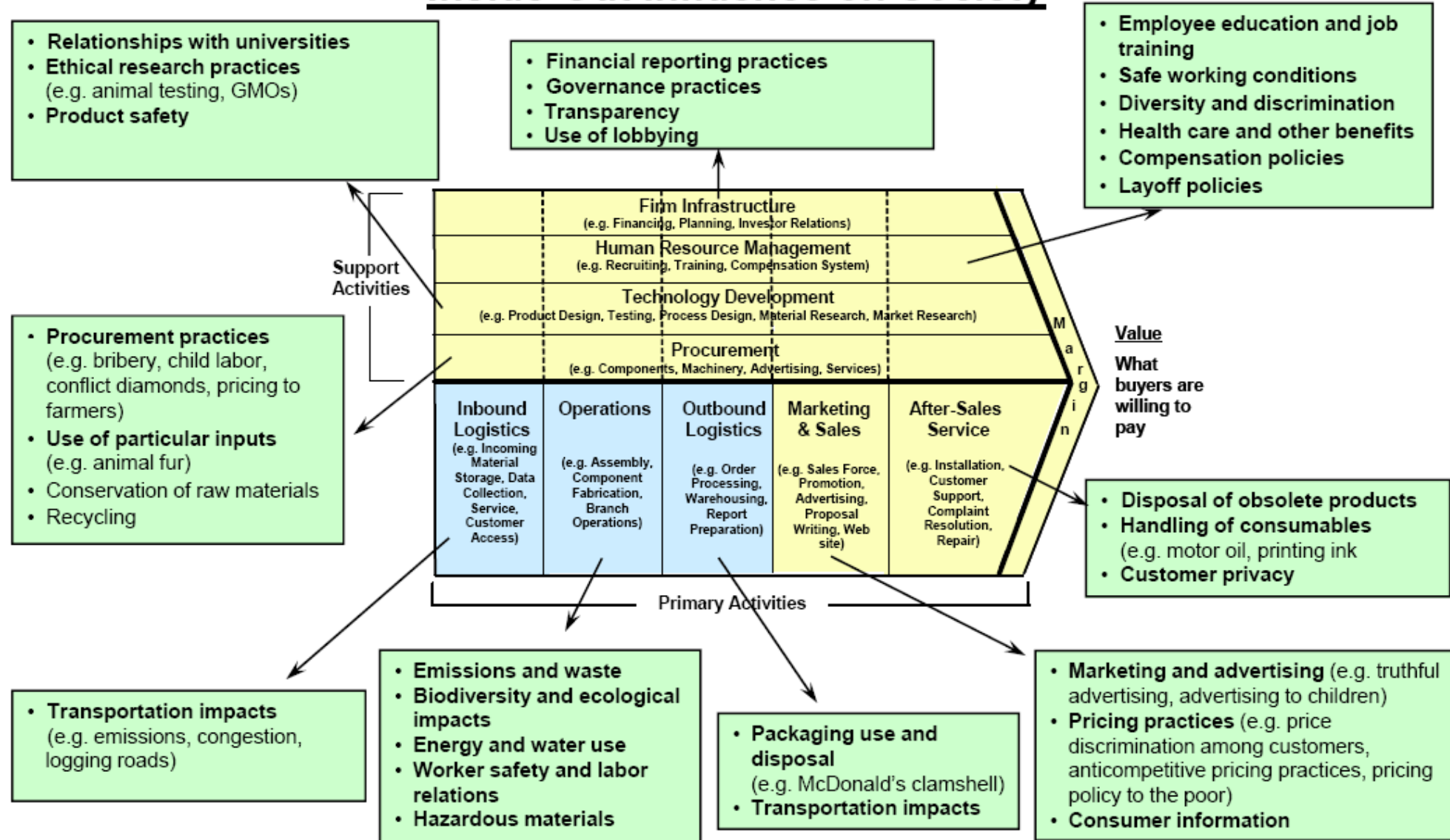


Sustainable

- 1. Mapping for risks and opportunities – metrics**
- 2. Building relationships and trust – culture/community**
- 3. Connecting to some larger global goals - Inspiration**
How is your relationship with your other half?

