

SUSTAINABILITY & ENTREPRENEURSHIP

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SUSTAINABILITY EXPERT, BEF LITHUANIA

Baltic Environmental Forum BEF Lithuania



Baltic Environmental Forum, Lithuania

**PROTECTING
NATURE NOT FROM
PEOPLE, BUT
TOGETHER WITH
PEOPLE**



Our topics

- Nature conservation & biodiversity protection
- Agriculture & rural development
- Chemicals & industrial pollution
- Consumer education
- Corporate responsibility

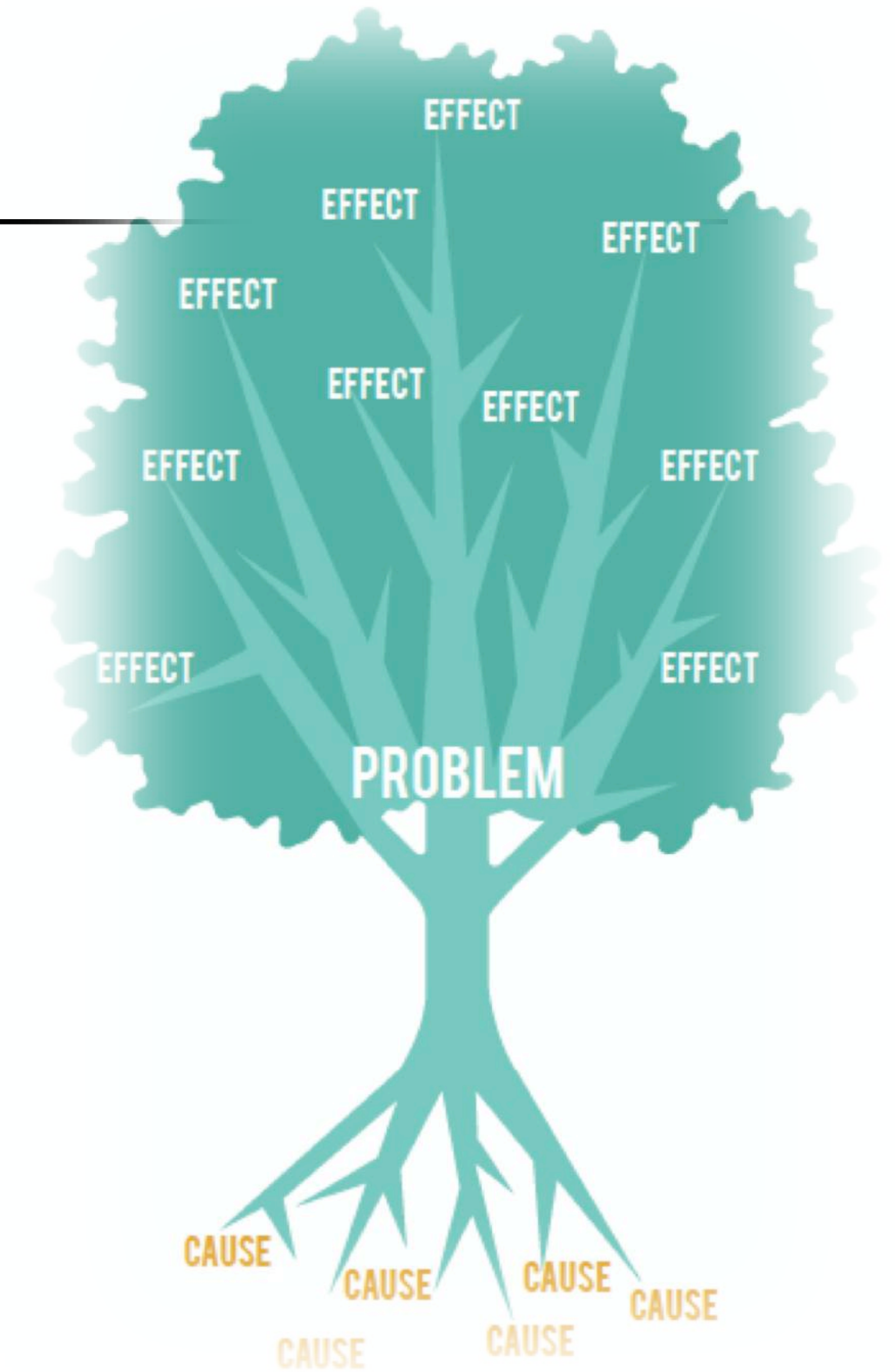


ME and sustainability

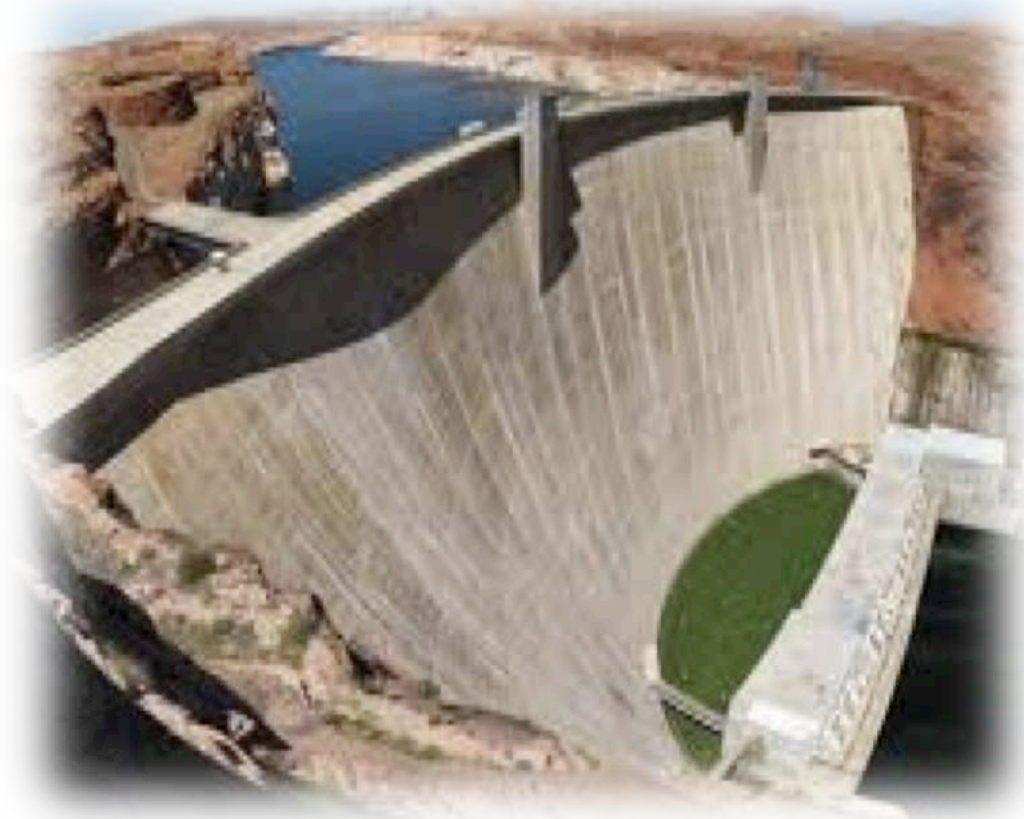
- ✓ Find the person you know at least.
- ✓ Discuss: „what's my personal contribution to sustainability?“
- ✓ Tell you pair's one most sustainable habit.

SUSTAINABILITY & ENTREPRENEURSHIP

Futurepreneurs is all about creating a business that makes an impact.



THE ANTHROPOCENE: ARE WE OVERWHELMING THE FORCES OF NATURE ?



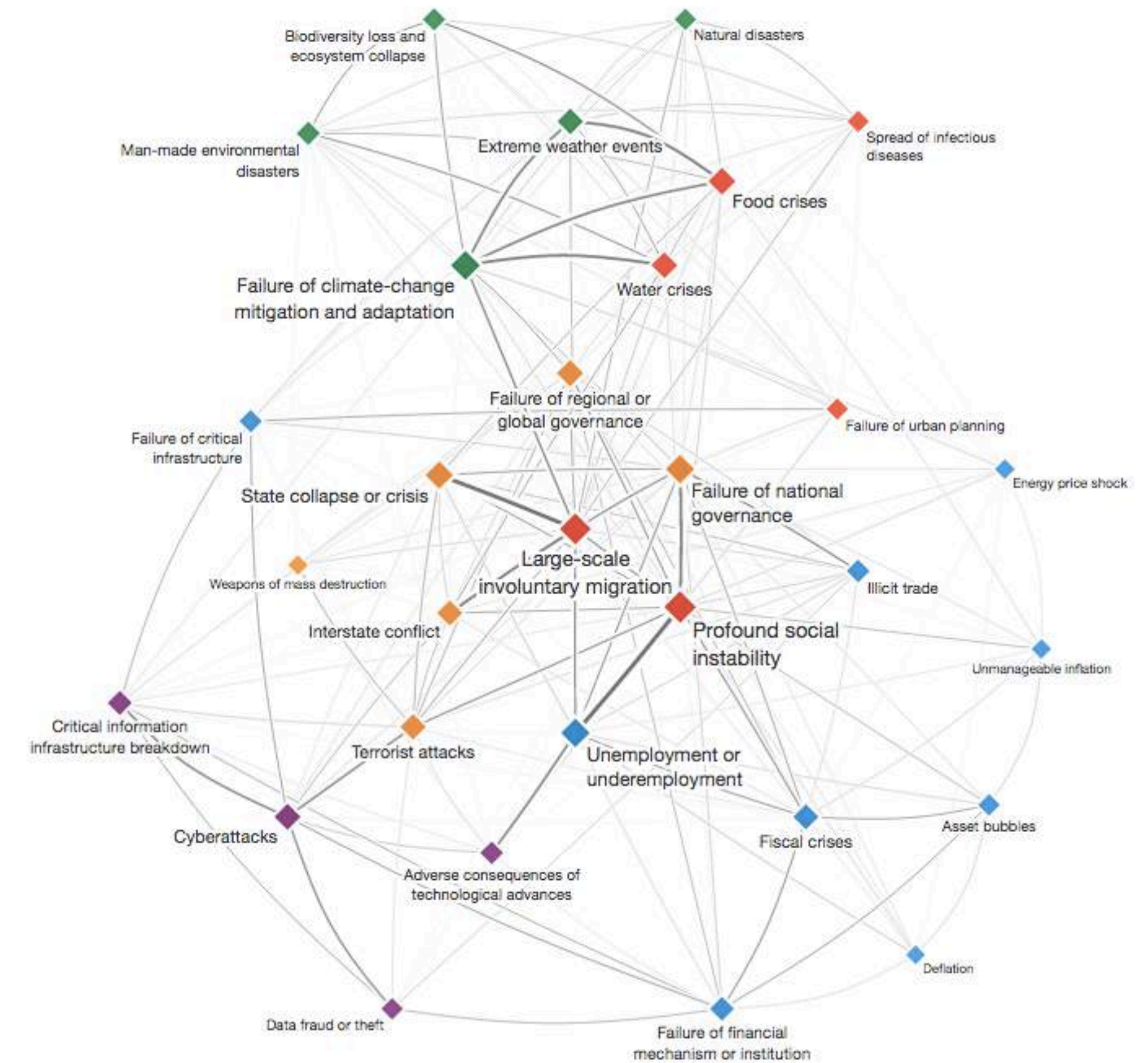
We transfer 57 000 mln. t of rocks
- 3 times more than river floe does (22 000 mln. t) (Price *et al* 2011).

NEW GLOBAL CONTEXT

Rising risks :

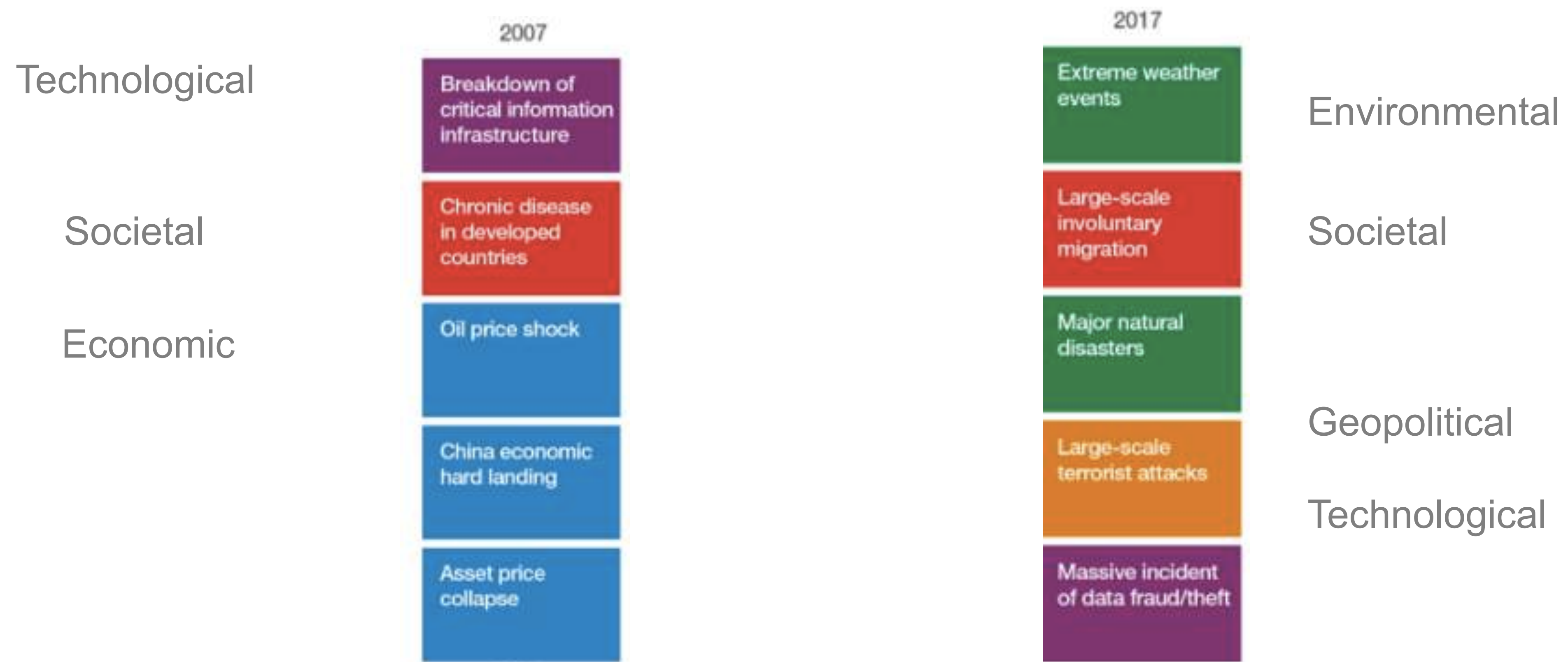
- Globalisation v.s. glocalisation
- Demographic changes
- Urbanisation
- Digitalisation
- Environmental degradation
- Impact of chemicals on health

