

TILBAKEBLIKK PÅ MENYEN ET BÆREKRAFTIG PERSPEKTIV



MAPP CENTRE – RESEARCH ON VALUE CREATION IN THE FOOD SECTOR
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

FEBRUARY 2018

JESSICA ASCHEMANN-WITZEL
ASSOCIATE PROF. DR.





MAIN POINTS

- Definition of sustainability
- Pessimistic versus optimistic narrative
- What is needed for sustainable (food) systems and which role today´s findings play for this



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” The narrative is actually quite negative.

Let’s face it:

The world is about to die.

It is your fault.

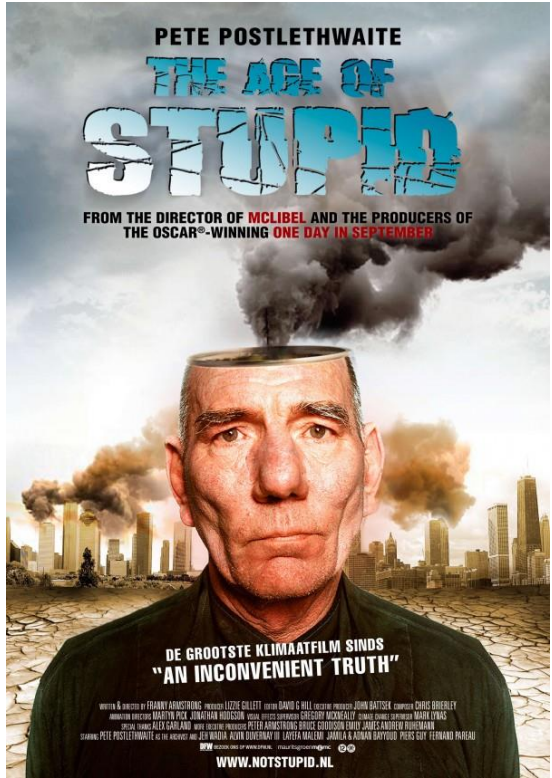
And whatever you do is not enough.



Dr. Alan Knight, CSR Consultant, speaking at
BITC's Responsible Business Convention

... why didn't we save ourselves when we were still able to?

Is it because deep in our heart, we thought we are not worth saving?



Film 'The age of stupid', final sentence



” Spend less.

Be less.

It is a sustainability mistake we are here in the first place.

CHALLENGES



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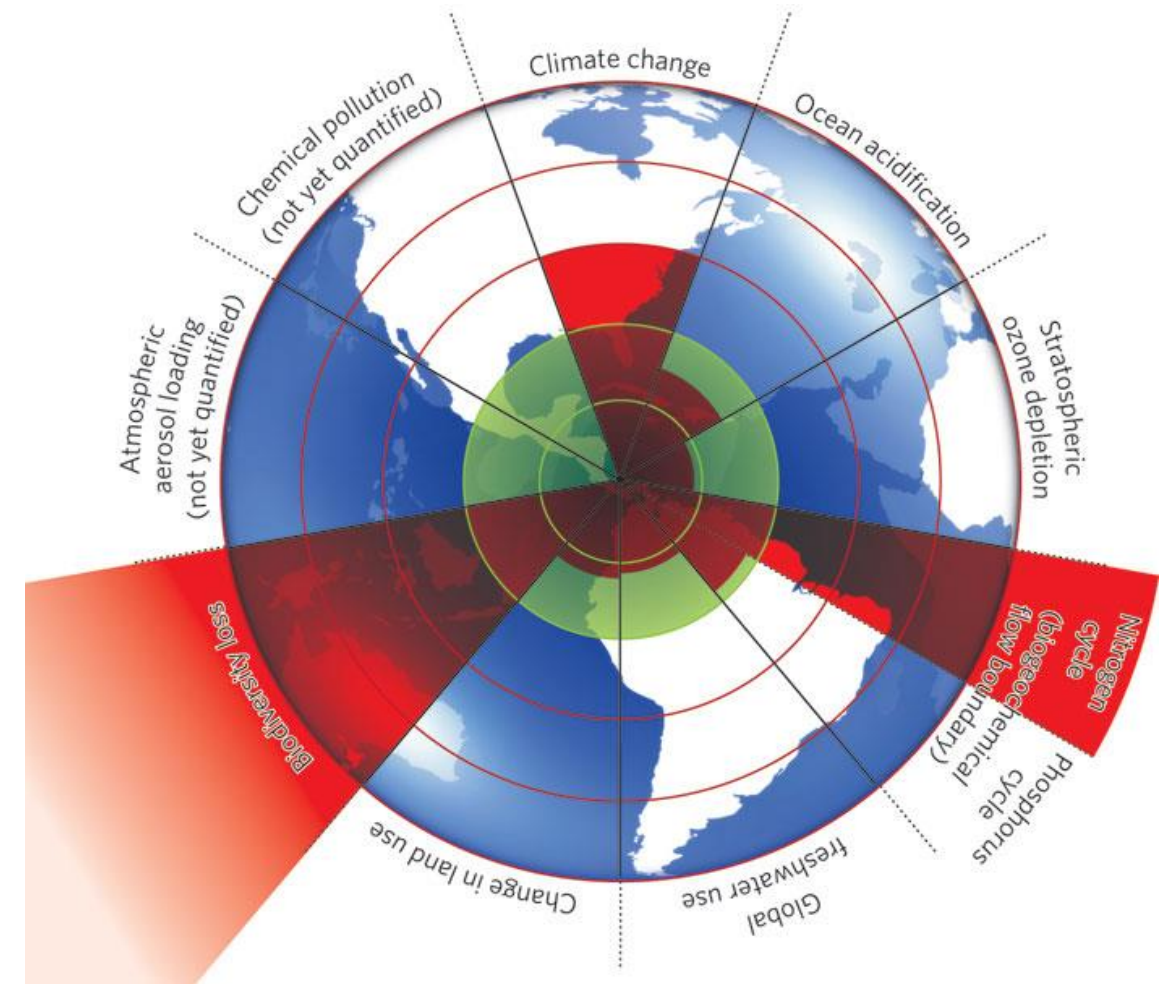


