

Inovação para Criação de Valor dentro de limites de Sustentabilidade

Framework the Natural Step Framework e sua aplicação em Políticas Públicas, Municipalidades e Empresas

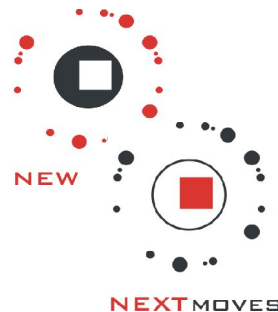
Comissão de Economia e Obras Públicas da AR



NEW NEXT FUTURES

(uma participada da New Next Moves e membro da rede the Natural Step)

Janeiro 2012



Texto em Língua Inglesa

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Remembering Ray Anderson: at the forefront of sustainable business



The "new" Industrial Revolution (vision defined in 1995)

$$\text{Impact} = \text{Population} \times \text{Affluence} \times \text{Technology 1}$$

From:
Extractive, Linear

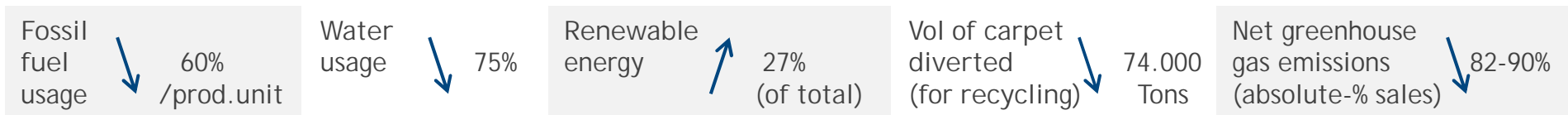


$$\text{Impact} = \text{Population} \times \text{Affluence} \times \frac{1}{\text{Technology 2}}$$

To:
Renewable, Cyclical


In the words of Ray Anderson (2009): “Here is the business case for sustainability” :

- “Costs are down, not up, reflecting some 400 million dollars of avoided costs”



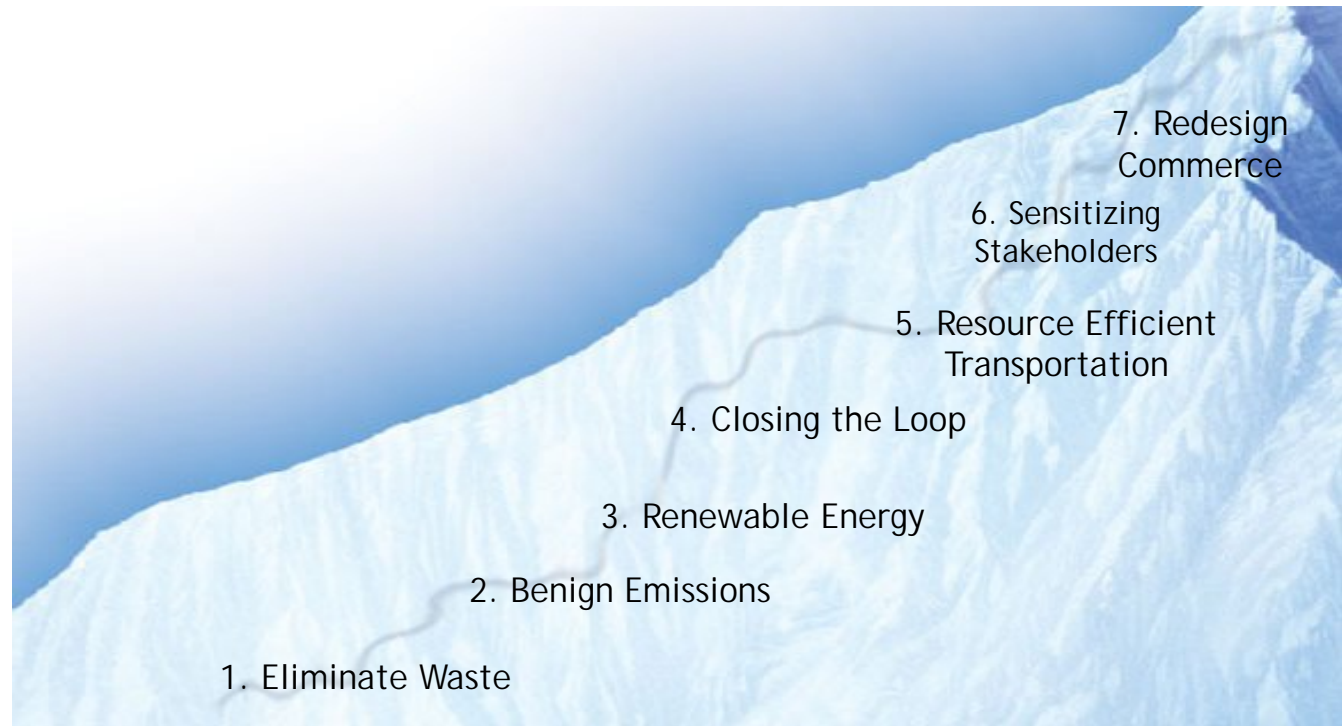
- “Produced and sold 85 M sq yards of climate-neutral carpet - a powerful marketplace differentiator, increasing sales and profits.”
- “Our people are galvanized... Leading to attracting the best people and bringing them together.”
- “And the market goodwill is astonishing. No amount of advertising could have produced this...”
- “This dispels a myth too: this false choice between the environment and the economy.”
- “What else is there? It is a better business model!”

“If we, a petro-intensive company, can do it, anybody can”



Achieving Mission Zero™
A promise to eliminate any negative impact Interface has on the environment by 2020.

"Climbing toward the summit of Mount Sustainability"



Source: Company website.

Note: Interface is one of the most prominent adopters of The Natural Step framework.

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The Natural Step: origins

Late 1980s

Dr. Karl-Henrik Robèrt, a Swedish doctor and scientist:

From human cells to understanding the requirements for the continuation and wellbeing of human life.

Consensus reached across 50 scientists about what is needed to sustain the human civilization.

With the support of King of Sweden, this common vision was sent to every household and school in Sweden.



1990s

From the consensus doc, Dr. Robèrt worked out **the Framework for Strategic Sustainable Development** - and published "The Necessary Step" (1992).

He hired a team of advisors - The Natural Step (TNS) - to start working with Corporations and Municipalities.

Offered a chair at Chalmers University of Technology, he worked with a team to refine the Framework.

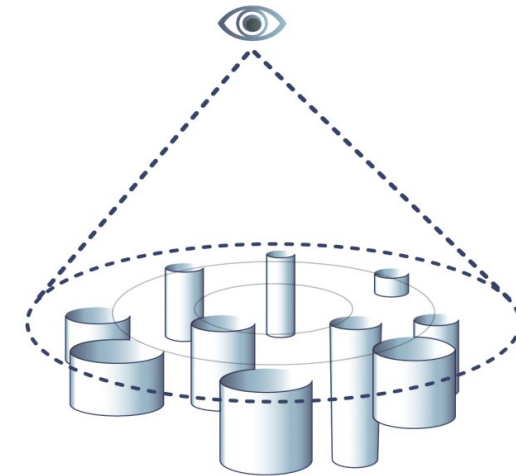
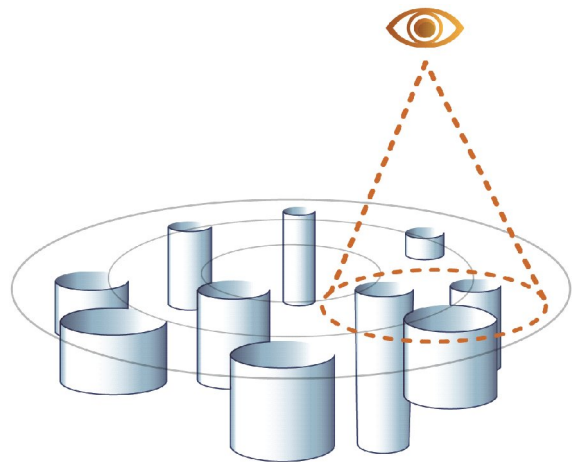
2000s

Growing cooperation between the Blekinge Institute of Technology (BTH) and the Natural Step.

At BTH a Master in Strategic Leadership towards Sustainability was created.

In May 2008, TNS, BTH and Lund University launched the **Real Change Programme** with universities and stakeholders worldwide.

The Natural Step Framework sheds light in a vast array of sustainability strategies and tools



A lot of concepts and tools regarding sustainability...

... needing a unifying and systemic framework



Key Questions (according to TNS)

- What is our shared definition of Sustainability and our future vision?
- What is the gap between the present situation and our future sustainability vision?
- What do we need to do to fill the gap and achieve our vision?

Sustainable Development was first officially described by the Brundtland Commission in 1987

