

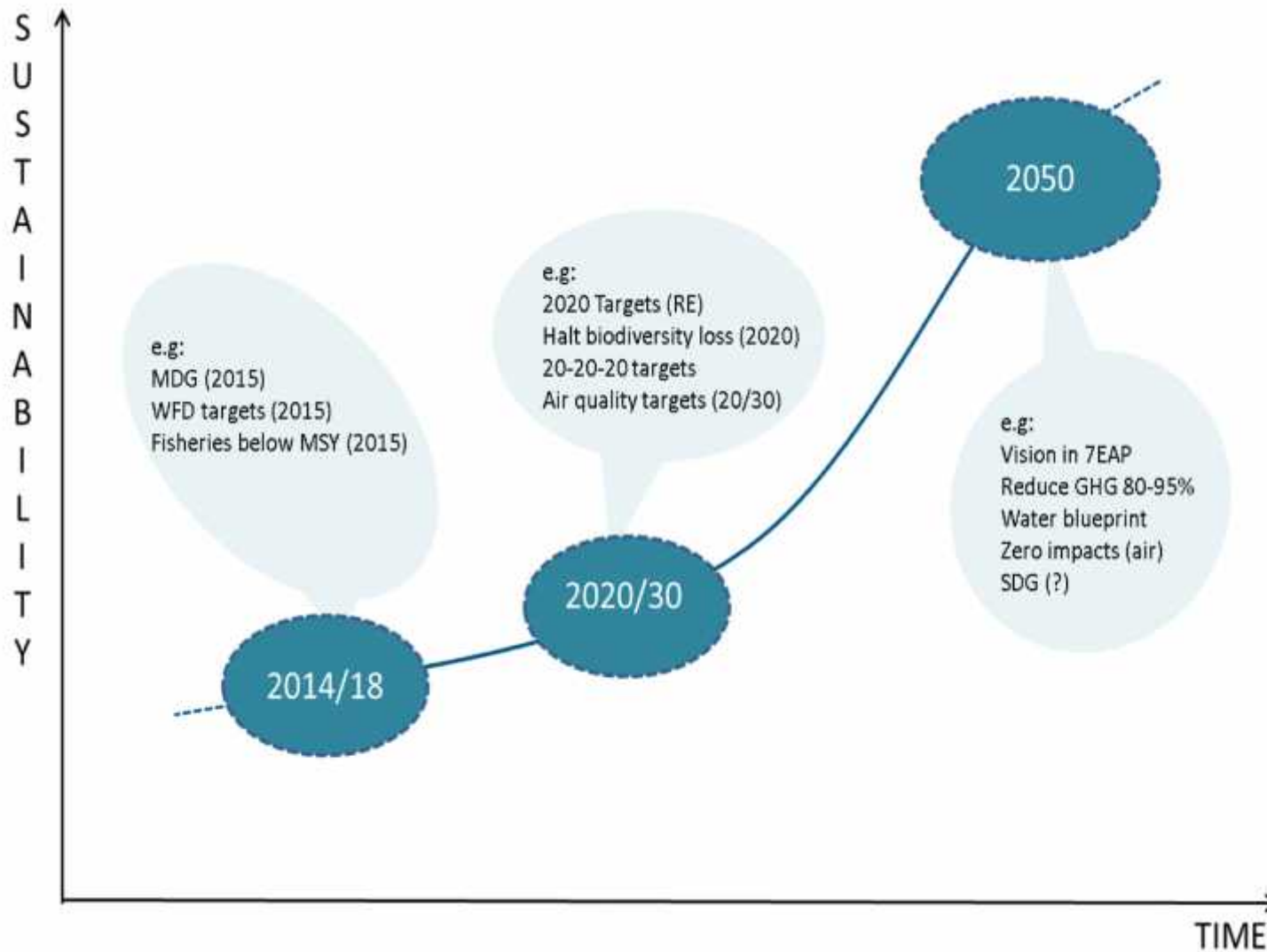
Towards a green economy

A transition perspective

STOA Annual Lecture
Brussels, 12 November 2013

Dr Hans Bruyninckx
Executive Director, European Environment Agency

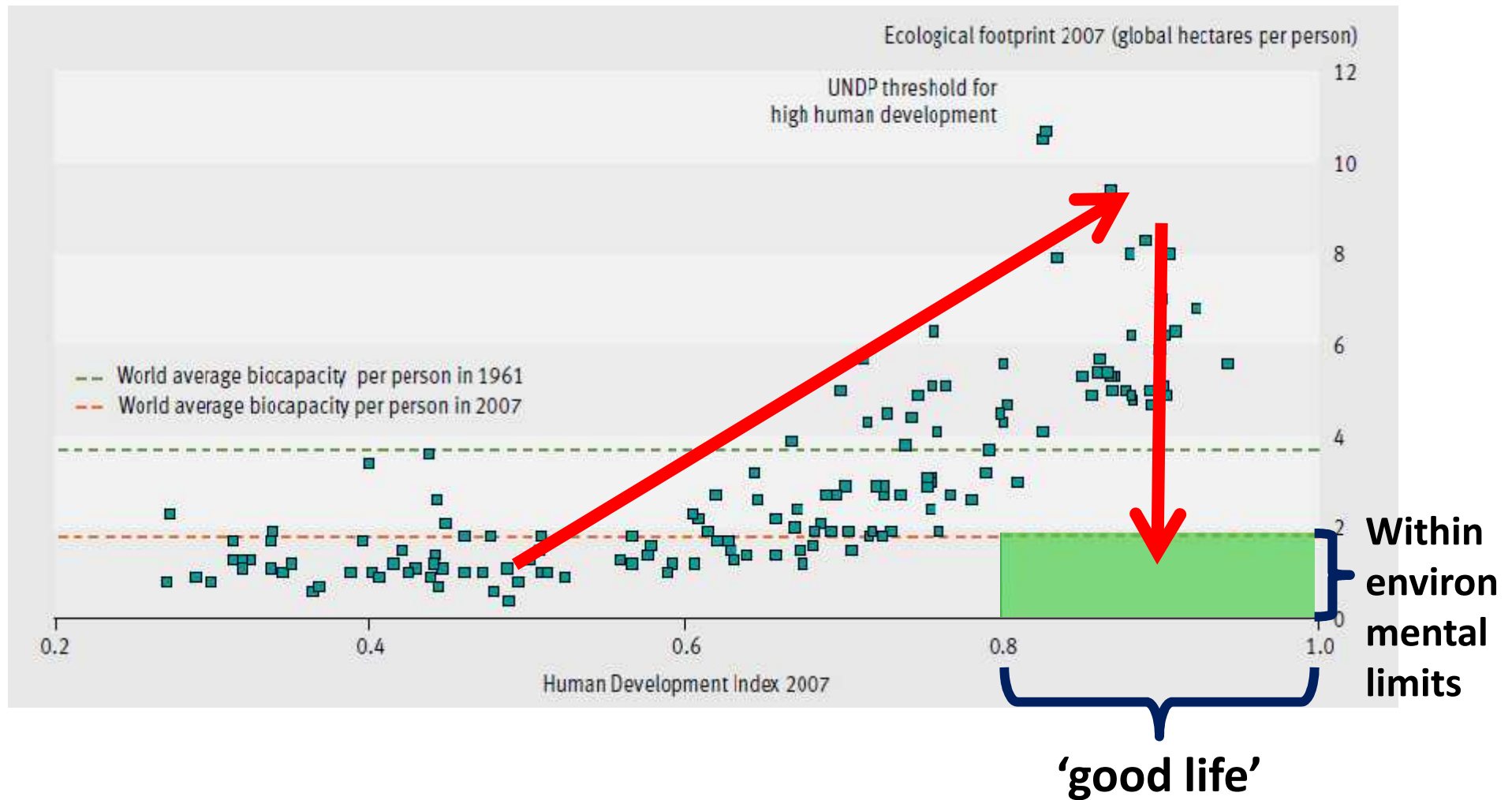
The framing of Europe's environmental agenda