CHALLENGES

Biodiversity loss

Climate change

Nitrogen and phosphorous cycle



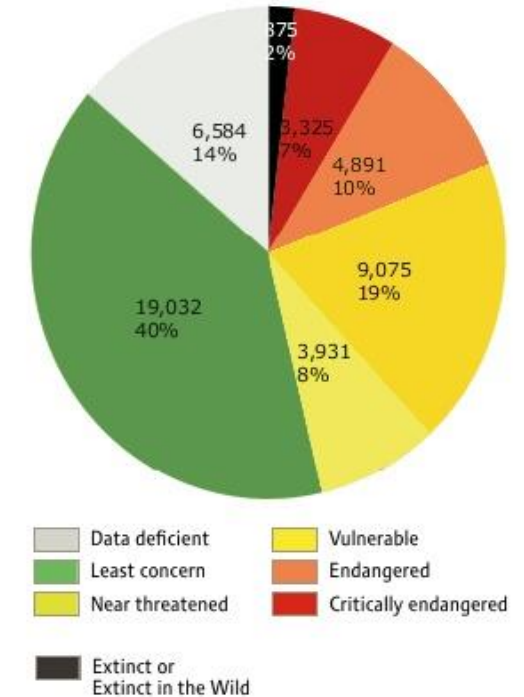
Rockström, John, et al., 2009. "A safe operating space for humanity". Nature, 461, pp. 472-475.

BIODIVERSITY LOSS

leads to reduced ecosystem functions and less stability

Causes

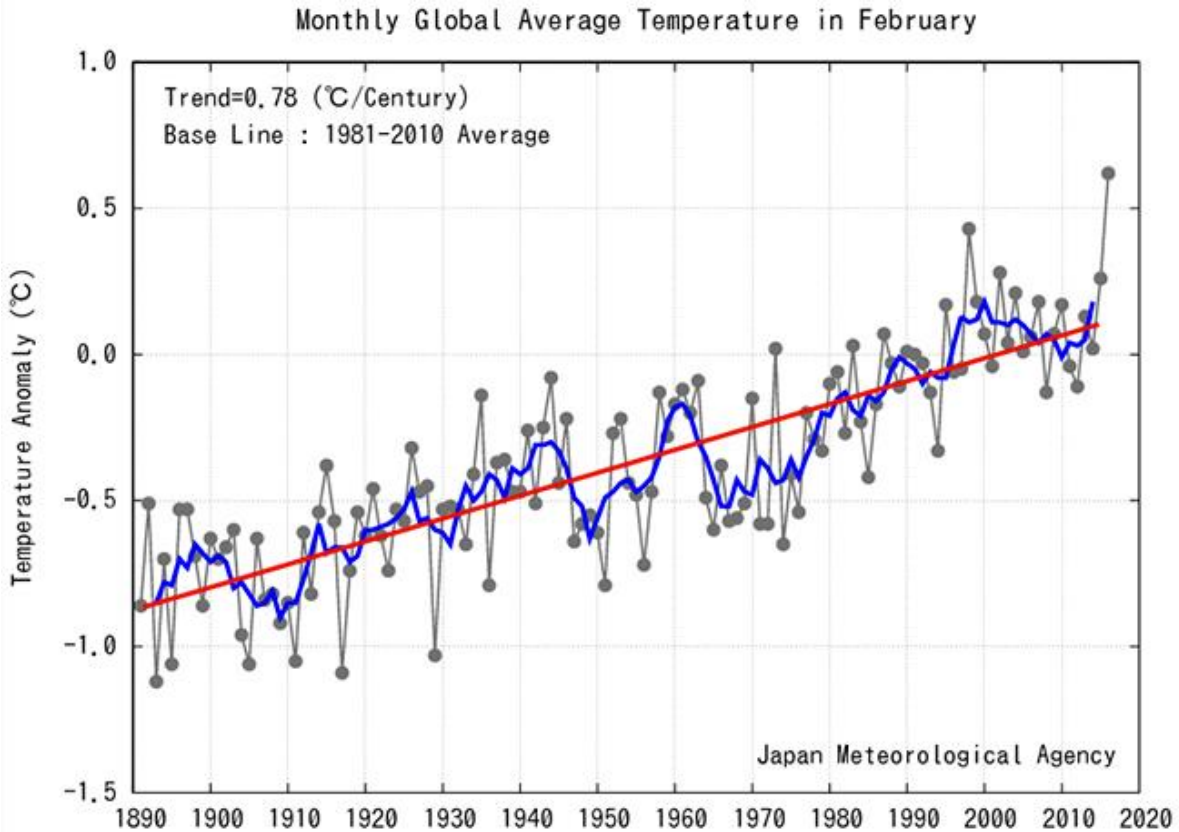
- Habitat loss and degradation
- Climate change
- Excessive nutrient load and other forms of pollution
- Over-exploitation and unsustainable use
- Invasive alien species



(UN's 3rd Global Biodiversity Outlook, 2010)

