



DYNAMIX

Decoupling growth from resource use
and its environmental impacts

DYNAMIX approach to assessing the effectiveness of policy mixes

Session 3: How to achieve absolute decoupling?

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OVERVIEW

- Our research question
- How to assess effectiveness of policy mixes?
- What is absolute decoupling and is it enough?
- Our approach based on key targets for 2050

RESEARCH QUESTION

Policy options for a resource efficient economy

*“**policy mix** [leading] to an **absolute decoupling** of economic growth from unsustainable use of natural resources and environmental degradation.”*

*“**new concepts and paradigms** to ensure that the resource efficiency dimension throughout the **life cycle** of products/services is embedded in policy formulation“*

*“an adequate policy mix that optimises **synergies** and addresses **trade-offs** between different areas and policies”*

ASSESSMENT CRITERIA

DYNAMIX aims to

- identify promising policy mixes supporting absolute decoupling
- assess their **effectiveness**, efficiency and sustainability in the medium-term (2030) and long-term (2050)

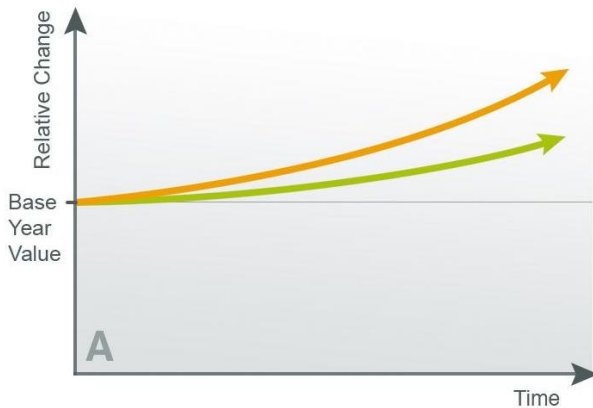
ASSESSMENT CRITERIA: EFFECTIVENESS

How will we know if absolute decoupling has been achieved?