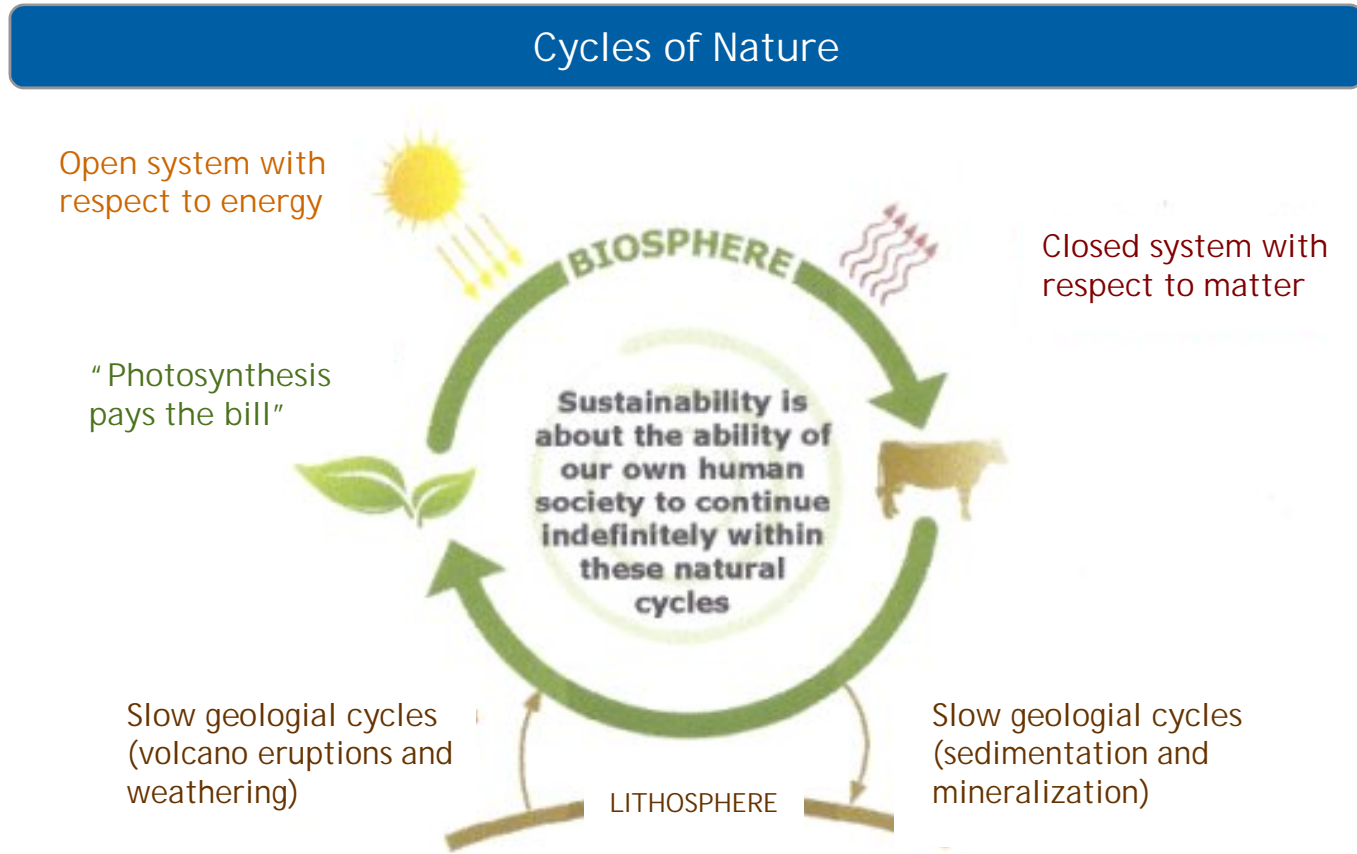


Gro Harlem Brundtland

Defining Sustainable Development

- "A development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
 - World Commission on Environment and Development (WCED) 1987, Brundtland Report, "Our Common Future"

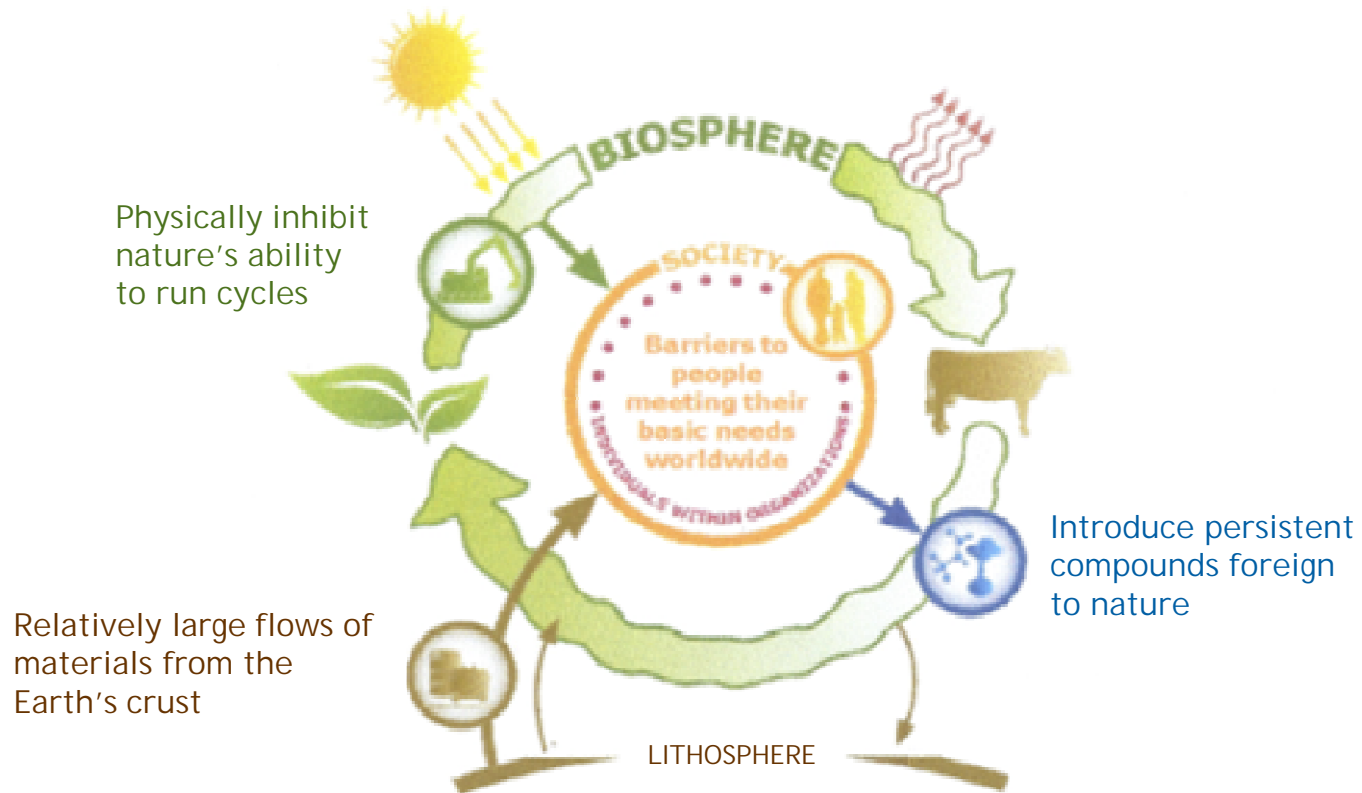
The Science underlying the Framework: the cycles of Nature



- Nothing disappears
- Everything spreads
- Matter dispersion leads to quality reduction
- Increases in material quality are produced by sun-driven processes

The Science underlying the Framework: influencing Nature's cycles

Mankind currently influences Nature's cycles in an unsustainable way



The Natural Step Framework: the Four System Conditions

TNS four System Conditions defining Sustainability

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.

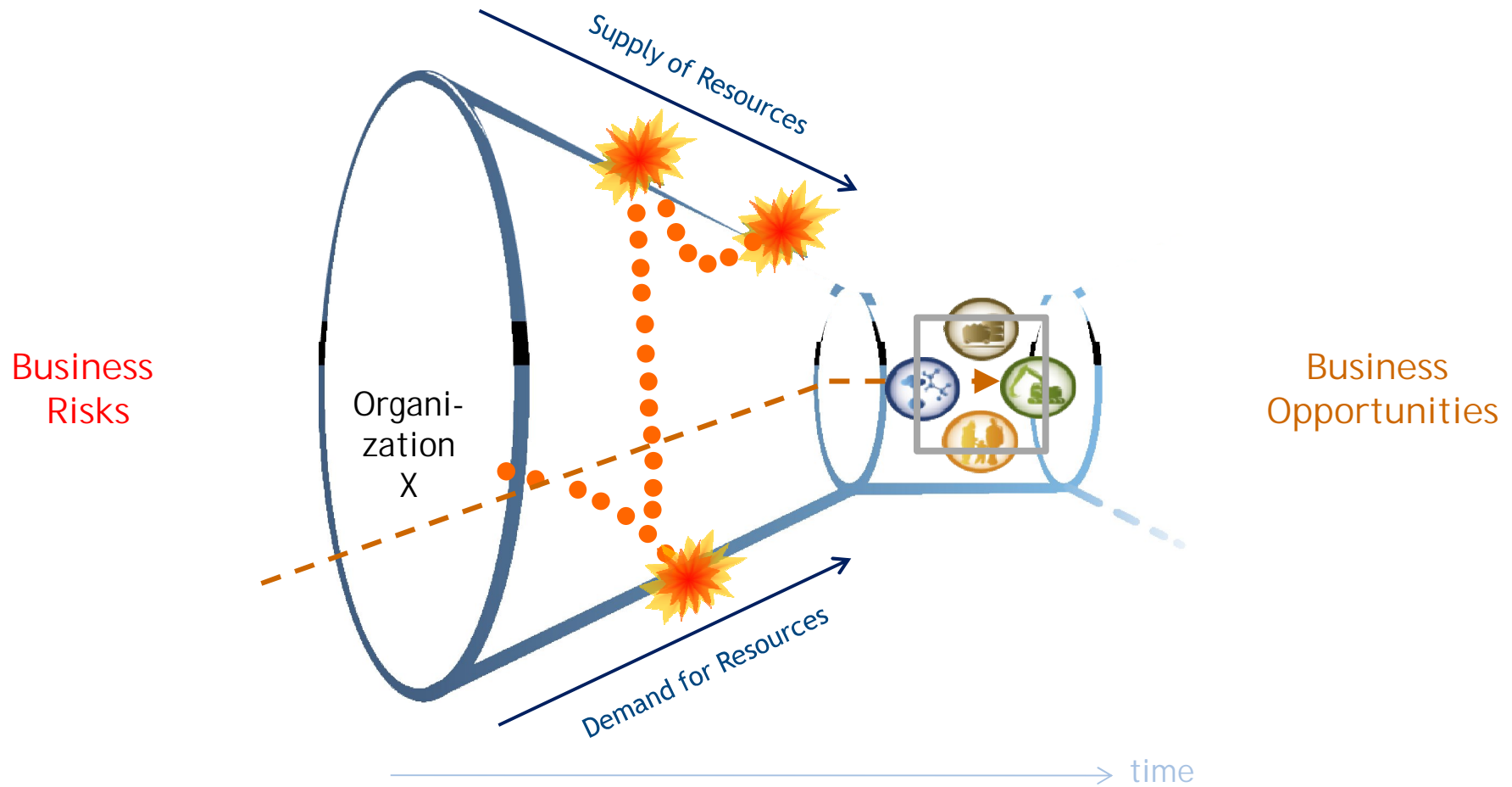
The fourth system condition within the Framework