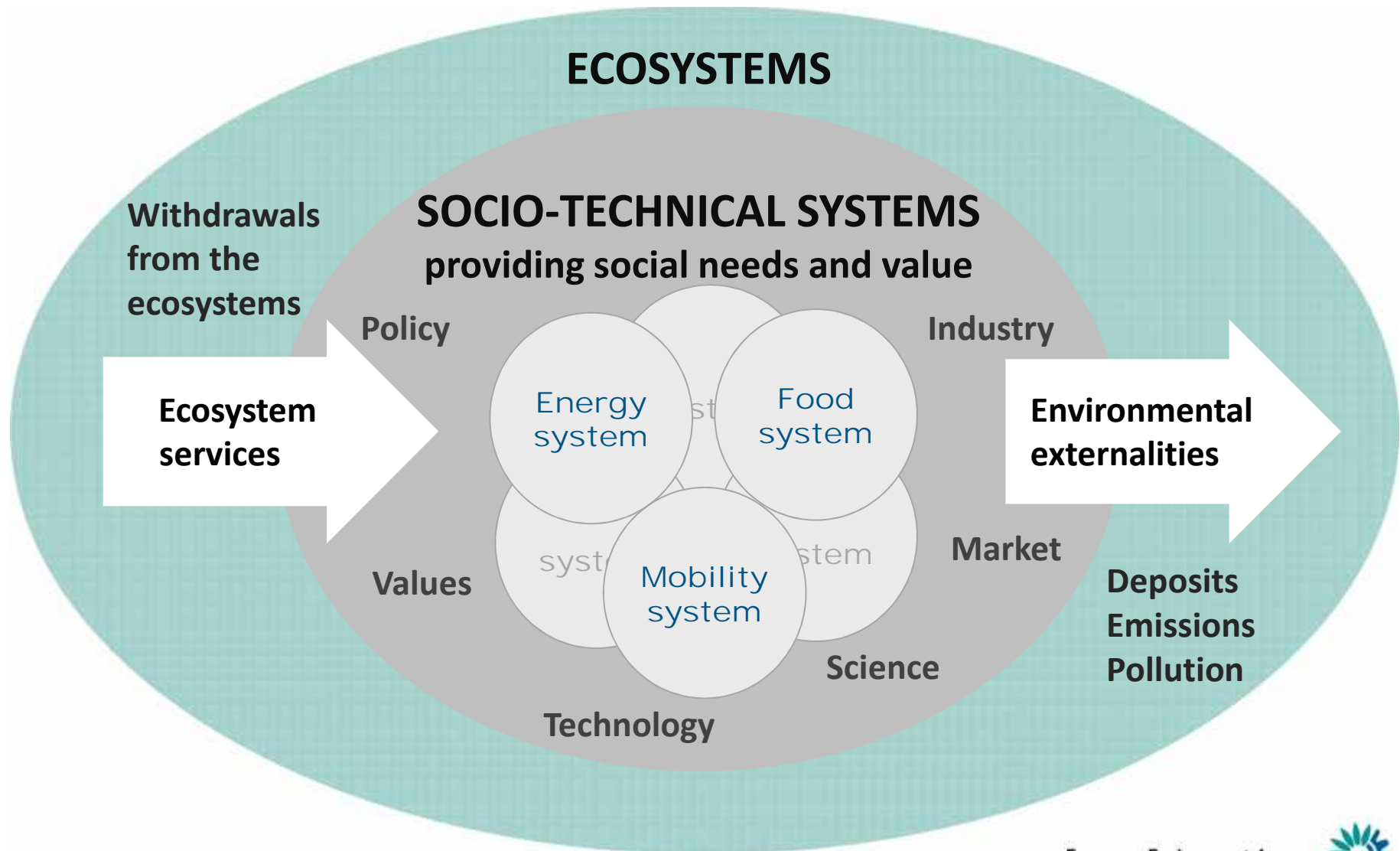
Core environmental features of a green economy

- It is low in carbon use
- It is a circular economy with resources being efficiently used
- It ensures ecosystem resilience

Why(1) The twin challenge



Why(2)? Living well within ecological limits



Why(3)? Our development model appears successful



- The proportion of people living in extreme poverty has been halved at the global level
- The hunger reduction target is within reach
- Over 2 billion people gained access to improved sources of drinking water since 1990
- The proportion of slum dwellers in the cities and metropolises of the developing world is declining



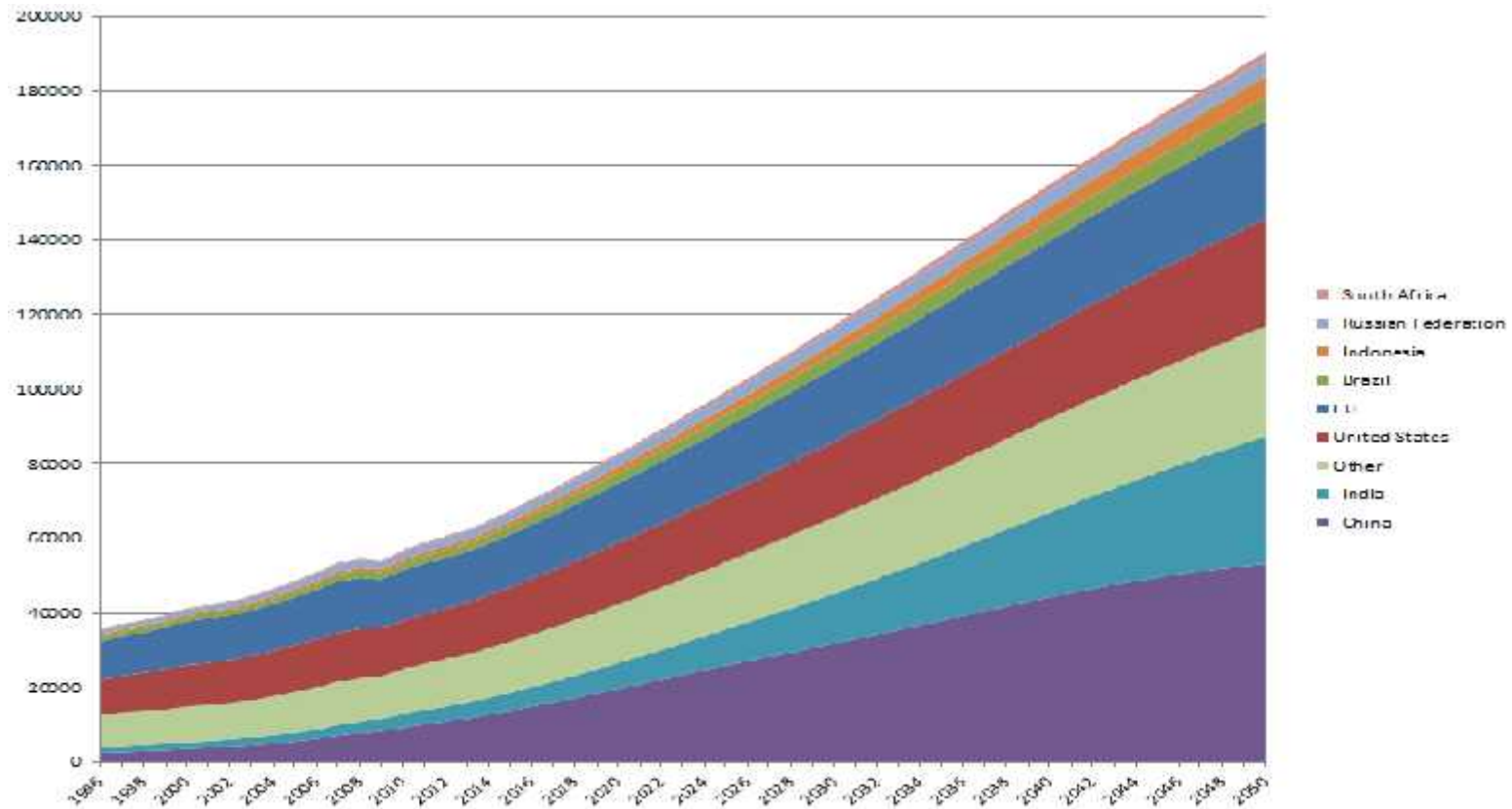
...but 'development' has damaged the environment