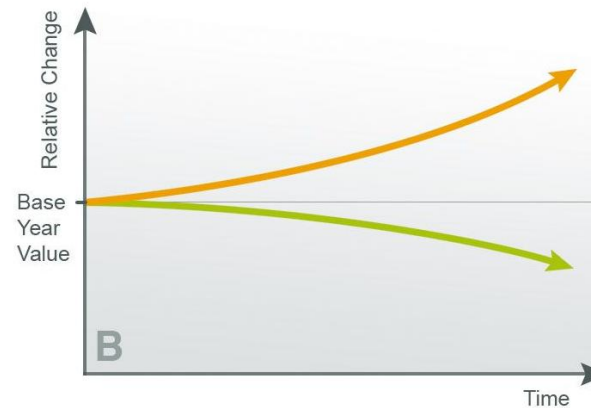
EFFECTIVENESS – ABSOLUTE DECOUPLING

Conventional Decoupling

Relative Decoupling

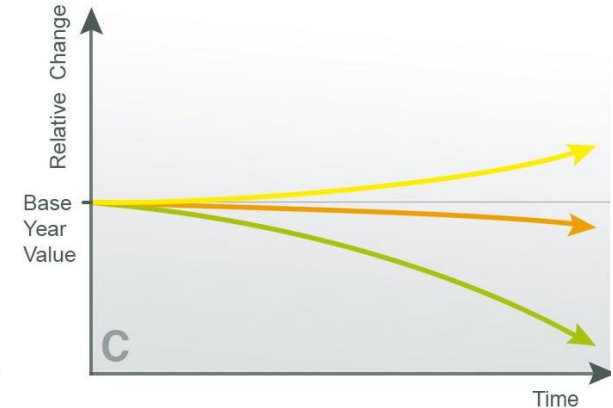


Absolute Decoupling



Reframing Decoupling

Absolute Decoupling of Resource Use from Wellbeing



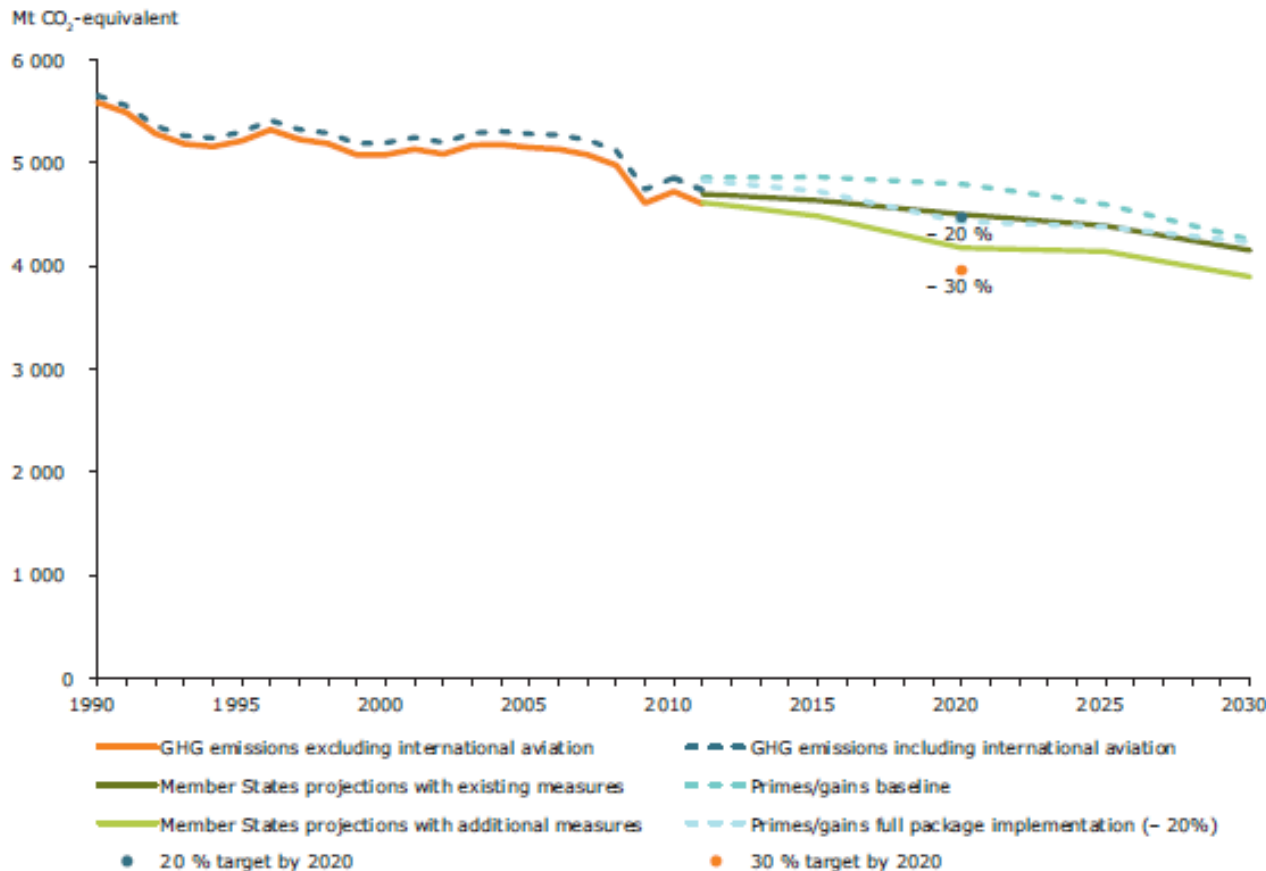
ASSESSMENT CRITERIA: EFFECTIVENESS

How will we know if absolute decoupling has been achieved?

- What indicator(s) to use for resource use and environmental impacts?
- Weighting of different impacts?
- Will absolute decoupling be enough to achieve sustainable management of natural resources?

EFFECTIVENESS – IS DECOUPLING ENOUGH?