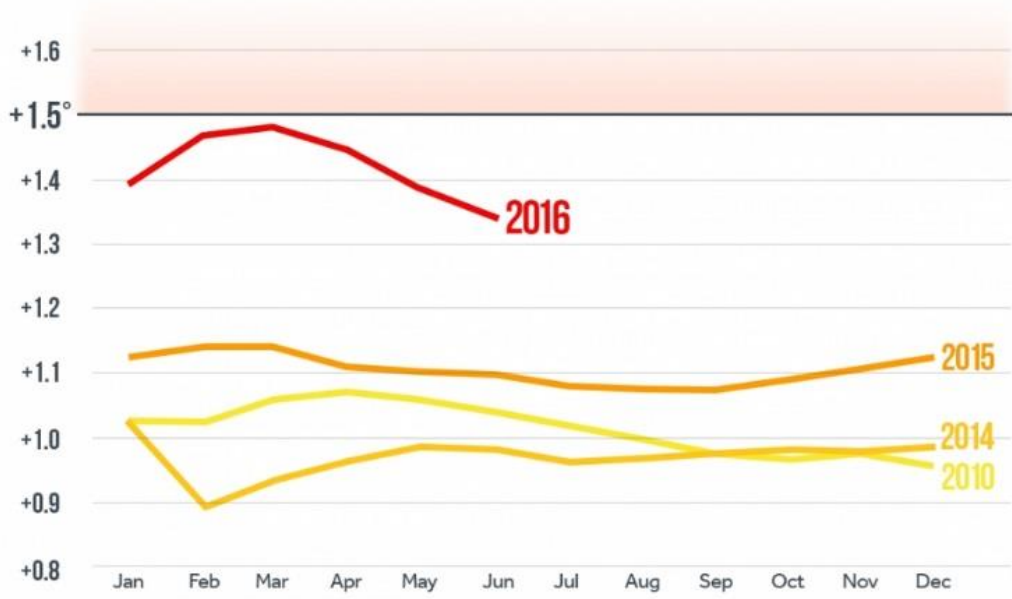
Proportion of all assessed species in different threat categories of extinction risk on the IUCN Red List, based on data from 47,677 species. Source: IUCN, pie chart compiled by Secretariat of the Convention on Biological Diversity (2010) Global Biodiversity Outlook 3, May 2010

CLIMATE CHANGE



Blowing Away Heat Records

Global year-to-date anomalies from 1881-1910 baseline

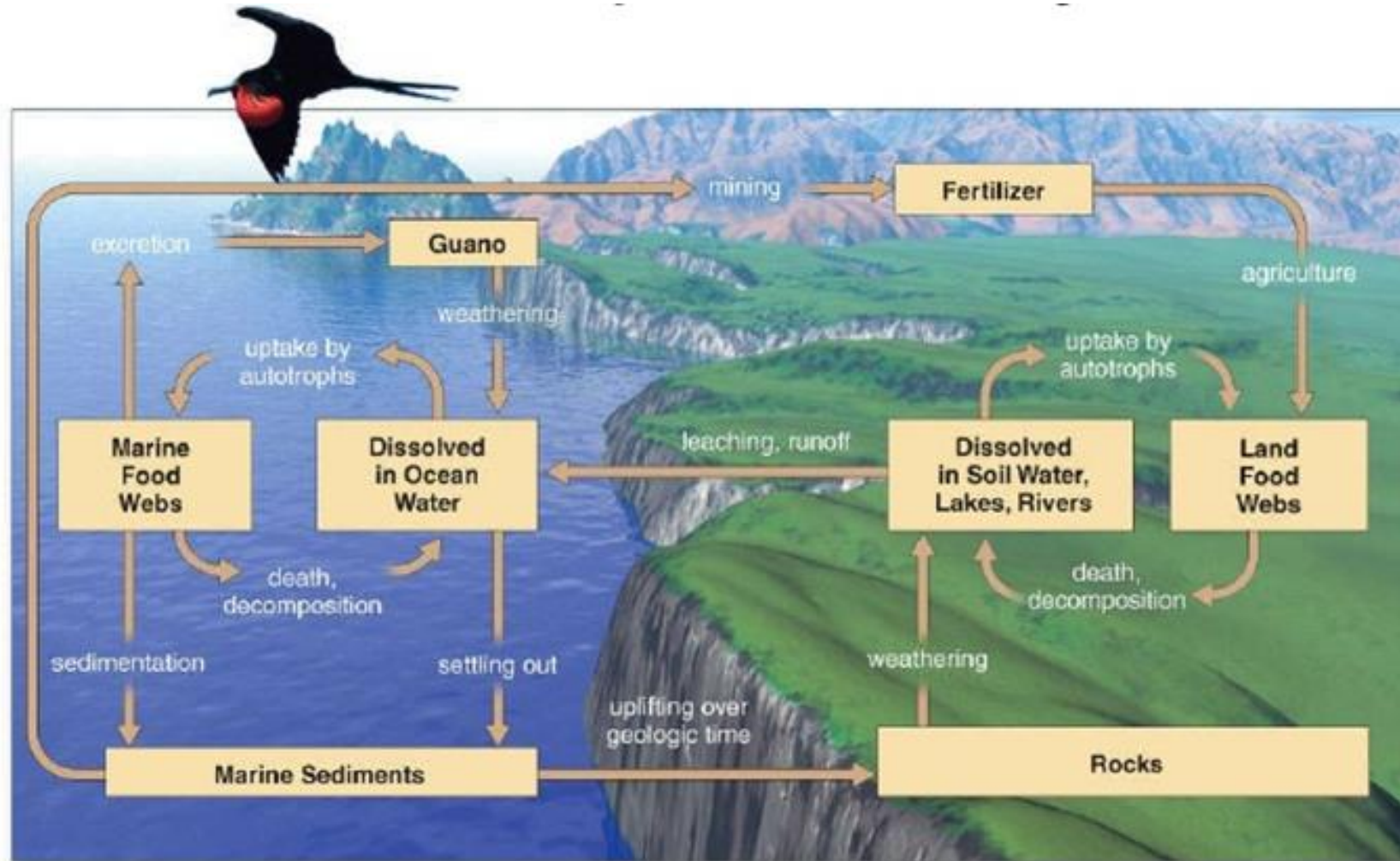


Source: NASA GISS and NOAA NCEI global temperature data averaged and adjusted to early industrial baseline (1881-1910). Data as of July 2016