- Global emissions of carbon dioxide (CO₂) have increased by more than 46 per cent since 1990
- Nearly one third of marine fish stocks have been over-exploited
- Many species are at risk of extinction, despite an increase in protected areas



Why(4)? Continued economic growth projected

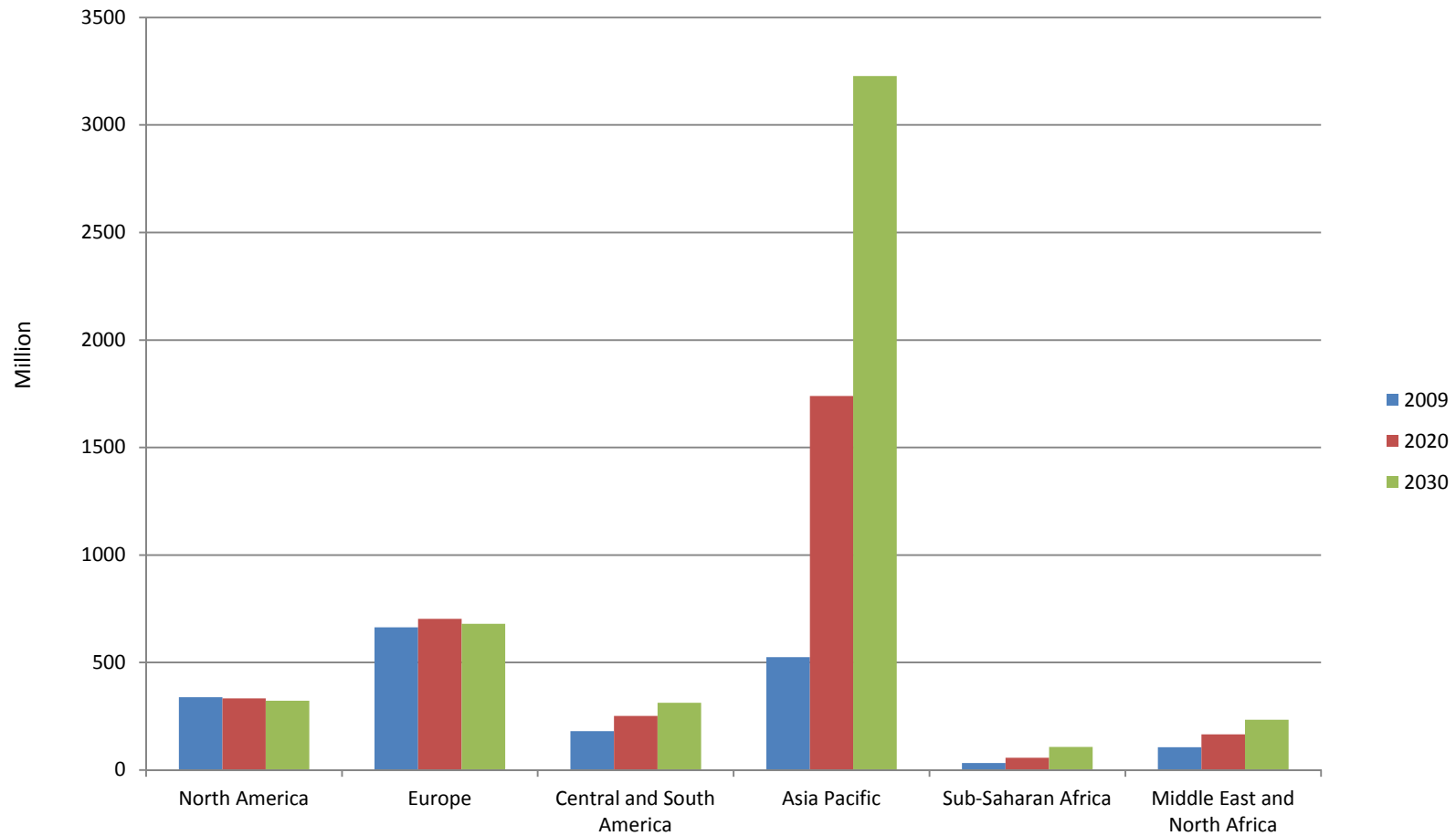
Past and projected global economic output (2005 USD PPP), 1996–2050



