

Seminar on Circular Economy and Biodiversity

"The mutual benefits of a circular economy for business and biodiversity - a value-driven approach": this was the title of a seminar held in The Hague on 7 April 2014. It was organised by the Louis Bolk Institute and the Ministry of Economic Affairs of the Netherlands and attended by around 80 persons from the business world, NGOs, science and government.



Keynote spreker was **Robert ter Kuile**, Senior Director Environmental Sustainability and Global Public Policy van PepsiCo (See presentation below). PepsiCo aims at 'Performance with Purpose' and invests in innovation through a network approach in order to add value to nature, health and welfare. The company's largest impact within its value chain is in the agro-sector, packaging and transport. Ter Kuile called on governments to decide at the global level which social urgencies should be addressed by the business world, and to facilitate decentralised action to solve those urgencies. He also argued that leading multinationals should share their knowledge with small and medium enterprises (SMEs). In contrast with large companies, SMEs have few resources to experiment with sustainability concepts. Yet it is crucial that they participate in the Circular Economy in order to achieve the sustainability goals as established by the World Business Council for Sustainable Development (WBCSD) in its Vision2050.

The seminar was opened by **Rob van Brouwershaven**, Director for Nature and Biodiversity of the Ministry of Economic Affairs. Further presentations were given by **Sjef Staps** (Louis Bolk Institute) and **Douwe Jan Joustra** (One Planet Architectural Institute). In addition, **Bette Harms** (IUCN-NL), **William Visser** (RVO) and **Chloë de Roos Feinberg** (Circle Economy) presented brief 'pitches' about their work on the circular economy. Finally, **Klaas van Egmond** (Utrecht University) summed up the discussion and presented conclusions. The audience took active part in the discussions which were chaired by **Hadassah de Boer**, well known in the Netherlands from her former tv talkshows.



Rob van Brouwershaven in his opening speech stressed that the government of the Netherlands encourages and facilitates the development towards a 'green' and circular economy along two pathways: 1) support to networks such as Leaders for Nature and the Biodiversity, Ecology and Economy Platform (Platform BEE), and 2) the publication of a new long-term vision on nature in which a connection is made between nature and economy. *(this vision was published on 11 April titled Natuurlijk Verder, Rijksnatuurvisie 2014, ('Naturally Onwards, the Dutch government's vision on nature', in Dutch) - editor's note).*

Sjef Staps is the author of the book 'Over de crisis niets dan goeds' ('Nothing but good about the crisis', in Dutch) from which this seminar originated (See presentation below). The book consists of interviews with 25 experts about the climate and biodiversity crisis. Several interviewees - Robert ter Kuile included - concluded that circular economy might provide a way out of the crisis.



Douwe Jan Joustra explained how his own company (OPAi) applies circular concepts (See presentation below). One of their principles is to focus not on acquiring physical equipment but to focus on the use of it instead. For instance, instead of purchasing lamps, they lease the use of light. He also stressed that we should learn from nature if humanity is to survive.

Klaas van Egmond addressed questions from the audience, e.g. on the role of the government. He concluded that: 1) even within the existing concepts much more efficiency could be reached (e.g. for climate change), already in our own country and in the EU; 2) the government should make the business case for change by simplifying conditions and creating (financial) incentives; and 3) we should give the younger generation the opportunity to change.



Pitches

Bette Harms, [Leaders for Nature:](#)

Leaders for Nature is the IUCN NL business engagement network multinationals and major Dutch enterprises working together on greening the economy. Within each of these companies, professionals from three management levels are joining forces to incorporate natural capital in their core business and take the lead in the transition towards a green and sustainable economy. By following the six step process outlined by Leaders for Nature, each member company is taking action to accomplish net positive impact on biodiversity and ecosystems. This means that they contribute to biodiversity and ecosystem conservation while minimizing the negative effects of their business activities, ensuring that any use of natural resources is sustainable. Leaders for Nature guides her member companies through every step of this process, offering inspiration, knowledge & training and hands-on project support. Currently, the Dutch Leaders for Nature network consists of ABN AMRO, AkzoNobel, Arcadis, Cofely, Desso, DSM, Eneco, Essent, FMO, FrieslandCampina, IBM, ING, Interface, KLM, Nutreco, Philips, PwC, the Port of Amsterdam and Shell. As part of the wider IUCN network, Leaders for Nature offers the platform for companies to not only work together with other companies, but to also connect with partners such as NGOs, governments and academic institutions. Go to our website for the full overview of our programme: www.leadersfornature.nl

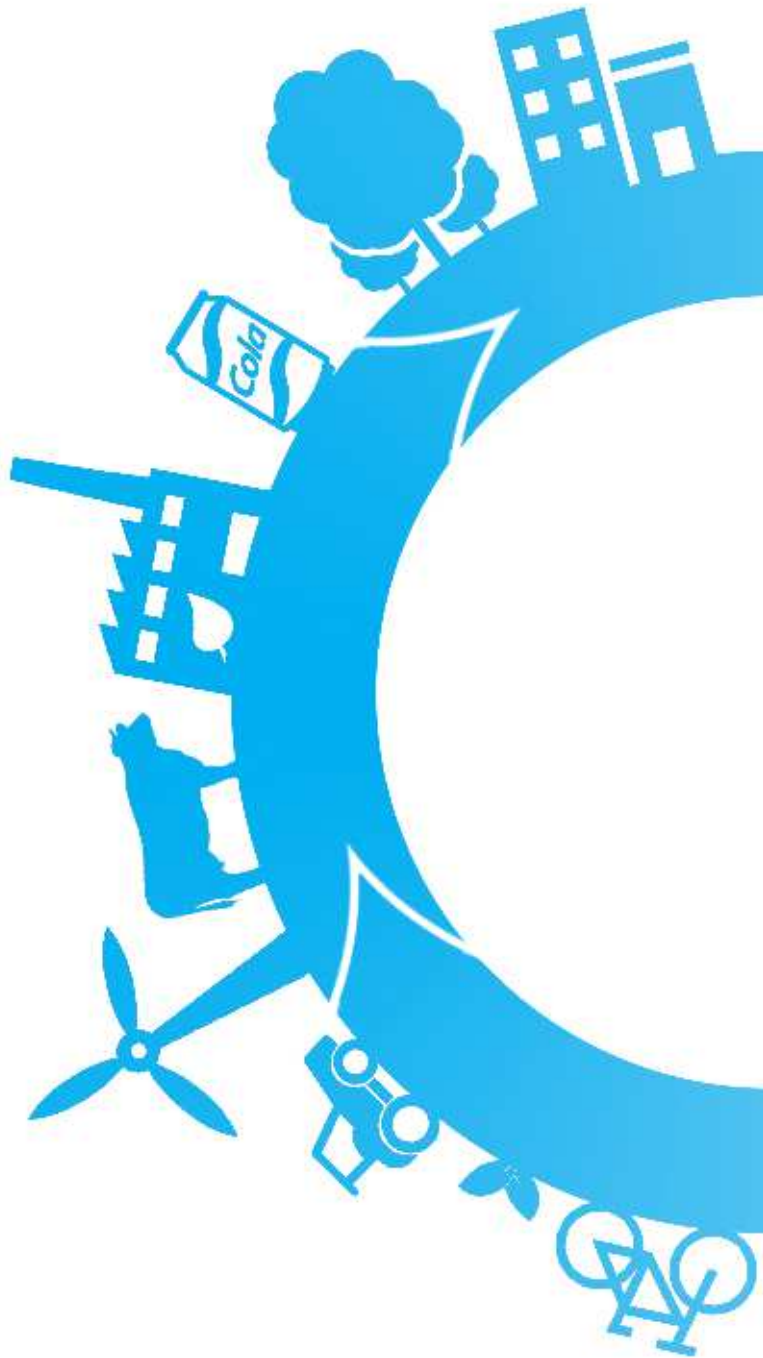
Chloë de Roos Feinberg, [Circle Economy:](#)

Circle Economy is a non-profit organization working to accelerate the transition to a circular economy. Set up as a member-based cooperative, CE works with a diverse group of members and partners ranging from multinational companies, corporations, start-ups, local and regional governments, and research and knowledge institutions with the belief that impactful systems change is only possible with a group of multi-stakeholders working together to find new solutions and put them into action. Circle Economy works in two main ways. The first is by working with our members on member-based projects as all members commit to creating a circular initiative within their organization as part of CE membership. CE uses different methodologies based on systems-thinking to ensure that the circular initiatives can have systems impact. The second area of work is on our independent research which includes the creation of a Circular Framework, research that is useful to the field (e.g. addressing the legal barriers of the circular economy), material and resource-flow databases and more. The knowledge and information gained from working with members and the independent research are constantly being used to inform the other to ensure that CE and the impact we have is relevant, timely, and most of all

useful to a wide range of stakeholders. More information can be found at www.circle-economy.com

William Visser, [Netherlands Enterprise Agency \(RVO\)](#):

pitch only available in Dutch.



Robert ter Kuile

Senior Director
Environmental Sustainability
and Global Public Policy

PepsiCo (USA)



What comes to mind when thinking about PepsiCo?