Basic Human Needs according to Manfred Max Neef

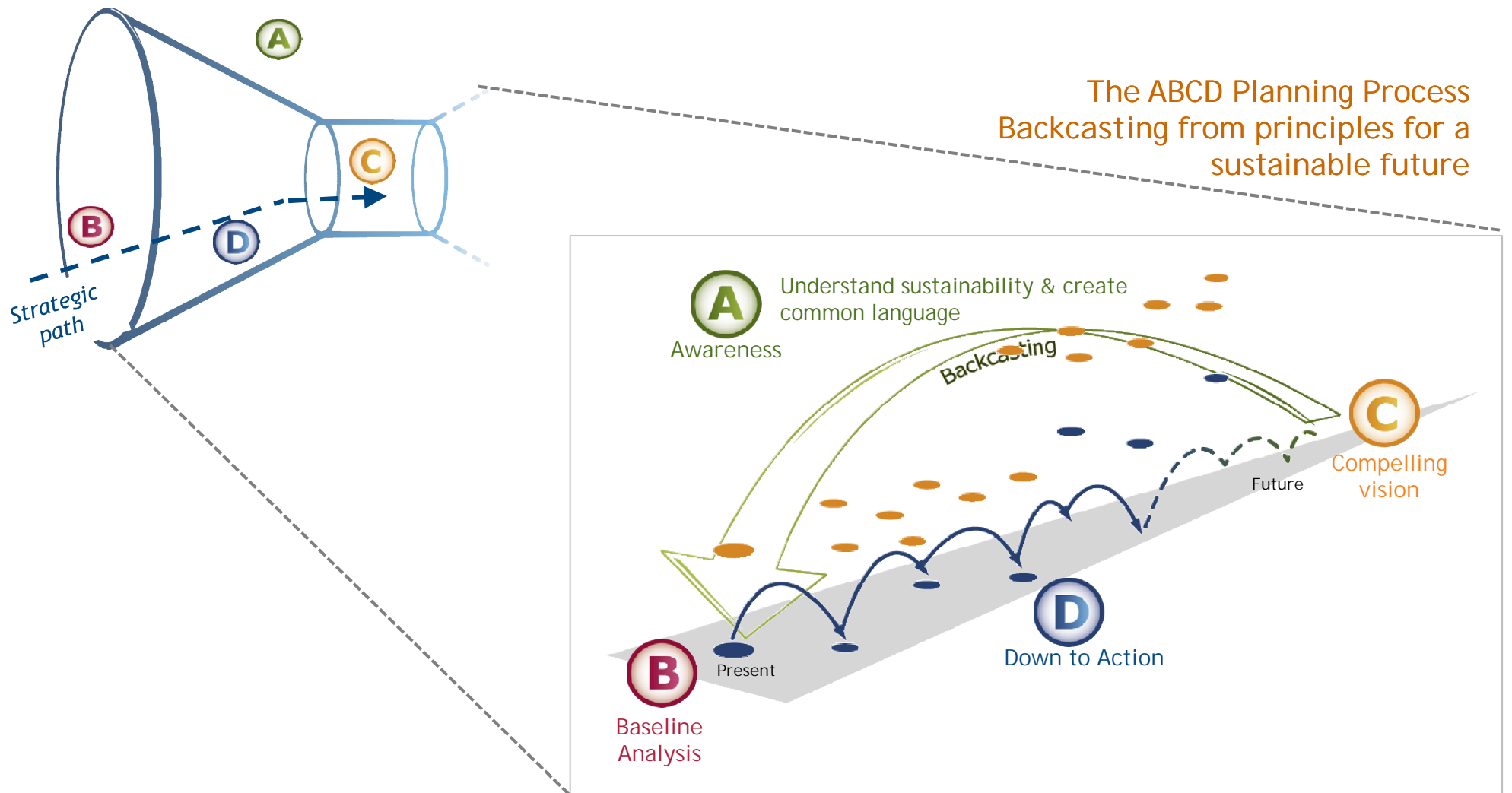


Basic human needs, all of which must be met in a sustainable society, are constant and finite, whereas the ways in which these are met are constantly changing.

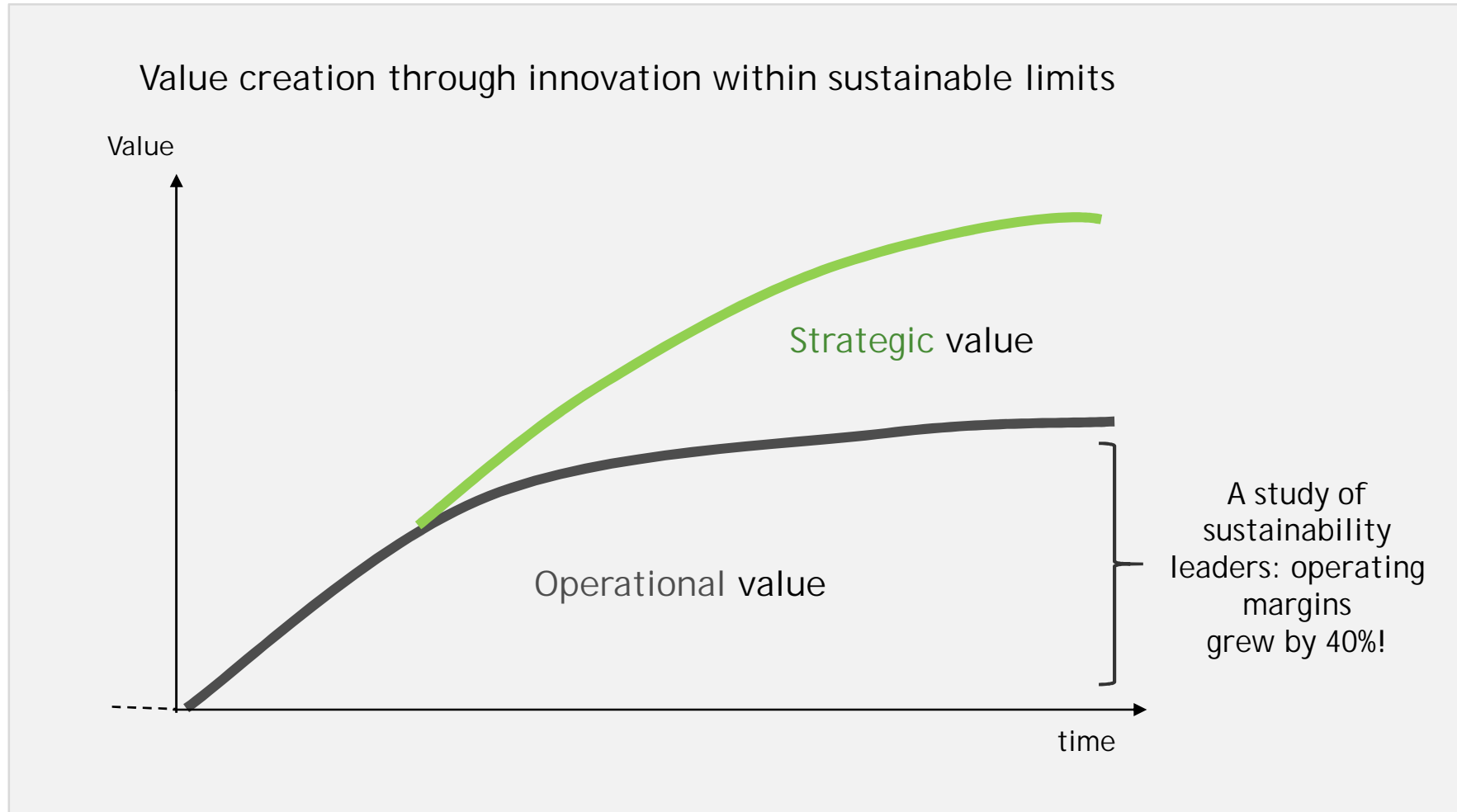
The Natural Step Framework: the Funnel metaphor



How to move towards sustainability using the Framework: the ABCD planning methodology



As an organization embarks on a journey using the Framework there is strong potential for strong value creation, both strategic and operational



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The Natural Step Framework and Network have been helping develop sustainable strategies in leading institutions worldwide