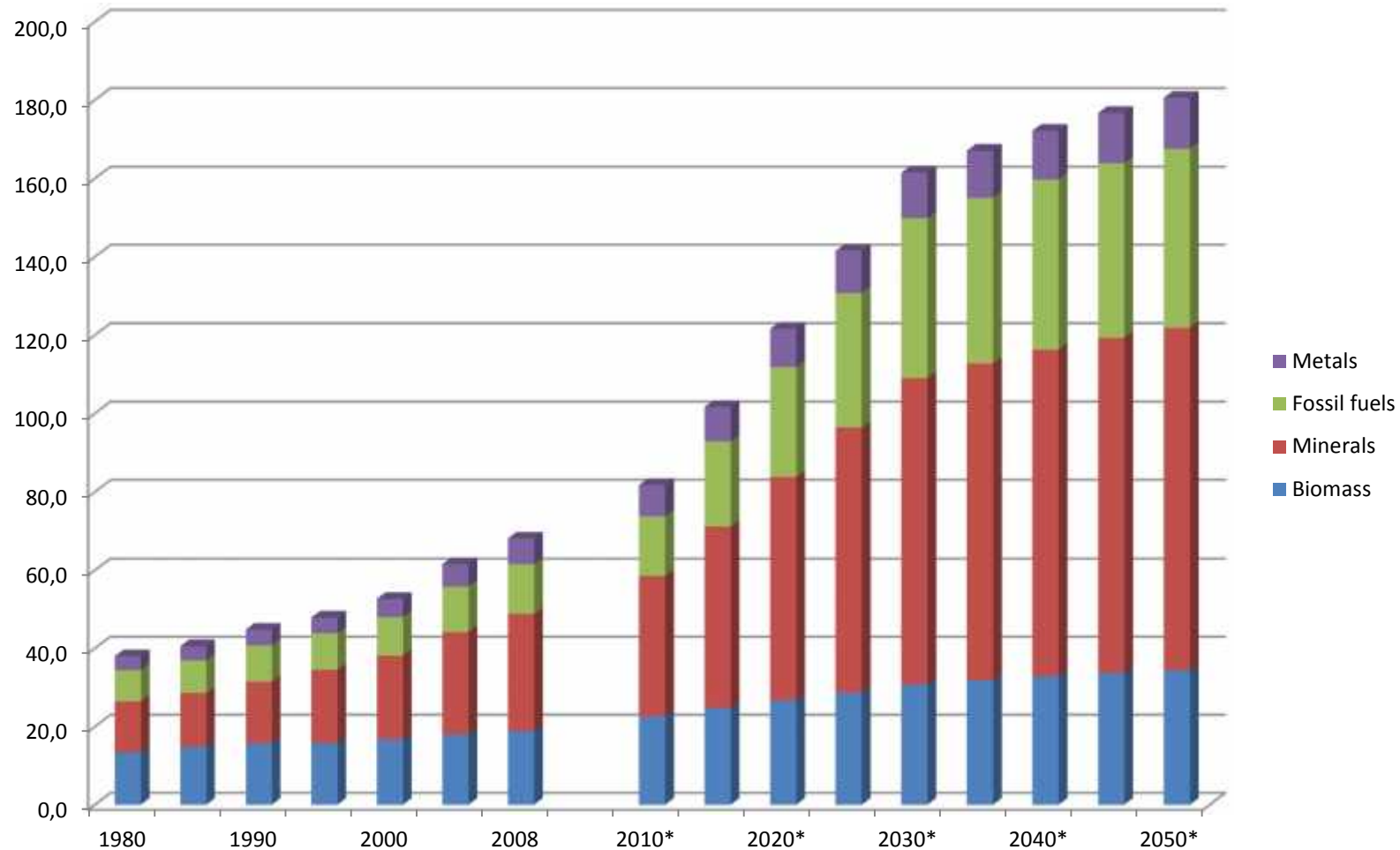
Note: gross domestic product expressed in billion 2005 US dollars at purchasing power parity.

Source: OECD 2013: 'All Statistics - OECD iLibrary'.

Middle class population by world regions 2009, 2020 and 2030



Resource use



Note: *projection

SERI (2013): SERI Global Material Flows Database. 2013 Edition.

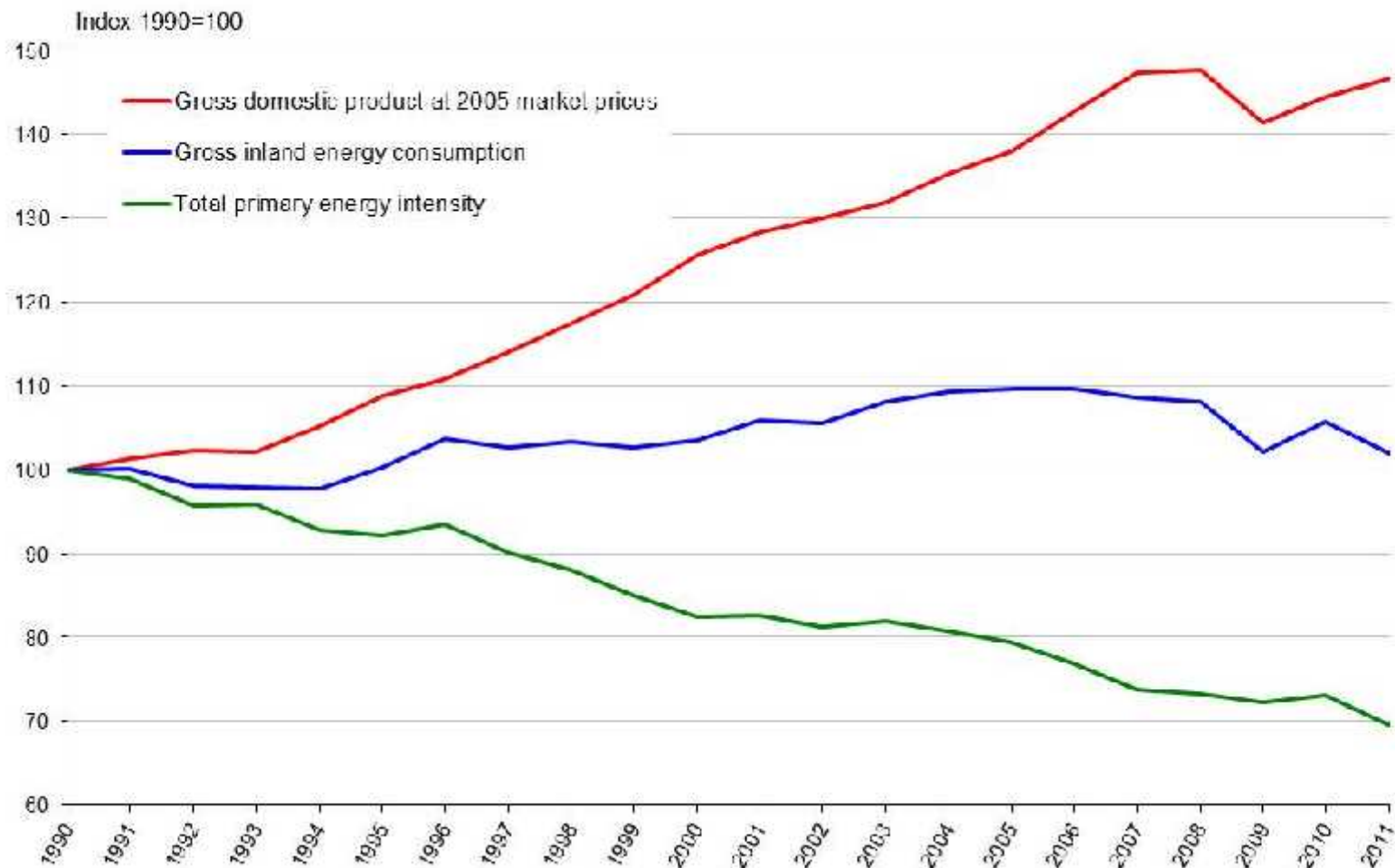
Available at: www.materialflows.net

Does the EU's 2020 agenda lead to a Green Economy?