Global Beverages



Global Snacks



Global Nutrition

Performance



**More than
\$65 billion**
revenue

Brands



22
billion-dollar
brands

Scale



>200
countries
& territories

People

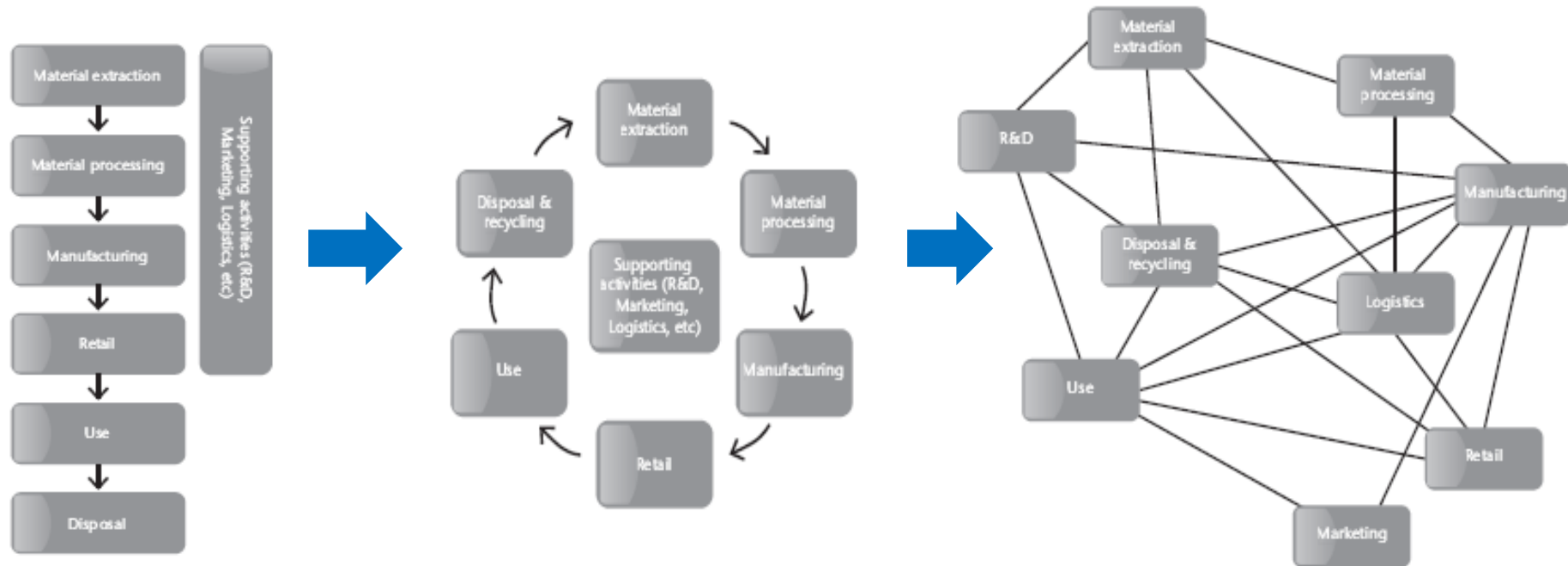


~265,000
employees

Performance with Purpose



The WBCSD Sustainable Consumption **Value Net**



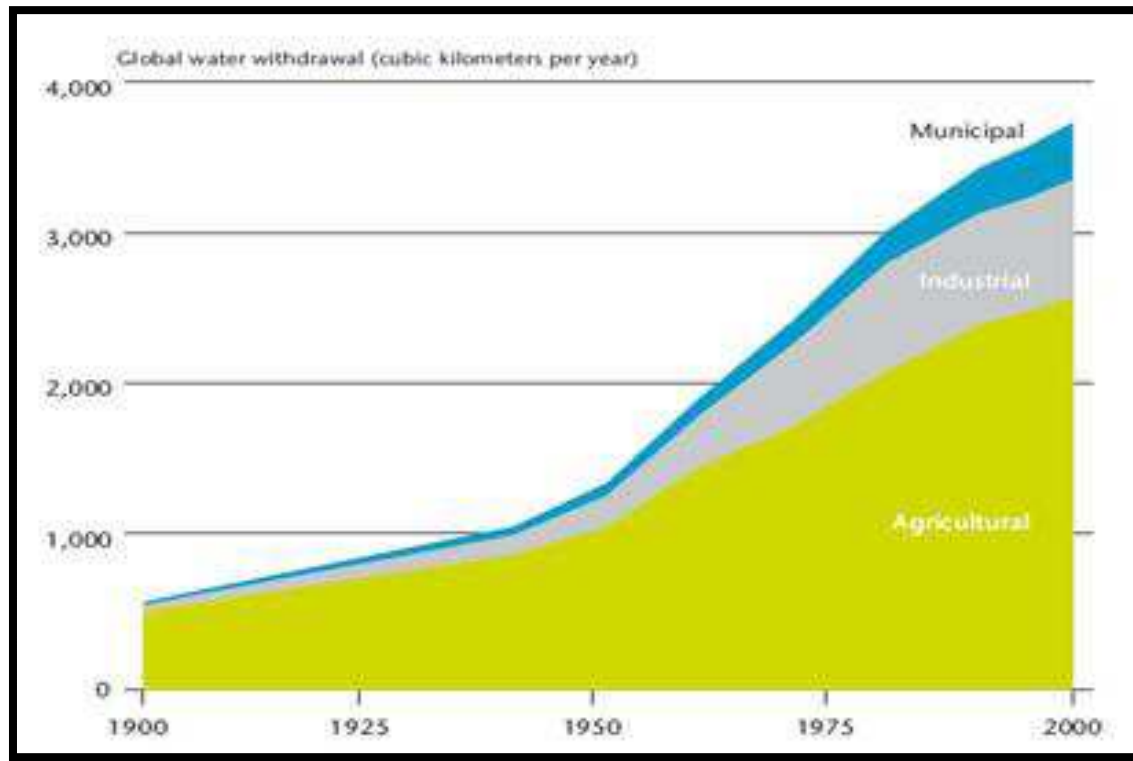
Sustainable Consumption Begins in PepsiCo's



PepsiCo's *supply chain* decisions create market signals to build a Value Net

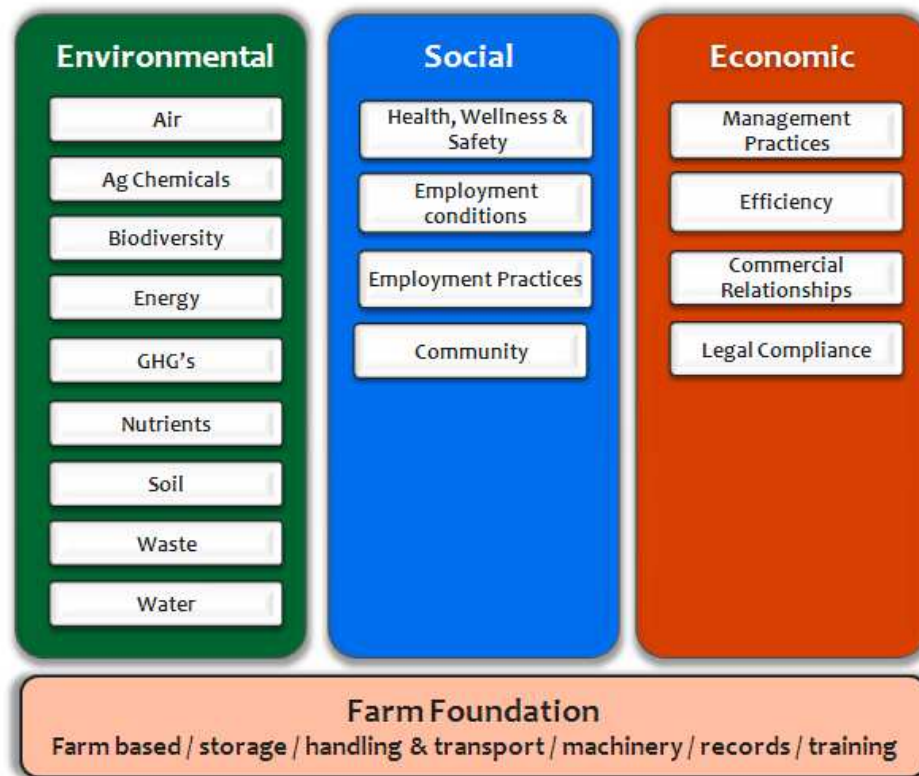






It takes approx. >30 times the water to “grow” 1000 kg of potato crisps vs. process them.