Public Administration

Commercial Administration

National level
Governments & Other
Institutions

Industries

Local level
Municipalities &
Regional bodies

Corporations

The Natural Step: more than 20 years of work with leading corporations



RioTinto Alcan



SKANSKA



Interface

PHILIPS
sense and simplicity



Canon



VOLVO
AERO



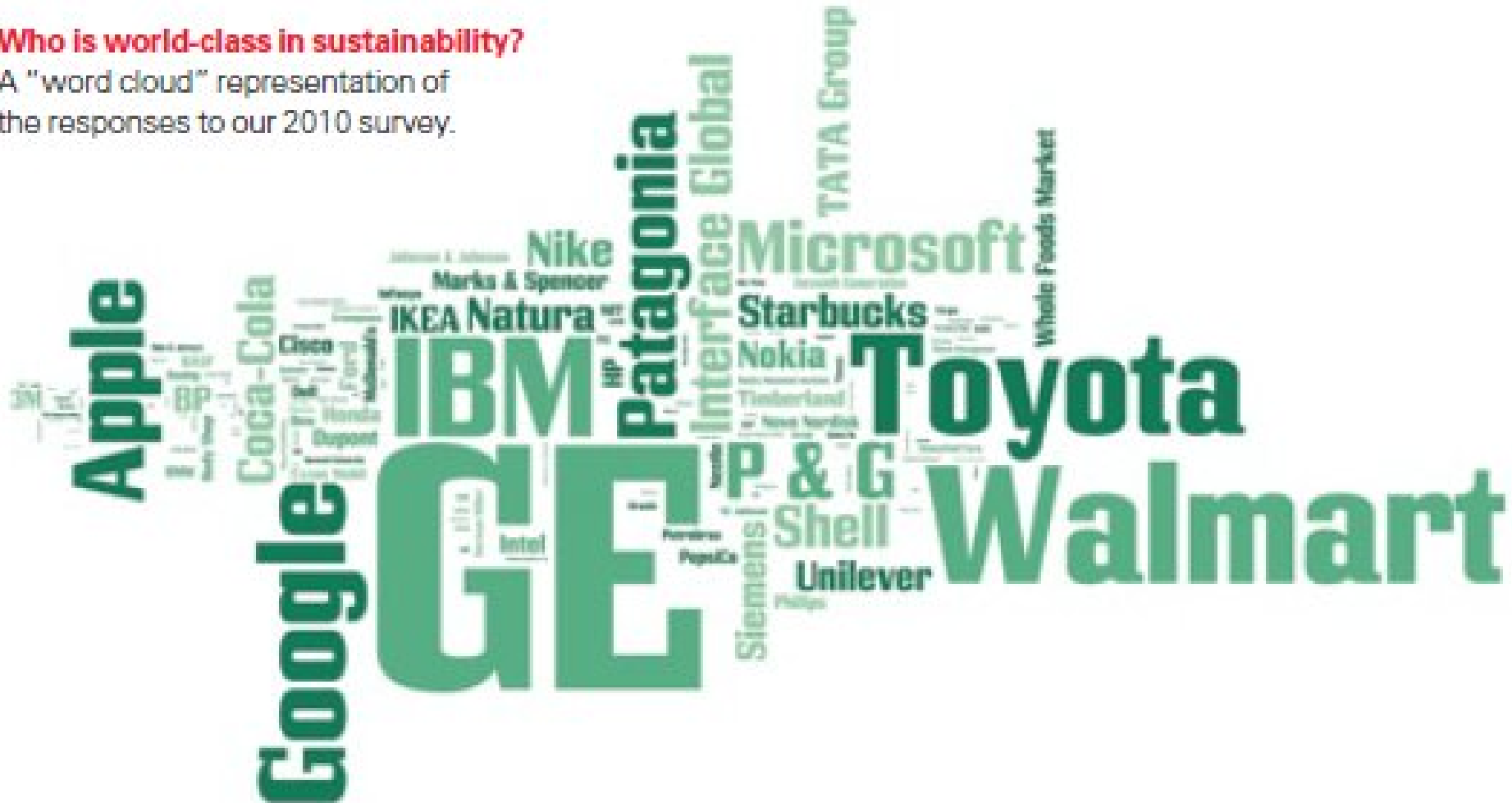
Givaudan[®]
ENGAGING
THE
SENSES



Who are the Sustainability leaders? - A survey in the MIT Sloan Management Review

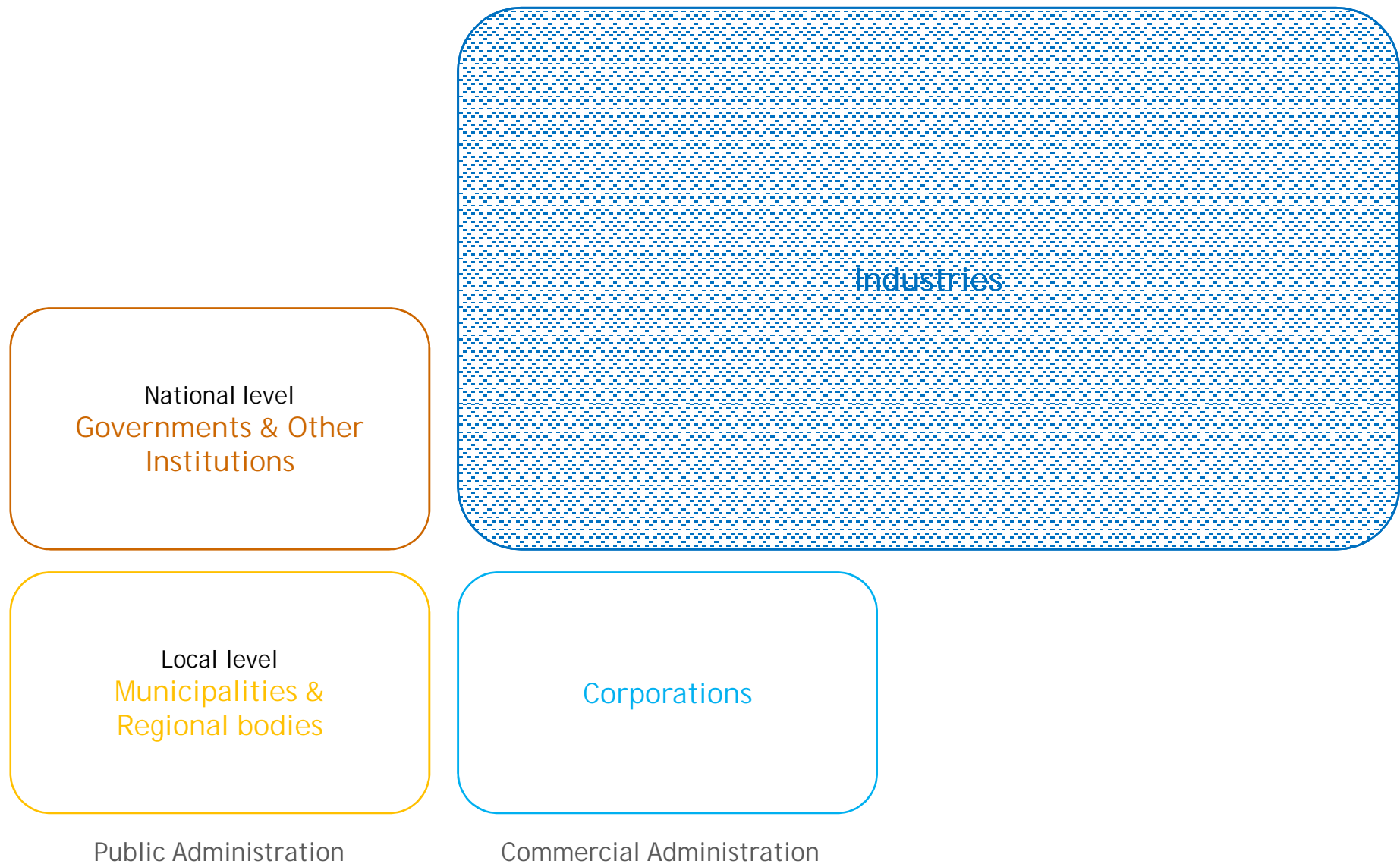
Who is world-class in sustainability?

A "word cloud" representation of the responses to our 2010 survey.

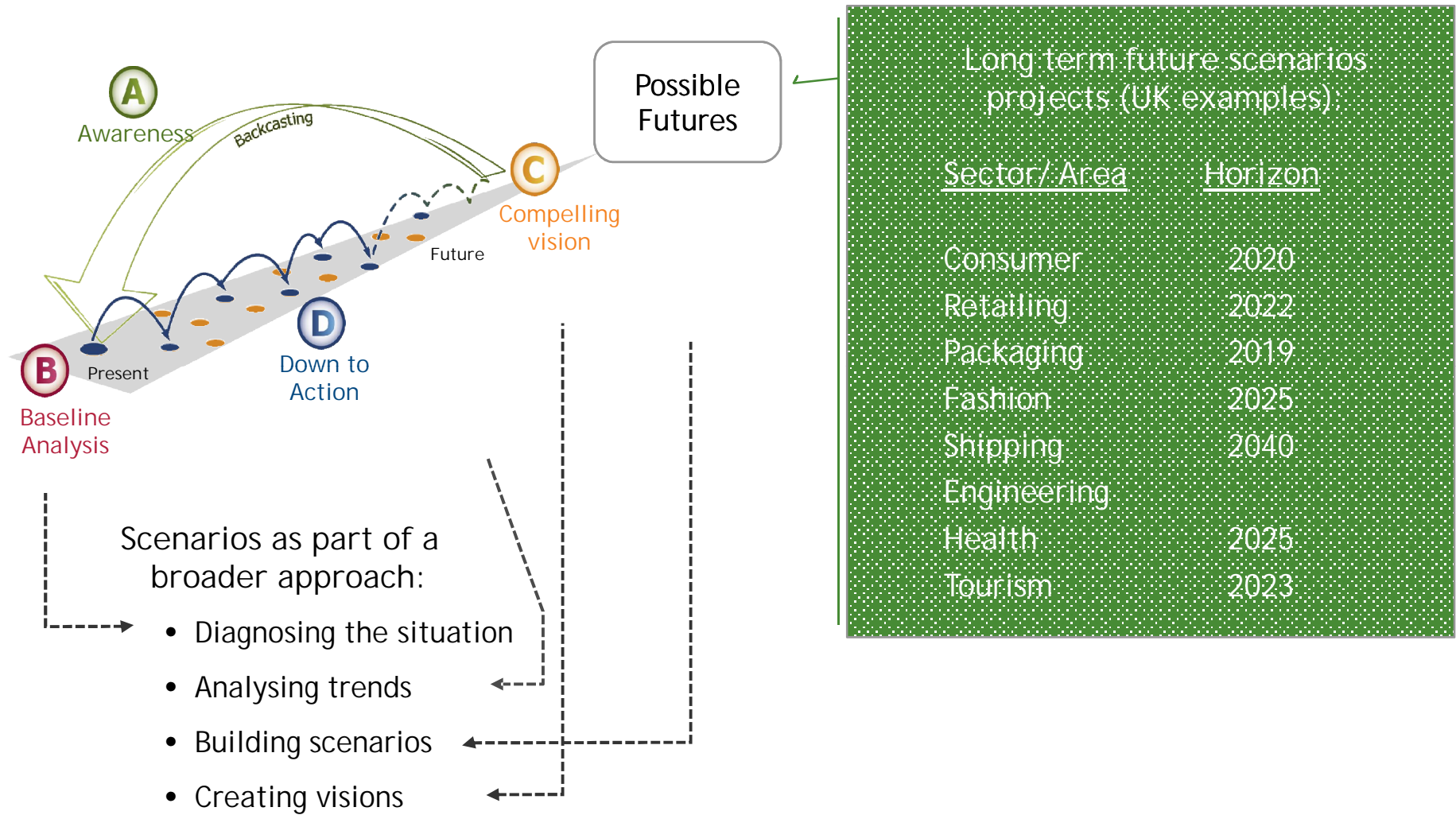


1 - "Sustainability: The 'Embracers' seize advantage", MIT Sloan Management Review.