- **2020 climate and energy goals**
 - **Biodiversity objectives**
 - **Other targets**
 - **Green growth initiatives**
-
- **Evolving 2020 => 2030**
 - **Until now primarily an 'efficiency agenda'**

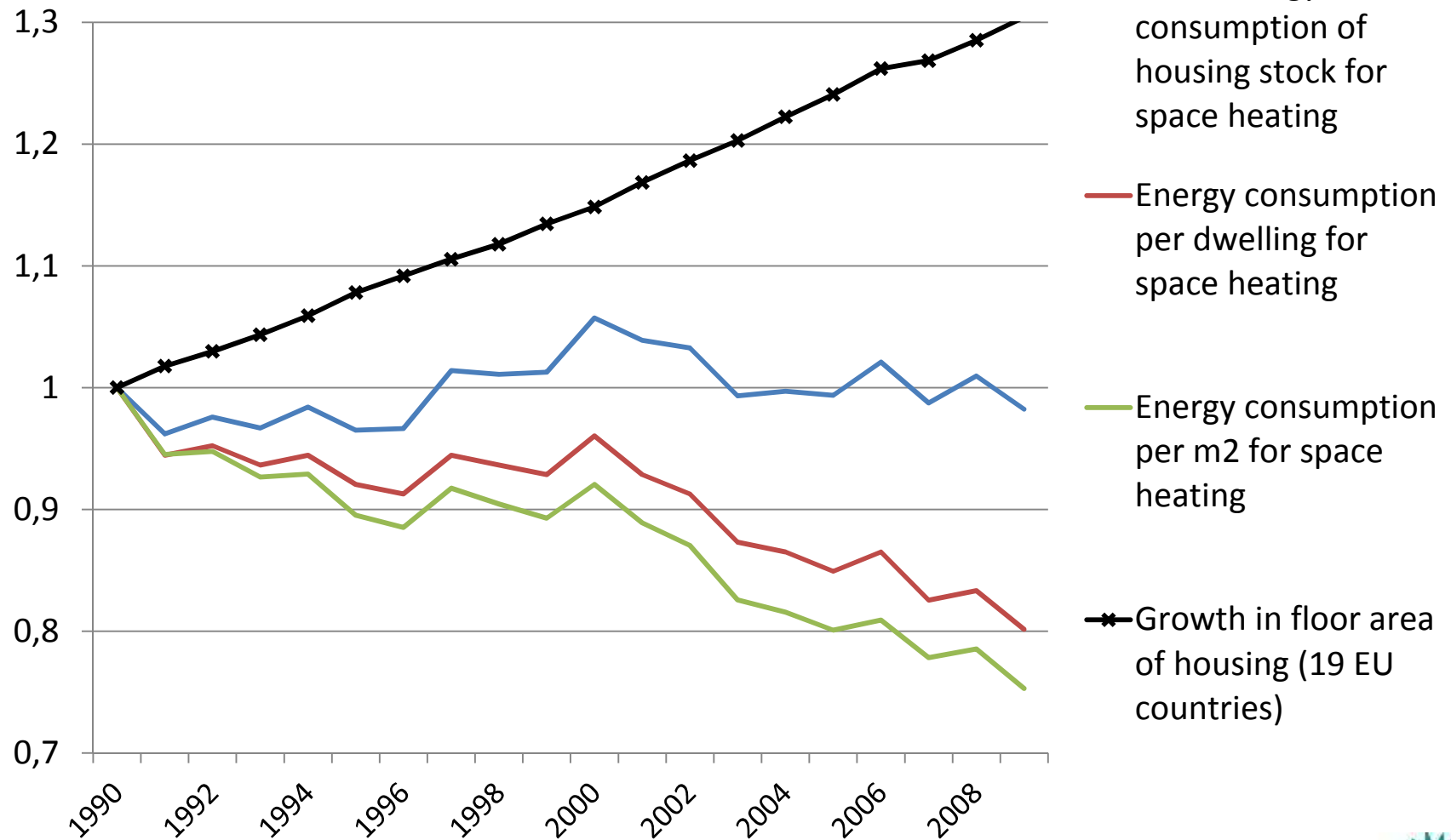
Energy consumption not affected by efficiency



Source: EEA (CSI 028)

Homes are now more efficient, but also much larger

Index 1990 = 1

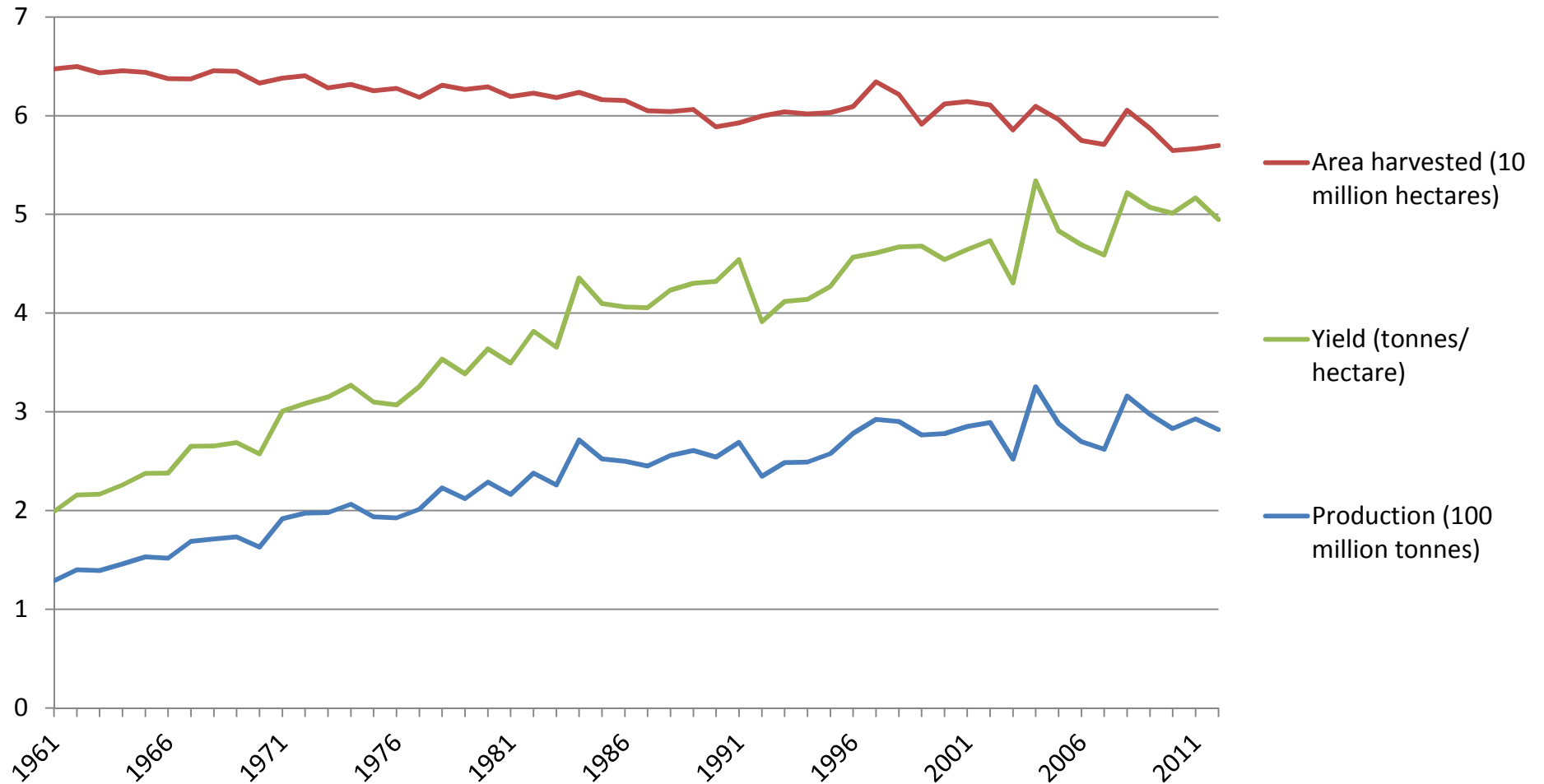


Source: SCP023 indicator (draft)