PepsiCo's Sustainable Farming Initiative is addressing *water* and other links



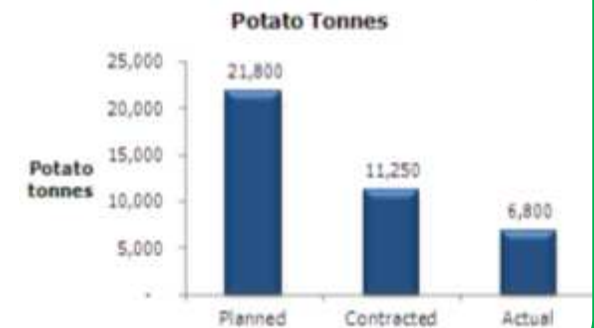
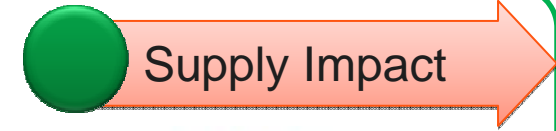
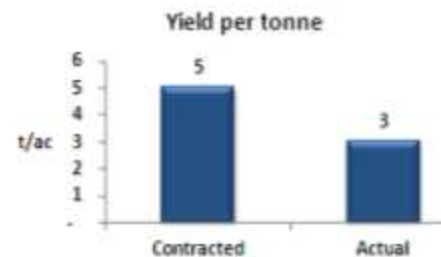
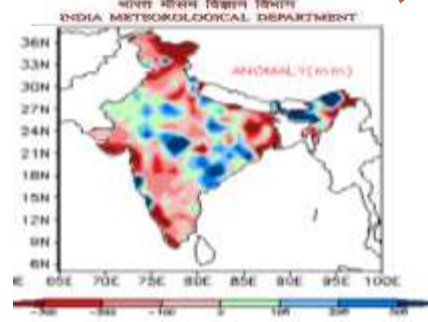
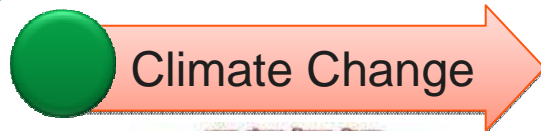
FL 1963 - Spain 2000



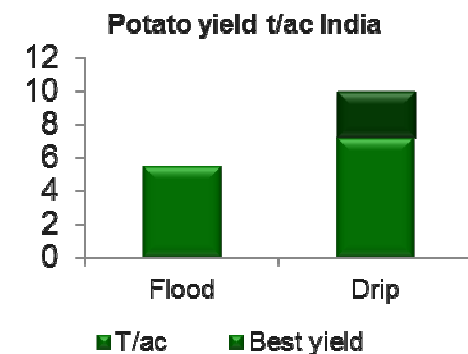
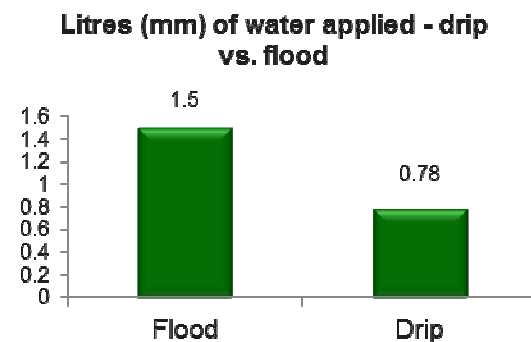
i-crop™

Focusing on the RIGHT LINKS can reduce VOLATILITY, while delivering PRODUCTIVITY and SECURITY in the SUPPLY CHAIN

MANAGING VOLATILITY



IMPROVING SECURITY



PepsiCo Still has *Questions*



What is the **Best Way** to *value* *Natural Capital?*



wbcd **business ecosystems training**



WORLD
RESOURCES
INSTITUTE



How do you **Fully Integrate this** *into*
the business?

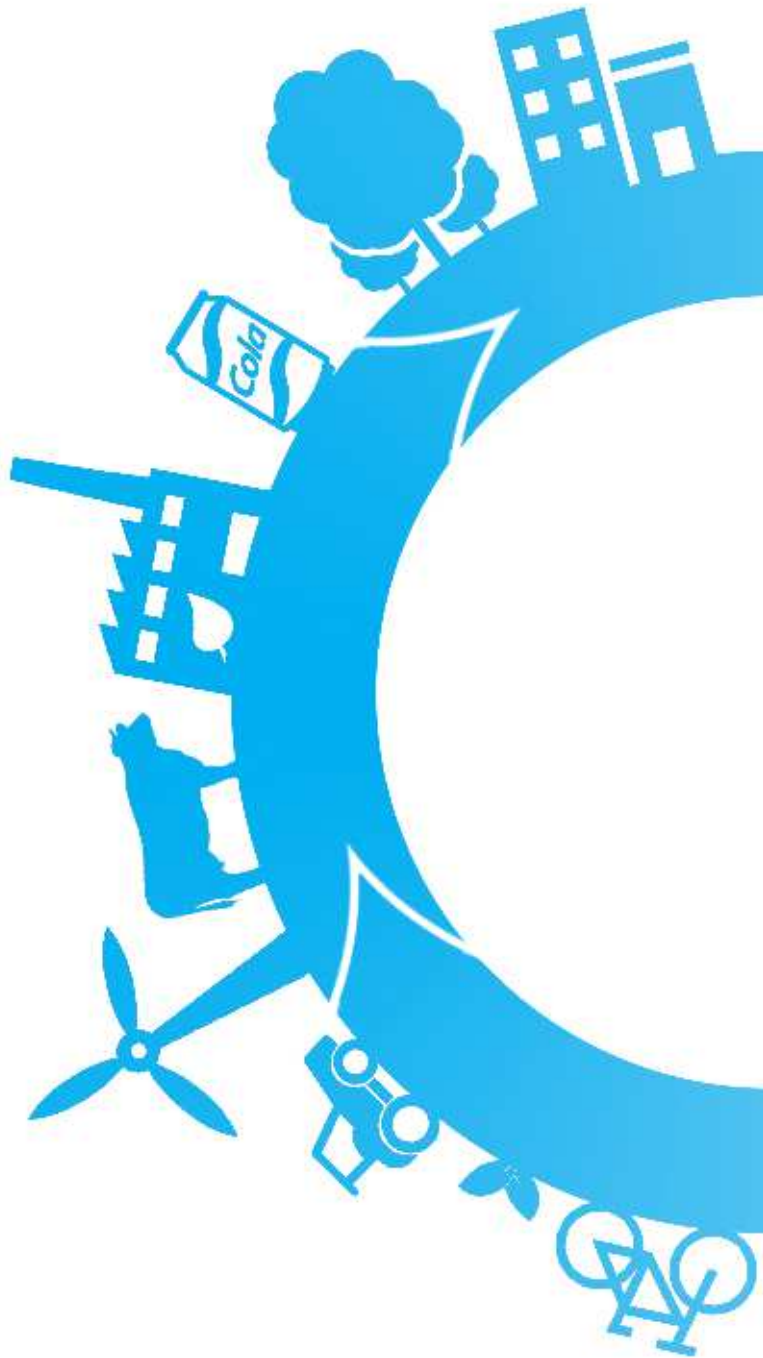
SCALE UP



Dank je wel!



Performance With Purpose

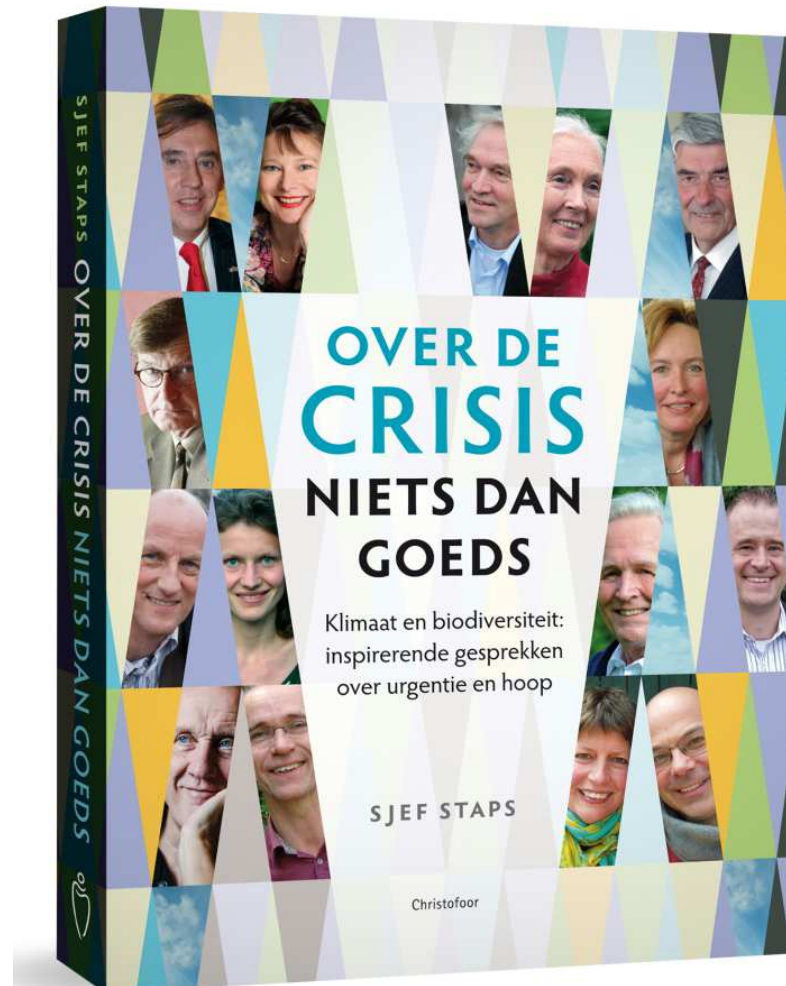


Sjef Staps

Project Manager Sustainable
Development

Louis Bolk Institute

‘Nothing but good about the crisis’