CLIMATE CENTRAL



PHOSPHOROUS CYCLE





DEFINITION



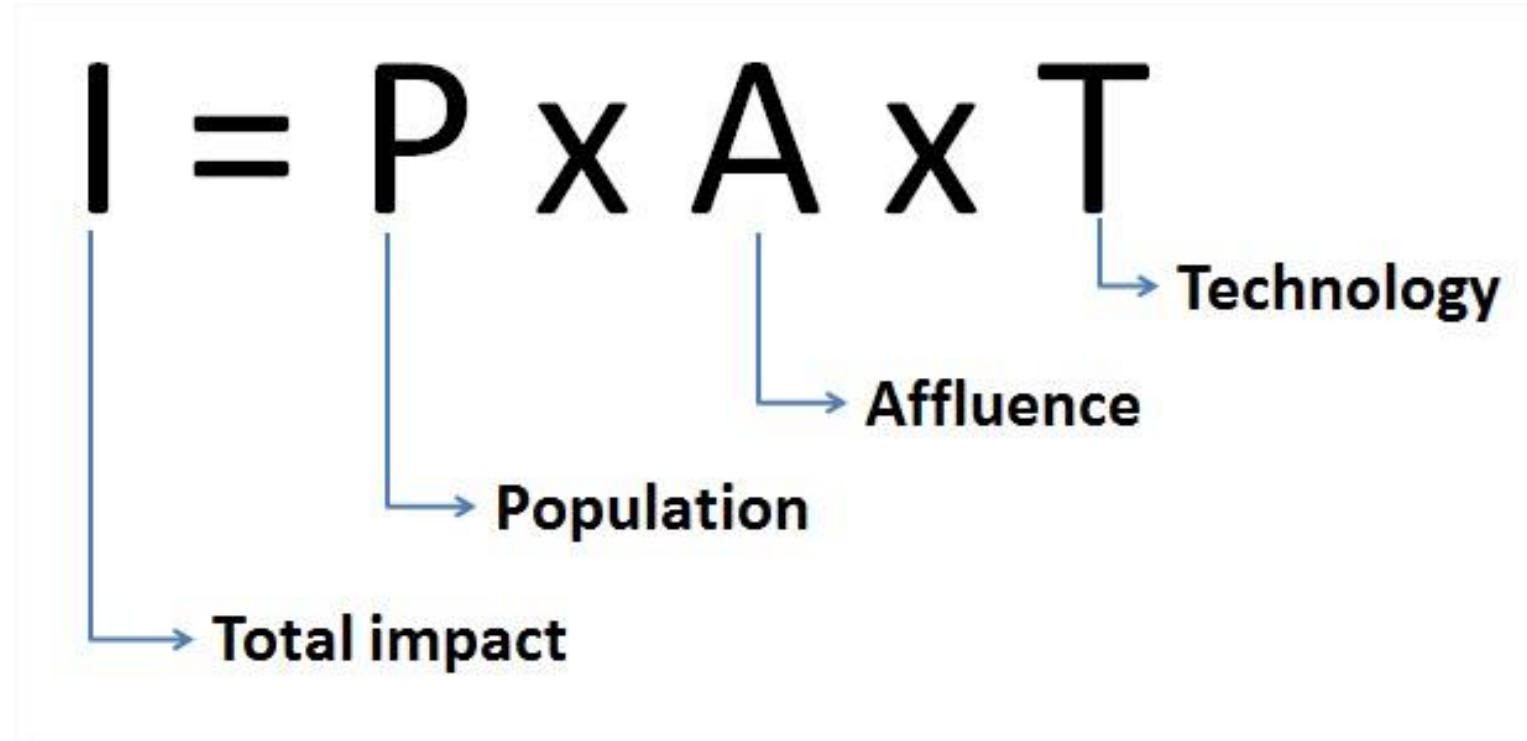
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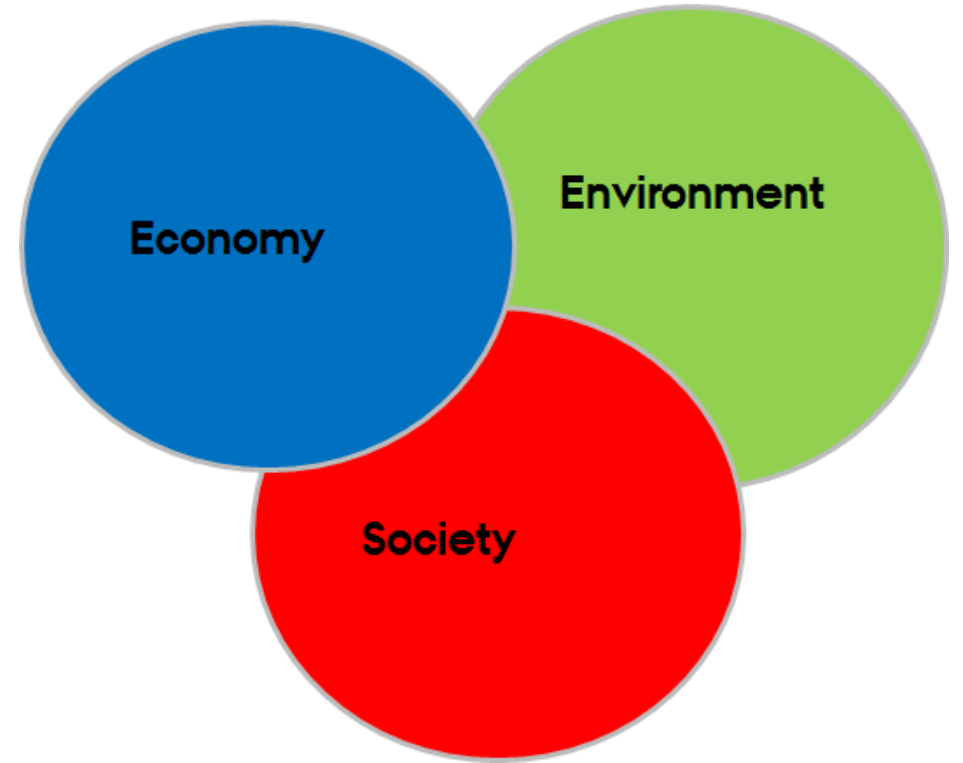
IMPACT



Ehrlich, Paul R. and John P. Holdren, 1971. Impact of Population Growth. *Science*, 171:1212-17.