European Environment Agency

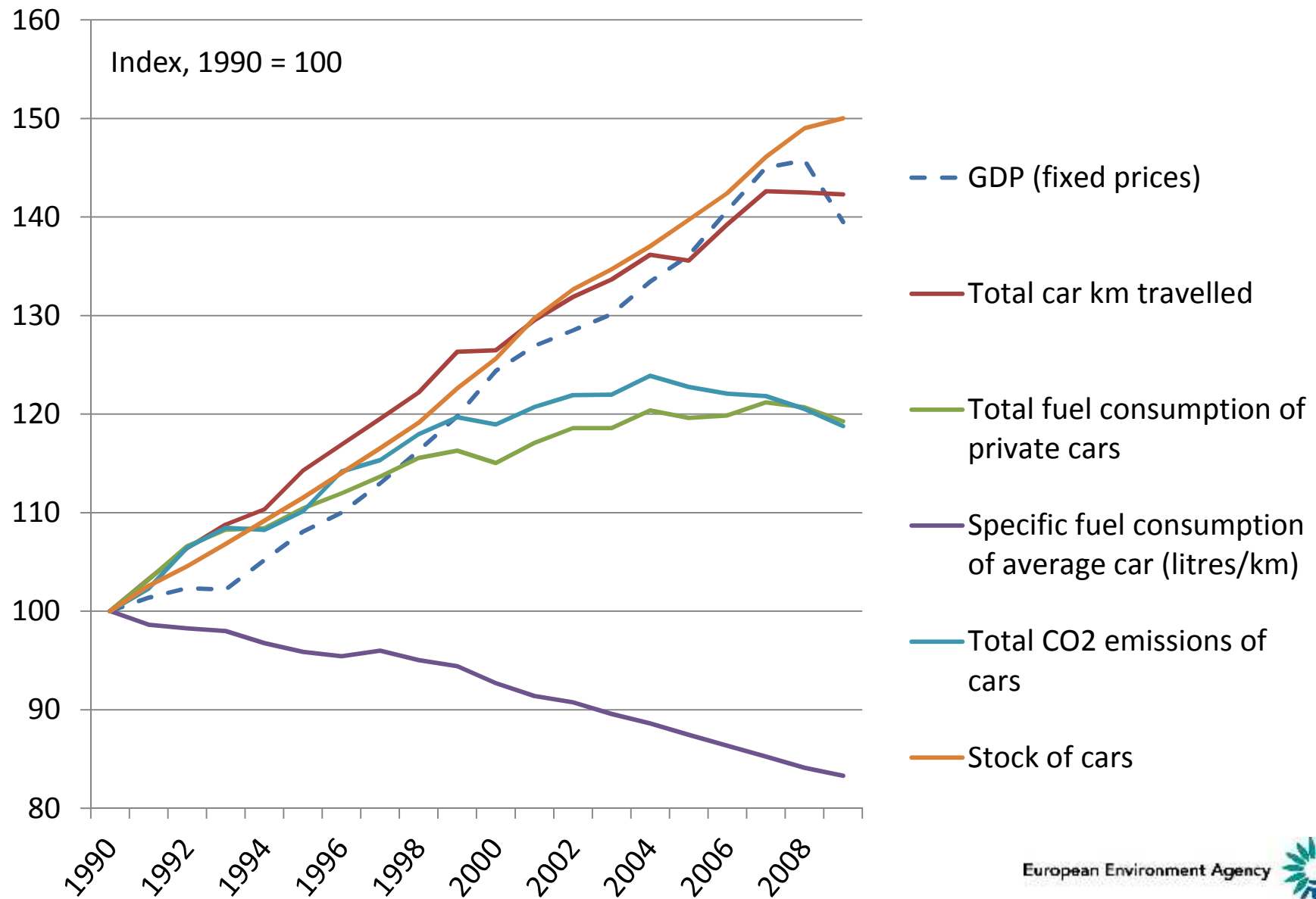


Improved agricultural yields on fewer hectares



Source: FAO

Vehicle efficiency - but emissions are still high



Efficiency gains are not sufficient on their own



Not even technological innovation will 'do the trick'



Efficiency alone does not make ecosystems resilient

Resource efficiency

Greenhouse gas emissions

Transboundary air pollution

Air pollution

Maritime transport emissions

Water use

Decoupling / recycling

Ecosystem resilience

Global climate change

Marine biodiversity

Air quality in urban areas

Terrestrial biodiversity

Water status

Ecological footprint

Key:

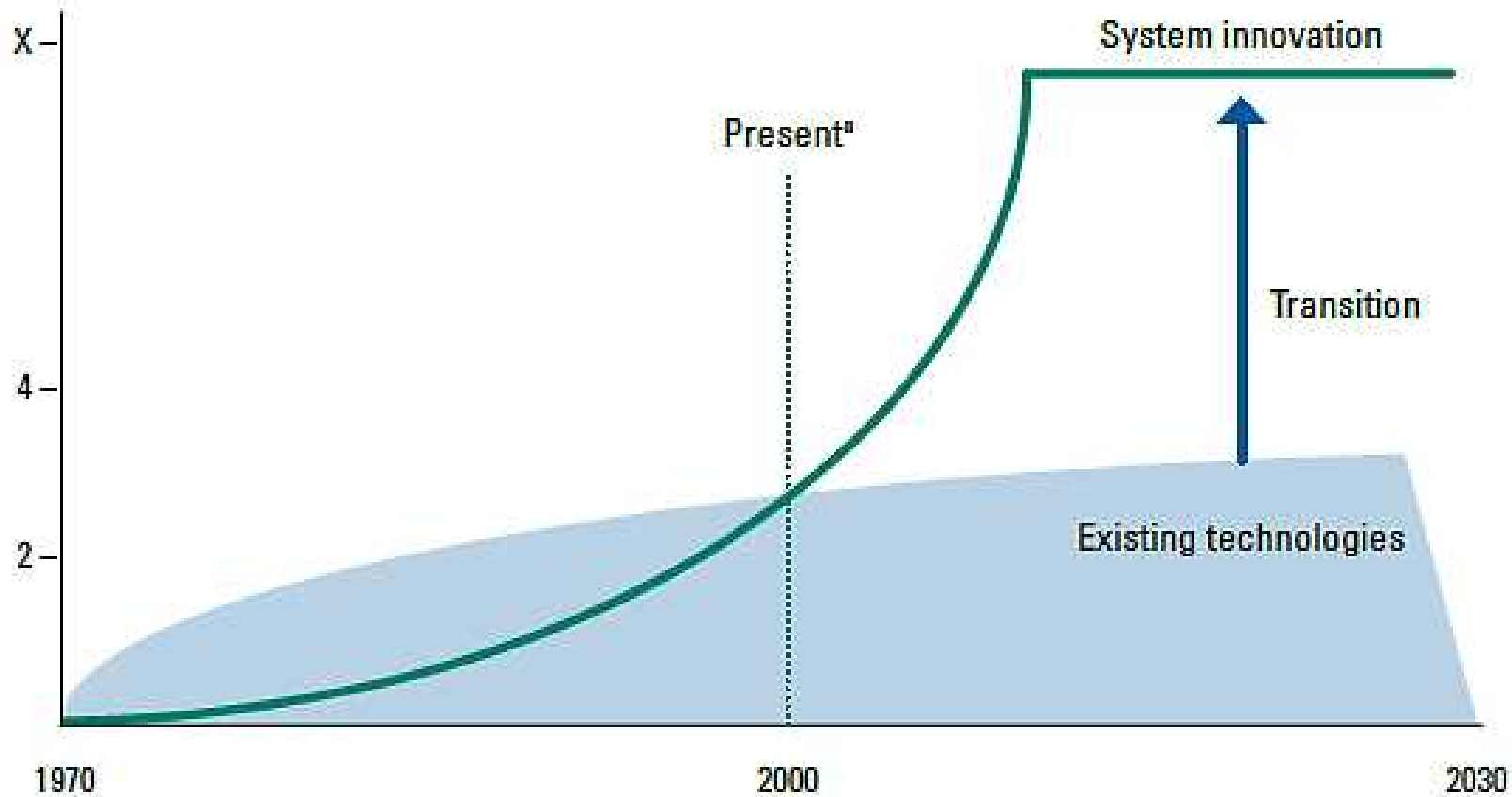
improving

stable / mixed progress

deteriorating

System innovation, not incremental efficiency gains

Improvement in eco-efficiency
Factor



Source: UNEP (2011)

The need for transitions

Persistent problems demand fundamental solutions

- Regular policy offers no solutions
- Incrementalism is not sufficient
- Market solutions are not sufficient

Transitions

= fundamental shifts in the systems that fulfil societal needs, through profound changes in dominant structures, practices, technologies, policies, lifestyles, thinking ...

EU Roadmaps 2050

A Roadmap for moving to a competitive low-carbon economy in 2050

DG Climate Action

Roadmap to a Single European Transport Area –
Towards a competitive and resource-efficient transport system (Transport White Paper)