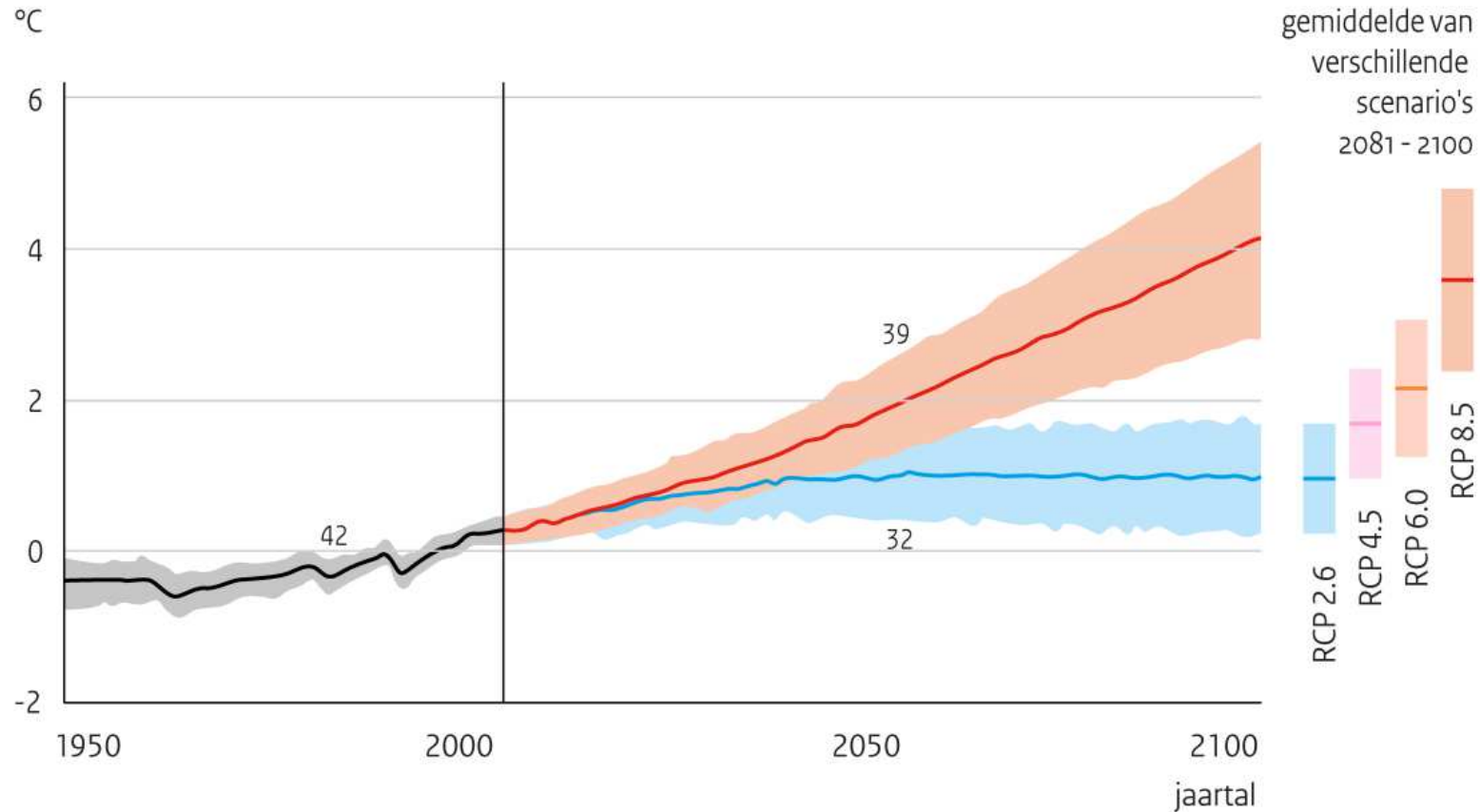


Contents

- **Introduction: why this book?**
- From the interviews: Circular Economy
- Promising cases agriculture
- Completion



Mean change in global surface temperature

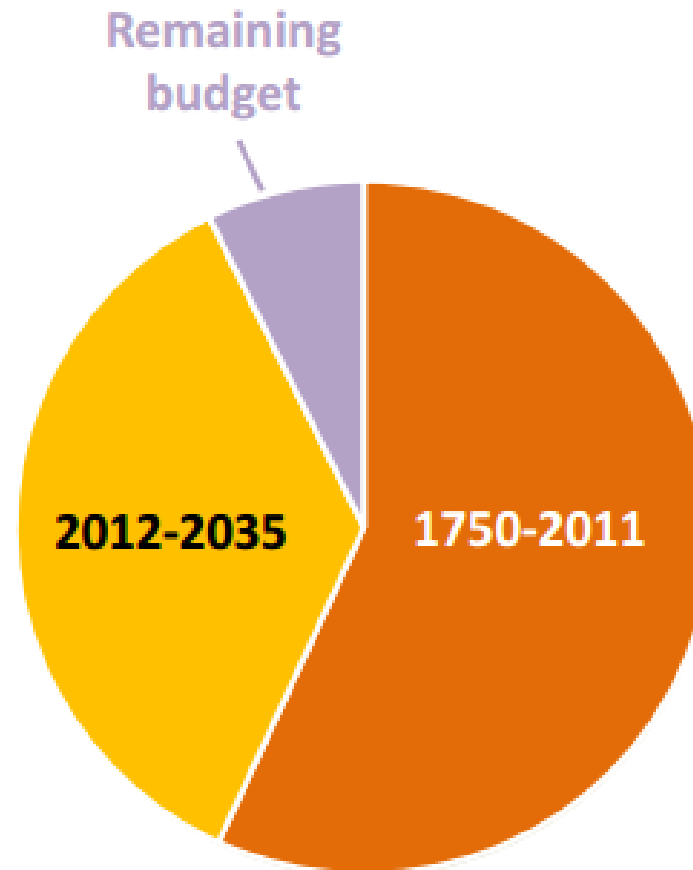
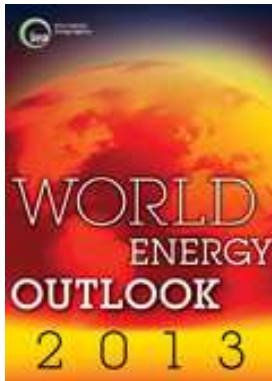


- Historisch
- Rood scenario 8.5: geen klimaatbeleid
- Blauw scenario 2.6: ambitieus klimaatbeleid

Bron: Intergovernmental Panel on Climate Change, 2013: Summary for Policy Makers
Working Group 1: Climate Change: The Physical Science Basis

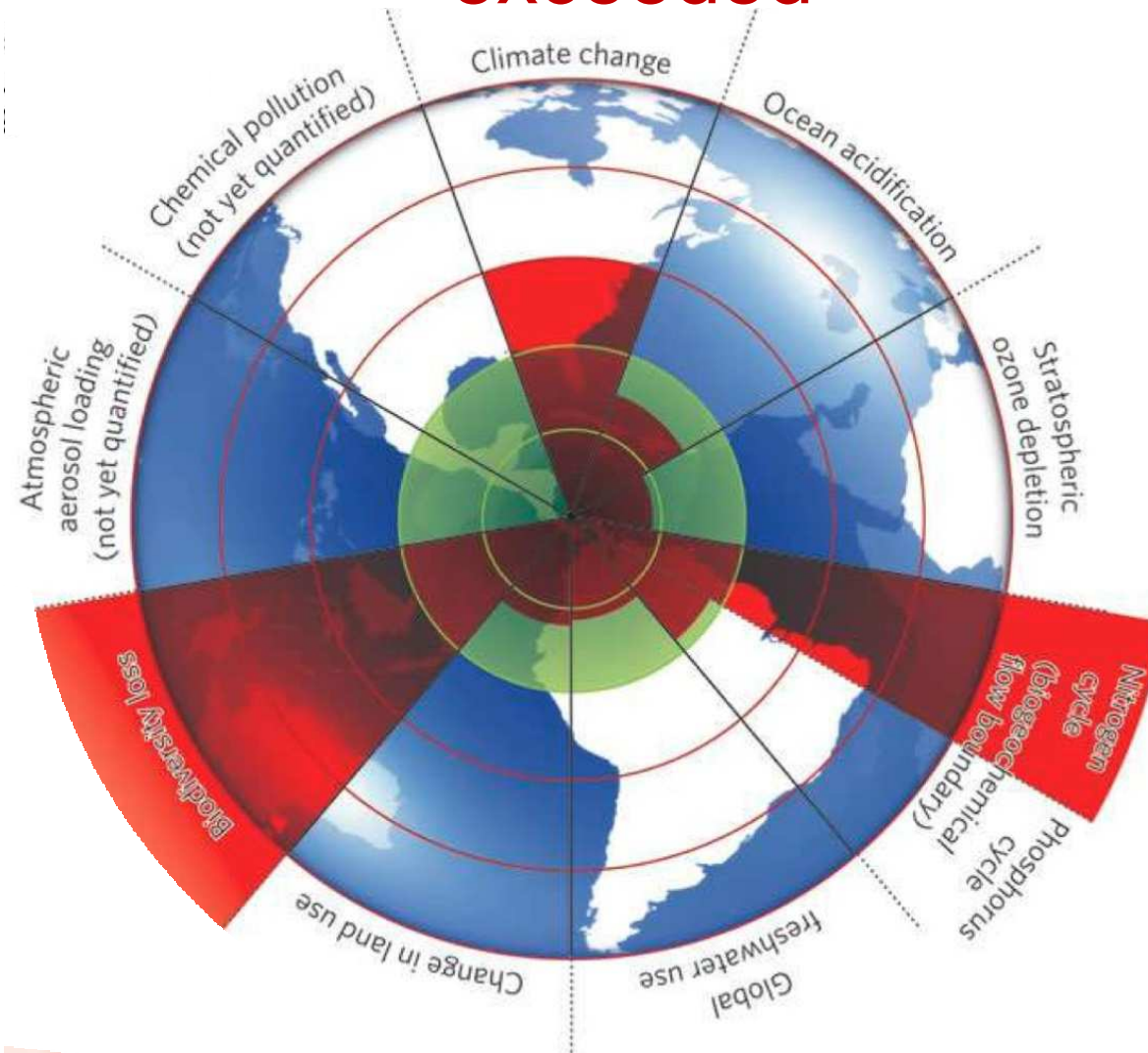
Fossil energy budget for future generations