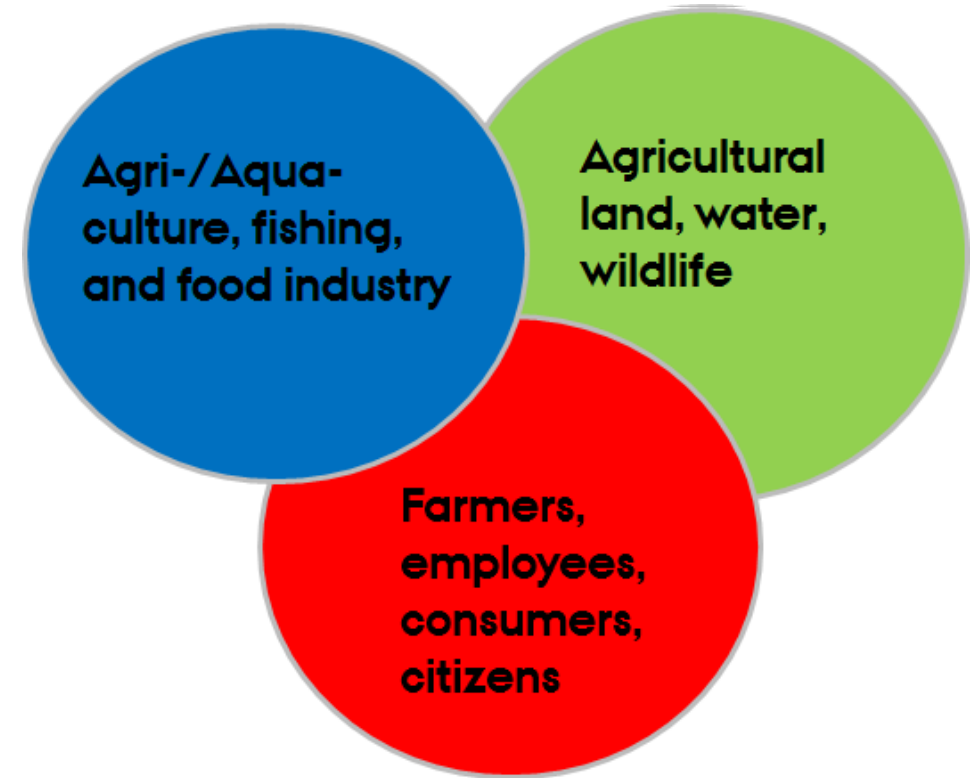
SUSTAINABILITY

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”



FOOD & SUSTAINABILITY

“Sustainable FOOD is FOOD that meets the FOOD needs of the present without compromising the ability of future generations to meet their own FOOD needs.”



”Sustainability is not enough for us.

... If I would ask you how is your relationship with your girlfriend, and you would say ‘sustainable’, then I would say ‘Oh, I am so sorry for you’ ...

Sustainability is just the minimum, you can somehow deal with it, it is just maintenance ... from there, it starts ...”



Michael Braungart, documentary ‘Waste equals food’

” Spend more.

Be more.

Do everything in a way that it makes a positive impact.

WHAT IS NEEDED FOR SUSTAINABLE DEVELOPMENT



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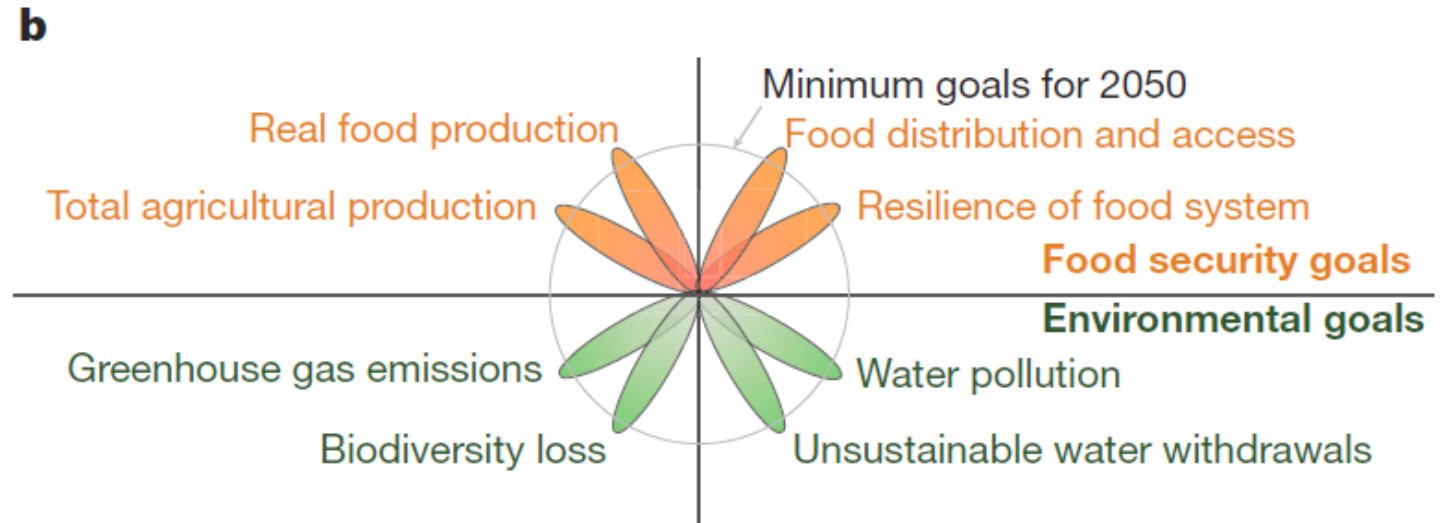
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SUSTAINABLE INTENSIFICATION