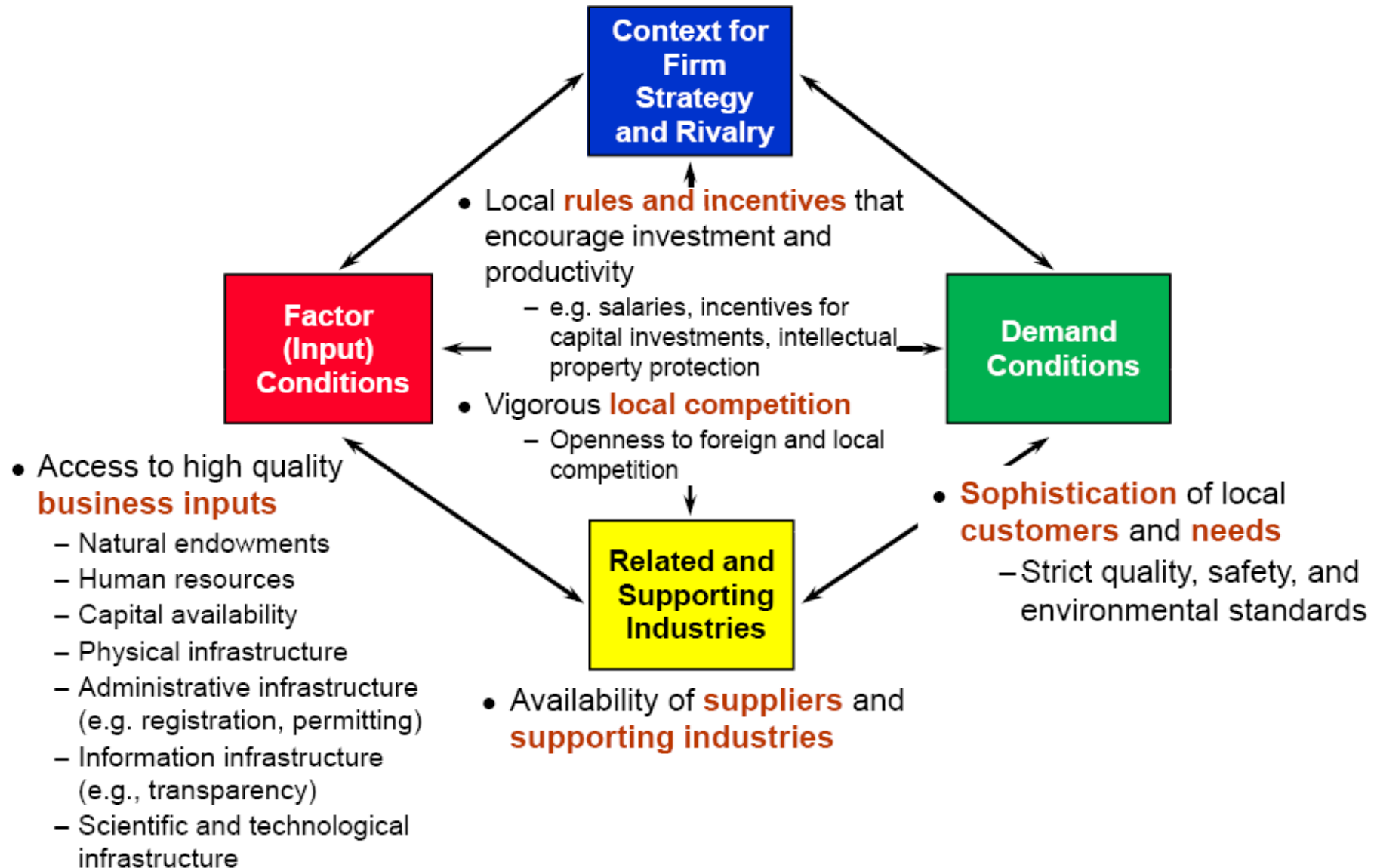
Identifying Shared Value

Inside-Out Influence on Society



- Every activity in the value chain touches on communities in the locations where a company operates. These impacts can be positive or negative.

Competitiveness and the Business Environment



Categorizing Corporate Social Issues

Generic Social Issues

- Social issues that are **not significantly impacted** by the company's operations, nor materially **influence its long term competitiveness**

Value Chain Social Impacts

- Social issues that are **significantly impacted** by the **company's activities** in the ordinary course of business