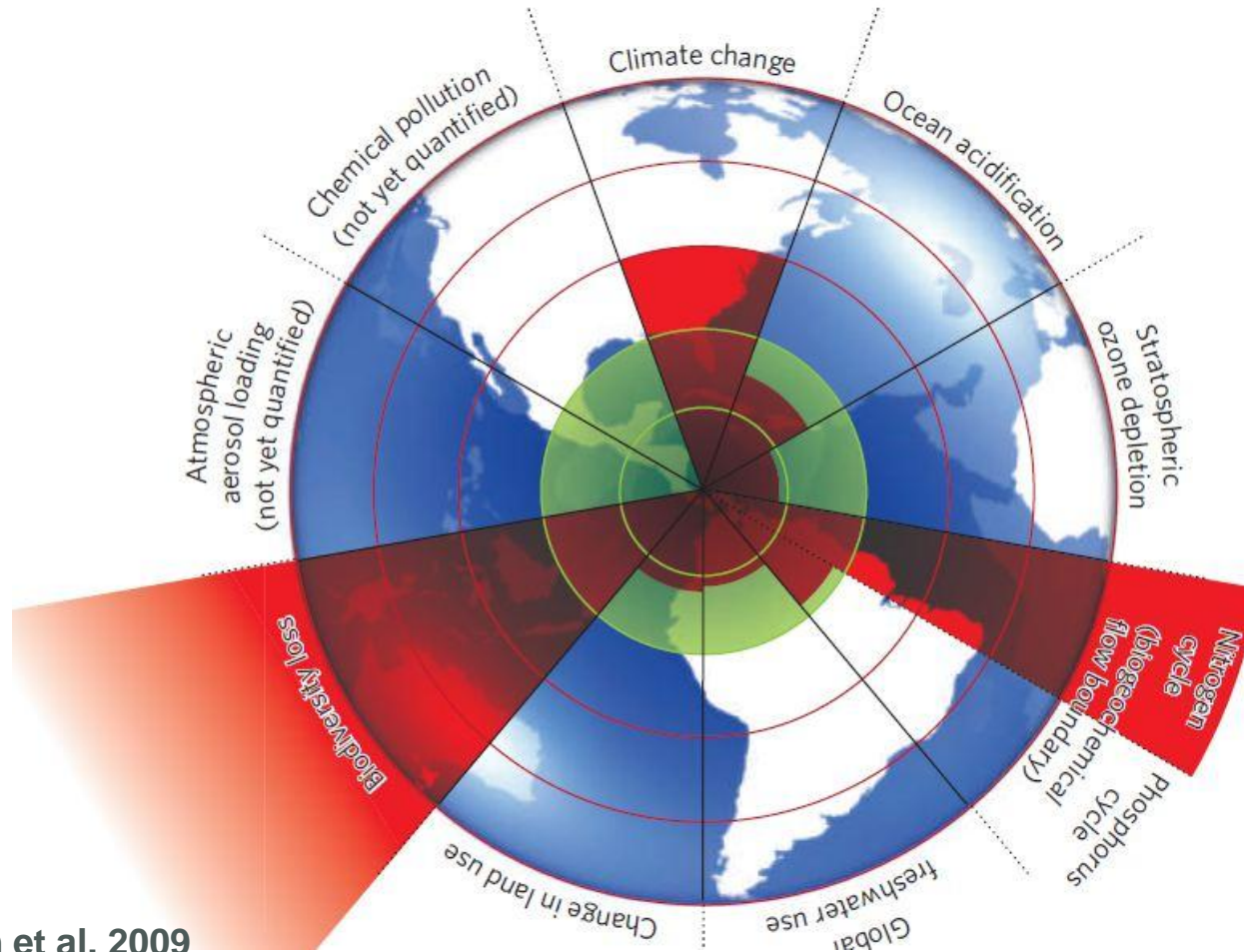
Figure 6.1 Trends and projections of EU total GHG emissions, 1990–2030