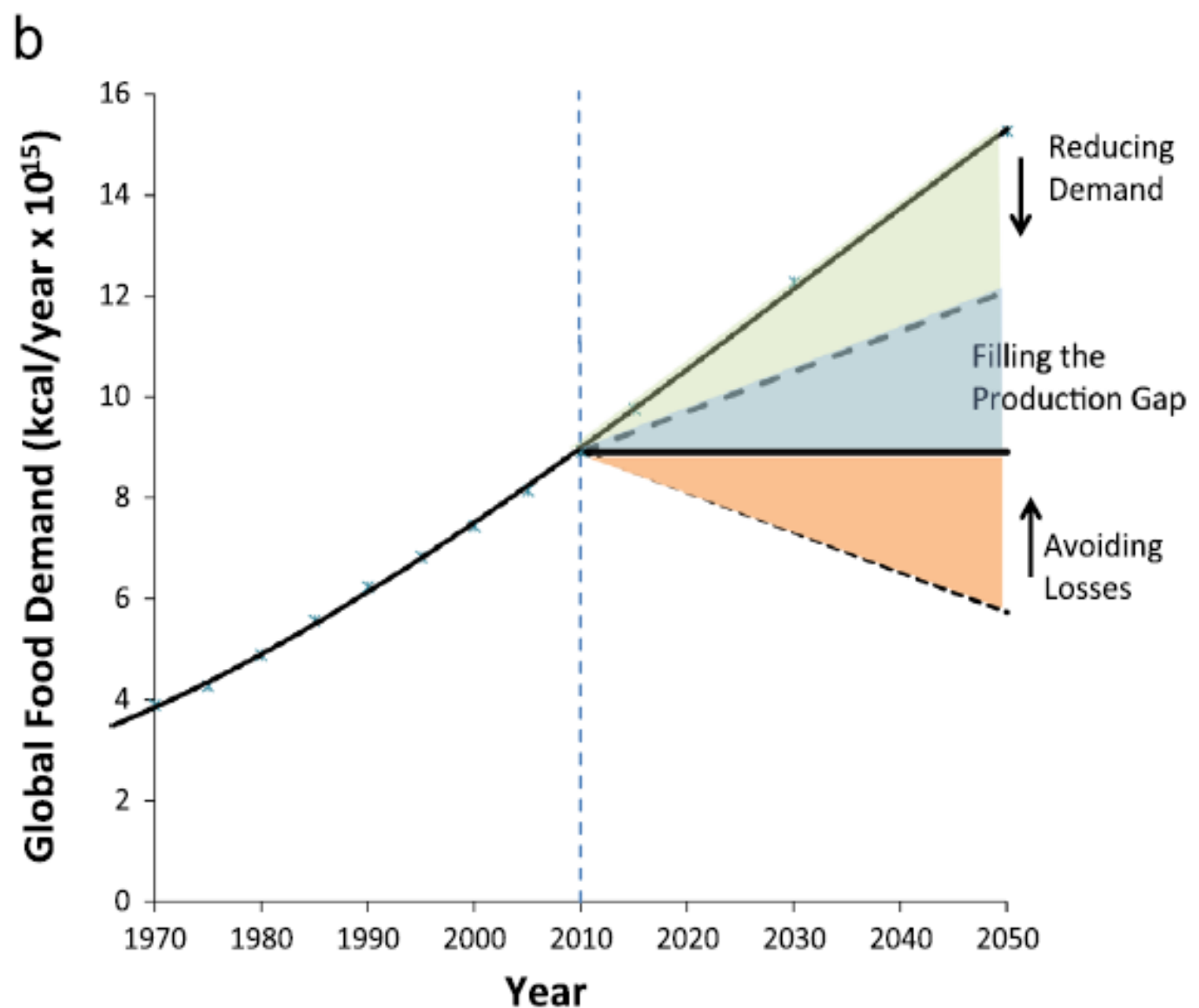
- halting expansion
- closing 'yield gaps'
- increasing efficiency
- shifting diets
- reducing waste



Foley Jonathan A, et al., 2011. "Solutions for a cultivated planet".
Nature, 478, pp. 337-342.

FOOD 'WEDGES'

- reducing food demand
- increasing food production
- sustaining capacity



Keating, B. A., Herrero, M., Carberry, P. S., Gardner, J., & Cole, M. B. (2014). Food wedges: Framing the global food demand and supply challenge towards 2050. *Global Food Security*, 3(3), 125–132. <https://doi.org/10.1016/j.gfs.2014.08.004>
referring to the idea of: Pacala, Stephen & Socolow, Robert, 2004. "Stabilization wedges: solving the climate problem for the next 50 years with current technologies". *Science*, 305, pp. 968-972.