WELCOM TO ANTHROPOCE



WEF, Global Risks report, 2017

TOP 5 GLOBAL RISKS



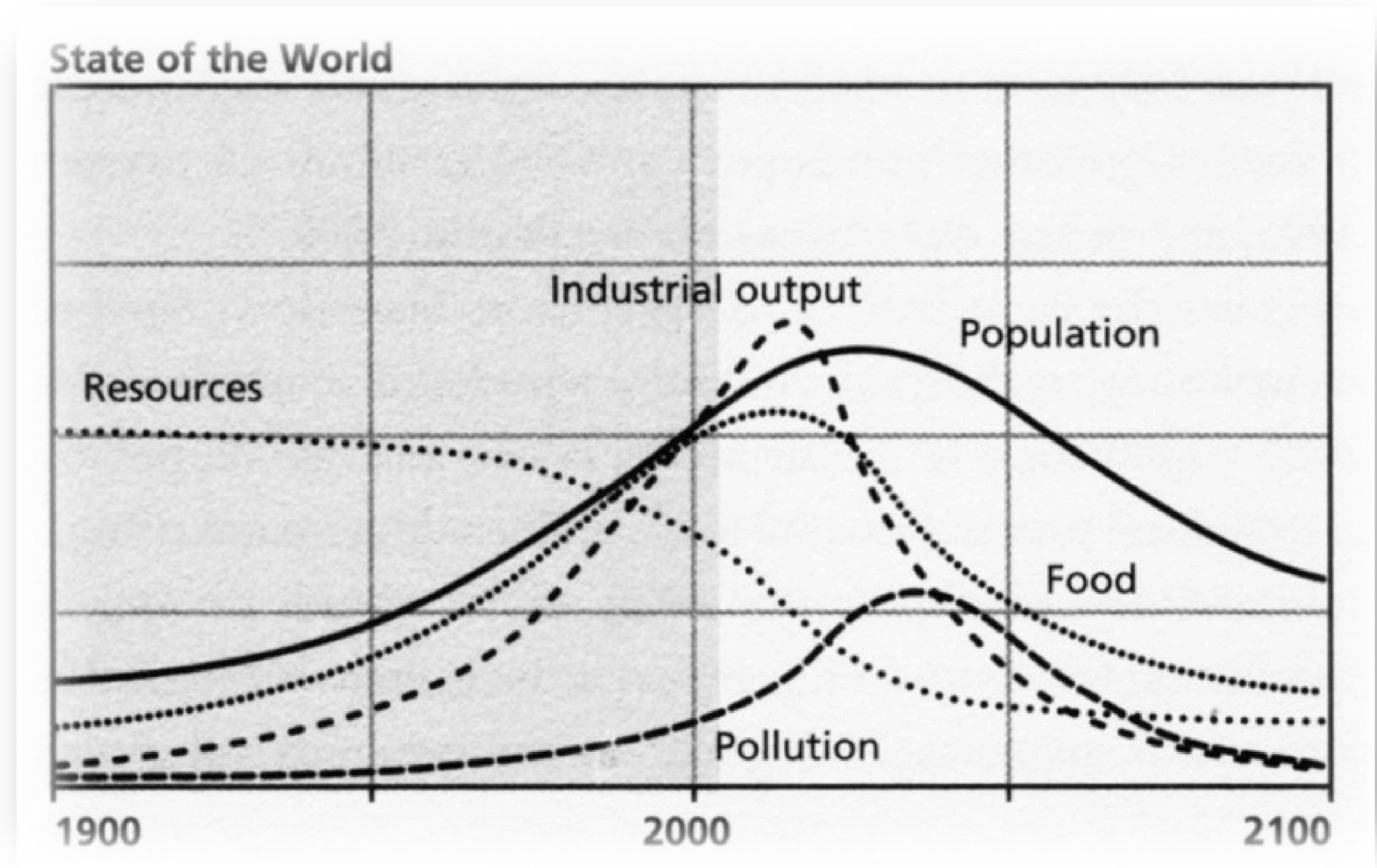
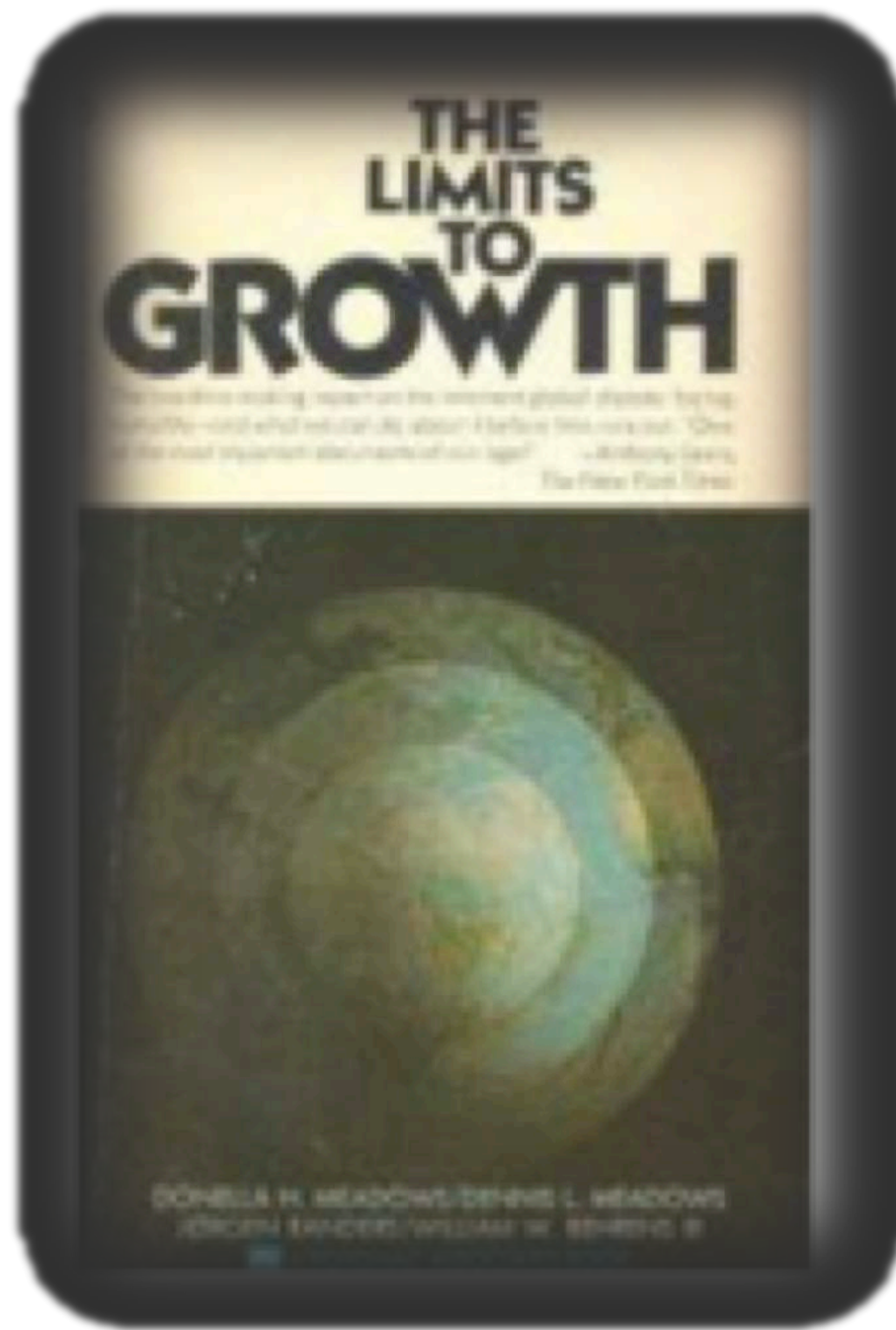


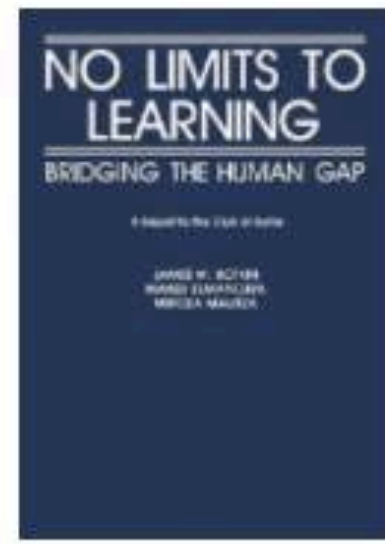
Pesimist is

**a well informed
optimist....**



THE CLUB OF ROME





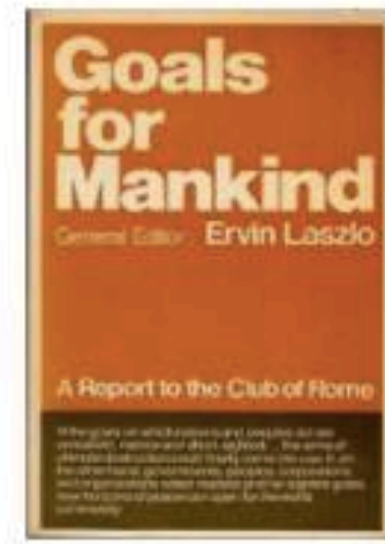
NO LIMITS TO LEARNING
1979



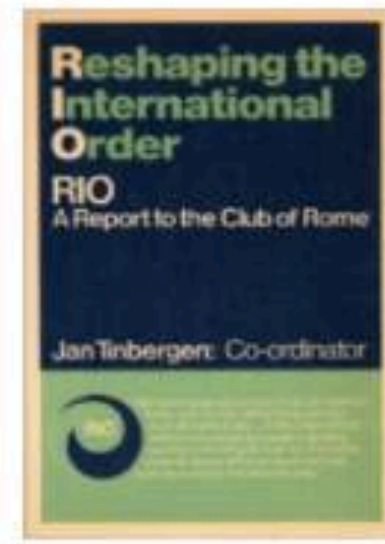
ENERGY: THE COUNTDOWN
1979



BEYOND THE AGE OF WASTE
1978



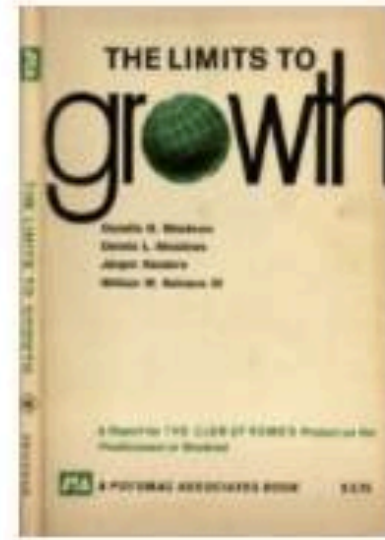
GOALS FOR MANKIND
1977



RESHAPING THE INT



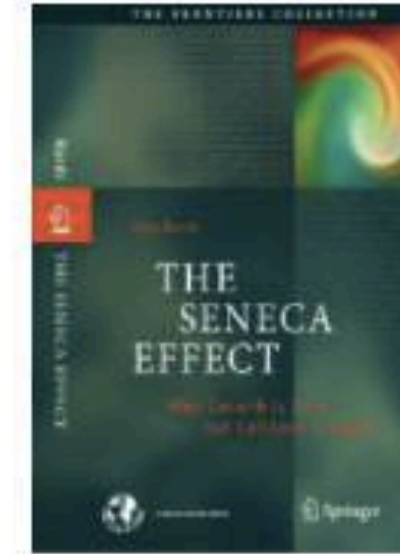
MANKIND AT THE



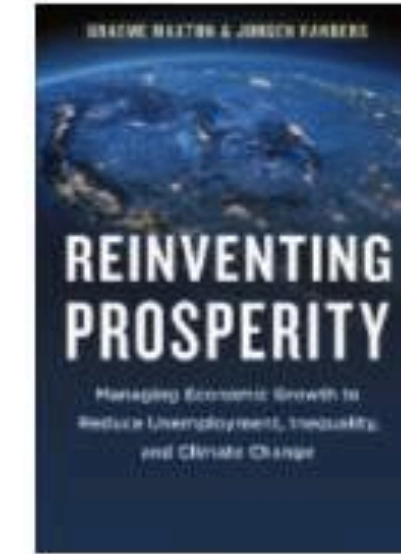
THE LIMITS TO GROWTH
1972



COME ON!
2017



THE SENECA EFFECT
2017



REINVENTING PROSPERITY
2016



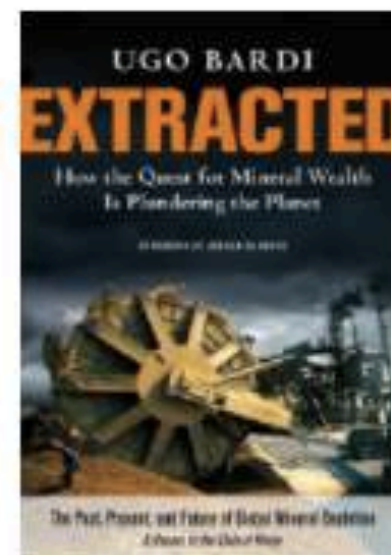
TO CHOOSE OUR FUTURE
2015



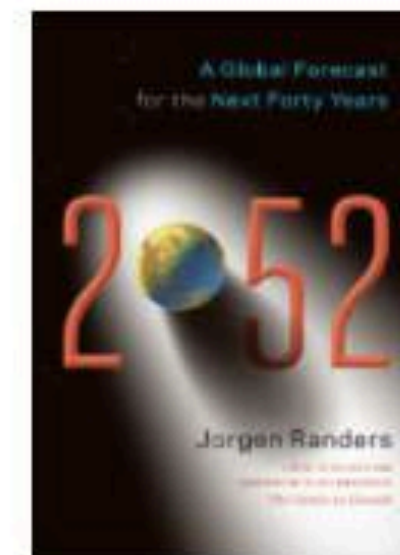
ON THE EDGE
2015



CHANGE THE STORY, CHANGE THE FUTURE
2015



EXTRACTED
2014



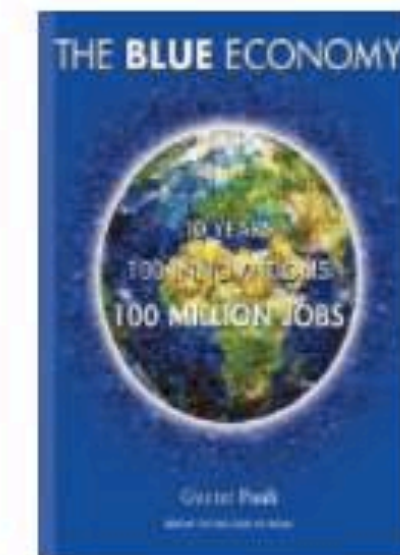
2052
2012



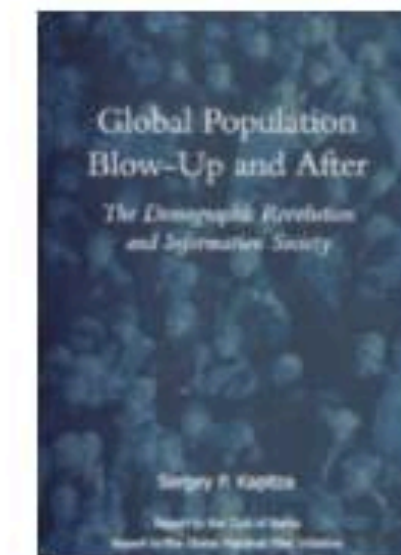
BANKRUPTING NATURE
2012



FACTOR FIVE
2010



THE BLUE ECONOMY
2010



GLOBAL POPULATION BLOW-UP AND AFTER
2006

The club of Rome

“Our shared wellbeing on a healthy planet demands a rethinking of reigning philosophies and a new enlightenment that could seek inspiration from old traditions.”

Ernst Ulrich von Weizsäcker , Club of Rome, „Come on!“

Research Paper Series

IS GLOBAL COLLAPSE IMMINENT?

GRAHAM TURNER



MELBOURNE SUSTAINABLE
SOCIETY INSTITUTE

The Club of Rome

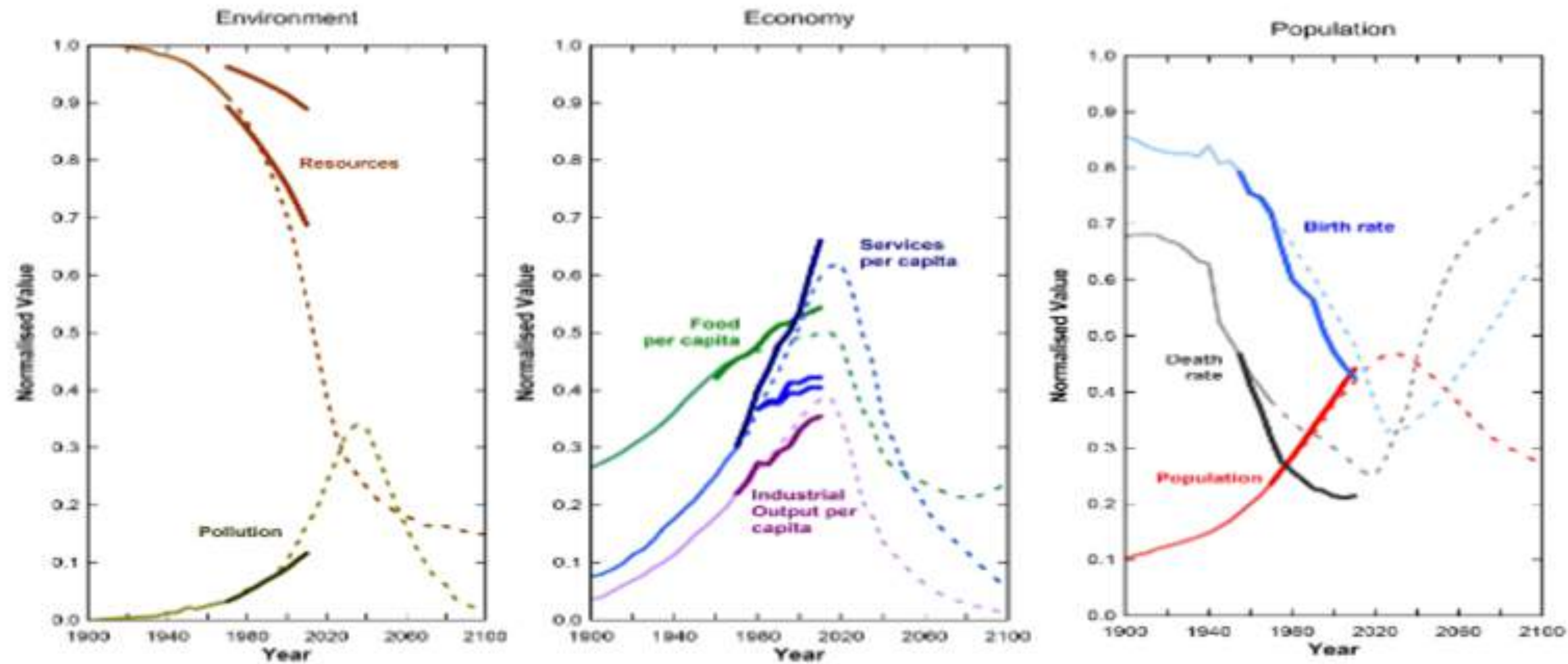


Figure 1. LTG BAU (Standard Run) scenario (dotted lines) compared with historical data from 1970 to 2010 (solid lines)—for demographic variables: population, crude birth rate, crude death rate; for economic output variables: industrial output per capita, food per capita, services per capita (upper curve: electricity p.c.; lower curves: literacy rates for adults, and youths [lowest data curve]); for environmental variables: global persistent pollution, fraction of non-renewable resources remaining (upper curve uses an upper limit of 150,000 EJ for ultimate energy resources; lower curve uses a lower limit of 60,000 EJ [Turner 2008]).