The Natural Step Framework and Network have been helping develop sustainable strategies in leading institutions worldwide



Developing future scenarios - an important input to create sustainable visions



Scaling-up work with special focus in three key industry sectors (UK)

Inducing significant transformation based on three industry sectors

“three global systems which underpin our lives and the prospects for sustainability”

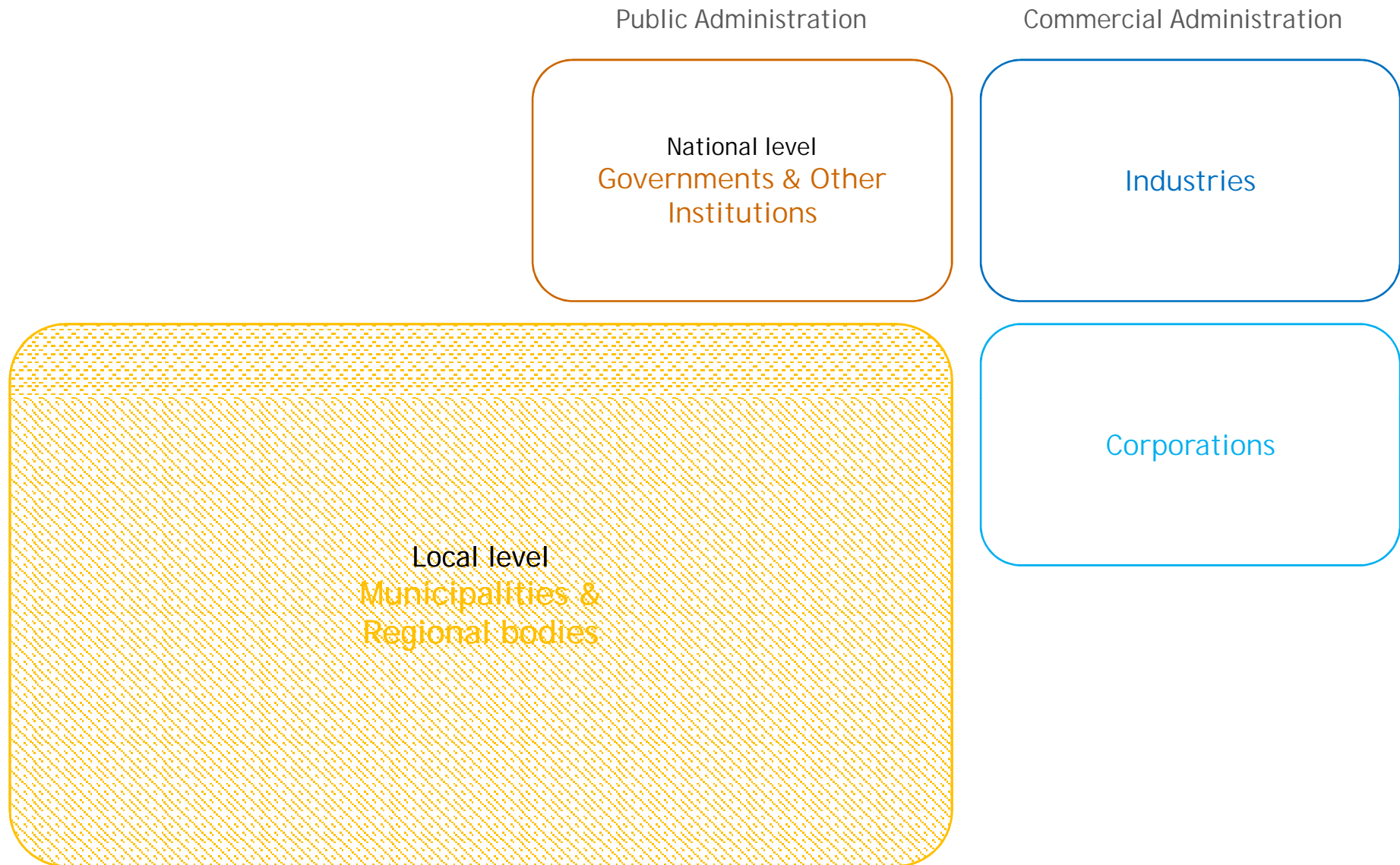


As much as 30-50% of all food may be lost or wasted before and after it reaches the consumer.

If we don't wean ourselves off fossil fuels it's hard to imagine modern society operating within environmental limits.

The finance sector underpins all commercial activity; but too much money is still funding unsustainable activities.

The Natural Step Framework and Network have been helping develop sustainable strategies in leading institutions worldwide



Evolution of eco-Municipalities in Sweden



1 st Generation 1983 - 1986	2 nd Generation 1990 - 1992	3 rd Generation 1993 - 1998	4 th Generation 1995 - ...	5 th Generation 2000 - ...
<ul style="list-style-type: none"> • Suomussalmi (Finland) and Övertorneå (Sweden) became the 1st eco-municipalities • Both struggled with serious economic and social depression • Both Integrated ecological, social and economic action to shape their future. 	<ul style="list-style-type: none"> • 14 more towns picked up the idea • Orsa conference: the 16 agreed to: i. a common vision-led development strategy aiming at sustainability objectives was agreed upon; ii. develop a 3 year action program • The work of these municipalities was presented at the 92 World Conference in Rio de Janeiro and helped shape the Agenda 21 guide. 	<ul style="list-style-type: none"> • A total of 55 cities and towns adopted the eco-municipality concept • Several municipalities applied for joint funding for sustainable development projects in trade, industry, housing and building • All adopted the Natural Step framework. 	<ul style="list-style-type: none"> • SeKom, the national association of eco-municipalities in Sweden, was created • It helped develop municipal strategies and established a technical assistance centre for projects • Through SeKom, Swedish eco-municipalities made connections with sister communities in Estonia - in 2004, 20 of those had adopted the eco-municipality concept • Norway and Denmark also began eco-municipality journeys. 	<ul style="list-style-type: none"> • New generation of eco-municipalities • Systems management approach to integrating sustainable practices through municipal governments and larger communities • Sundsvall and Robertsfors as two municipalities engaging on the system's approach • Learning curve allows to streamline the change process and reduce the implementation time.

The Natural Step network - more than 20 years with municipalities



UK (Forum for the Future):
London - 10 yr sustainable work, Green Olympics
Bristol - long term sustainable planning
UK's city sustainability index

Canada (in general)
20 municipalities trained w/ the framework

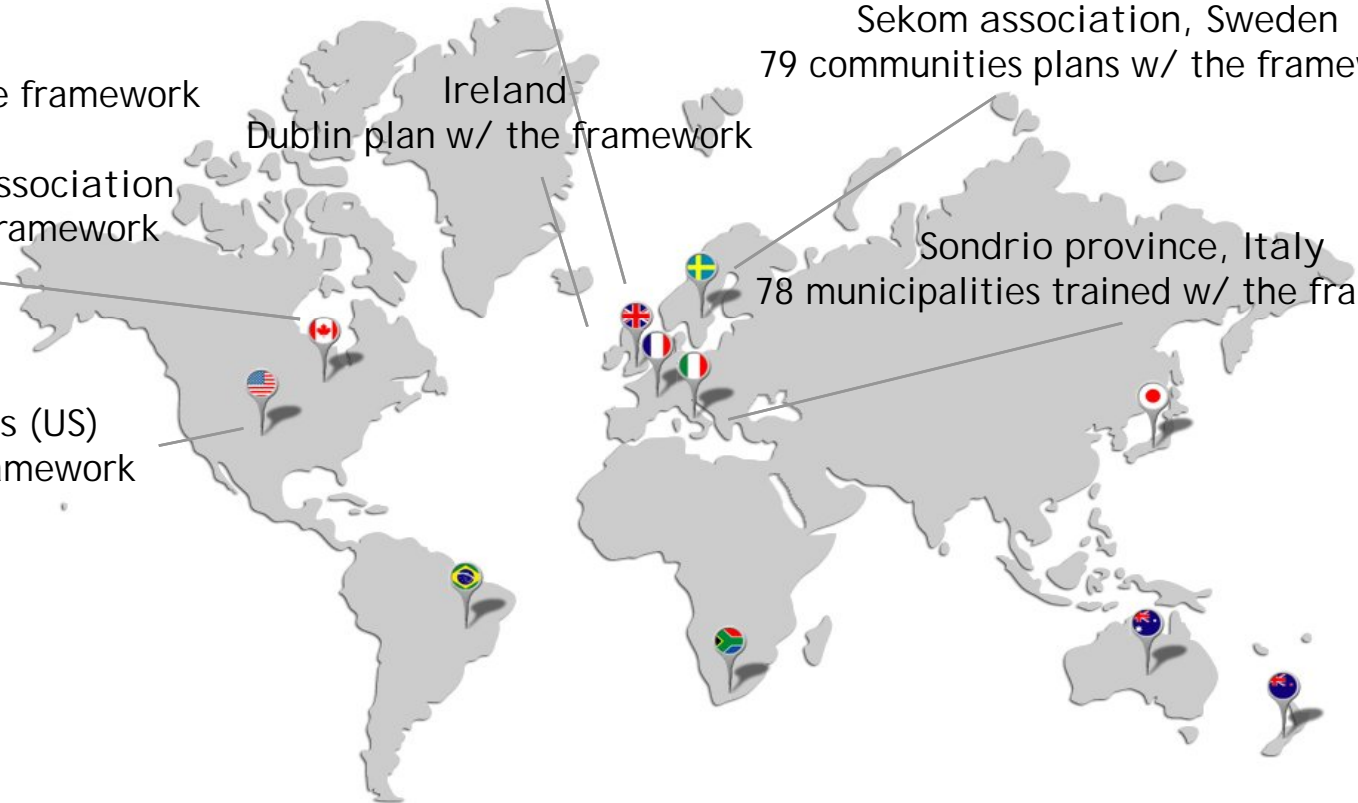
Canada - Alberta Municipal Association
44 communities plans w/the framework