'Carbon budget' for 2 °C



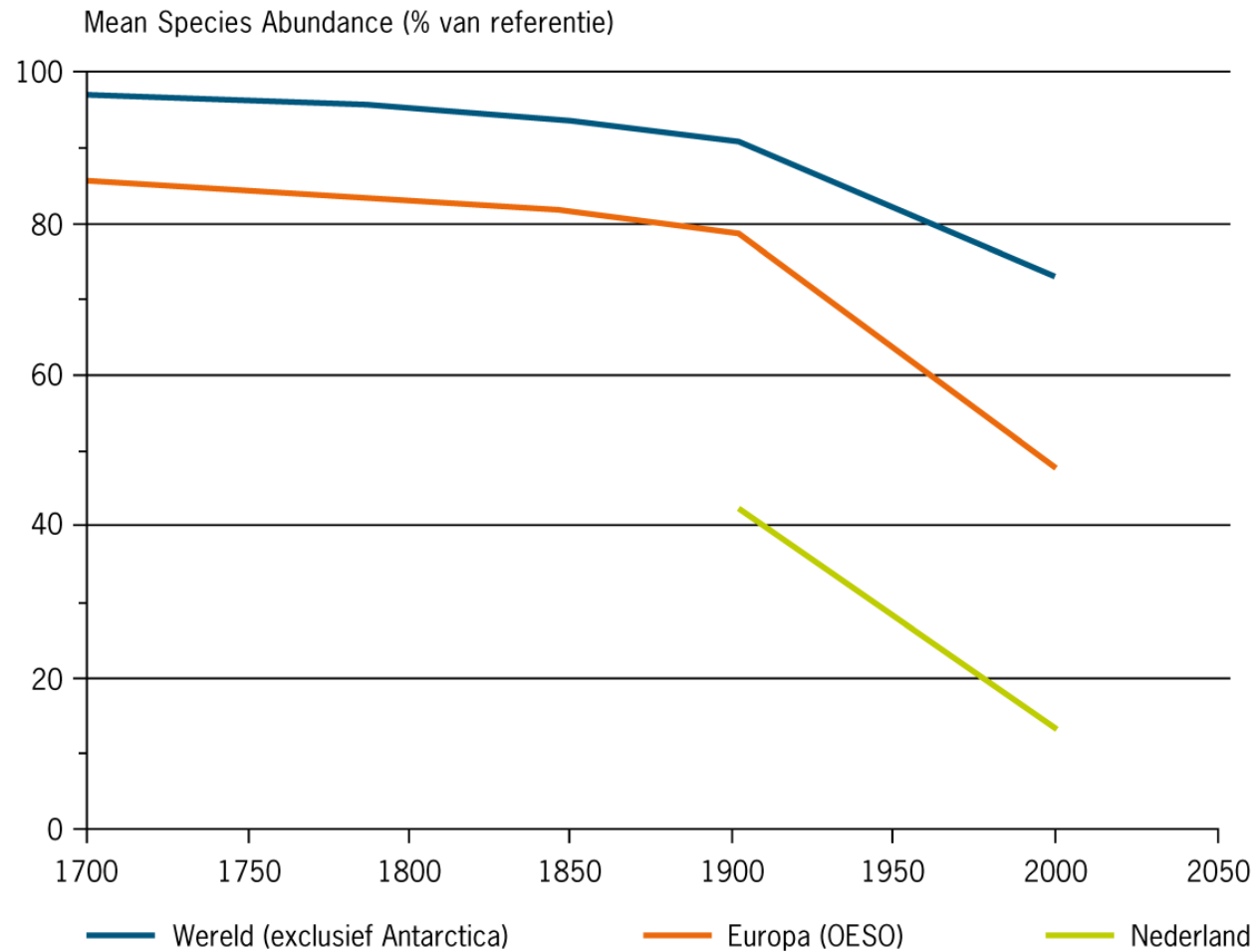
© OECD/IEA 2013

Carrying capacity of the earth is being exceeded



Rockström, 2009

Loss of biodiversity (Mean Species Abundance)



Current course is dramatic

- Biodiversity: substantial decrease
- Climate: goal of max 2° increase will not be reached (IPCC)

Urgent need for an alternative course

Reason for this book:



Giant climate and biodiversity crisis,
but...

...society doesn't want to hear about it



Illustration Wietske ter Veld

Method



- 25 experts interviewed
- Broad group of experts: science, industry, politicians, policy makers, NGOs
- Questions about urgency and hope
- Broad target group; from citizen to expert

Contents

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Heading for a Circular Economy with nature as example

- Value of Global Ecosystem Services: 2x GWP (Gross World Product)
- Nature as example: has been successful for 3.5 billion years
- From '*take, make and waste*' to a Circular Economy (e.g., phosphate)
- Required: shift to renewable raw materials
- Producer becomes provider

*Louise Vet
Director Netherlands Institute of Ecology (NIOO)*



Learning from nature

- Many systems are not working properly anymore
- Survival is only possible by learning from nature.
- Agriculture: there is no other way than an eco-efficient agriculture system

Rob van Brouwershaven
Director Nature and biodiversity, Ministry of Economic Affairs

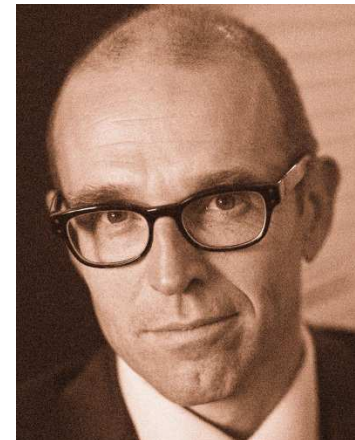


Heading for a sustainable society

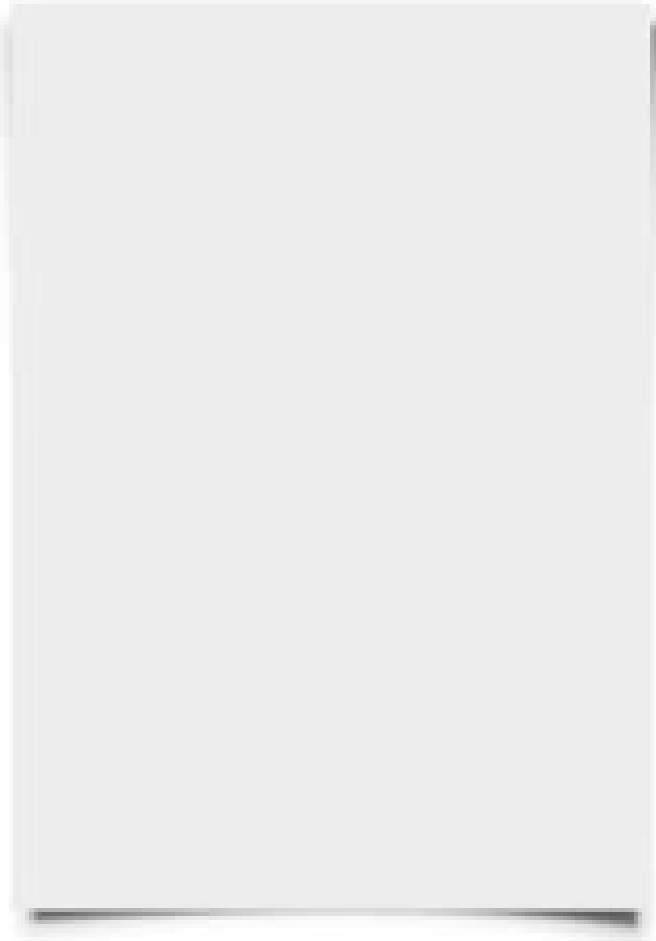
- A sustainable society requires **an 80-90% reduction of emissions and raw material consumption**
That's a huge challenge!
- Fossil fuel is no longer a legitimate fuel
- Agriculture:
 - A focus shift from efficiency to care
 - Government has given over control of our food supply to industry.
This requires reconsideration;
food, agriculture and soil are common goods

Maarten Hajer

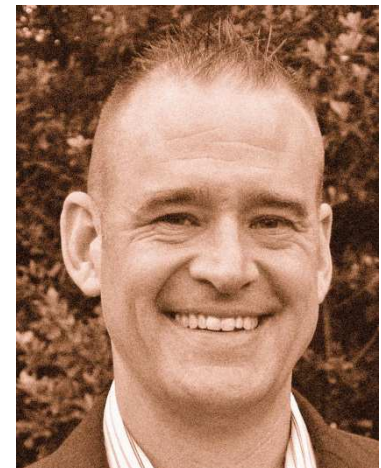
Director Netherlands Environmental Assessment Agency (PBL)



Circular Economy and PepsiCo



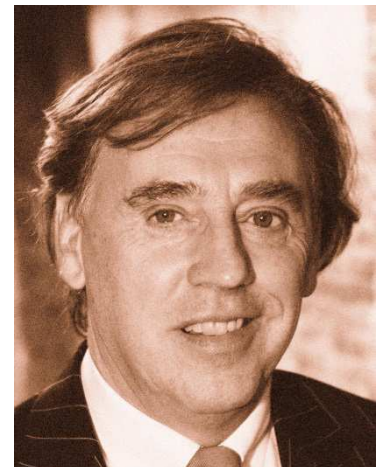
Robert ter Kuile
Senior Director Environmental Sustainability –
Public Global Public Policy; PepsiCo, US



Government's role

- Current policy: not taking the lead, but linking with initiatives from society
- However, as Nijpels (liberals) states:
'Sustainable development requires strong public authorities above anything else'

Ed Nijpels
Former Minister of Environment



What is required in general, for tackling the crisis?