DG Mobility and Transport

Roadmap to a Resource-Efficient Europe

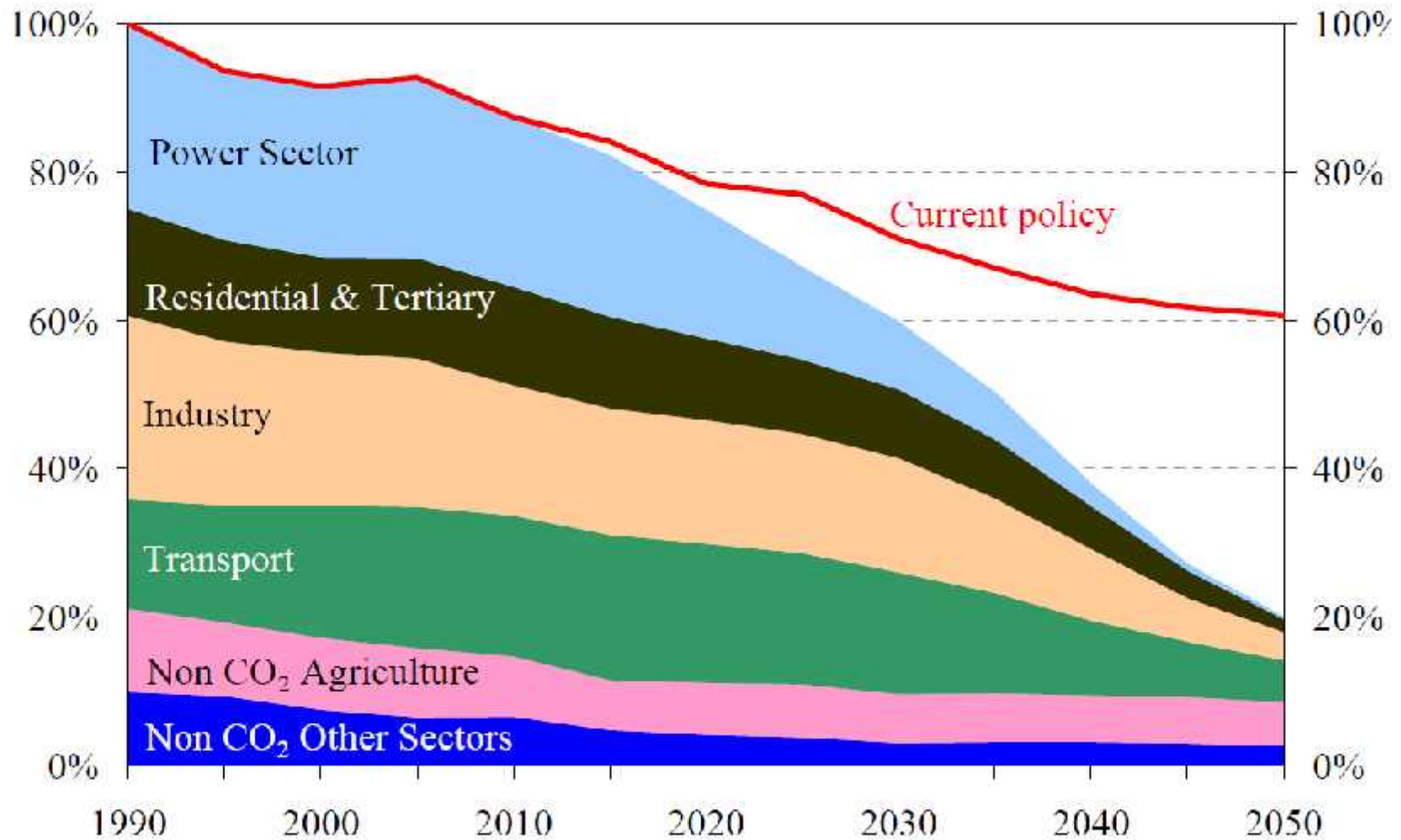
DG Environment

Energy Roadmap 2050

DG Energy

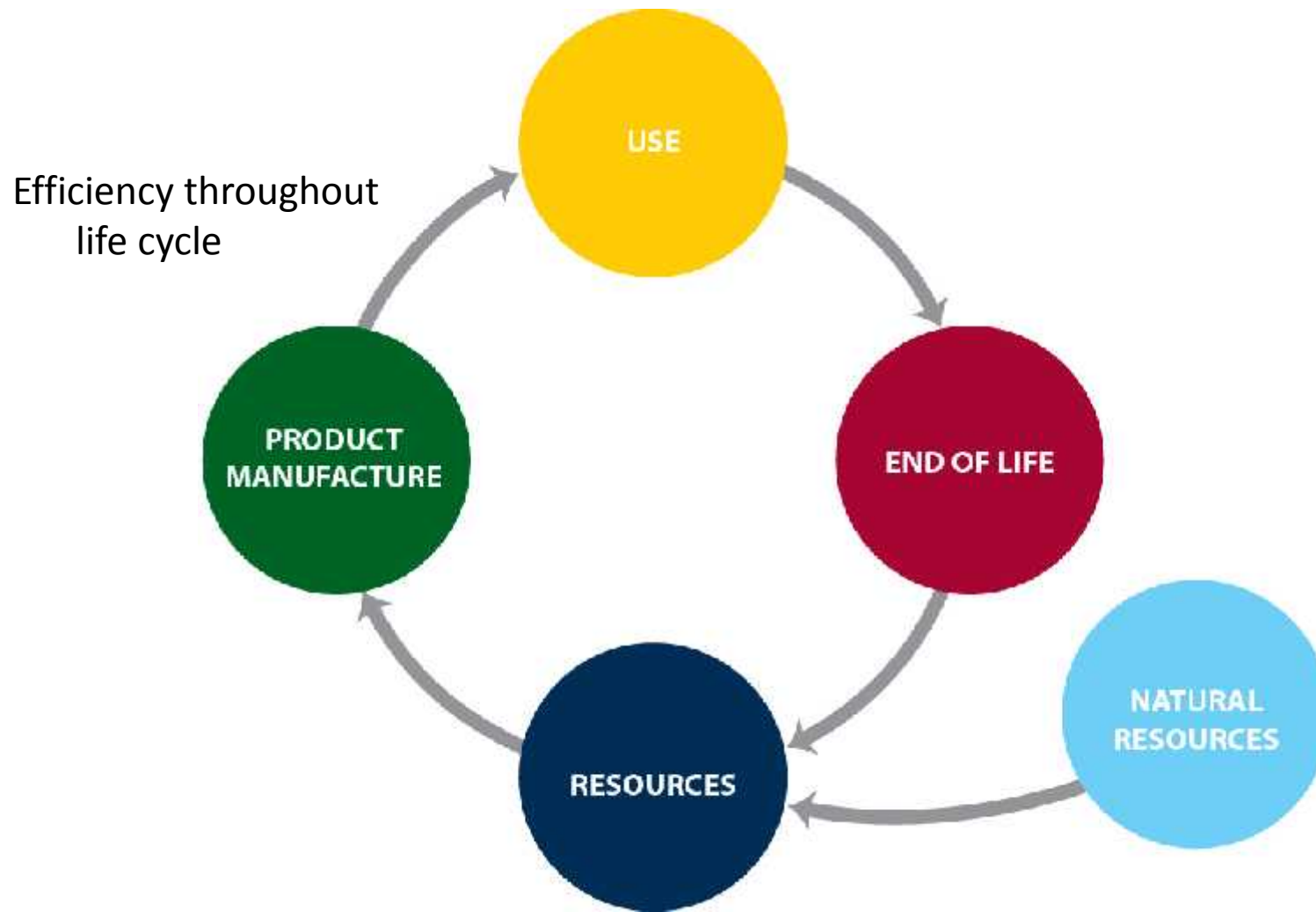
EU GHG emissions towards an 80 % reduction

(100% = 1990)

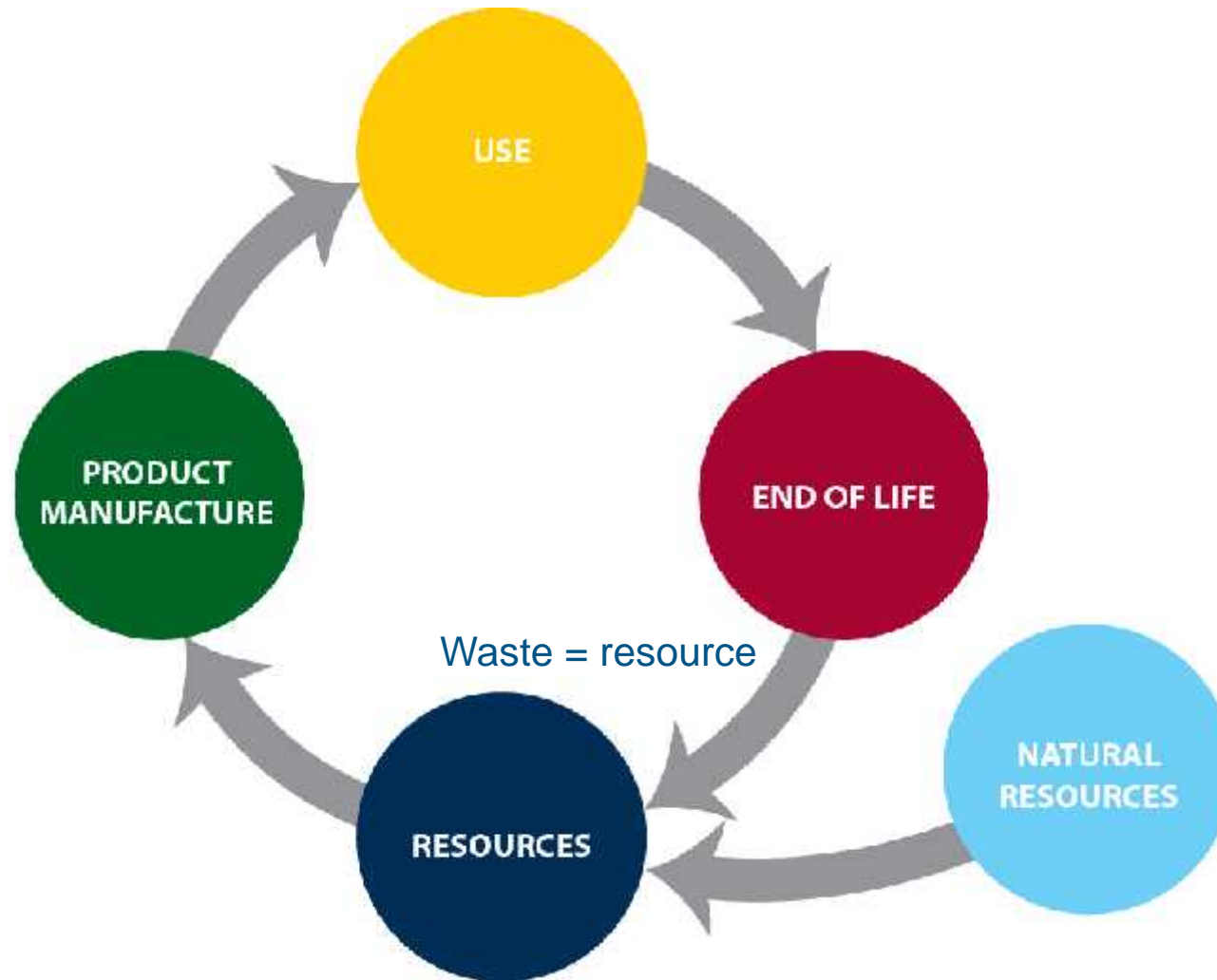


Source: European Commission (2011a)

Closing the cycle?



Closing the cycle?



Limit input of resources
Substitute scarce resources

Ecosystem resilience must be explicitly targeted



Designing policies in support of transitions

- Remove environmentally harmful subsidies and implement environmental fiscal reform
- Develop new policies to encourage the emergence of technologies *and practices* that support the green economy
- Improve the knowledge base about transitions

The EEA and the Green Economy/transitions

- Our five-year Multi-Annual Work Programme will focus on transitions as a priority area
- Developing policy-relevant knowledge on transitions
- Green economy work on
 - the ‘living well’ part: health, consumption, chemicals
 - metrics: beyond GDP, integrated accounting
 - in cooperation with ESTAT, OECD, UN

Main challenges

- Connecting the 2020/30 policies to 2050 vision
- Transition of fundamental socio-technical systems
- More effective global action
- Changing the message and the discourse ...

Thank you

Hans.Bruyninckx@eea.europa.eu