Wisconsin eco-municipalities (US)
35 communities plans w/the framework

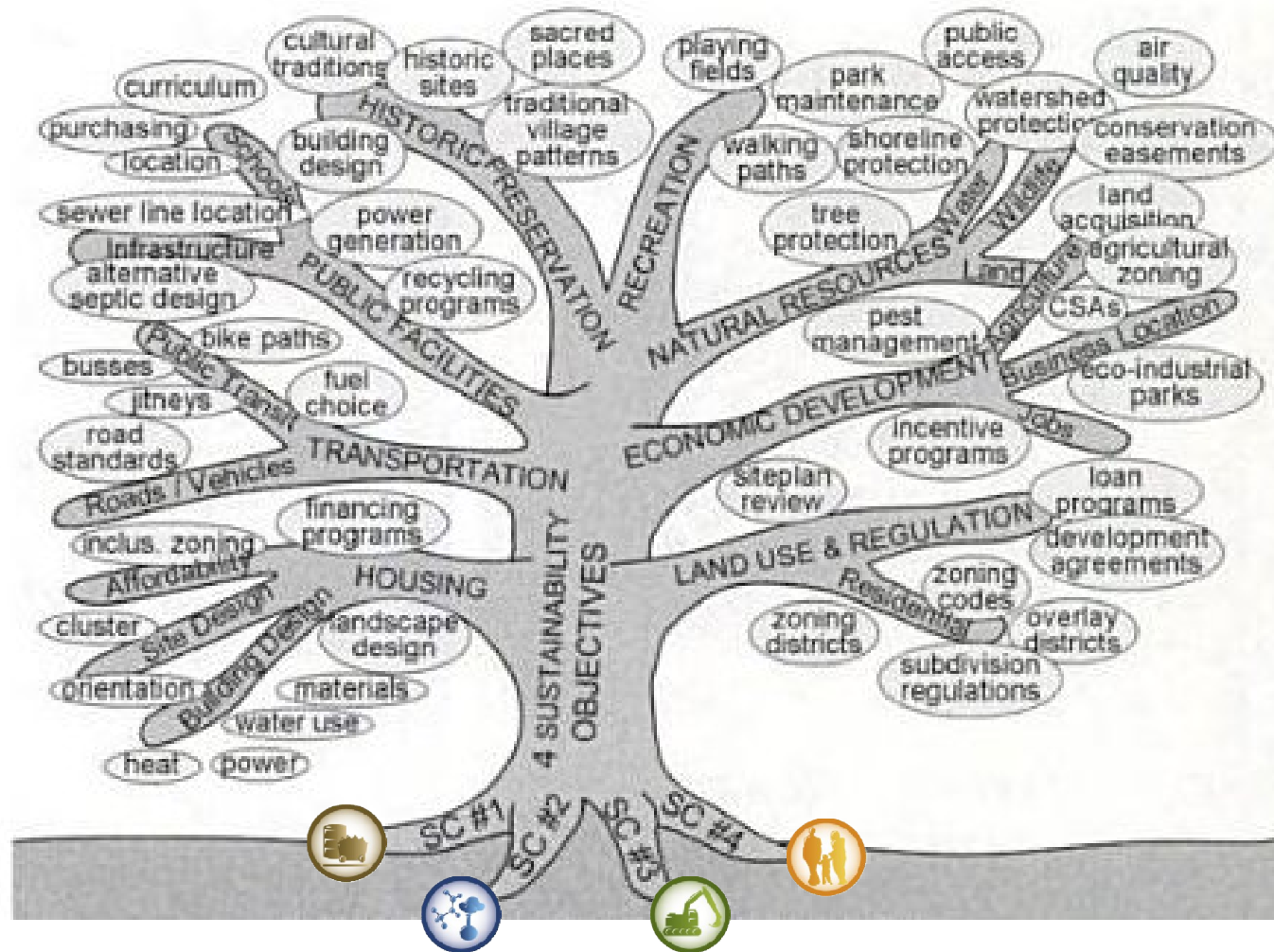
Ireland
Dublin plan w/ the framework

Sekom association, Sweden
79 communities plans w/ the framework

Sondrio province, Italy
78 municipalities trained w/ the framework

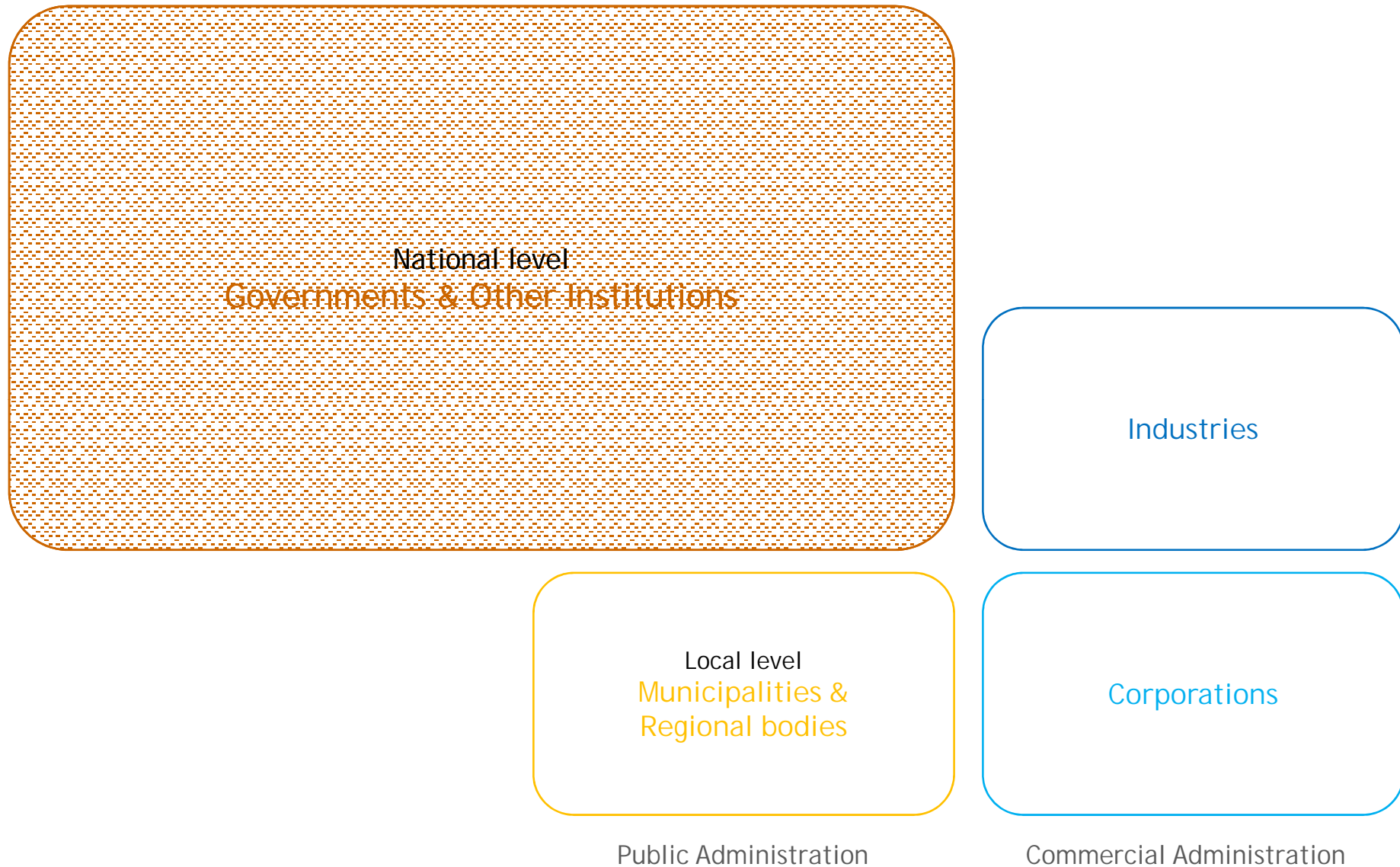


The municipal system “tree” as a metaphor



Vision of a Sustainable Community

The Natural Step Framework and Network have been helping develop sustainable strategies in leading institutions worldwide



The Natural Step Framework and Network as a source of inspiration and a driver for important moves toward sustainable development strategies in the public sector in Europe



UK

Jonathon Porrit, Forum for the Future's founder, took the TNS framework to the UK.

He led the Sustain. Develop. Commission, an independent body reporting to the PM - work considered a world best practice.

Work is migrating to be embedded into all UK Gov's organizations and policies.

Sustainable development in public policy inspired by The Natural Step



Sweden

Karl-Henrik Robèrt, with the support of the scientific community, the king and large companies in Sweden, was able to induce an enormous mobilization of all the country.

The Natural Step framework became a source of inspiration of politicians and public sector officers, including MPs.

The Natural Step started the Swedish Youth Parliament for Sustainability in 1989 - for students' education purposes.





“ Sustainable Sweden ” : The Government’s Strategy in 1997-8

- “Sweden to act as a pioneer by demonstrating that ecological sustainability can be achieved by methods and measures that also strengthen the economy and increase employment, develop industry and the infrastructure, as well as improve the welfare of the population.”
- Measures in most policy areas and allocation of funds to support local implementation programs.
- “The key to success is broad participation by all sectors of the community: the public sector, industry and business, organizations and individual citizens.”
- Three primary objectives:

Protection of the
environment

Efficient use of resources

Sustainable supplies
of natural resources



“ Sustainable Sweden” : The Government’s Strategy revision in 2002-03

- Drawn up in co-operation with the Left Party, the strategy is based on three key premises:
 - Sustainable development in Sweden can only be achieved with global and regional co-operation.
 - Sustainable development policies and measures must be mainstreamed, i.e. integrated into all areas.
 - Further action at national level will be needed to ensure long-term protection of critical resources.
- During its term of office (2002-2006) the government promised to focus on four key areas:

Environmentally
driven
growth and welfare

Good health (the
most vital future’s
resource)