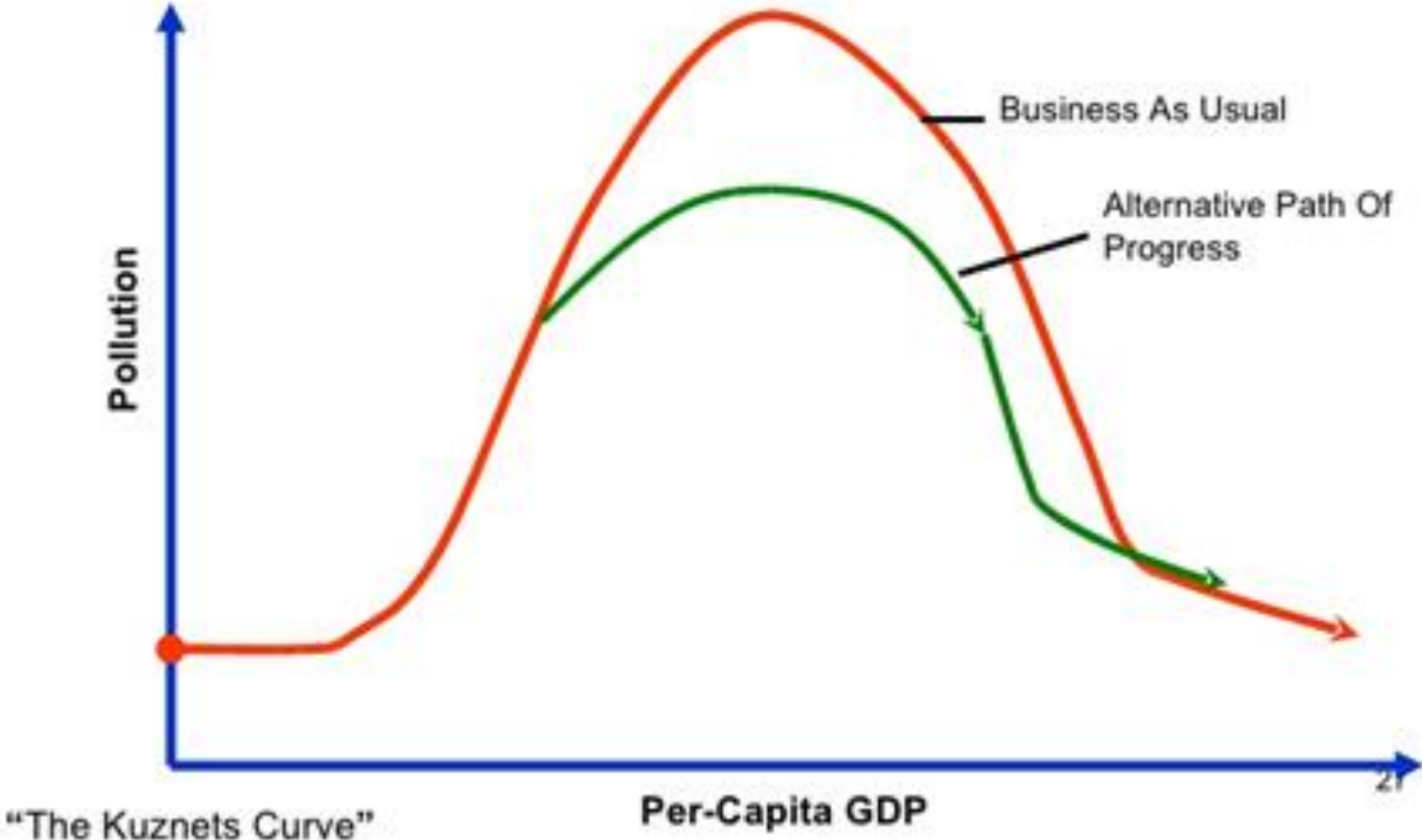
LEAPFROGGING

“To advance or progress beyond (a competitor or an obstacle, for example) in dramatic fashion”

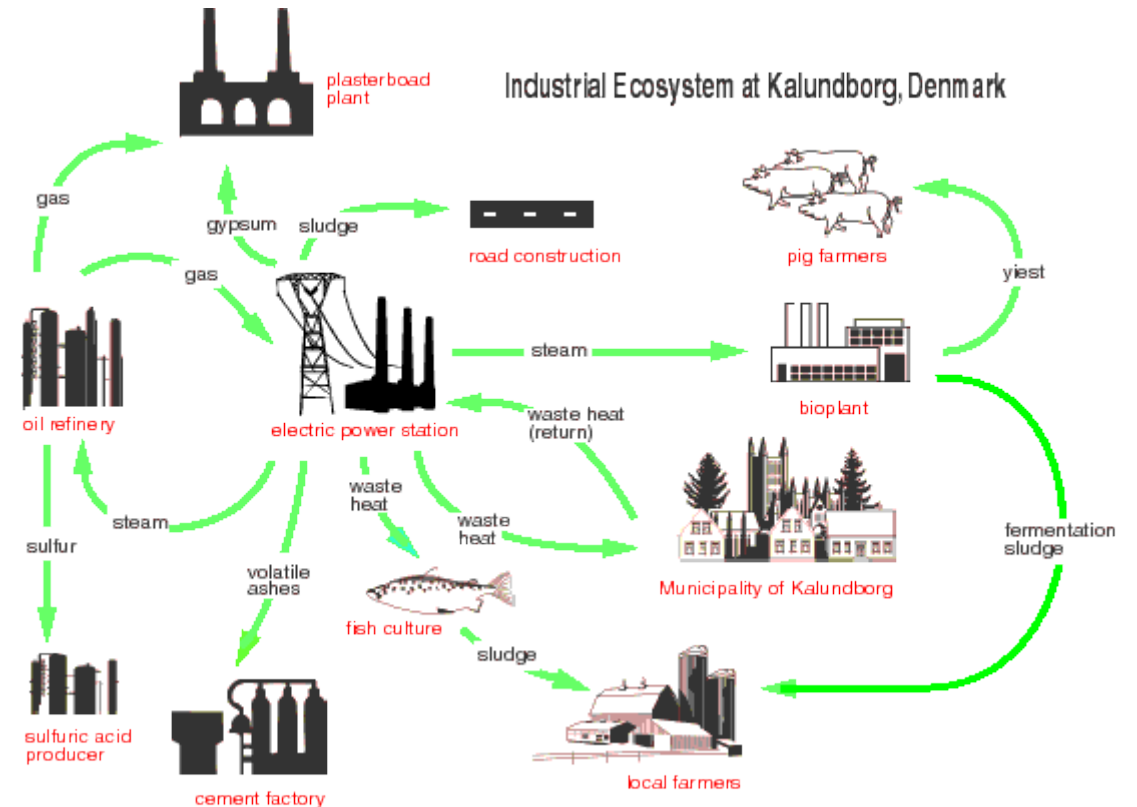
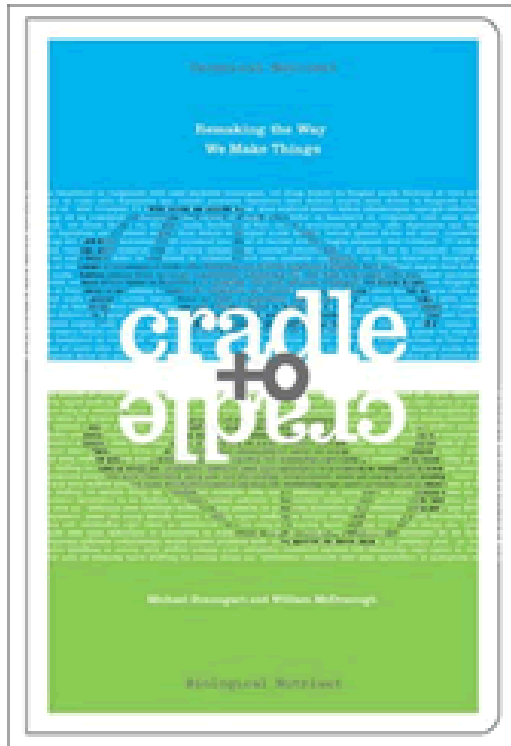
“...without progressing through all or any of the places or stages in between”