Example:
GHG emissions

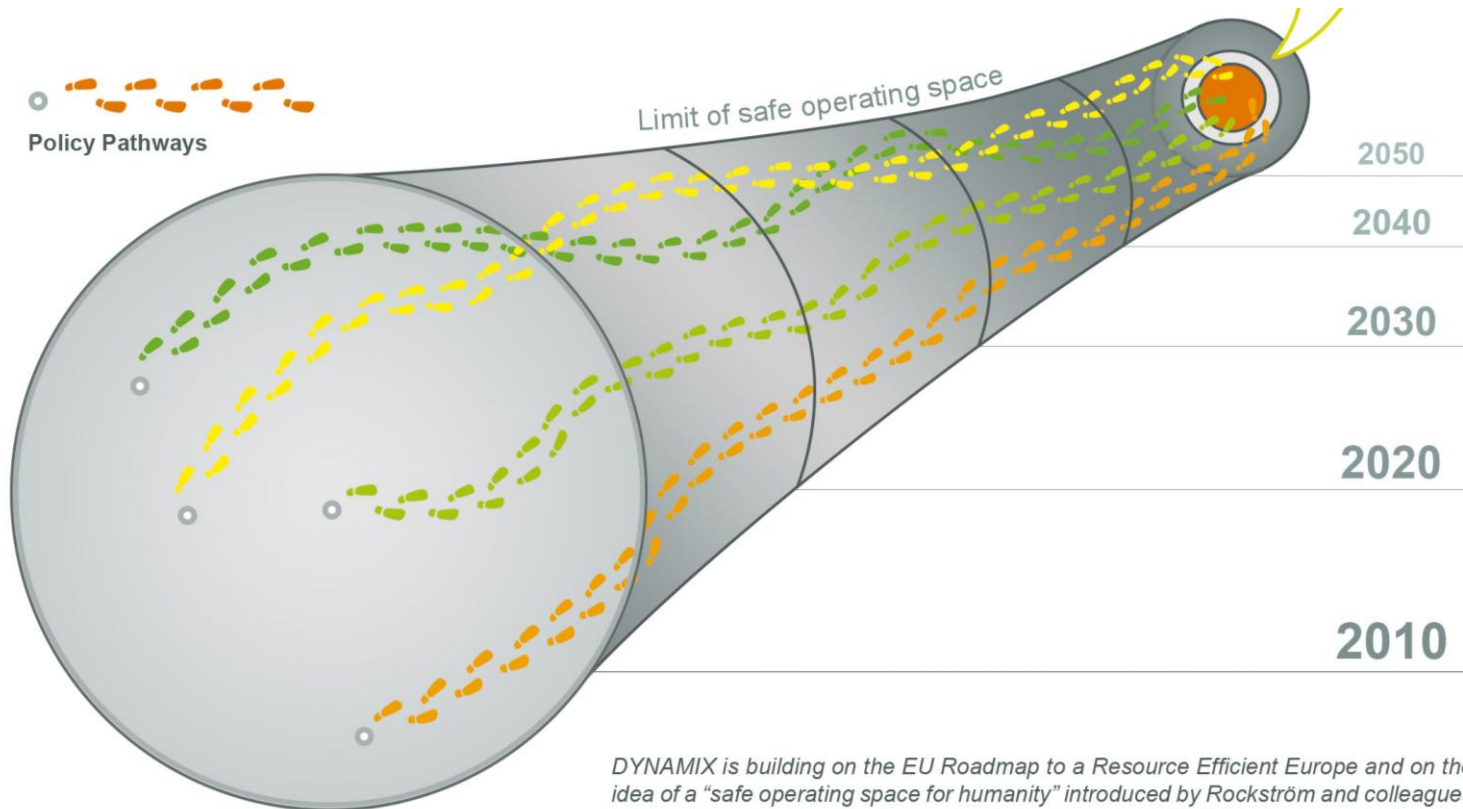
EEA 2012

EFFECTIVENESS – IS DECOUPLING ENOUGH?



Rockström et al. 2009

EFFECTIVENESS – VISION WITH KEY TARGETS



DYNAMIX is building on the EU Roadmap to a Resource Efficient Europe and on the idea of a “safe operating space for humanity” introduced by Rockström and colleagues in 2009. Visualisation is adapted from Leppänen et al. 2012 (SPREAD project).

EFFECTIVENESS – KEY TARGETS FOR 2050

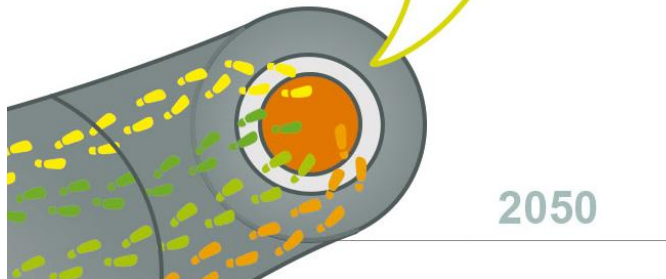
Choosing the targets so that...

- in approximation they cover most critical impacts of resource use,
- reflect looming scarcity of vital resources,
- reflect the EU's „fair share“,
- they can be measured based on available data,
- they are solution-open.

EFFECTIVENESS – PROPOSED KEY TARGETS

Key targets 2050:

- **Greenhouse gas emissions:** 2 t CO_{2-eq} / capita.
- **Metals:** reducing consumption of virgin metals by 80%.
- **Land use:** zero net demand of non-EU arable land.
- **Nutrients:** reducing nitrogen and phosphorus surpluses.
- **Fresh water:** no water scarcity in any region.



- rendering the vision of the RE roadmap more concrete
- inspired by the scoreboard
- reflecting production- and consumption-based perspective

To SUMARISE

- DYNAMIX will test to what extent policy mixes can be designed to achieve the 2050 vision
- Targets are work in progress, input to the ongoing debate
- More detailed discussion in Break-Out Group „Assessment criteria and indicators“

Thank you.