Policies for
sustainable
community planning

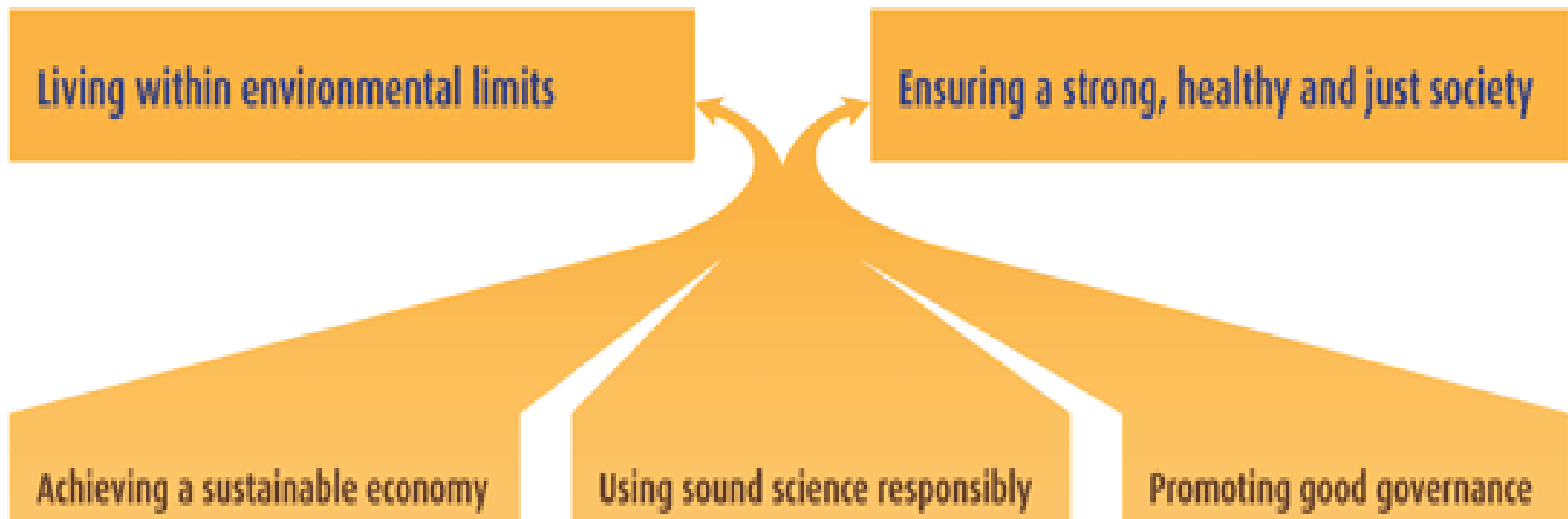
Child and youth
policy (for an ageing
society)

- The task of implementing Sustainable Sweden’s strategy is the responsibility of the Government as a whole. It has set up a special body in the PM’s Office, a Co-ordination Unit for Sustainable Development.



The UK Government published 'Five Principles of Sustainable Development'

"In order for the UK to become more sustainable, it is important to have an agreed set of principles that can be used as a basis for co-ordinated national policies, strategies and action plans."





The UK's business case for Sustainable Development

A sustainable development approach will yield:

- reduced risks to organisations,
- enhanced resilience and responsiveness to economic and environmental shocks, cost savings and efficiencies,
- enhanced wellbeing of the workforce and,
- a more positive environmental impact of the organisation itself.



Bodies involved

Highlighting the importance of cooperation and participation, the Government has invited several bodies to make their own contributions to the National Sustainability Strategy

German Council for Sustainable Development - created in 2001

Parliamentary Advisory Council on Sustainable Development - since 2006,

Federal states

Leading associations of local authorities

State Secretary Committee for Sustainable Development



Priority fields of action

The German government has drawn up a list of priority fields of action:

1. Energy/climate
2. Environmentally-friendly mobility
3. Healthy production and nutrition
4. Shaping demographic change
5. Innovation
6. Reducing land use, conserving open spaces
7. Accepting global responsibility

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An address from Sweden for the AR's Economy and Public Works Commission in Portugal

David Cook

Based in Stockholm, he is an
Exec Ambassador of The Natural Step Intl

Until 2009, he was the Chief Executive of
The Natural Step International...

... where he advised companies like Dow, Nike, Skanska, Scandic
as well as Communities and Public agencies

Before, David was Chief Executive of a public/private
partnership which planned, funded and built a new university
in the UK. The project won a national award.

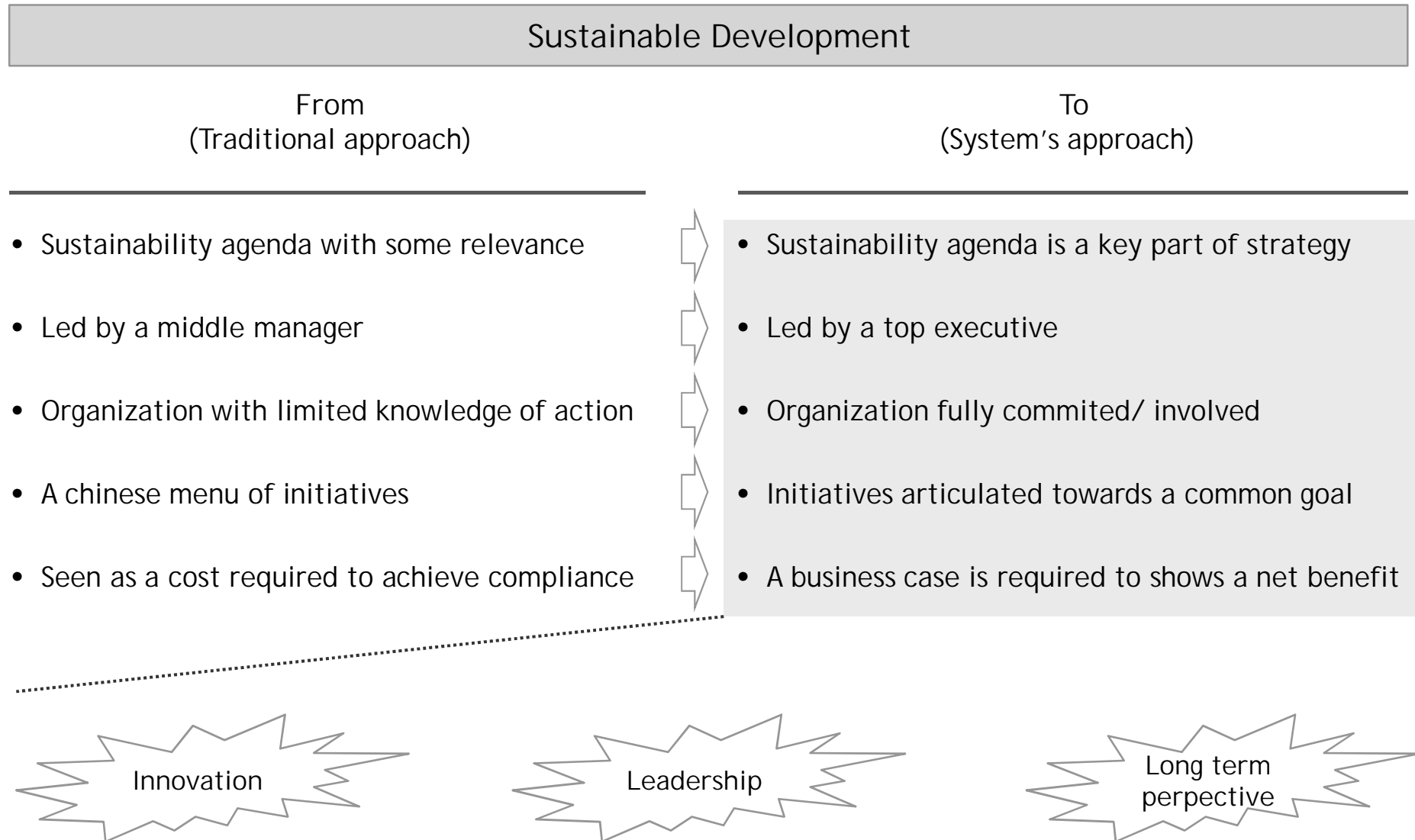
In 1997, David established The Natural Step in the UK through
Forum for the Future, and focused primarily on working with
big corporations.

David is a Fellow of the Royal Society of Arts and the author of
The Natural Step - Towards a Sustainable Society.

He is currently a member of the World Economic Forum Global
Advisory Council and the Sustainability External Advisory
Committee of the Dow Chemical company.