SUSTAINABILITY AND POLITICS

Syria drought and the civil war

JOBNAME: WCAS 0000 2014 PAGE: 1 SESS: 8 OUTPUT: Tue Mar 11 18:13:26 2014 Total No. of Pages: 10
/atm/wcas0/wcasD1300059

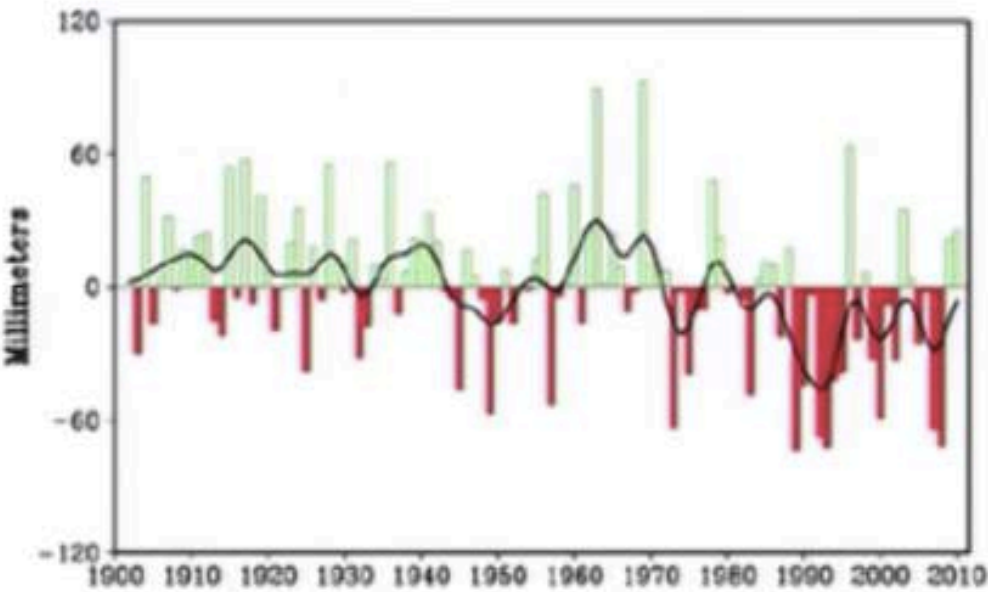
MONTH 2014

GLEICK

Water, Drought, Climate Change, and Conflict in Syria

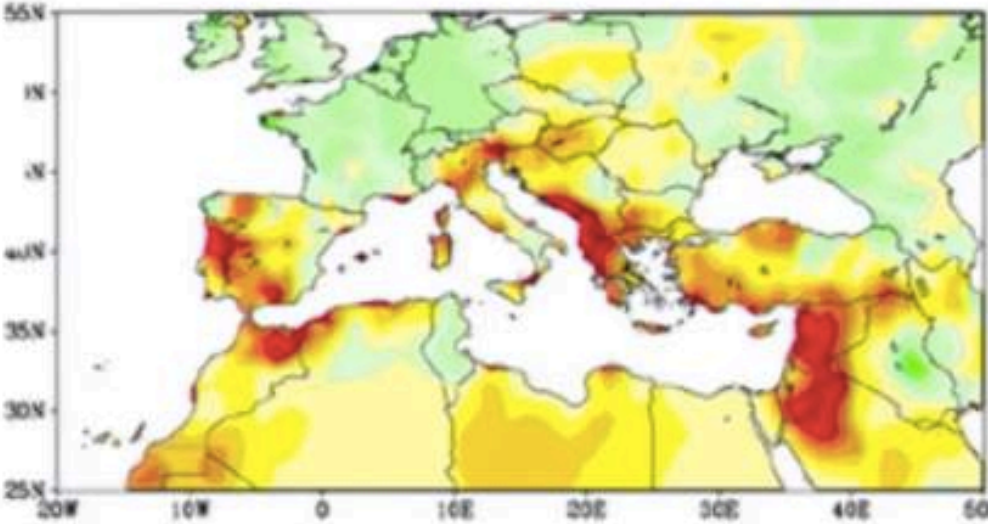
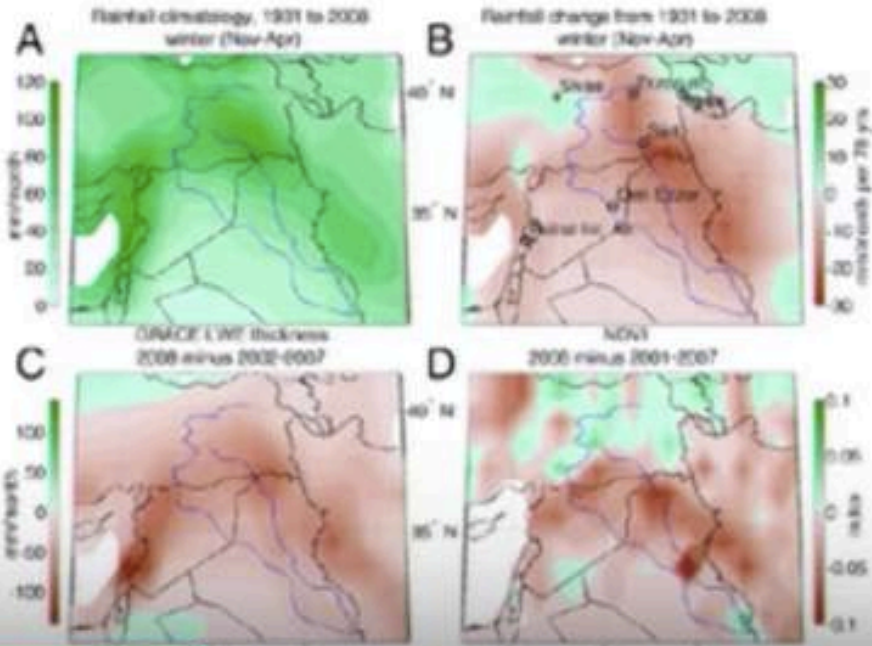
PETER H. GLEICK

Pacific Institute, Oakland, California



Climate change in the Fertile Crescent and implications of the recent Syrian drought

Colin P. Kelley^{1,2}, Shahrzad Mohtadi³, Mark A. Cane⁴, Richard Seager⁴, and Yochanan Kushnir¹



2018 02 13 14:00

Current World Population

7,601,683,964

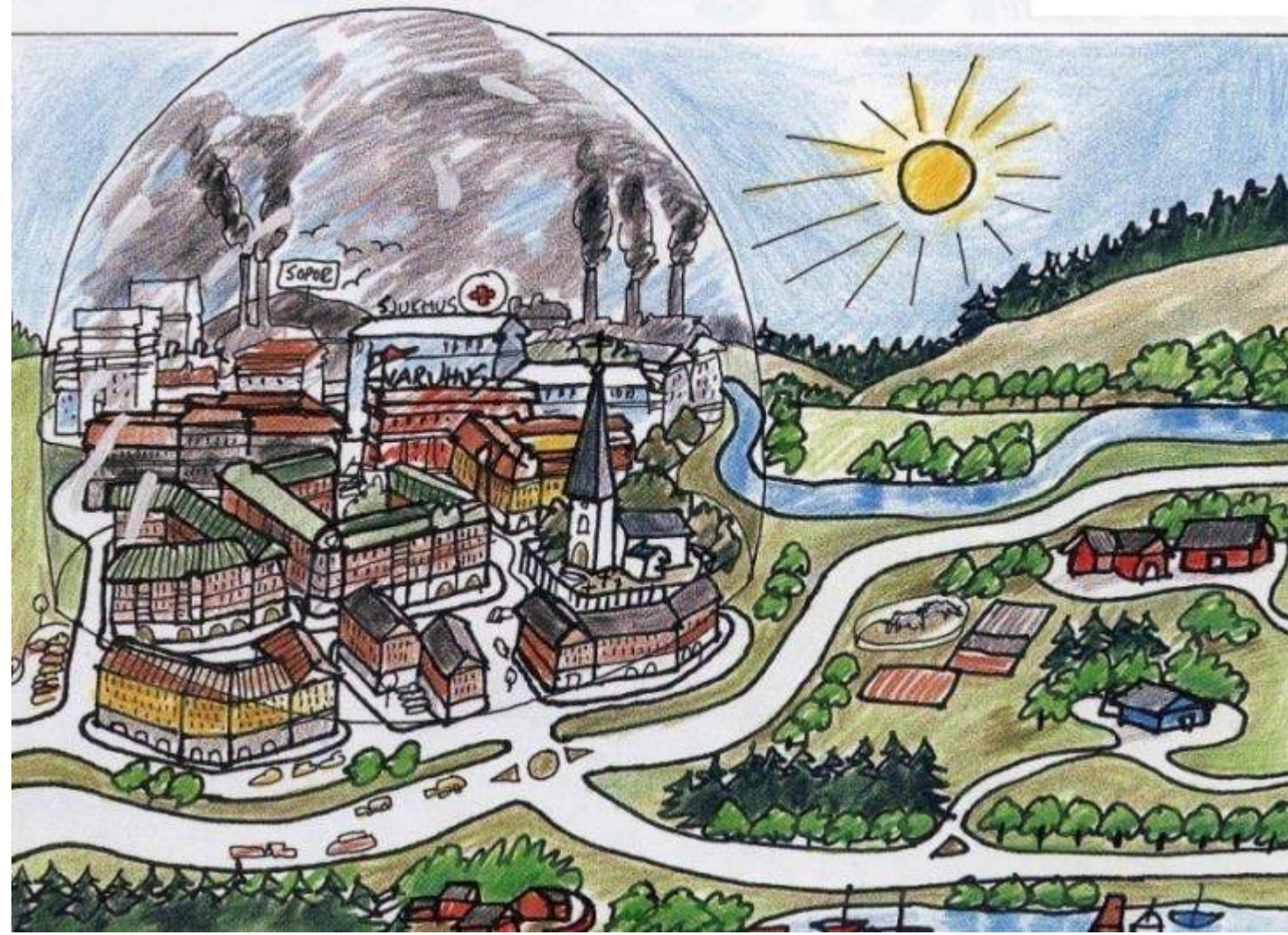
[view all people on 1 page >](#)

TODAY	THIS YEAR
Births today 224,729	Births this year 16,816,069
Deaths today 93,081	Deaths this year 6,965,086
Population Growth today 131,648	Population Growth this year 9,850,983









Overstepping Ourselves

As our Ecological Footprint continues to exceed Earth's biocapacity, we overdraw from our future.



1961
74%
of biocapacity



1985
114%
of biocapacity



2012
156%
of biocapacity

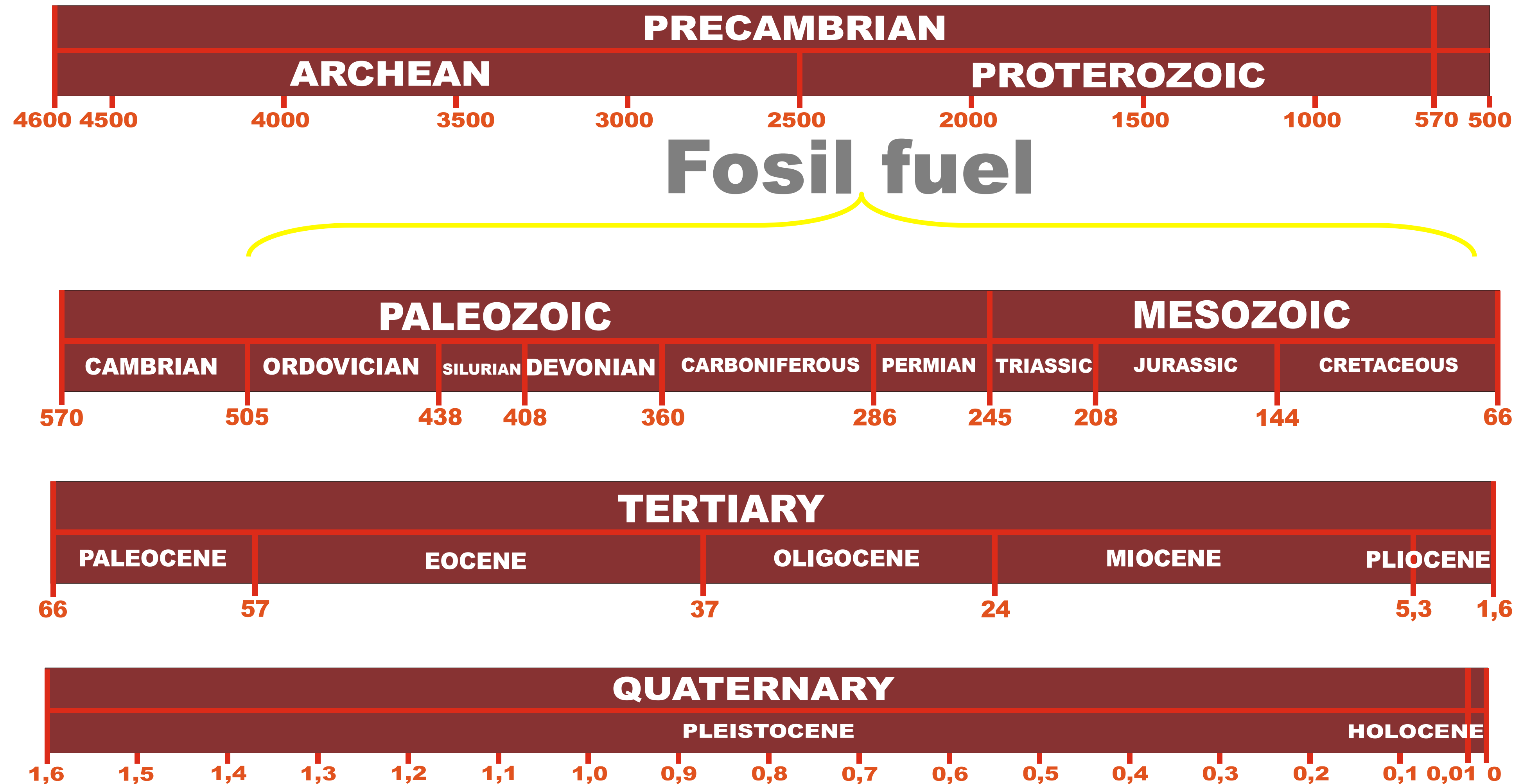
Source: Global Footprint Network, Earth Overshoot Day, 2012

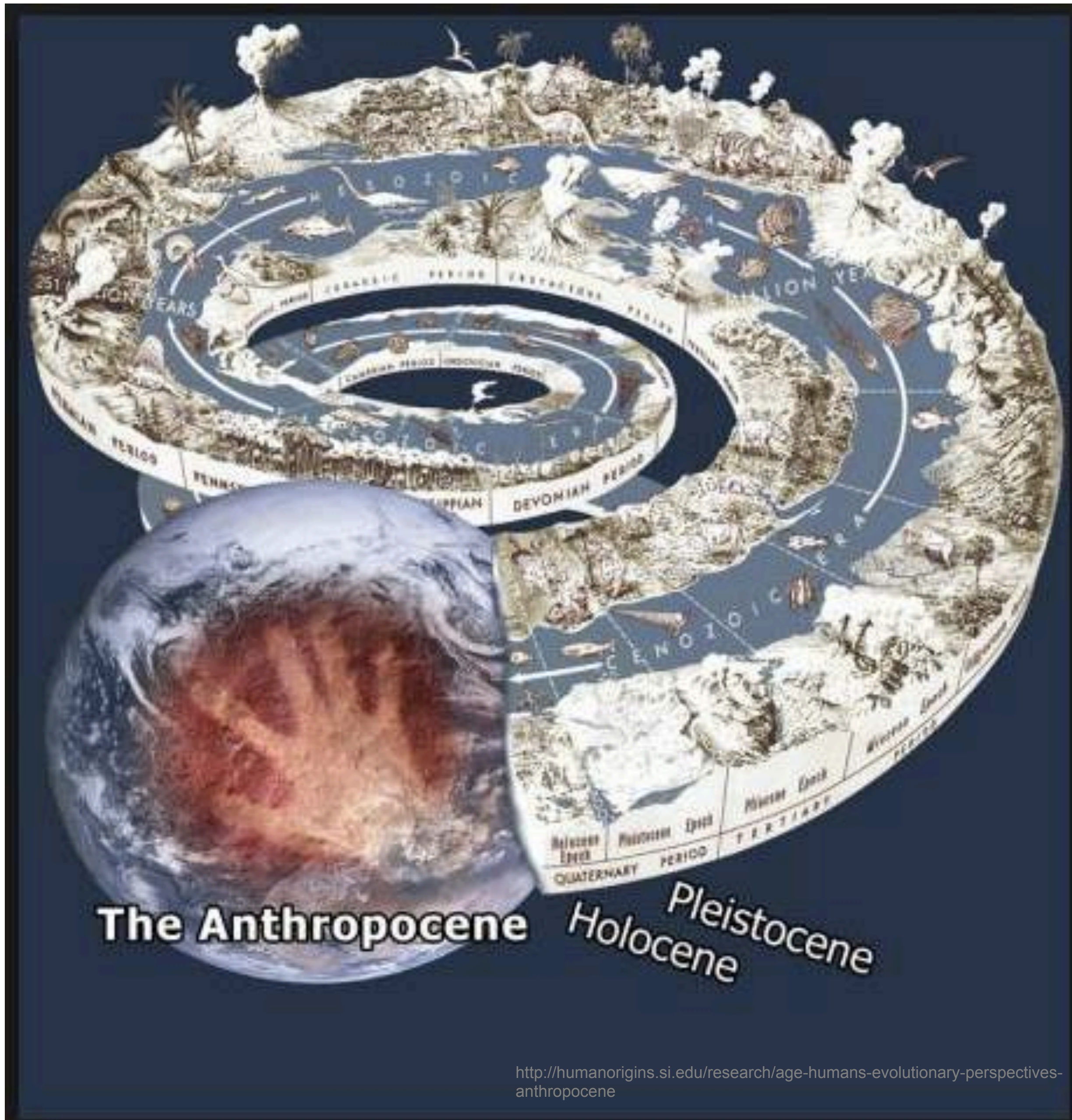
2017 *This Is What Happens In An Internet Minute*



World Economic Forum (<https://www.weforum.org/agenda/2017/08/what-happens-in-an-internet-minute-in-2017/>)

Geological time scale





SUSTAINABILITY



sustainable

adjective | sus·tain·able | \sə-

Sustainable is currently in the **top 1%** of lookups and is the 63rd most popular word on Merriam-Webster.com.

: able to be used without being

: involving methods that do not
resources

: able to last or continue for a long time

Confused about Sustainability?