LEAPFROGGING



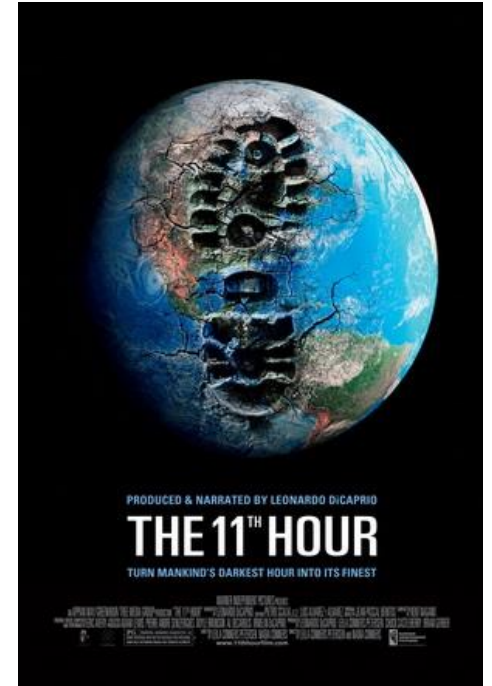
CYCLICAL AND ECOLOGY APPROACHES



Braungart, M., McDonough, W. and Bollinger, Andrew (2007): Cradle-to-cradle design: creating healthy emissions - a strategy for eco-effective product and system design. Journal of Cleaner Production 15 (2007) 1337-1348.

http://en.wikipedia.org/wiki/Industrial_ecology

” ... you can never have enough
of what you do not want.



Documentary '11th. Hour'



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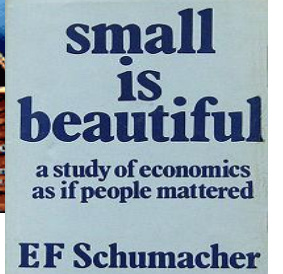
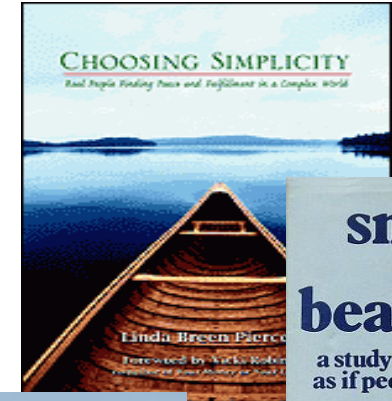
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SUFFICIENCY THINKING

consumers / citizens seeking:

- material simplicity
- self-determination / independence
- small-scale environments
- satisfying experience, personal growth



Seonaidh McDonald, Caroline J. Oates, C. William Young, Kumju Hwang (2006): Toward sustainable consumption: Researching voluntary simplifiers. *Psychology and Marketing*, Volume 23 Issue 6, Pages 515 - 534; Etzioni, Amitai (2006): Voluntary Simplicity: Characterisation, Select Psychological Implications and Societal Consequences. In: *The Eartscan Reader in Sustainable Consumption*, Tim Jackson (ed.), London: Eartscan, pp. 159-177

... AND NOW?

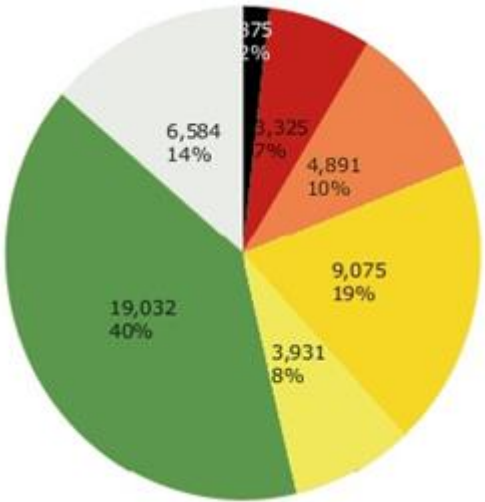
Actors, products and services are needed which go both ways:

Spend less – but better, more meaningful

Spend more – but sustainably, with a positive impact



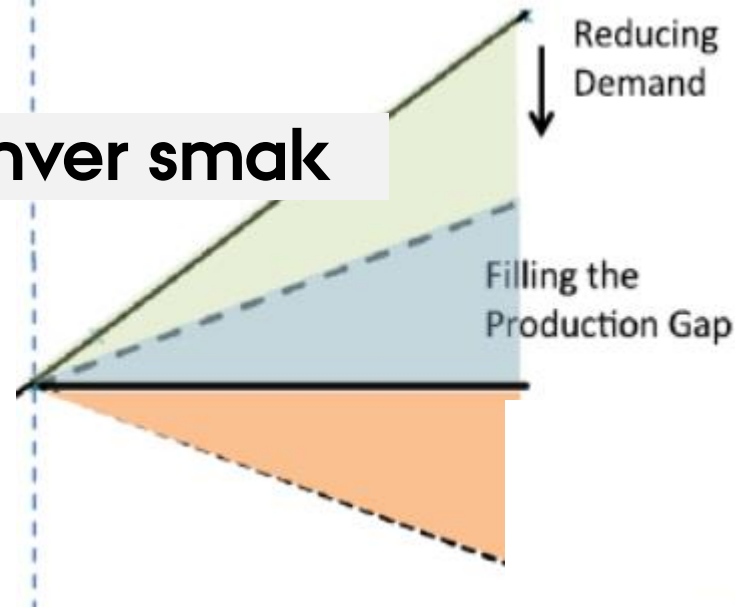
ROLE OF TODAY'S FINDINGS



Healthy food product development

Hvorfor kaster vi mat?

Kål for enhver smak



Fremtidens proteiner

Grønnsaker – ut av istiden



Måltidsmønstre hos 65+

Barns opplevelse



Nye stier – design thinking

Innovation I offentlige

” ... sustainability is running the planet with the same discipline as we run a good business. Any business leader who challenges sustainability doesn't actually get it, because business invented it in the first place.

Dr. Alan Knight, CSR Consultant



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