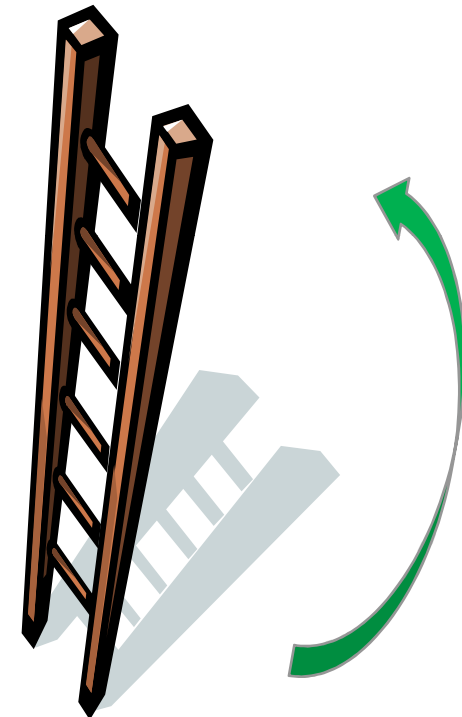
The Sustainable development imperative



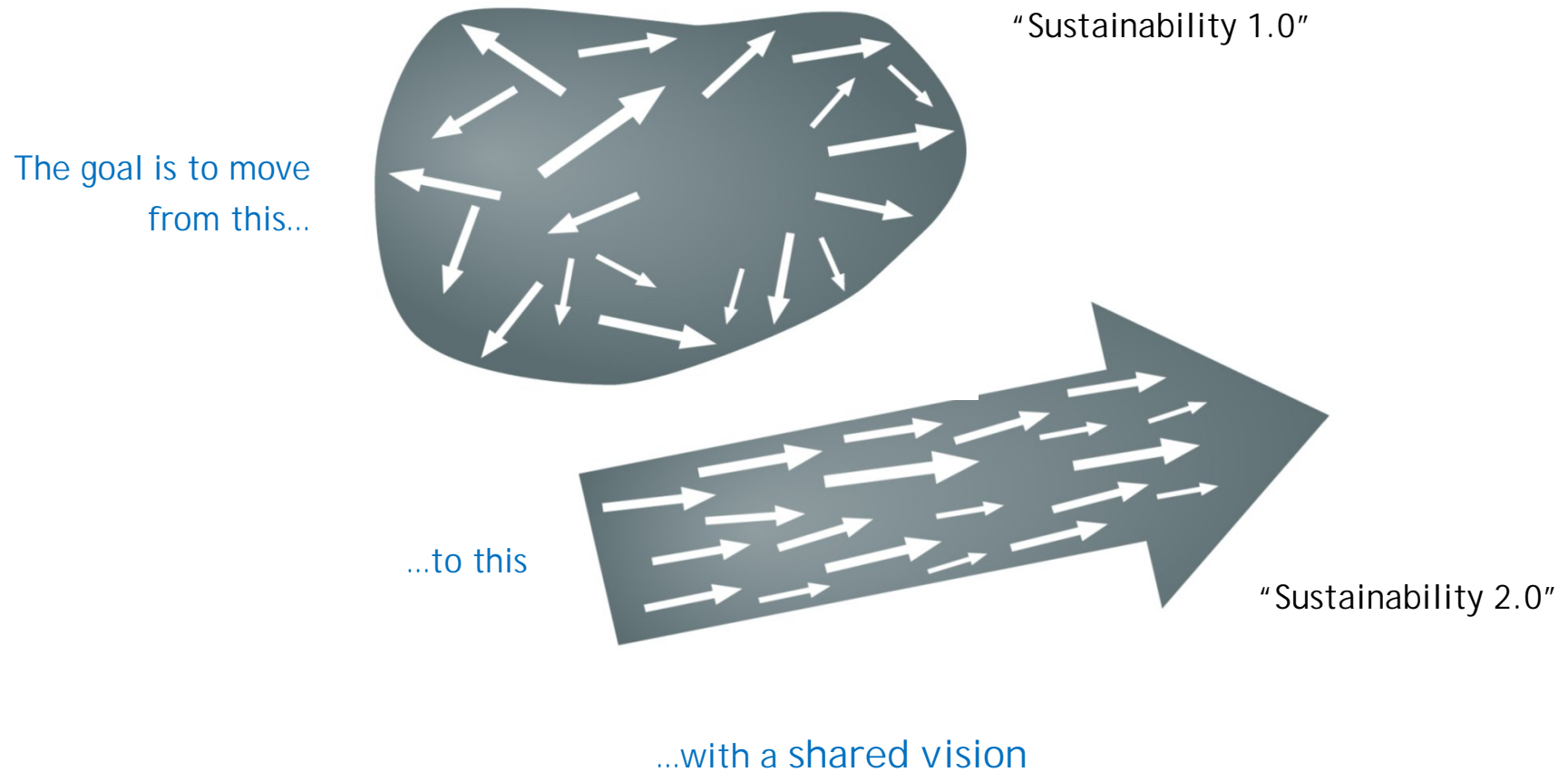
Moving beyond compliance to create value within sustainable limits

The Sustainability Ladder: Moving towards a Leadership role

- Taking an industry leadership role in pushing the SD agenda • Leadership
- Integrating SD at the core, in the organizational vision, strategy, operations and culture • Integration
- Doing a bit more than regulatory requirements • Compliance +
- Doing just what's needed (legally) • Compliance
- Refusing to accept reality • Denial

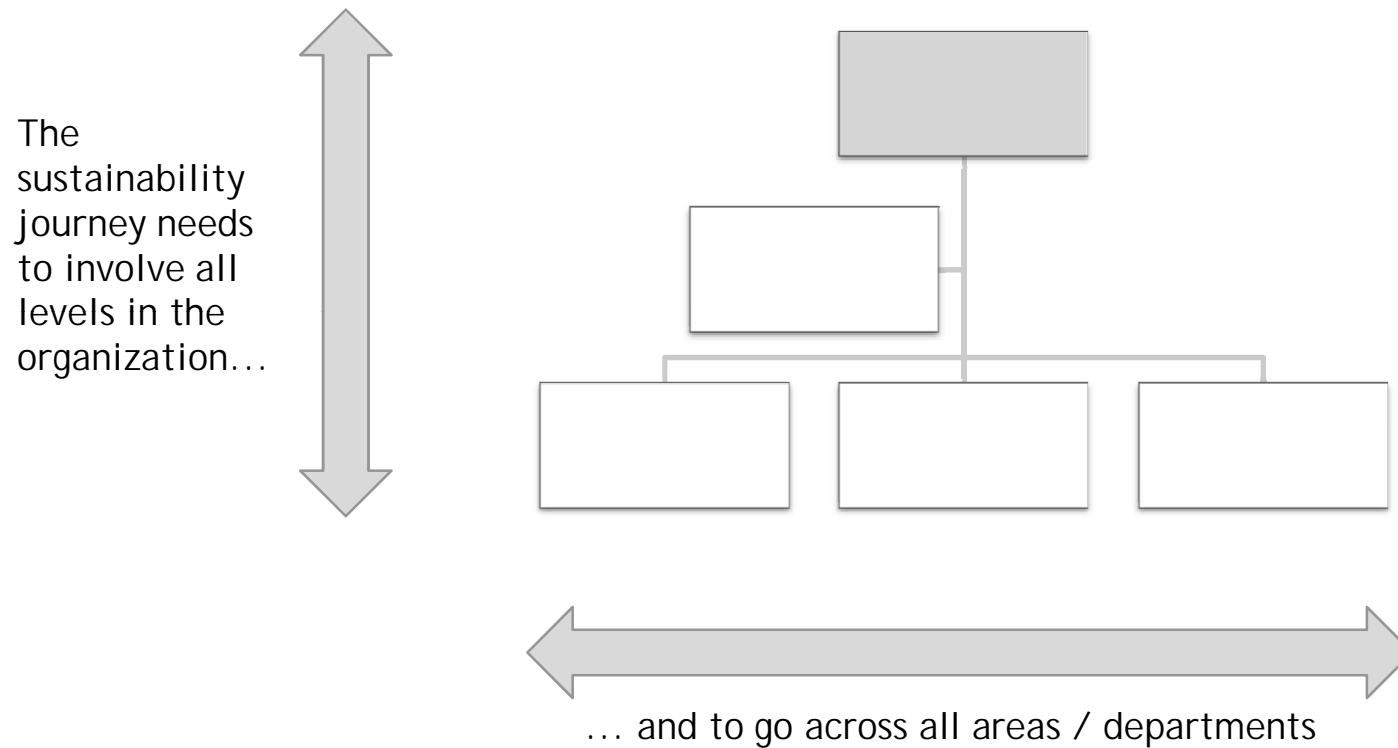


How to create value within sustainable limits: the need for a compass towards a vision



A vision without actions is a dream, actions without a vision is wasting time

Sustainability as a Journey requires mobilizing the entire Organization



Sustainability can be a powerful tool to handle the present crisis

“Sustainability is being embraced by companies as a way to survive during the recession and to be positioned strategically in the new economy afterwards.”

Bob Willard, author, “The Sustainability Advantage”

“Unless we put the imperative of living within our means (...) absolutely at the heart of everything we do to dig ourselves out of this recession, then any economic reprieve that we enjoy at the end of that time will be as bittersweet as it will be short-lived.”

Jonathon Porritt, co-founder of Forum for the Future

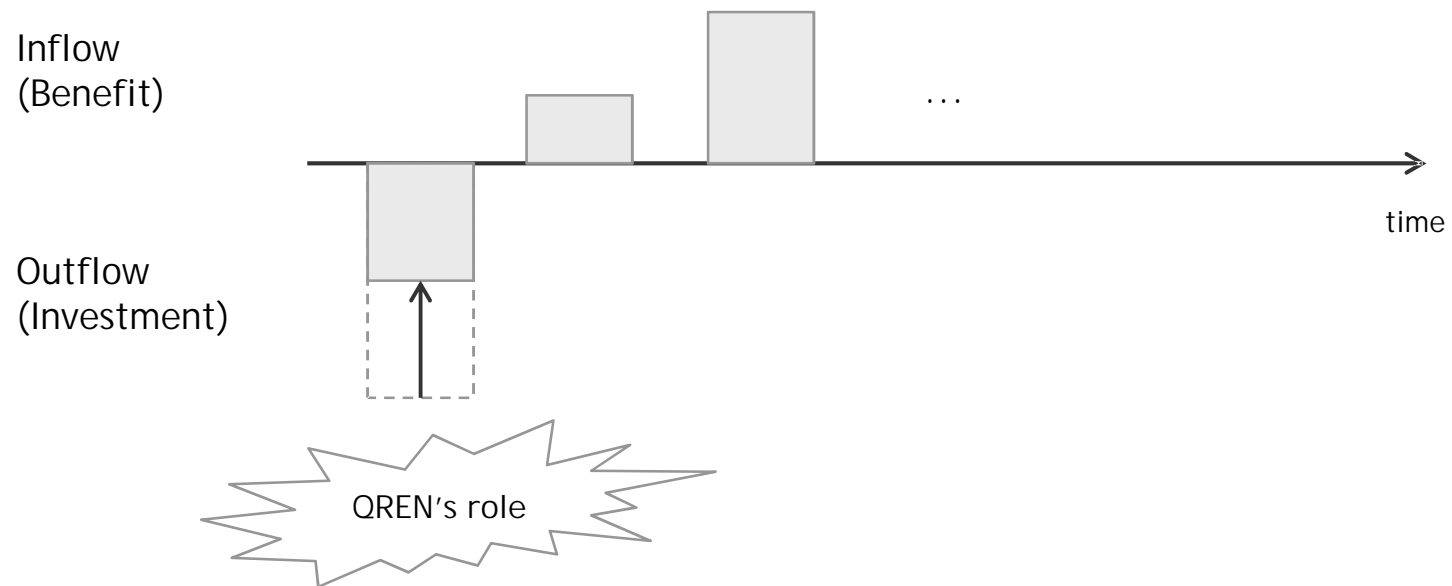
“We cannot solve our problems with the same thinking we used when we created them.”

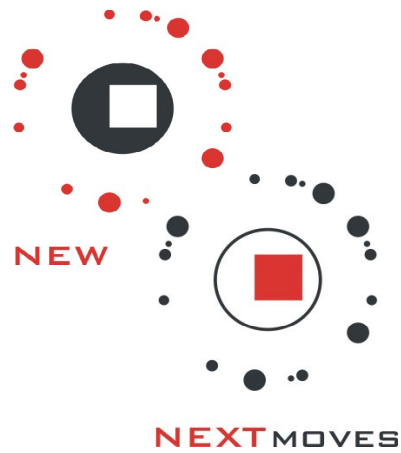
Albert Einstein

The move of Sweden towards sustainable development was initiated 20 years ago in a time when the company faced deep economic and financial crisis

EU funds available to the Portuguese economy may constitute important enablers for organizations to embark in a sustainability journey

Business case for Sustainability initiative x





NEW NEXT FUTURES



Sustainability at the heart of corporations' and municipalities' strategies and operations