Community Participation

EECA

ISO14001

Design for Disassembly

Cylinder Wraps

Ecoefficiency

Sustainability Analysis

Agenda 21

Clean Water

Chemical free

Design for Environment

Renewable resources

Triple bottom line reporting

Clean Air

natural

Zero waste

Waste minimisation

Life Cycle Analysis

Cleaner Production

Ecological Footprint

for future generations

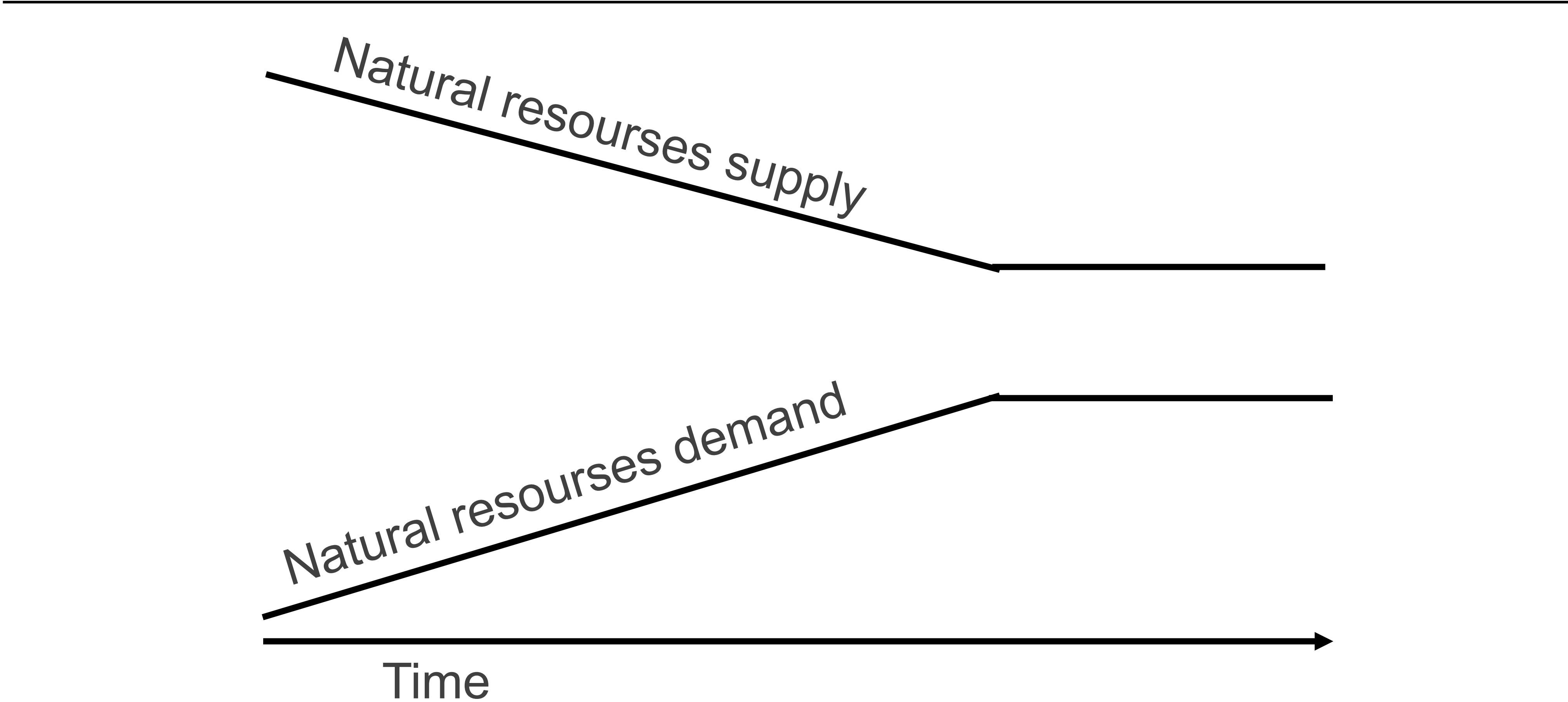
Recycled content

Life supporting capacity

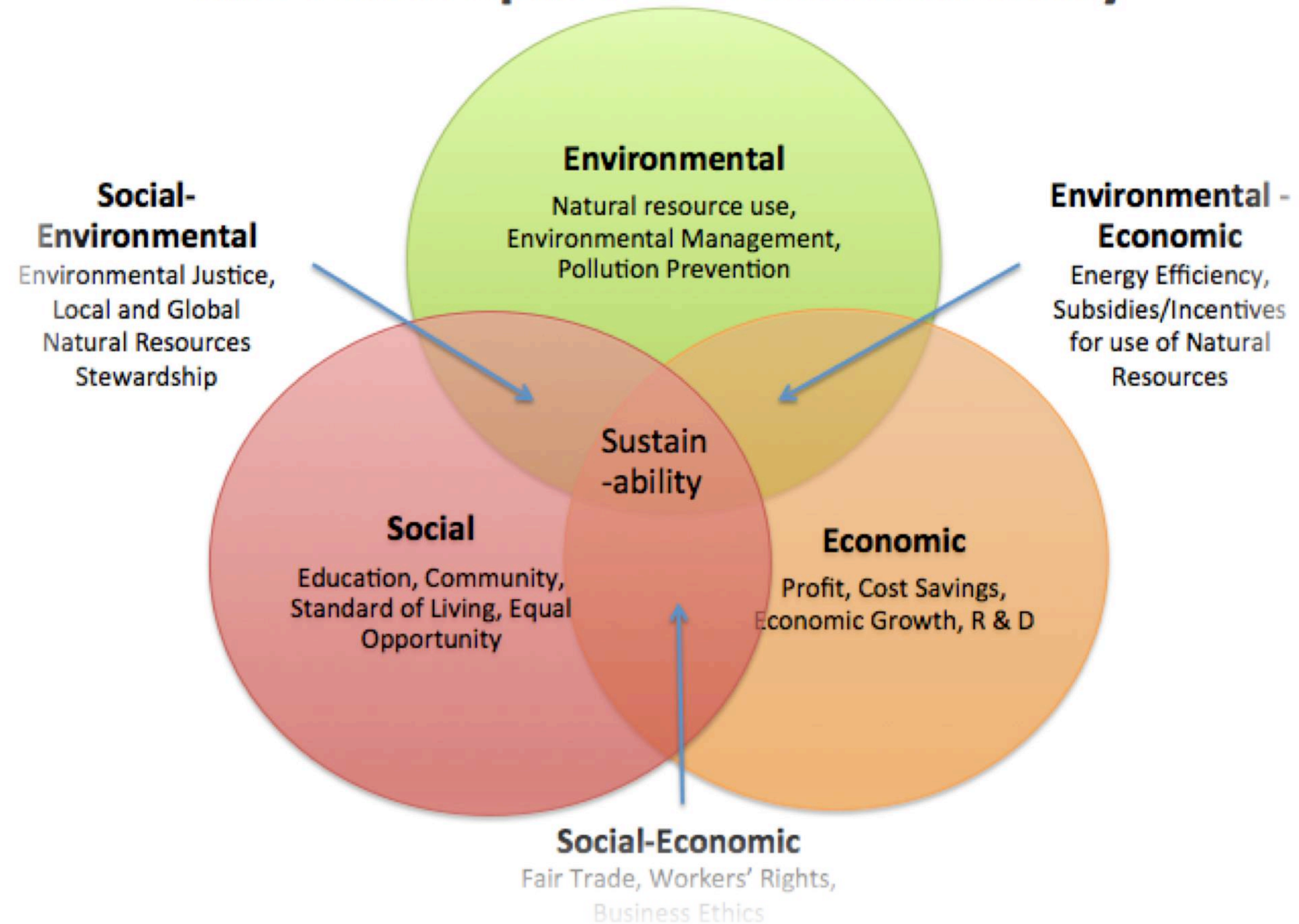
Smart Growth

CHANGE

Sustainable development

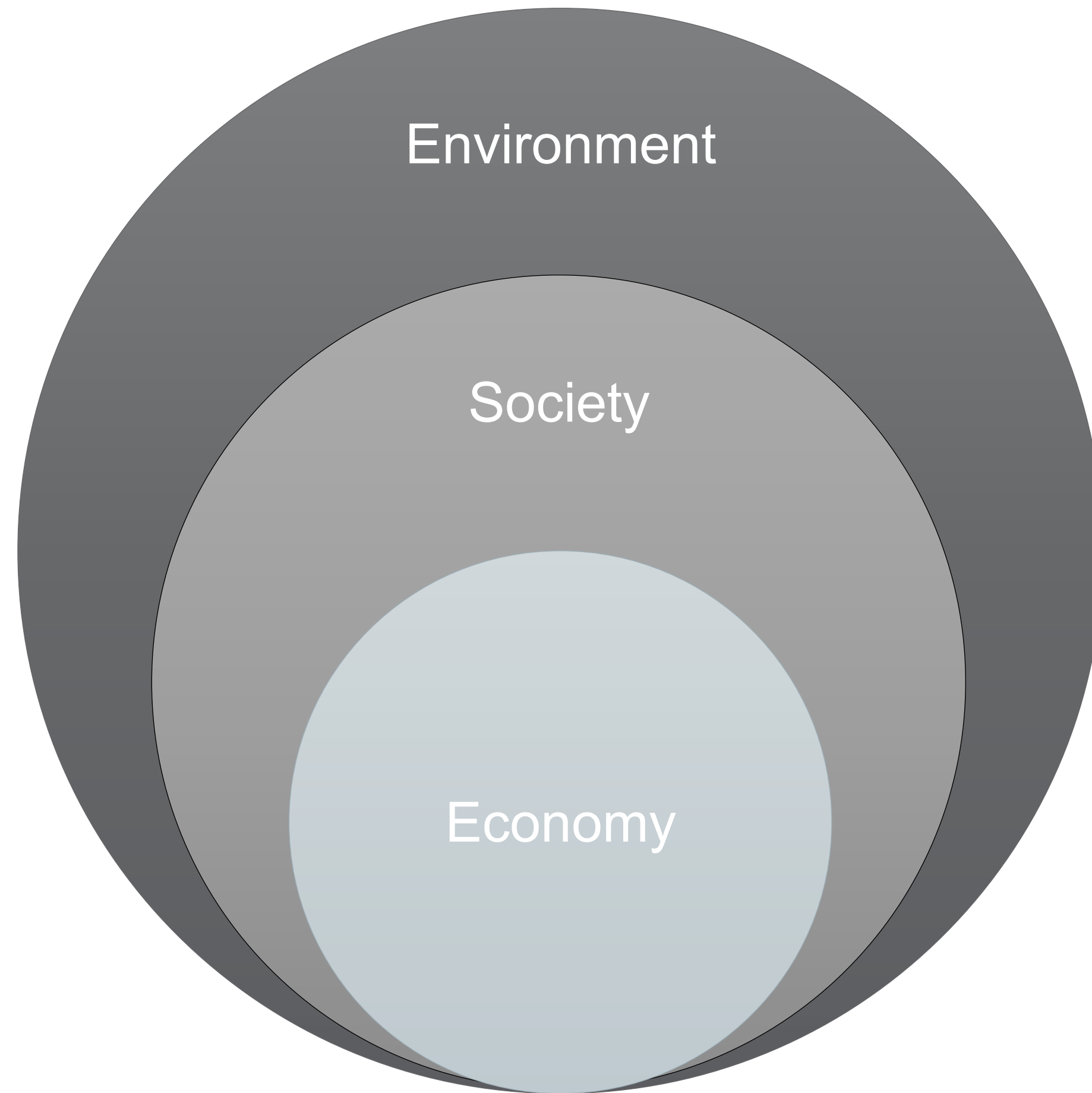


The Three Spheres of Sustainability

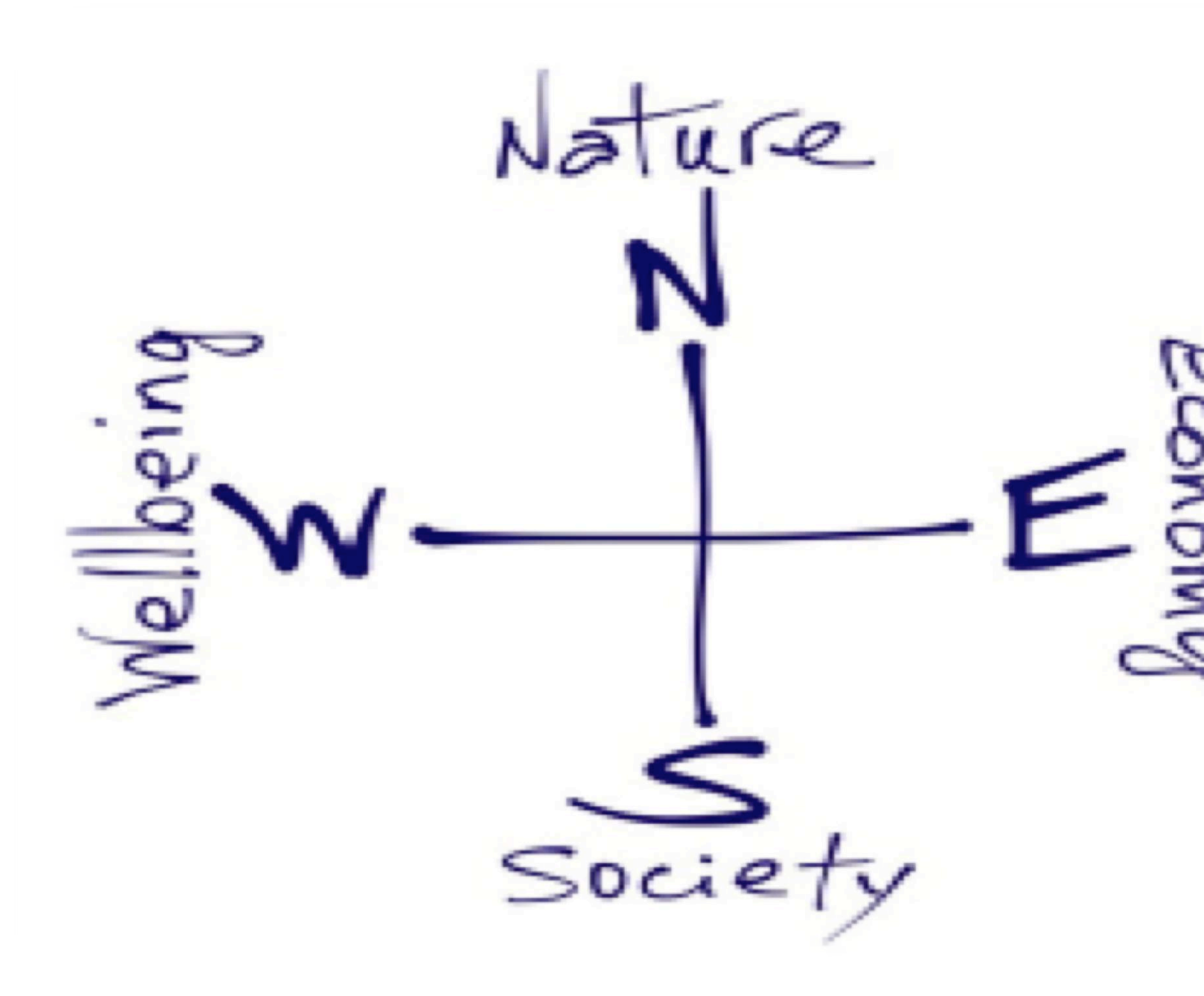


Source: www.newsustainabilityinc.com

Real sustainability



“if sustainability is everything, maybe it’s nothing?” Naess (2001)



Alan AtKisson,
Sustainability is for everyone, 2013

The Sustainability Compass

A tool for understanding sustainable development

N is for Nature:

Healthy air and water quality, sustainable resource use, sufficient habitat (especially for endangered species), the preservation of scenic beauty

E is for Economy:

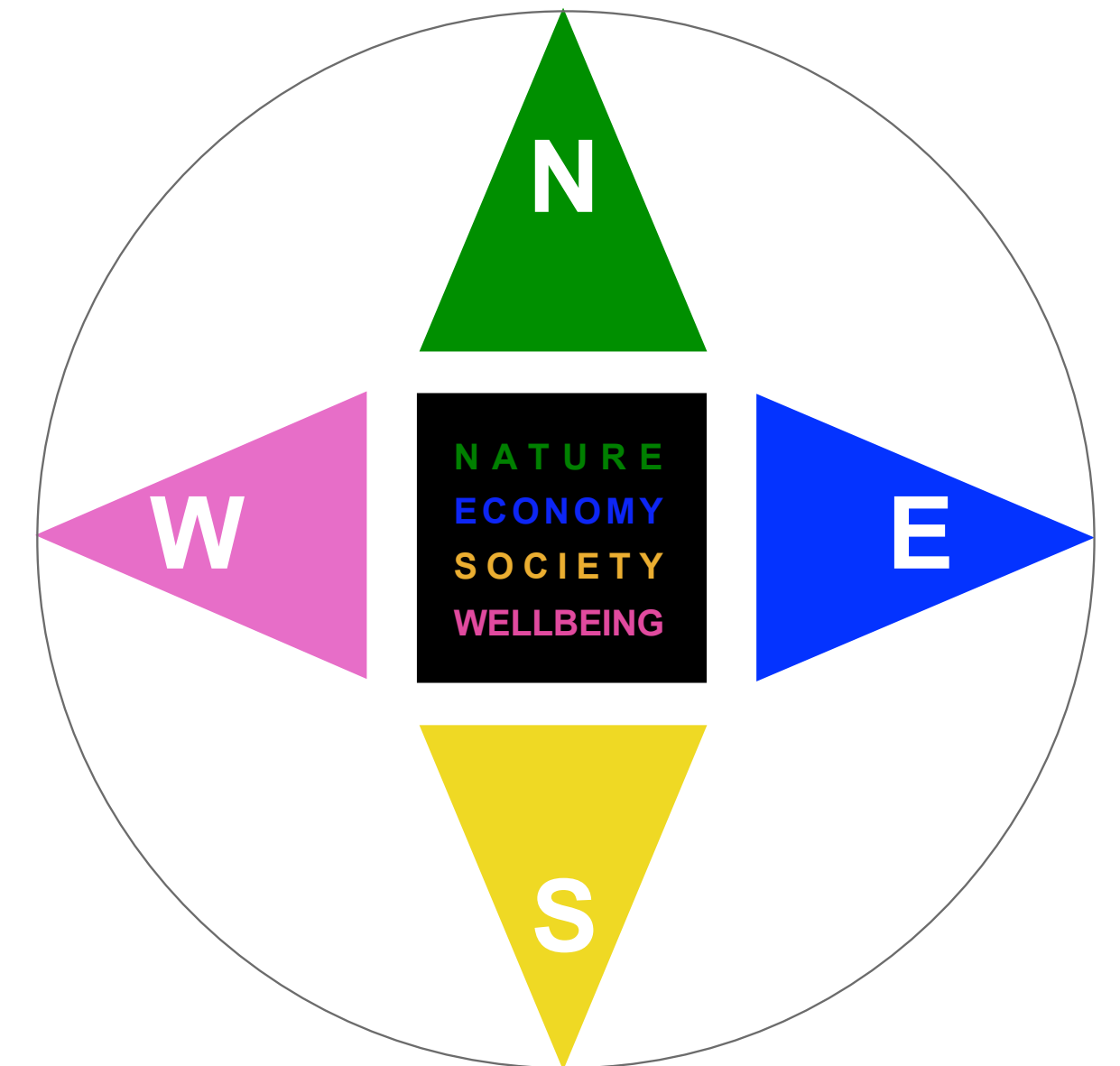
Vital businesses, good infrastructure, the sufficient production of goods and services, a solid financial sector, and good jobs or people at good wages

S is for Society:

The health of our communities, institutions, schools, cultural traditions, and the arts, and the organizational structures and legal frameworks that protect equality and opportunity for all

W is for Well-Being:

Our *individual* health, happiness, education, satisfaction, and fulfillment, as well as the health of our families and primary relationships, and the quality of our living and working environments





Sustainability crisis now!