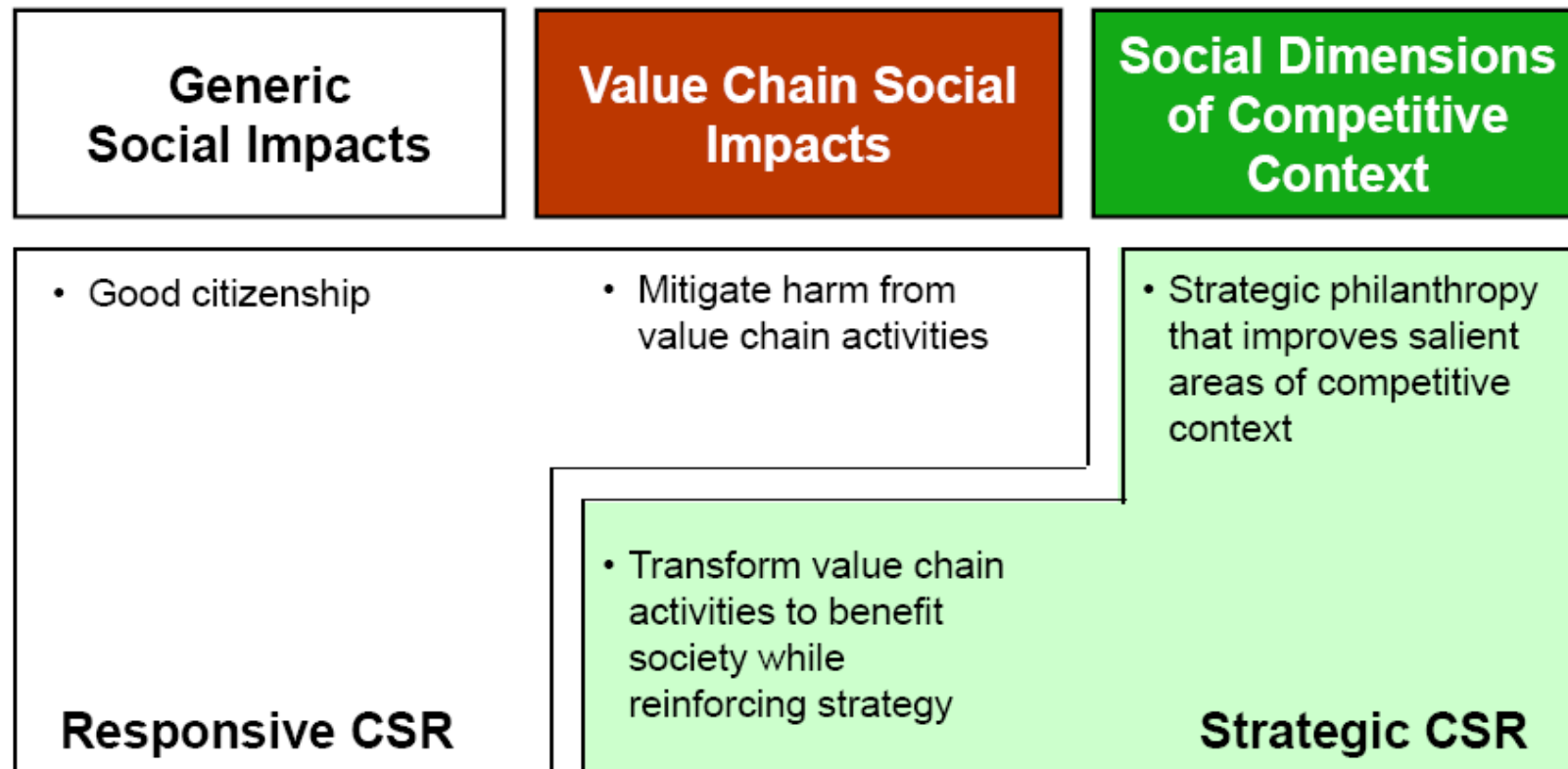
Social Dimensions of Competitive Context

- Social issues in the company's **external environment** that affect the **underlying drivers of competitiveness** in those places where the company operates



- Which issues fall into each category will **differ** by business unit, company, industry, cluster, and location