- Awareness and education
- As society: to determine what is *really* important
- Responsible behaviour of everyone in society

What's in it for *us*?

Appealing perspective:

- Improved relationship between humans and their environment
- Less production and growth
- Fewer working hours
- More time for each other
- Shift from 'to have' to 'to be'

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*soils*plantsanimalsenvironmentnutritionhealth

*soils***plants**animalsenvironmentnutritionhealth

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*soils*plantsanimalsenvironment**nutrition**health

*soils*plantsanimalsenvironmentnutrition**health**



A knowledge institute for research and consultancy
for sustainable agriculture, nutrition and health. Making systems work.

Initiatives Louis Bolk Institute (1/2)

Partner farms (intersectoral cooperation)

- Livestock farming: increasing fodder demand
- Arable farming: need to improve crop rotation

→ Challenging opportunity:

- to link demand and supply
- to reduce costs
- to optimize circular processes

Could be the first phase of re-designing Dutch agriculture (esp. for high-input systems)

Initiatives Louis Bolk Institute (2/2)

Recycling biomass / organic matter

- Recycle at the highest possible quality level
- Currently: tension between agriculture and energy sector
- Required: Determination of optimal re-use:
 - Composting → sustainable soil fertility
 - An. digestion → sustainable soil fertility + energy
 - Incineration → energy
- To be considered:
Economy / Ecology / Environment / Long-term soil fertility
- Product: out-balanced recycling system

Challenge:

- Connect with stakeholders and financiers
- Build project team
- We're ready to take the lead and bring in our expertise

Contents

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The book and Circular Economy

Attention for sustainability and a Circular Economy within the project:

- Interviews: transport
- Meetings: biological catering
- Book production: ink, paper, energy, print location, etc.
(and reason for more)

Presenting the first book to State Secretary Wilma Mansveld



Special thanks to:

- Ministries of
 - Economic Affairs
 - Infrastructure and Environment
- Experts interviewed:
 - Rob van Brouwershaven, Mariëtte van Empel
- Cooperation for this Seminar:
 - Cathrien de Pater, Marnix Koopmans
- Book supervision:
 - Cathrien de Pater, Nelson Verheul

We humans are engaged in a monumental work of reinventing ourselves and our societies.

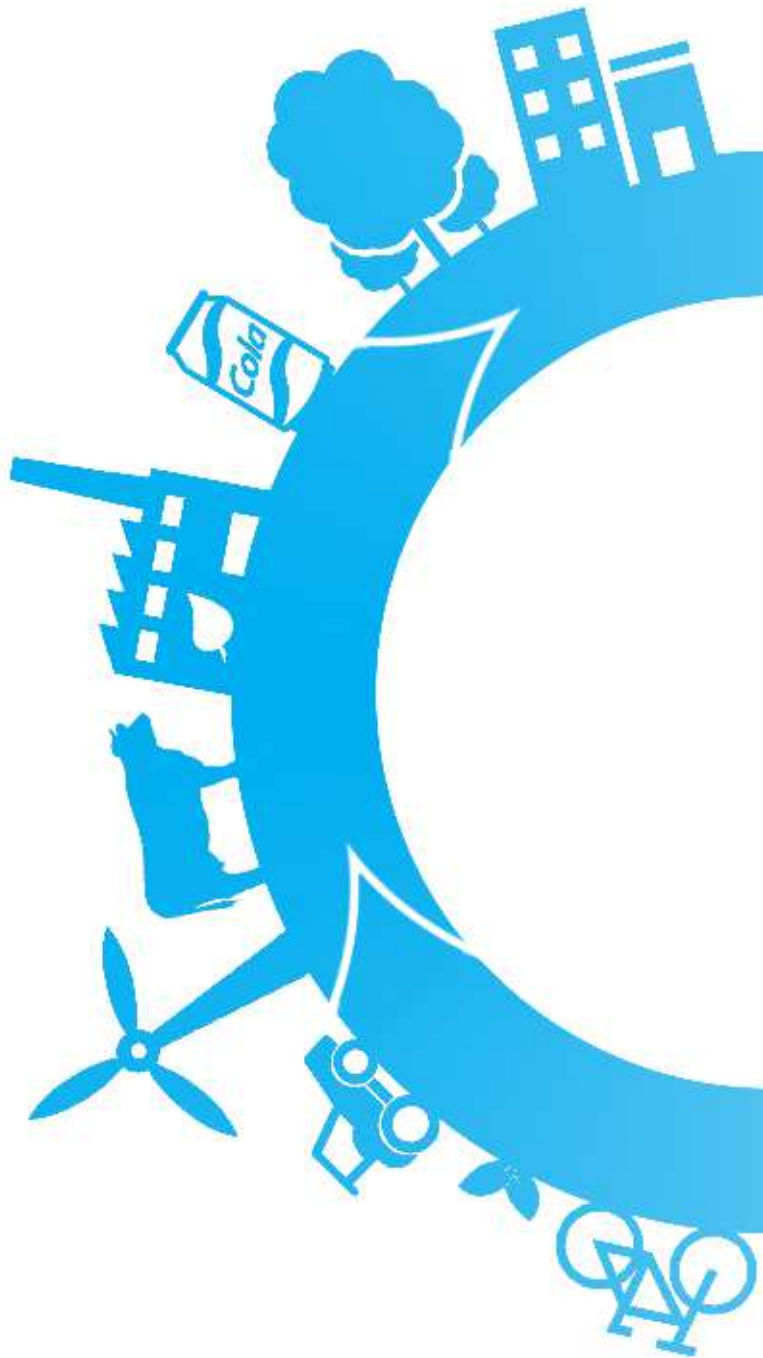
You and I have the privilege to live at the most exciting moment of creative opportunity in the whole of the human experience.

We have the power to turn this world around for the sake of our children and ourselves for generations to come.

WE *are the ones we have been waiting for.*

David Korten

American economist

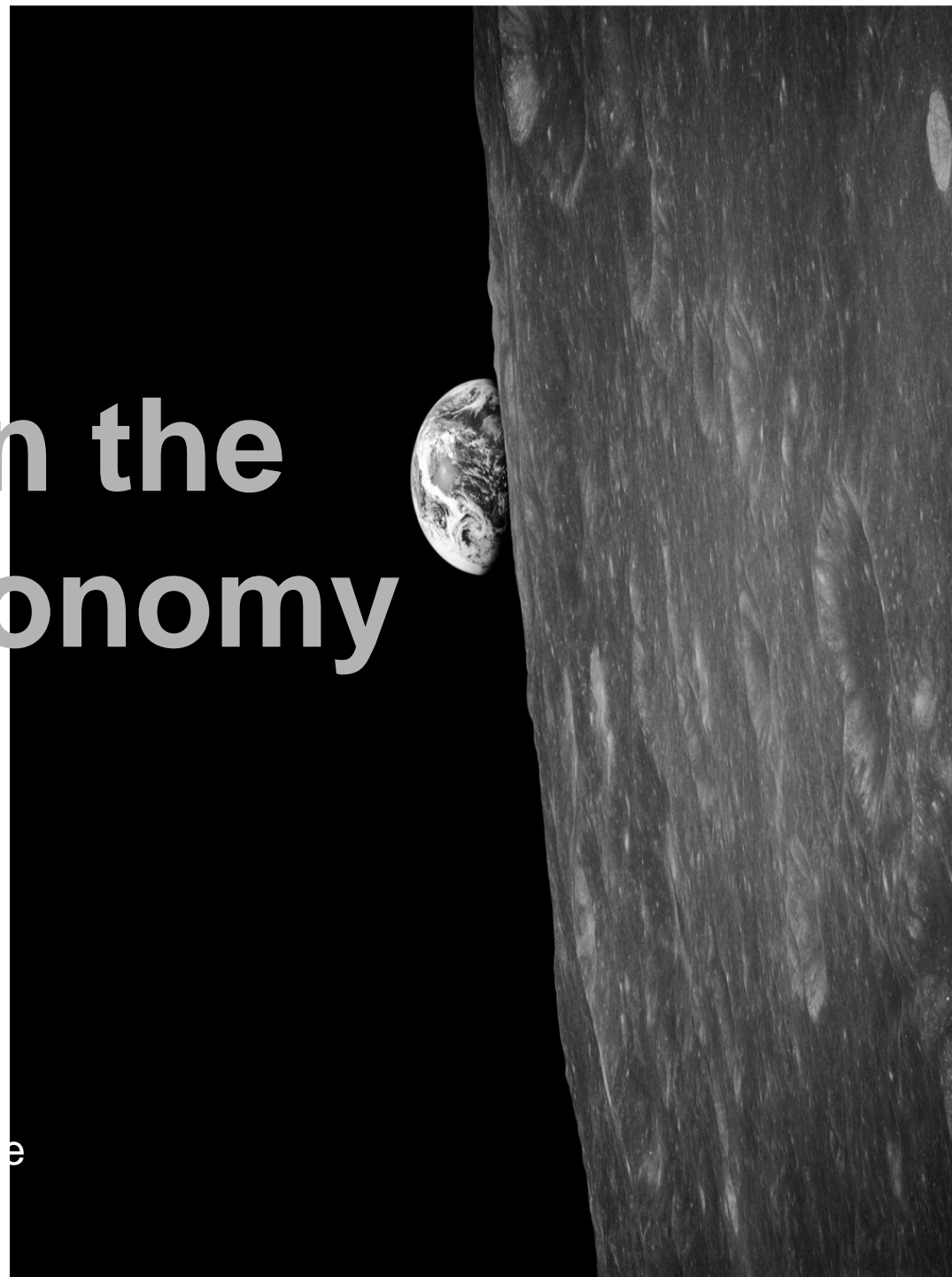


Douwe Jan Joustra

Managing partner, One Planet Architecture Institute

Business in the circular economy

Ministerie EZ, april 2014



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ELLEN MACARTHUR FOUNDATION
Rethinking the Future