Global warming and resource scarcity

Dramatic decrease of natural resources and climate change are challenges that will define the future. We have to act now.

A 4-6 °C increase in temperature would be catastrophic



SITRA

The biggest challenge of our time



New mindset about the planet, economy and well-being

De-coupling of economic growth and the use of natural resources

Solutions: technology + people

- 1** Energy revolution: renewables paving their way, fossils in decline
- 2** The potential of the circular economy
- 3** Smart services and products finding markets
- 4** Smart seamless traffic
- 5** Cities are the key to solving wicked problems: new local solutions with the help of technology

But even the best solution or technology needs people to work

In the air...

€1500 billion market for cleantech solutions 2020

Is this trend an opportunity for humankind to work together?



The solutions are already in our hands!

The rise of the geo-economy

Globalisation, world trade and power politics become even more intertwined

New players, initiatives and goals
+ tensions and unpredictable factors



"The language is trade, the logic is war"

New alliances, goals and global power play



SITRA

Global interdependency



We need to come to terms with this new world!

Focus both on global and local

We must assume diversity

Resilience and ability to navigate in an unpredictable environment

Cities hold the keys to wicked problems

Multilateral world has served Finland well

Finland has been the biggest winner in globalisation's last phase

WHAT NOW?

Unpredictable global environment

+ the rise of those who can play the game and define their future

¥ € \$
WINNERS
USA, China, EU

Where does the EU belong in the future?
Momentum to rise or fall.

CHALLENGE
International organisations



WHO HOLDS THE FUTURE VISION?



What kind of society are we building?

"Will humankind change more in the next 30 years than in the past 300?"

Human, social, economic aspects...

ALL!



Technology changes everything

Virtualisation, digitalisation, artificial intelligence (AI), instrumentalisation of everything, robotisation, nanomaterials, biotechnology, pharmacology, energy technology, global ICT structures, global crowd platforms, blockchain technology

This challenges our capability to renew our thinking
But also offers great opportunities!

Technology establishment?



Humans will become a multiplanetary species

The mystery of death can be solved

AI is already here

Human and machine can be combined

Virtual reality changes the game

Where it currently hurts?



WHO OWNS THE FUTURE?

Ageing population: young people can't solve the future on their own



Everyone must take action

Technology as an enabler of sustainable well-being

Return of humanism and human capabilities

The new deal of the economy and the sharing economy

Importance of ethics

Wider definition of well-being

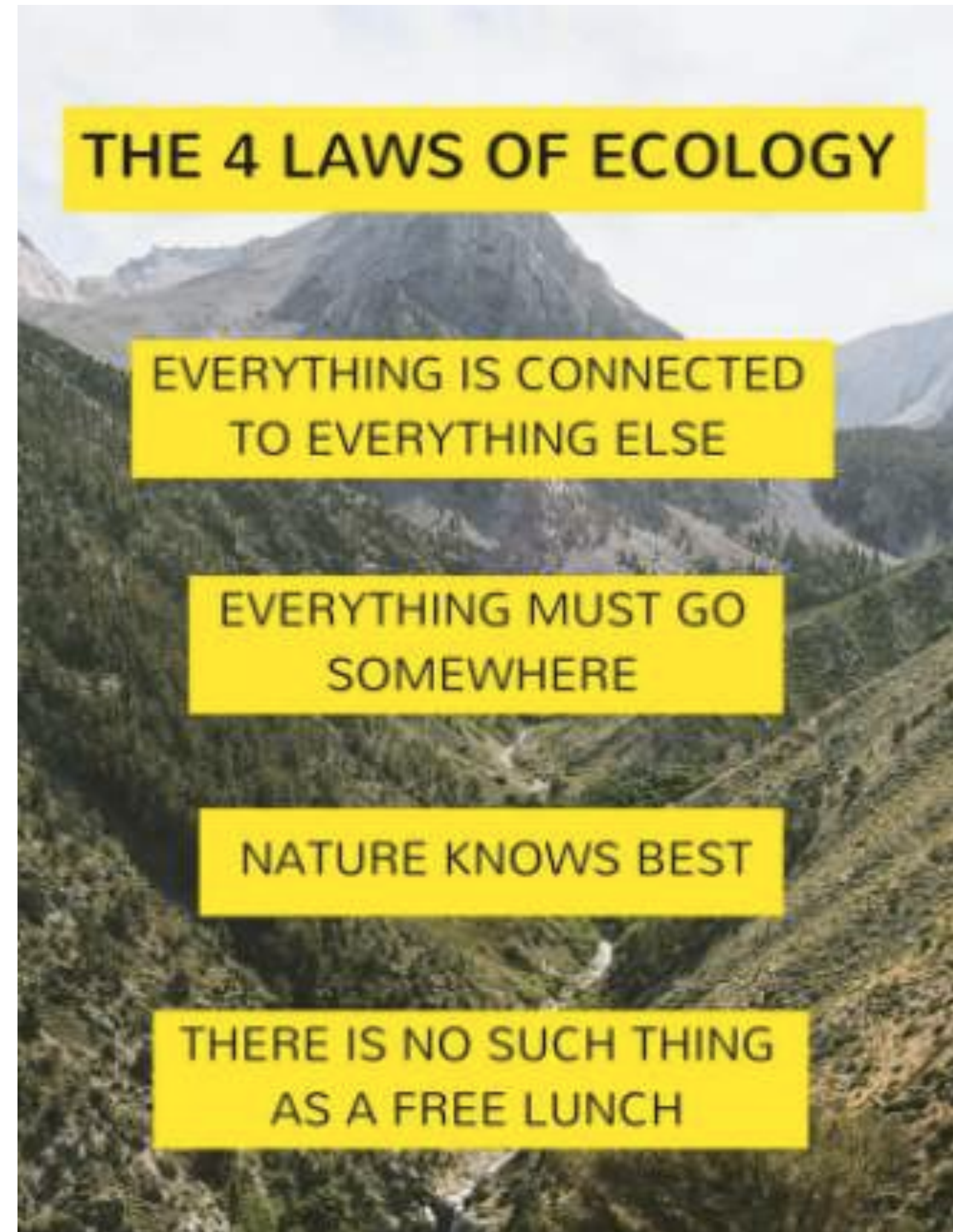
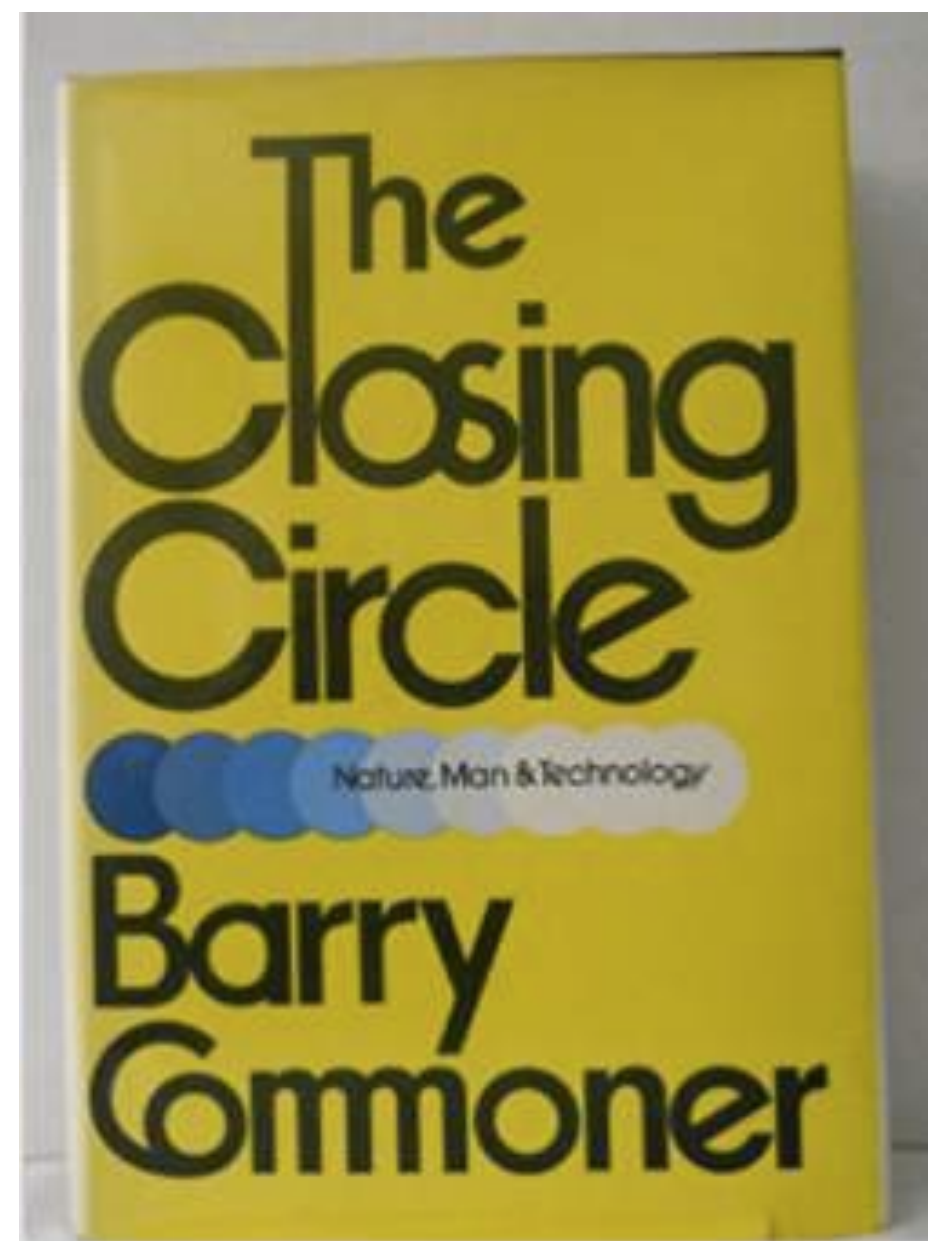
The new generation will find its ways

New organisations, platforms and identities

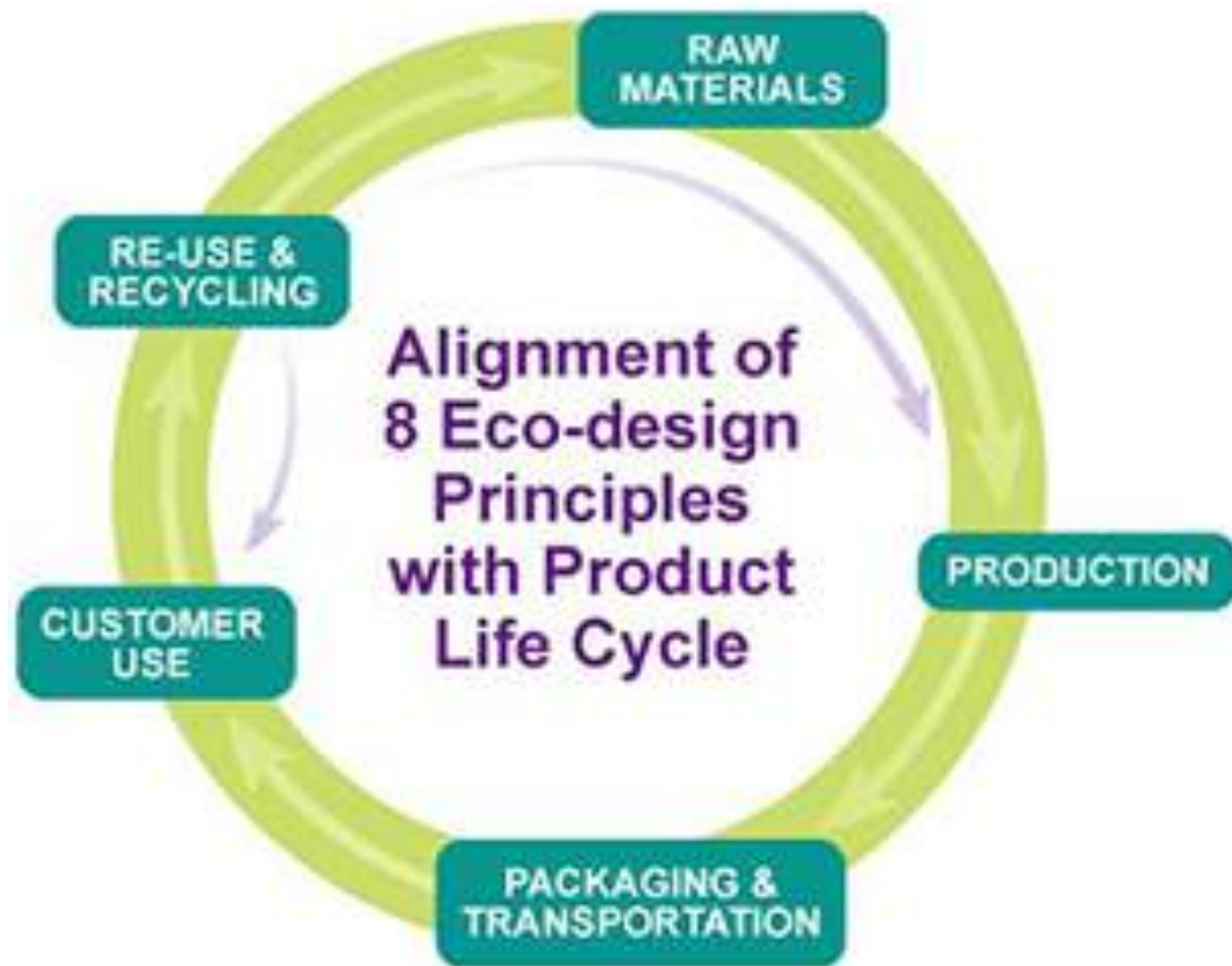


SITRA

1971



ECODESIGN



Ecodesign Measure	Adoption	Estimated annual savings by 2020
Standby	December 2008	35 TWh
Simple set top boxes	February 2009	6 TWh
Street & Office Lighting	March 2009	38 TWh
Domestic Lighting	March 2009	39 TWh
External power supplies	April 2009	9 TWh
Electric motors	July 2009	135 TWh
Circulators	July 2009	23TWh
Domestic refrigerators	July 2009	4 TWh
Televisions	July 2009	28 TWh
Domestic dishwashers	November 2010	2 TWh
Domestic washing machines	November 2010	1.5 TWh
Fans	March 2011	34 TWh
Air conditioners and comfort fans	March 2012	11 TWh
Total		366 TWh

ECO- EFFICIENCY



PRINCIPLES OF SUSTAINABILITY



- ✓ we can not extract more than can be safely contained or re-absorbed
- ✓ we must not disturb a delicate balance of ecology by introducing products that are alien to nature
- ✓ nature is our life-supporting system – we must not diminish it
- ✓ about equity – all people in the world need the benefits of nature – equally

Sustainability

- ✓ Process
- ✓ Taking into account financial, environmental, social and ethical issues
- ✓ Long term vision
- ✓ Modern development is focused on short-term economic benefit



Dimensions of sustainability

- Economic Performance
- Environment
- Human Rights
- Labour practices and decent work
- Society
- Product Responsibility

Categories used by Global Reporting Initiative (GRI)

Society (People)

Labor Practices & Decent Work Society and Customers Human Rights Ethical Behavior

Employment and Staffing Labor/Management Relations Project Health and Safety Training and Education Organizational Learning Diversity and Equal Opportunity Local Competence Development	Community Support Public Policy/Compliance Customer Health and Safety Product and Service Labeling Market Communications and Advertising Customer Privacy	Non-Discrimination Exploitative Child Labor Forced or Compulsory Labor	Investment and Procurement Practices Bribery and Corruption Anti-Competitive Behavior
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Environmental (Planet)

Transport Energy Water Consumption

Local Procurement Digital Communication Traveling and Commuting Logistics	Energy Consumption Co2 Emissions Clean Energy Return Renewable Energy	Water Quality Water Consumption Sanitary Water Displacement	Recycling Disposal Contamination and Pollution Waste
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Economic (Prosperity)