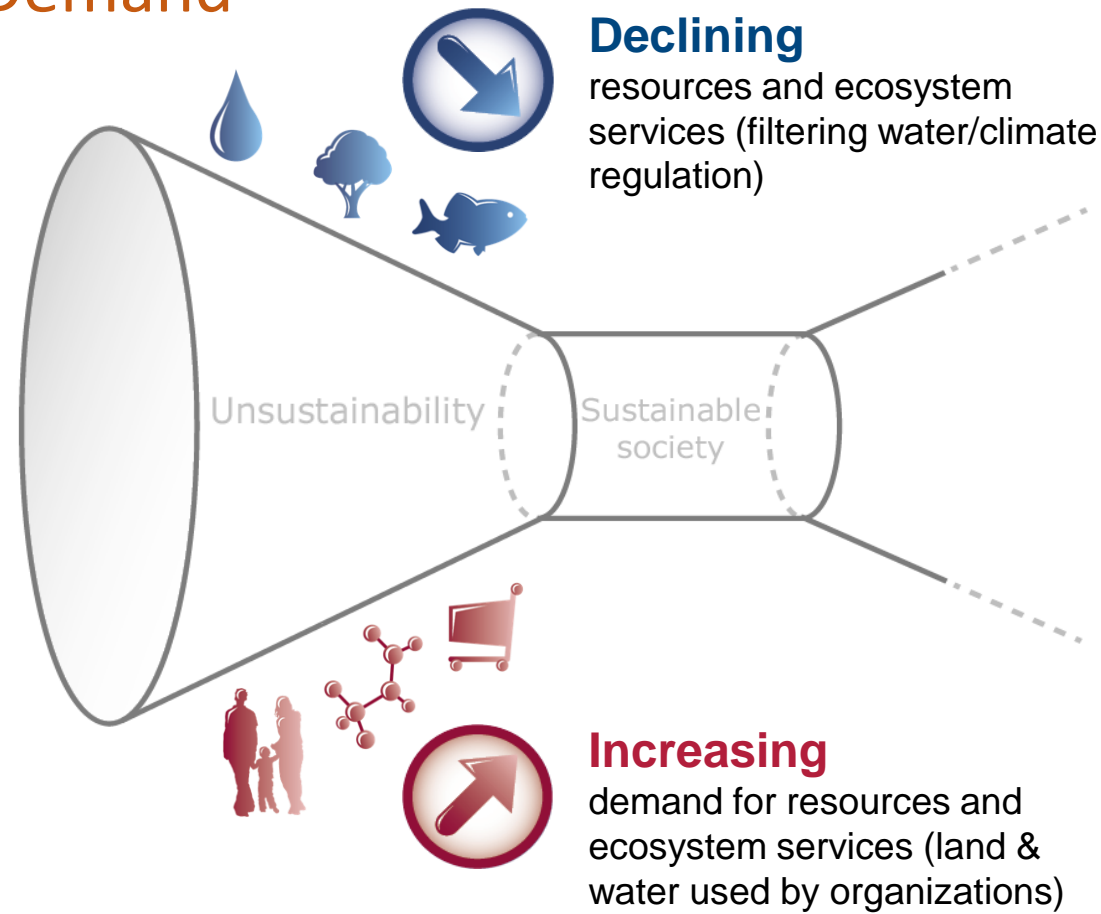
Creating a Corporate Social Agenda



- The impact of CSR is greatest when responsive CSR, value chain social impacts, and investments in competitive context are **integrated**

Funnel Metaphor

Supply & Demand



In a sustainable society, nature is not subject to systematically increasing...



...concentrations of substances
extracted from the Earth's crust,



...concentrations of substances
produced by society,



...degradation by physical means,

and, in that society...



...people are not subject to conditions
that systematically undermine their
capacity to meet their needs.

The Natural Step TNS

How many pounds of material does it take to make one laptop computer?



40,000 pounds or 20 tons

- *Paul Hawken*

1a) Does your organization rely on processes that use trace metals and minerals (e.g. mercury in electronics, cadmium in batteries or paint-dyes, etc)? What ultimately happens to these metals and minerals?

1b) Does your organization rely on fossil fuel-based energy for operations (e.g. coal-fired electricity, gas-fired electricity, gas for heating, etc.)?

1c) Does your organization rely on fossil fuel-based transportation to move people and things (e.g. vehicle fleets, flights for visitors, commuting of employees, collection of garbage, transport of products and supplies, etc.)?

1d) Does your organization have any practices or programs in place internally that reduce energy use and/or flows of trace metals or minerals?

1e) Does your organization offer any products or services that reduce energy use and/or flows of trace metals or minerals for others?

2a) Does your organization use or produce synthetic substances that contain persistent compounds (e.g. PVC in piping, volatile organic compounds in cleaners, paints and adhesives, CFCs in refrigerants, brominated fire retardants in electronics and furniture, etc.)?

2b) Does your organization rely on production processes that use synthetic substances that contain persistent compounds (e.g. dioxins or furans in the pulp and paper process)?

2c) Does your organization have any practices or programs in place internally that reduce flows of persistent compounds?

2d) Does your organization offer any products or services that reduce flows of persistent compounds for others?

- 3a) Does your organization use or produce food and fibre from unsustainably harvested renewable resources (e.g. lumber from non-certified forests, food from farming practices that result in loss of biodiversity and topsoil)?**
- 3b) Does your organization rely on processes that require continuous direct encroachment into natural areas (e.g. urban design practices that result in urban sprawl)?**
- 3c) Does your organization rely on processes that introduce foreign and invasive species into an ecosystem?**
- 3d) Does your organization rely on processes that modify ecosystems in such a way as to reduce their biodiversity and productivity? (e.g. clearing land for monocultures)**

4a) Does your organization rely on inputs that come from regions or companies where authorities create obstacles for people to meet their needs? Does your organization have any practices itself that do so?

4b) Does your organization rely on processes that create economic conditions that hinder people from meeting their needs?

4c) Does your organization rely on processes that contribute to unsafe and unhealthy work environments and/or that contribute to unsafe and unhealthy living environments for people in local communities?

4d) Does your organization have any programs in place internally that reduce or eliminate barriers to people meeting their needs?

4e) Does your organization offer any products or services that reduce or eliminate barriers to people meeting their needs?

Sustainability integrated into goals for companies/value-chains/regions/cities



A. Sustainability principles as boundary conditions