TOWARDS THE CIRCULAR ECONOMY

Economic and business rationale
for an accelerated transition

Executive Summary



3

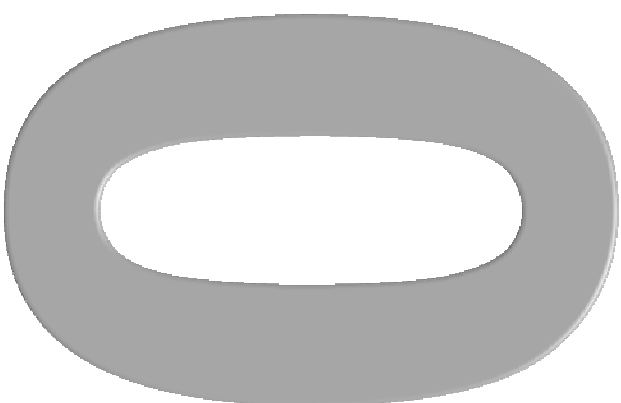
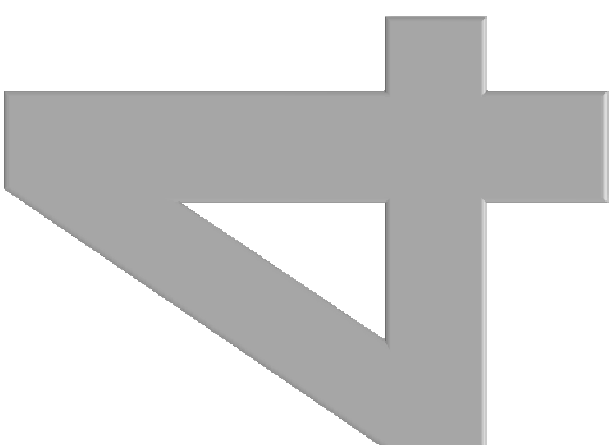
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OPPORTUNITIES FOR A CIRCULAR ECONOMY IN THE NETHERLANDS





MVO
NEDERLAND

Ministerie van Economische Zaken



Gemeente Amsterdam
Afval Energie Bedrijf

waternet



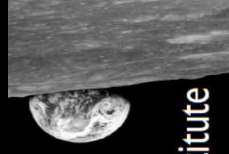
Rabobank



Planbureau voor de Leefomgeving



alliander



OPai | oneplanetarchitecture institute

ondernemen
in de
circulaire economie
*nieuwe verdienenmodellen
voor bedrijven
en ondernemers*

OPAI | oneplanetarchitecture institute



Inspired by nature

ecology

biology

thermo-dynamics

Basics:

energy of the sun
materials circles
embrace diversity
net-gain

Economic changes

**performance based
responsibility
shared values**

insights

**energy
&
resources**

9000x



**That's all
folks...**



LINEAR ECONOMY

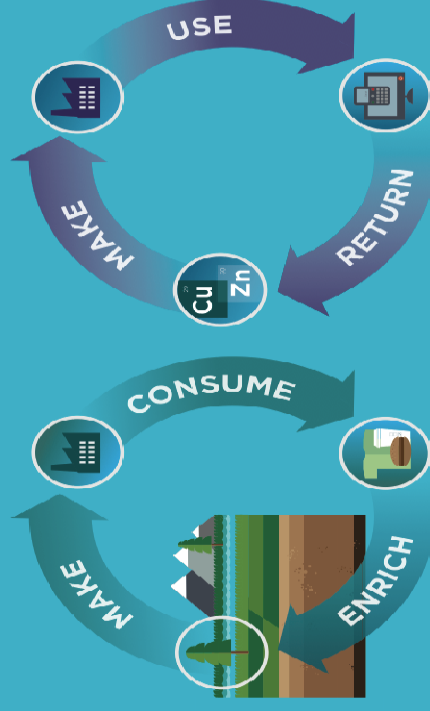


TECHNICAL & BIOLOGICAL MATERIALS MIXED UP

ENERGY FROM FINITE SOURCES

ART BY WIKACORP/PAULY BROWN/GETTY

CIRCULAR ECONOMY



BIOLOGICAL MATERIALS

TECHNICAL MATERIALS

ENERGY FROM RENEWABLE SOURCES

PRINCIPLES OF A CIRCULAR ECONOMY

WASTE = FOOD
DIVERSITY = STRENGTH
ENERGY → RENEWABLES
PRICE = REAL COST

BIOLOGICAL MATERIAL
SAFELY ENRICHES
NATURAL SYSTEMS...

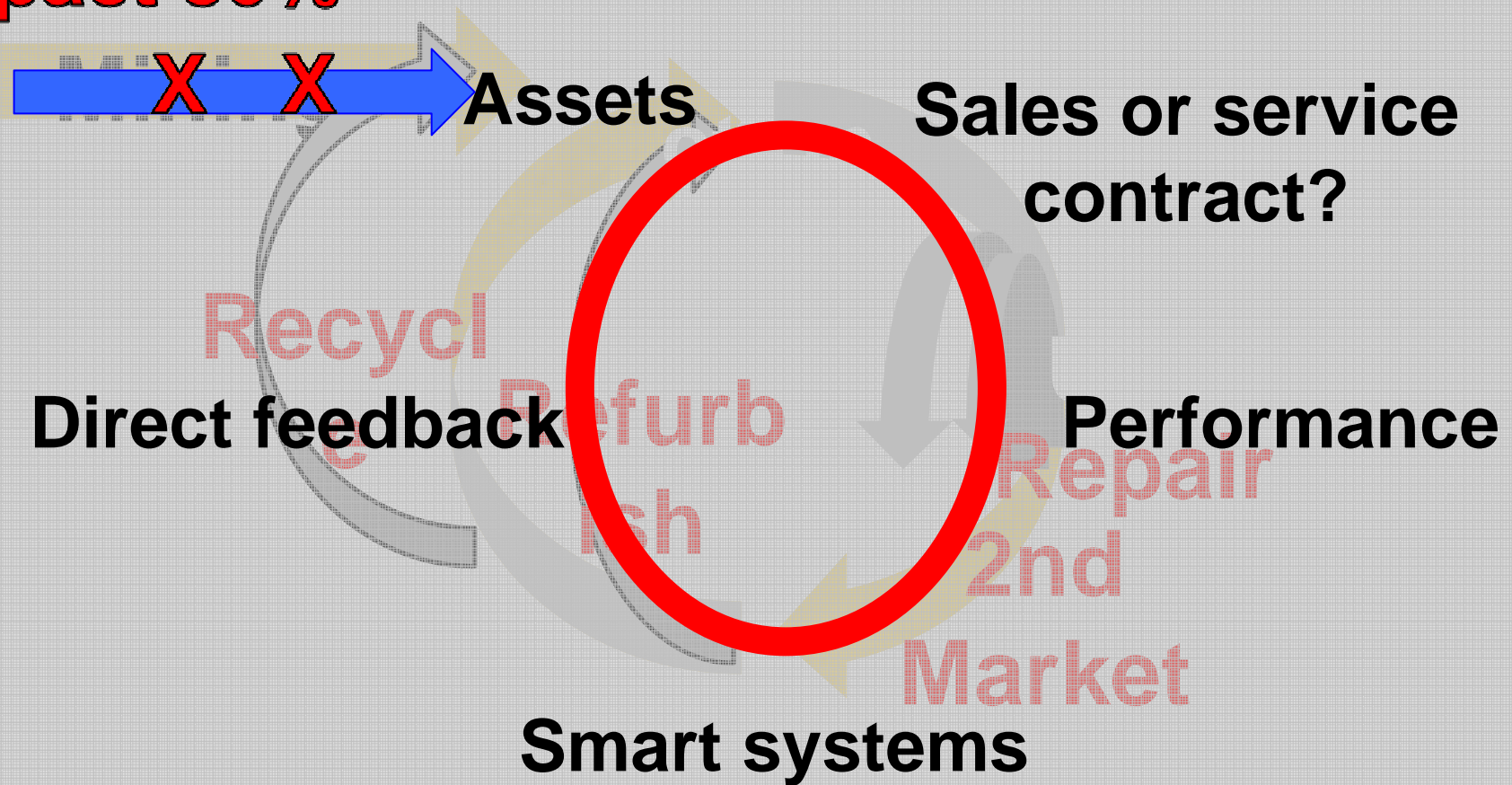


TECHNICAL MATERIALS DO NOT
COMPOST. THE PRODUCTS ARE
MADE TO BE MADE AGAIN...