Return on Investment Business Agility Economic Stimulation

Benefit Cost Ratio Direct Financial Benefits External Rate of Return Internal Rate of Return Net Present Value	Flexibility/Optionality in the project Increased Business Flexibility	Local Economic Impact Indirect Benefits
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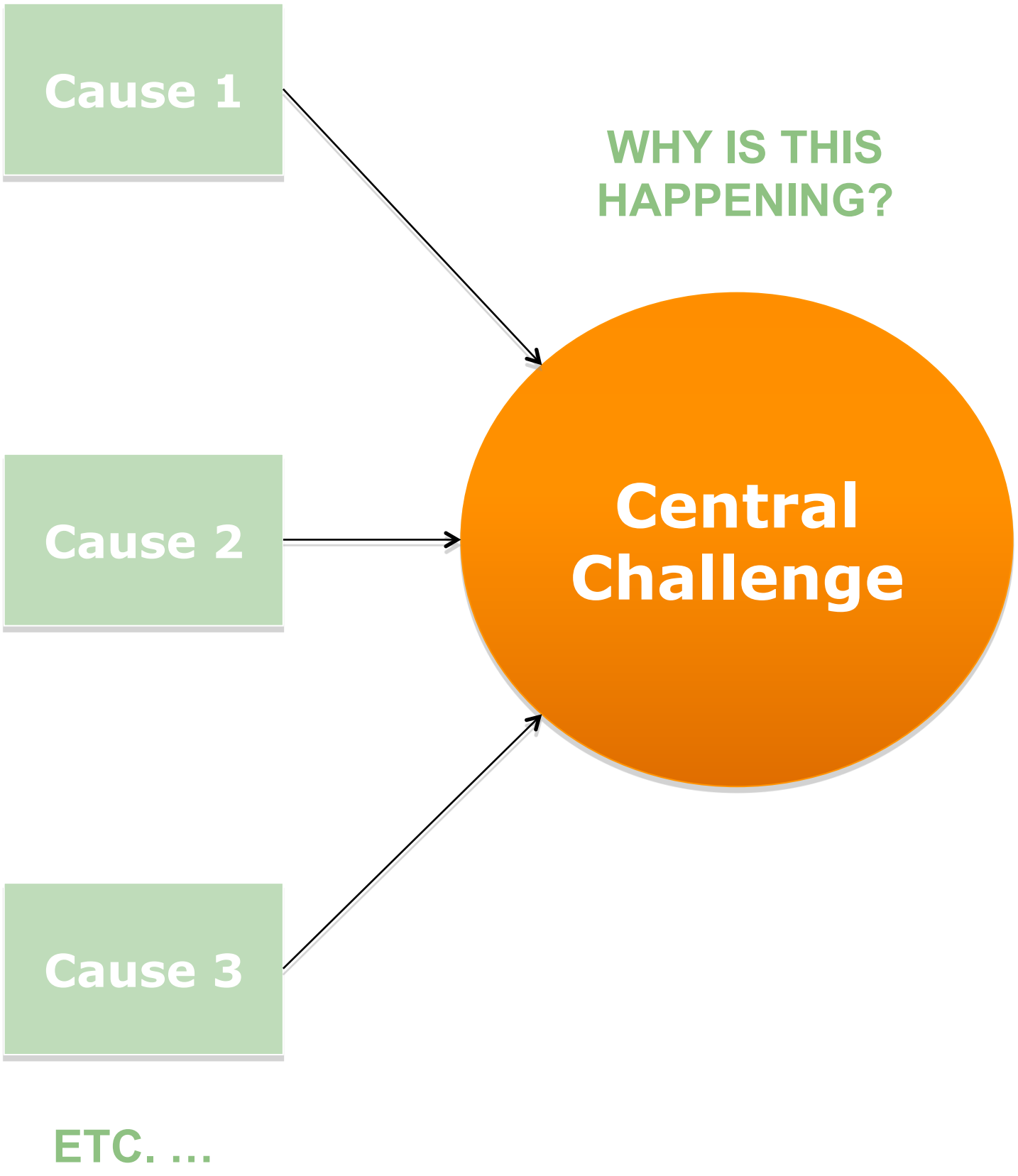
Group work: impacts of business

5 Steps

1. What is happening? Share **information** about the issue
2. Why it is happening? Think about the **causes**
3. Brainstorm **ideas**: ways to address and improve the issue
4. Make a **plan** about how to implement your ideas
5. To cap it off ... make a **commitment** to *do it!*

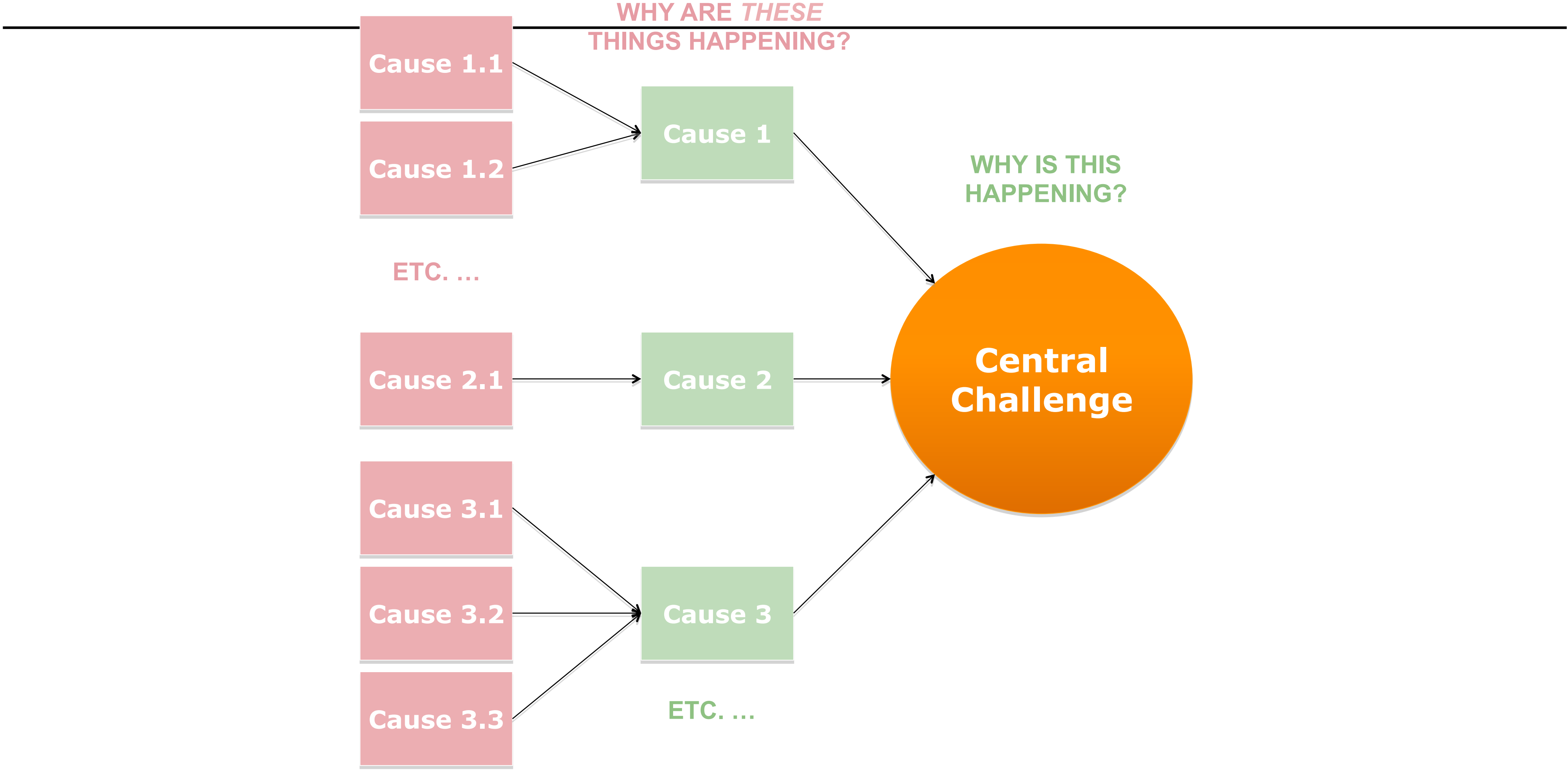
Why is it happening?

What are the causes of that Central Challenge we are facing?



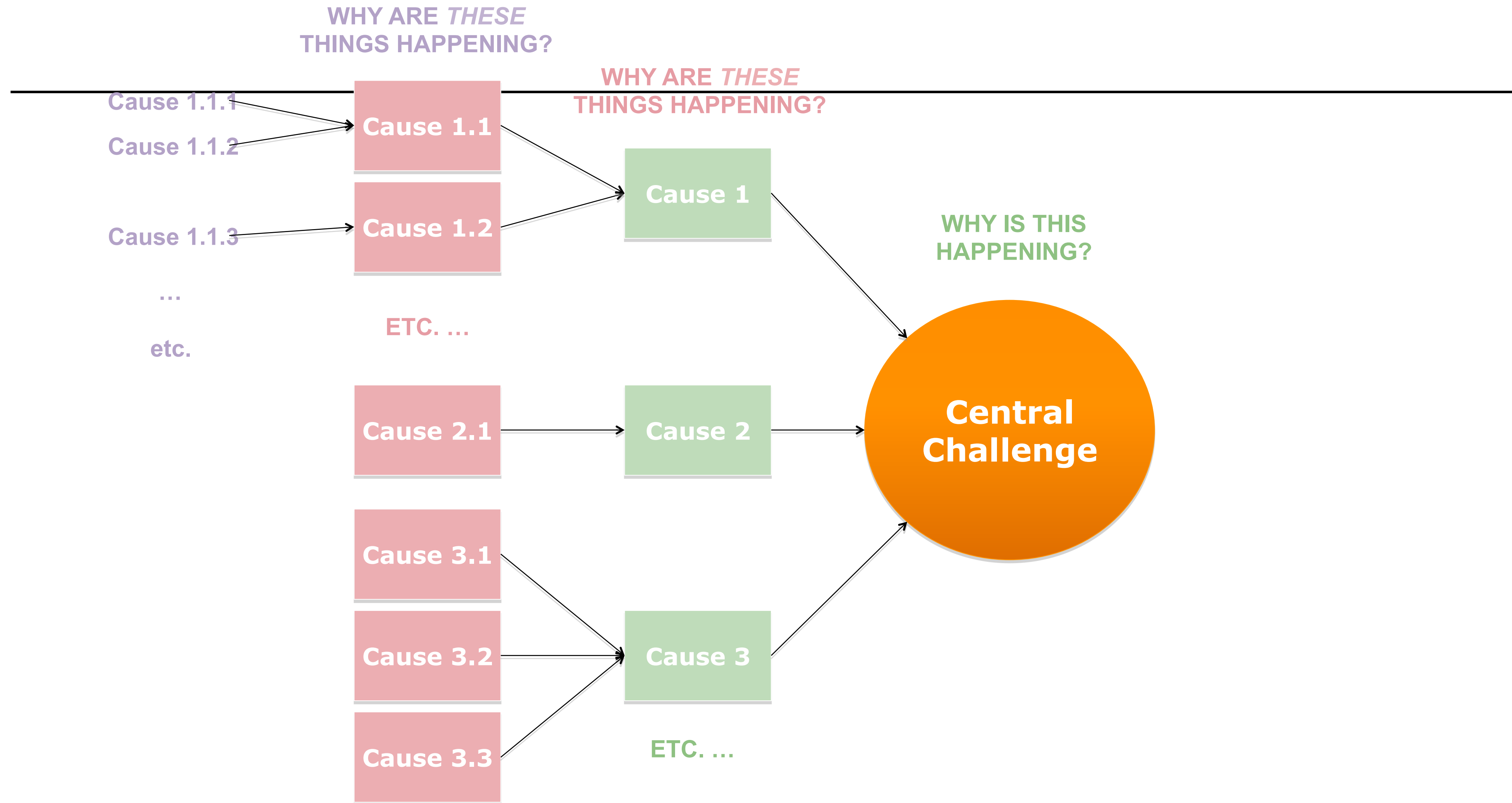
Why is it happening?

If you want to push the dialogue further ...



Why is it happening?

And still further! Until you feel you have a good understanding



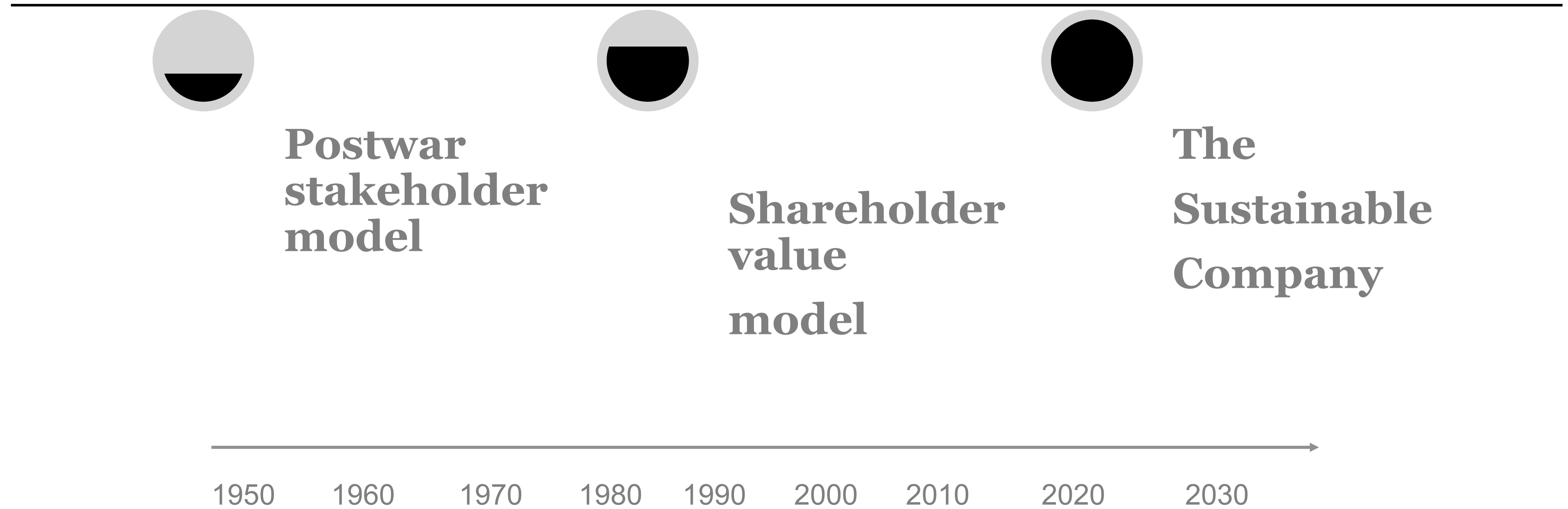
Sustainable and responsible business

Corporate Responsibility

Seriously considering the impact of a company's actions on society.

Requires the individual to consider his/her acts in terms of a whole social and environmental system, and holds him/her responsible for the effects of acts anywhere in that system.

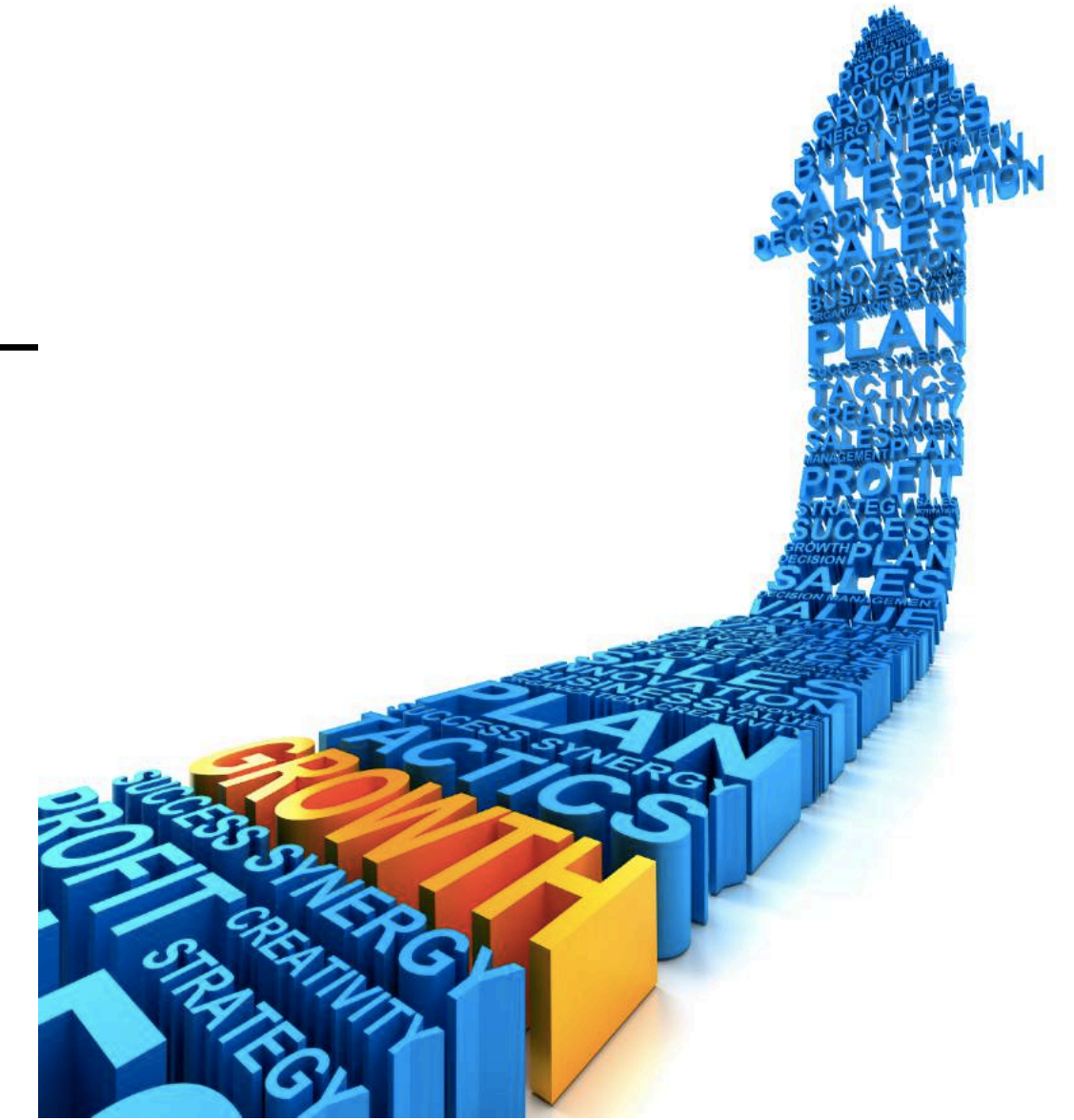
From CSR to Sustainable business



Growth is at the heart of the business model?

The 1970's doctrine of Milton Friedman:

“The social responsibility of business is to *increase its profits*”.



But the foundation of this model was developed at a time when we didn't comprehend the natural limits to growth.

Corporate social responsibility

organization takes responsibility of its decisions and operations on society and environment and follows the principles of transparent and ethical behavior, which:

- ✓ *meet the principles of sustainable development and social wellbeing;*
- ✓ *takes into account expectations of interest groups;*
- ✓ *comply existing laws and international norms;*
- ✓ *is integrated into the internal processes as well as external relations.*

According to ISO26000

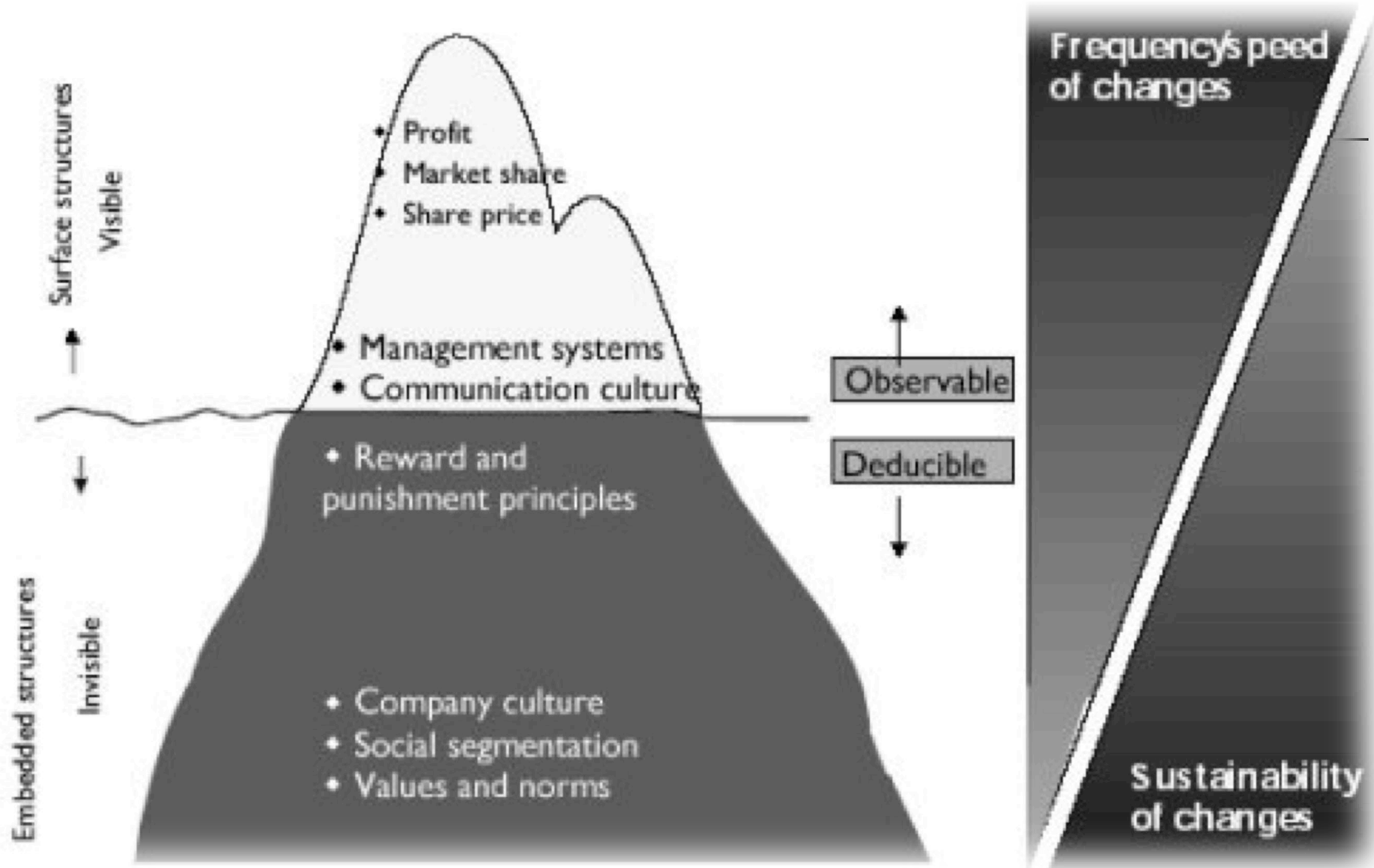
What?



How?



Why?



INSTRUMENTS AND MEASUREMENTS

UN Global Compact

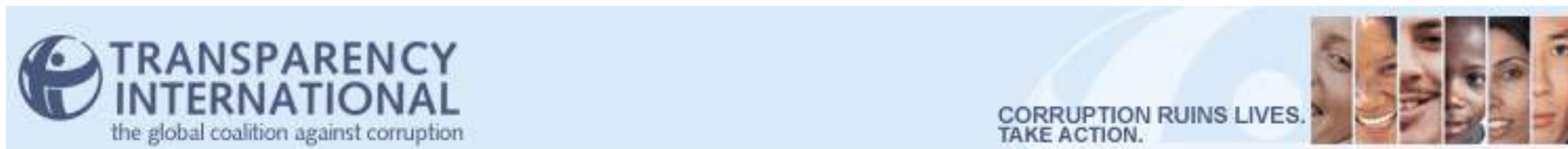




CARBON DISCLOSURE PROJECT



Initiatives on Sustainability and CSR for business



Ten Principles

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights

Principle 2: Make sure that they are not complicit in human rights abuses.

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;

Principle 4: The elimination of all forms of forced and compulsory labour;

Principle 5: The effective abolition of child labour; and

Principle 6: The elimination of discrimination in respect of employment and occupation.

Principle 7: Businesses should support a precautionary approach to environmental challenges;

Principle 8: Undertake initiatives to promote greater environmental responsibility; and

Principle 9: Encourage the development and diffusion of environmentally friendly technologies.

Principle 10: Businesses should work against all forms of corruption, including extortion and bribery.

25 September 2015, UN

2030 Agenda for Sustainable Development

a 'plan of action for people, planet, and prosperity'

the agenda includes 17 sustainable development goals for 169 targets



Measurement and management of business impacts on global sustainable development

www.global-value.eu



REALITY : cases

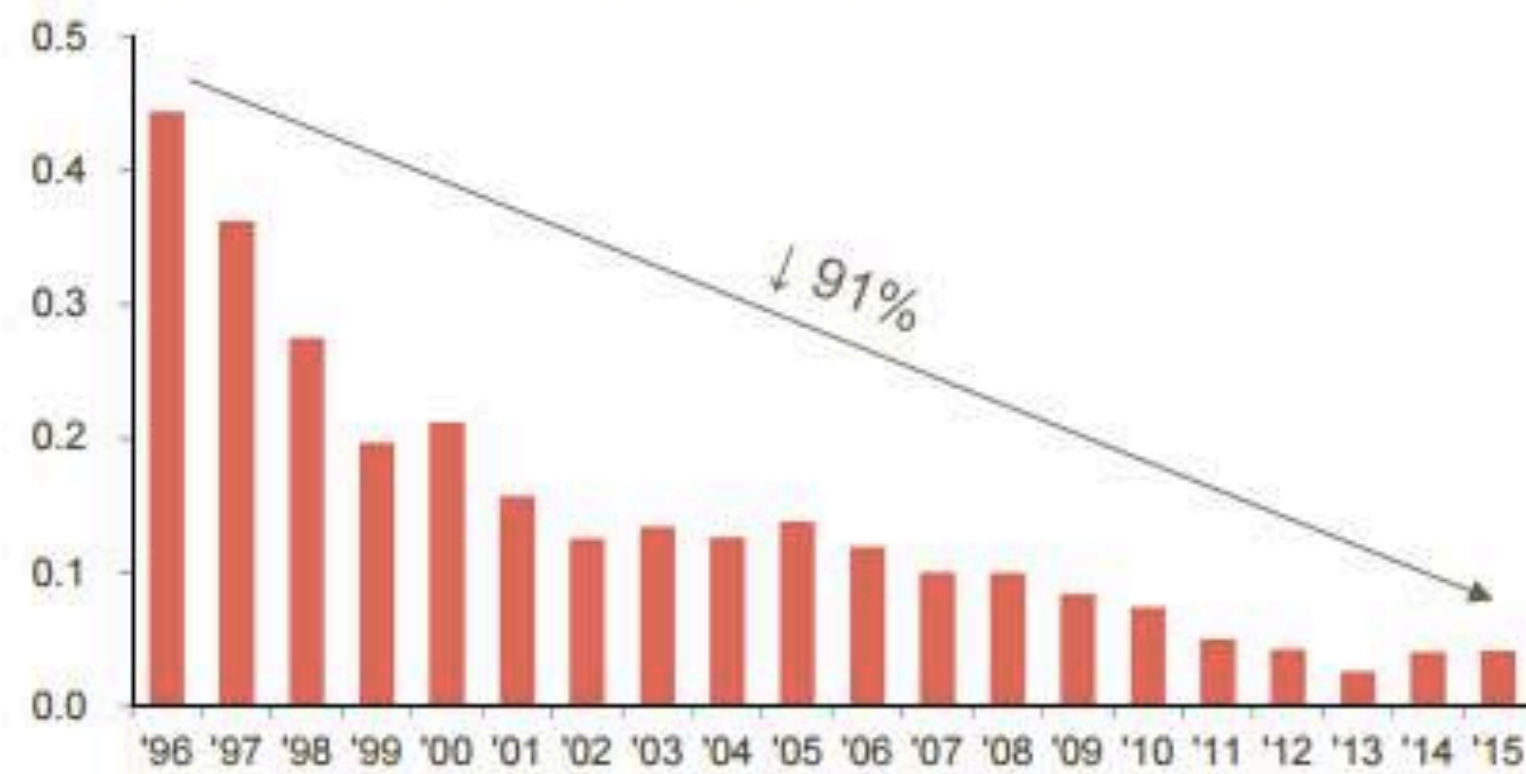
Interface

2016 NET SALES - \$ 958.6 MLN

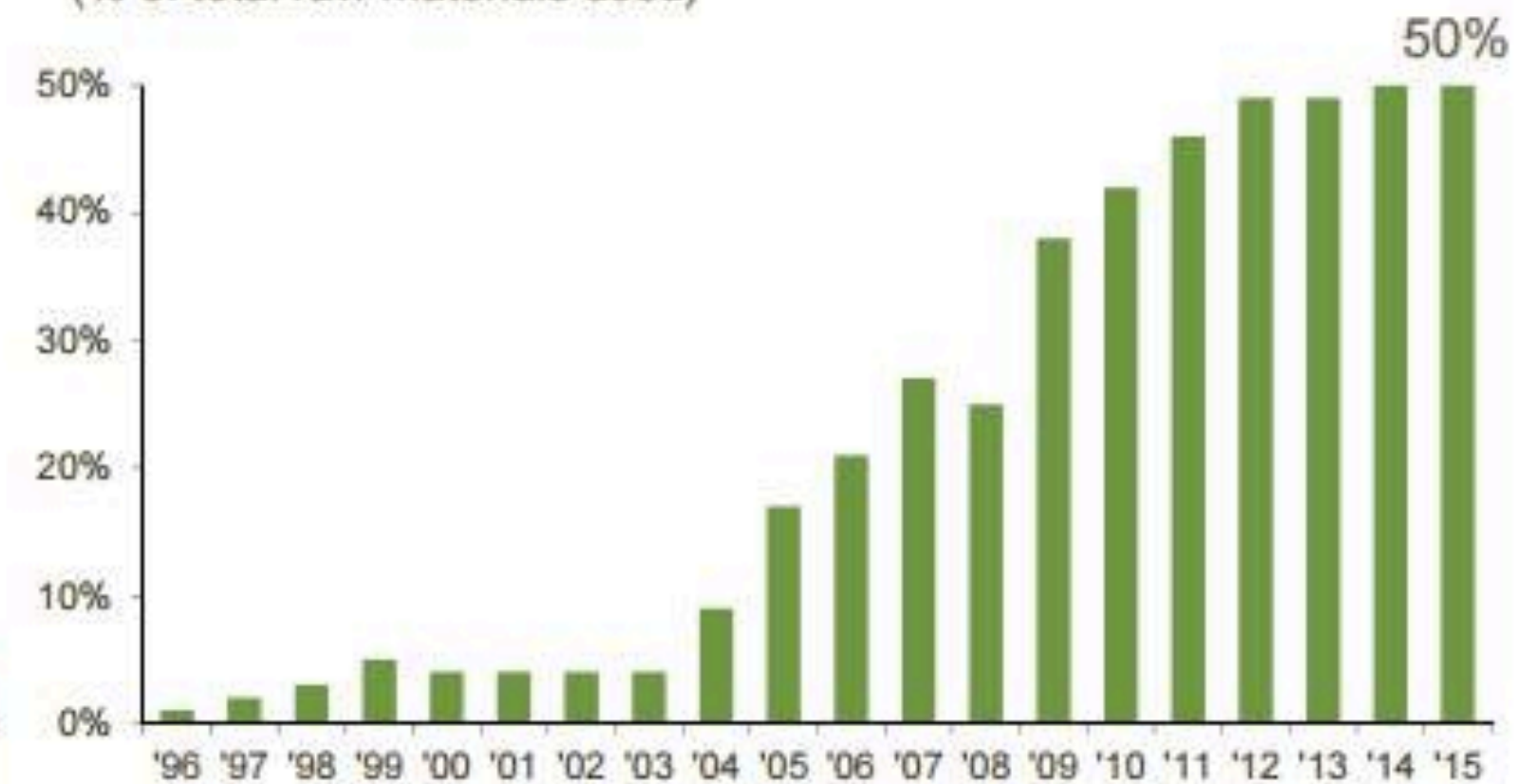


Sustainability: Mission Zero Goals

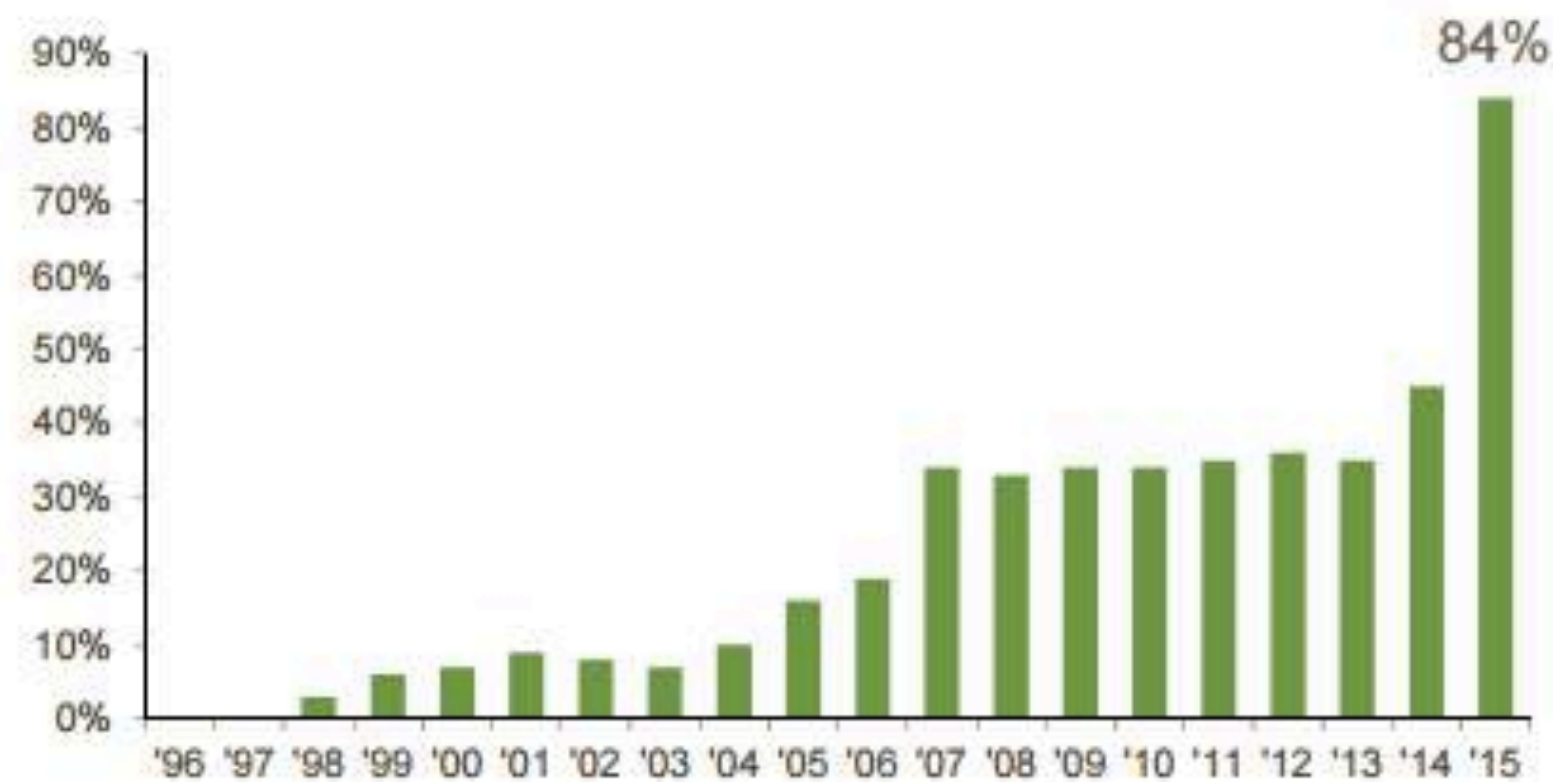
WASTE TO LANDFILLS
(pounds per square yard from carpet factories)