Circular economy

Impact 80%





Mining

Urban

Mining for minerals

Mining for ideas

Mining for entrepreneurs

**Performance-based
Entrepreneurial –logic
Create value**





PRODUCTS



SERVICE



METER READS





Diversity



Results

create conditions

15 KPI's

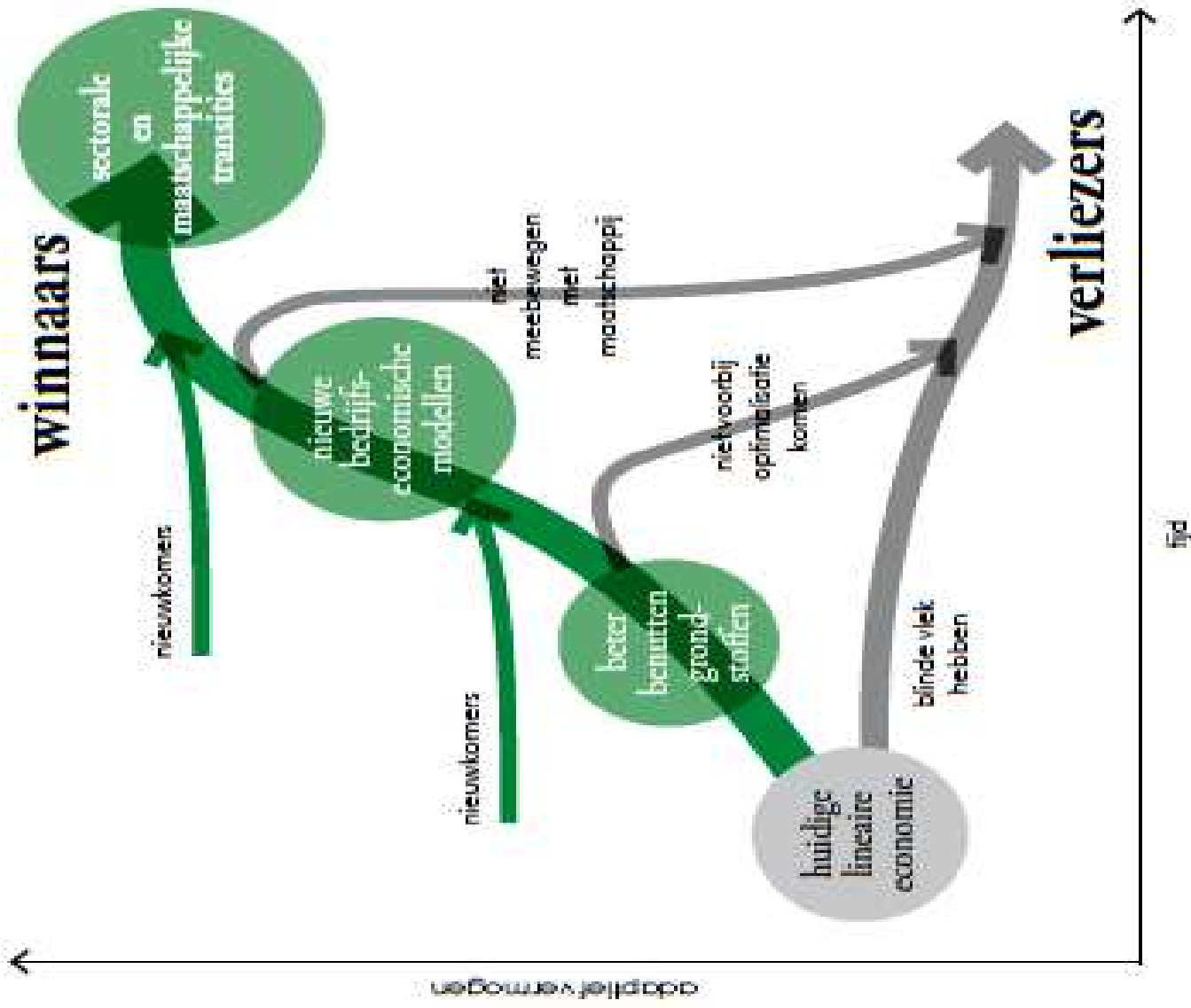
act in transition

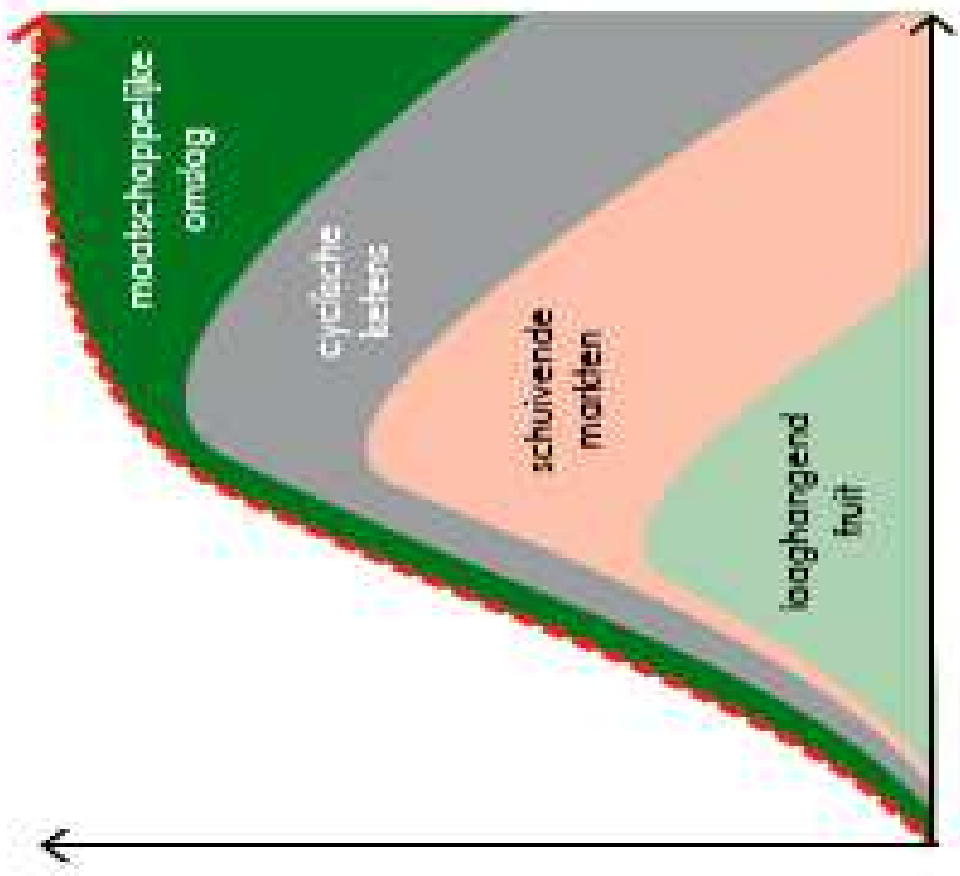
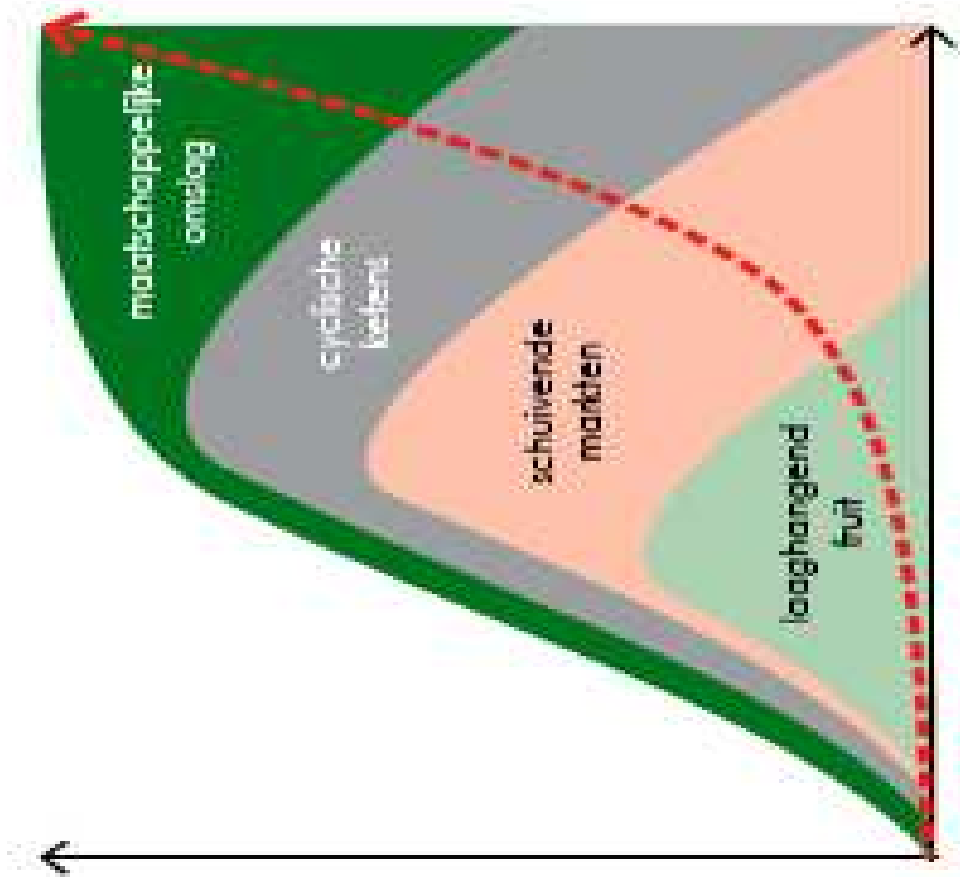


Opstellers:

Uitgave:

Partners:





WHY WAIT?

LIVE THIS DREAM!



A liter of light