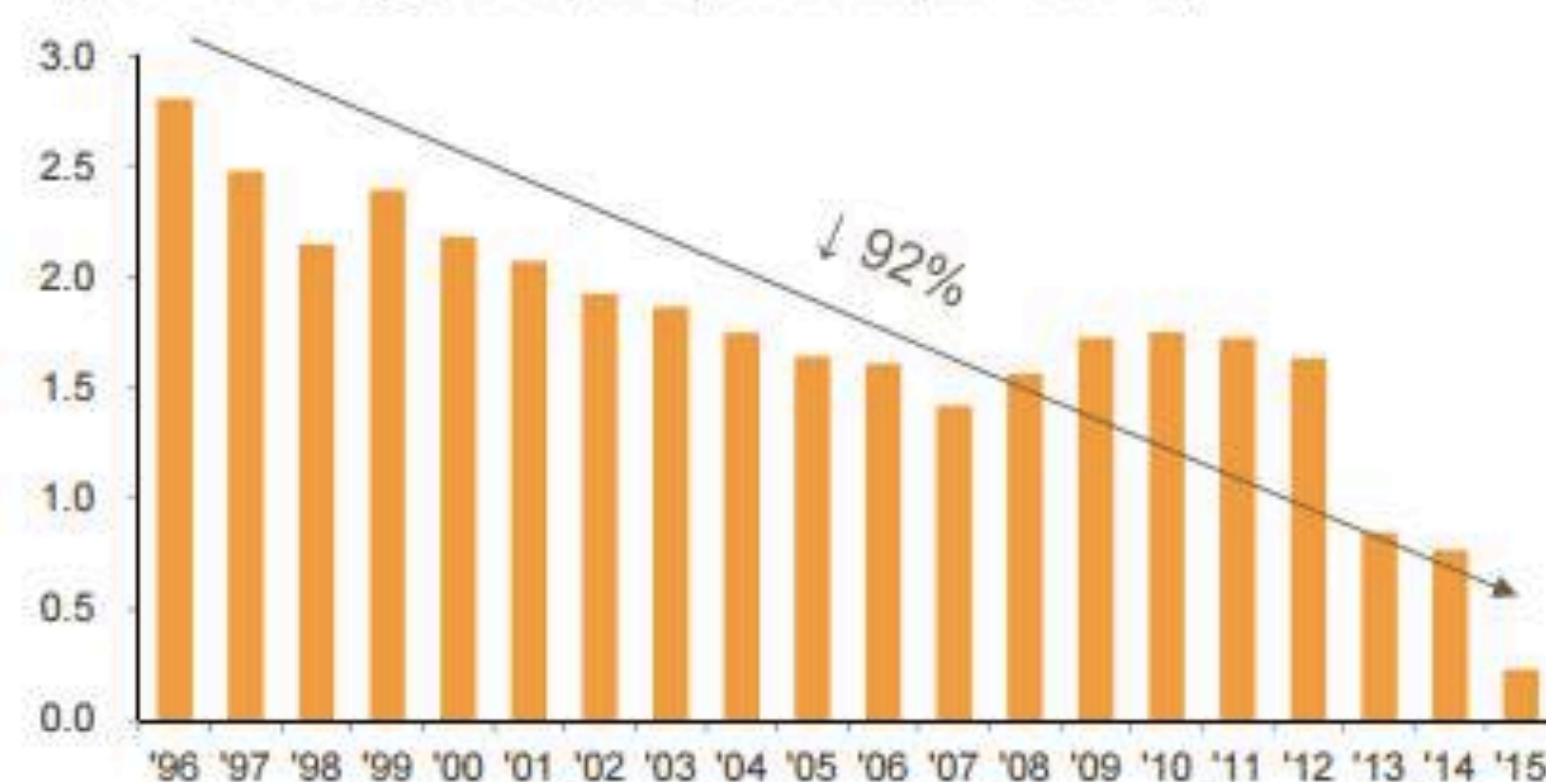
RECYCLED & BIOBASED MATERIALS
(% of total raw materials used)



RENEWABLE ENERGY
(% of total energy use at carpet factories)



GHG EMISSIONS
(pounds of CO₂e per square yard at carpet factories)



SOLVE SEVERAL PROBLEMS

**WASTE
CO2 OUTPUT
WOOD USE
CIRCULAR REUSE**



**WORKING
WITH
LOCAL
TEAMS**



**85%
OF HUSK
=
WASTE**

**ASIAN EXPORTERS NEED
1,700,000,000 PALLETS / YEAR
CURRENT SITUATION**



DEFORESTATION



TRANSPORT



PEST TREATMENT



END OF LIFE



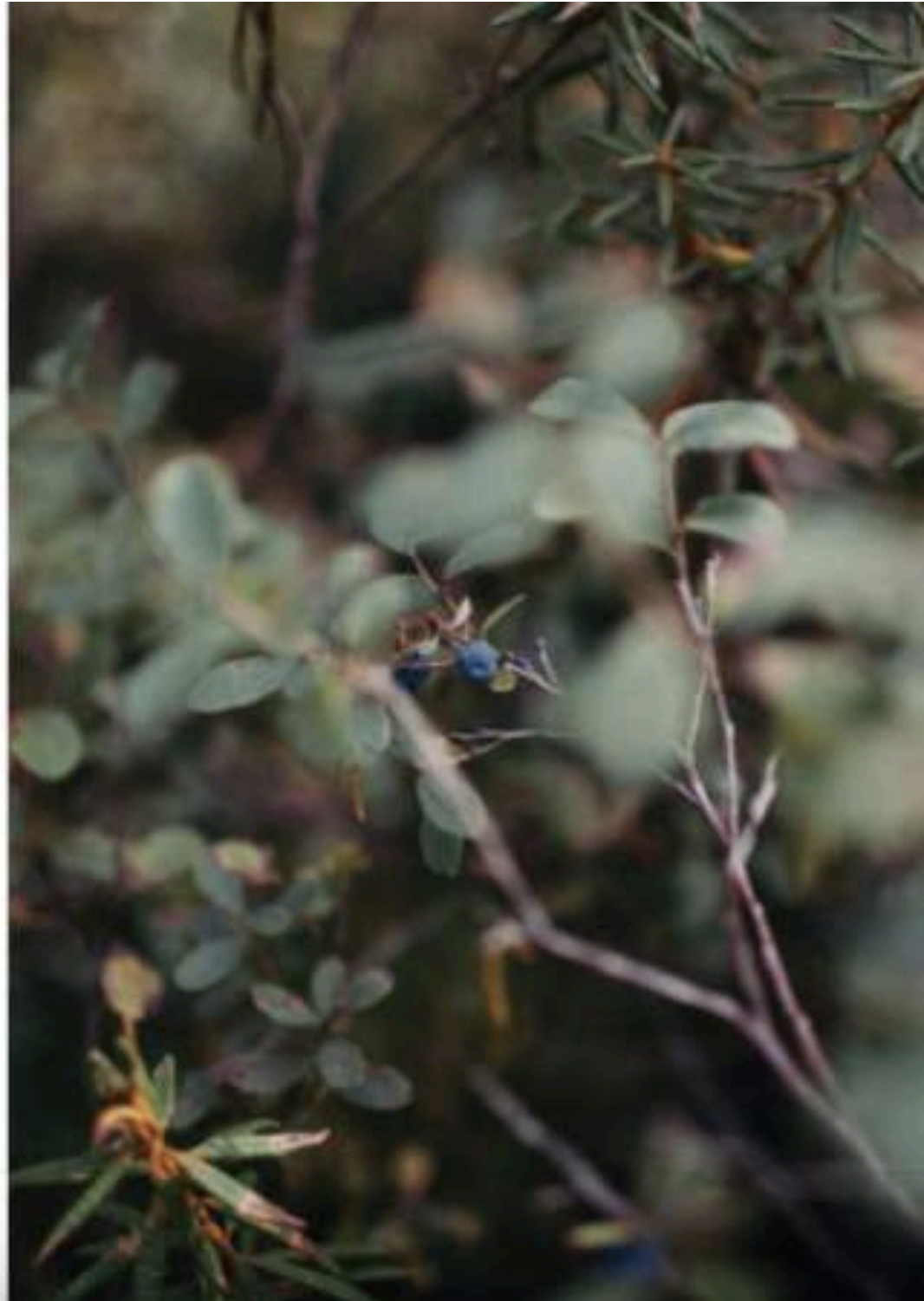
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RESERVATIONS MENU ABOUT US GARDEN SUPPLIERS & FRIENDS PRESS

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with truth and meals prepared from local ingredients in tune with the natural cycle of nature.

Our love affair with food began while looking for the simple answer of what defines our gastronomical tradition. In other words, who we, Lithuanians, are at the table and where our roots grow. It all started with reminiscing about the meals our mothers used to prepare and simple yet delicious desserts like blueberries with milk concocted by our grandmother.

The philosophy built from our own experiences and the desire to bring back the pride of who we are and where we live lands on the plates we bring to your table every day. We try to pass on the emotion of these foods by telling the stories and sharing our discoveries with our guests. We want you to know how diverse and unique Lithuania is. We want you to join us to experience the particularity of our cuisine by returning to its most simple ingredients – like beetroot, dill, or honey. This small step back is actually a big step forward, the beginning of a new journey full of heart-warming emotions. It is our table, our traditions, our childhood on a plate, our seasons, and our feelings; in fact, it is who we truly are.

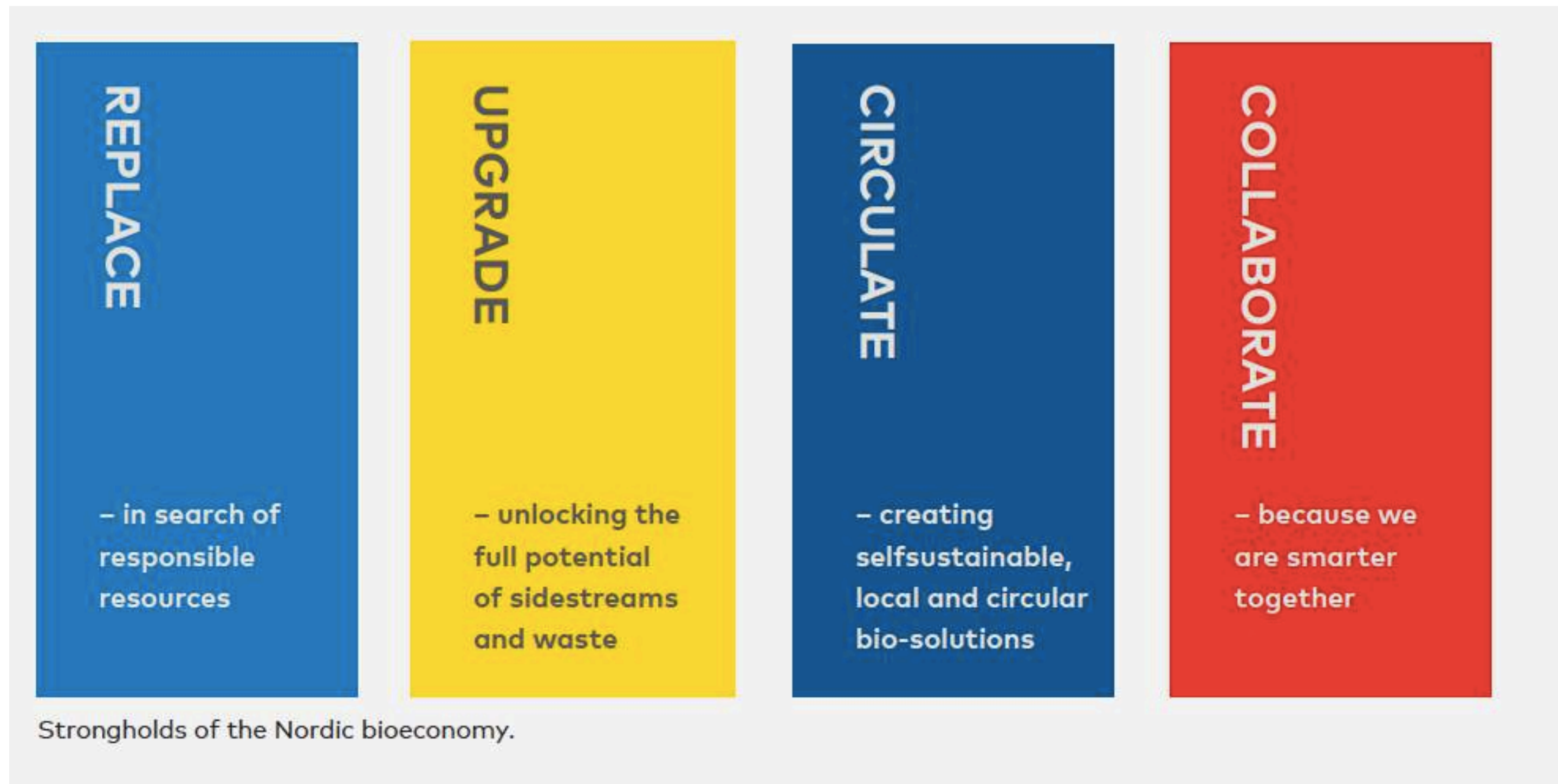
Sigitas Žemaitis

Ideas and visions mix in his head with daily routines and the aim for perfection. Sigitas regularly takes on the role of a general manager of the restaurant, and more often, that of waiter and storyteller.

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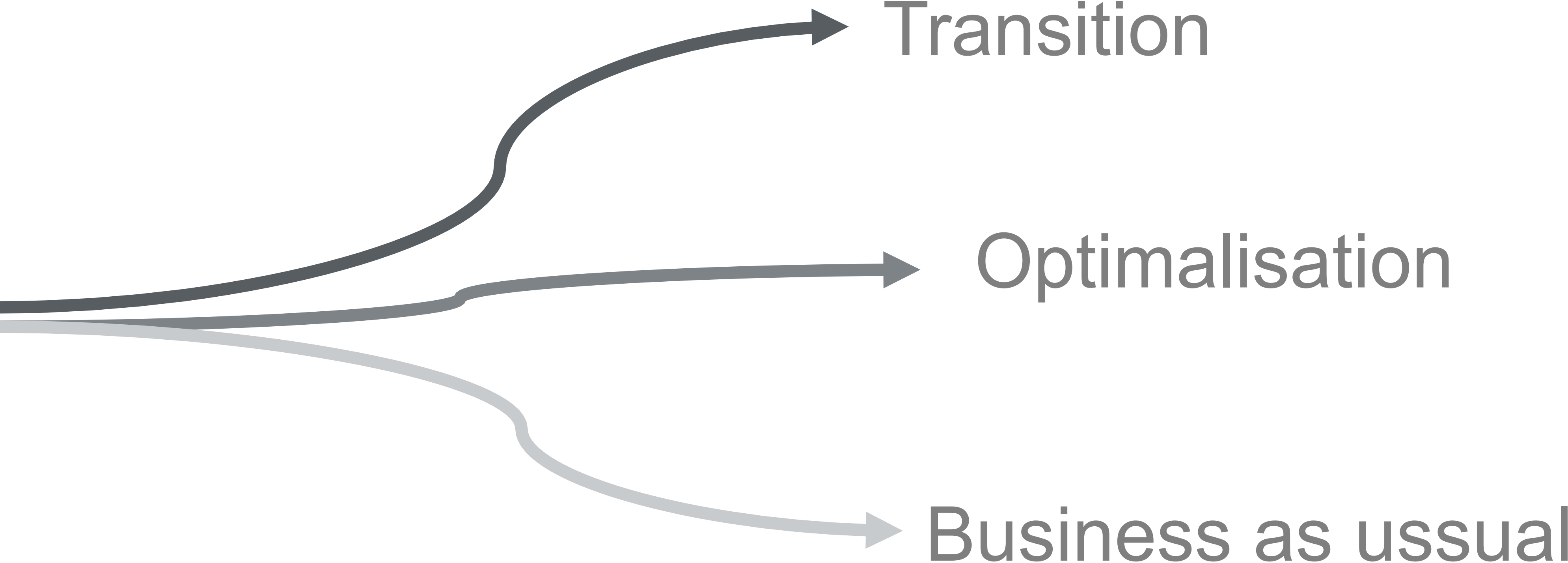
SWEET ROOT

Nordic approach



-
- 🍌 LOOK FOR TROUBLE, BIG PROBLEMS. THINK BIG
 - 🍌 MAKE SUSTAINABILITY AFFORDABLE & SCALEABLE
 - 🍌 DEVELOP/DESIGN WITH CIRCULARITY IN MIND
 - 🍌 FUND START UP WITH YOUR OWN MONEY, SUBSIDIES, GRANTS UNLESS....
 - 🍌 IT IS ALL ABOUT TEAM
 - 🍌 DRIVE
 - 🍌 EAGERNESS
 - 🍌 DIVERSITY
 - 🍌 MAKE SURE YOU UNDERSTAND THE WHOLE CHAIN
 - 🍌 FAIR SHARE PRINCIPLE
 - 🍌 MEET CUSTOMERS
 - 🍌 HAVE GRIT

CHOICE is yours



Transition

Optimisation

Business as usual



***rerum cognoscere
causas***

(to understand the causes of
things)

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