A Clean Planet for all

A European strategic long term vision for a prosperous, modern, competitive and climate neutral economy

Think Forest Event "Climate Policy and Forest Bioeconomy
Brussels, 4 December 2018

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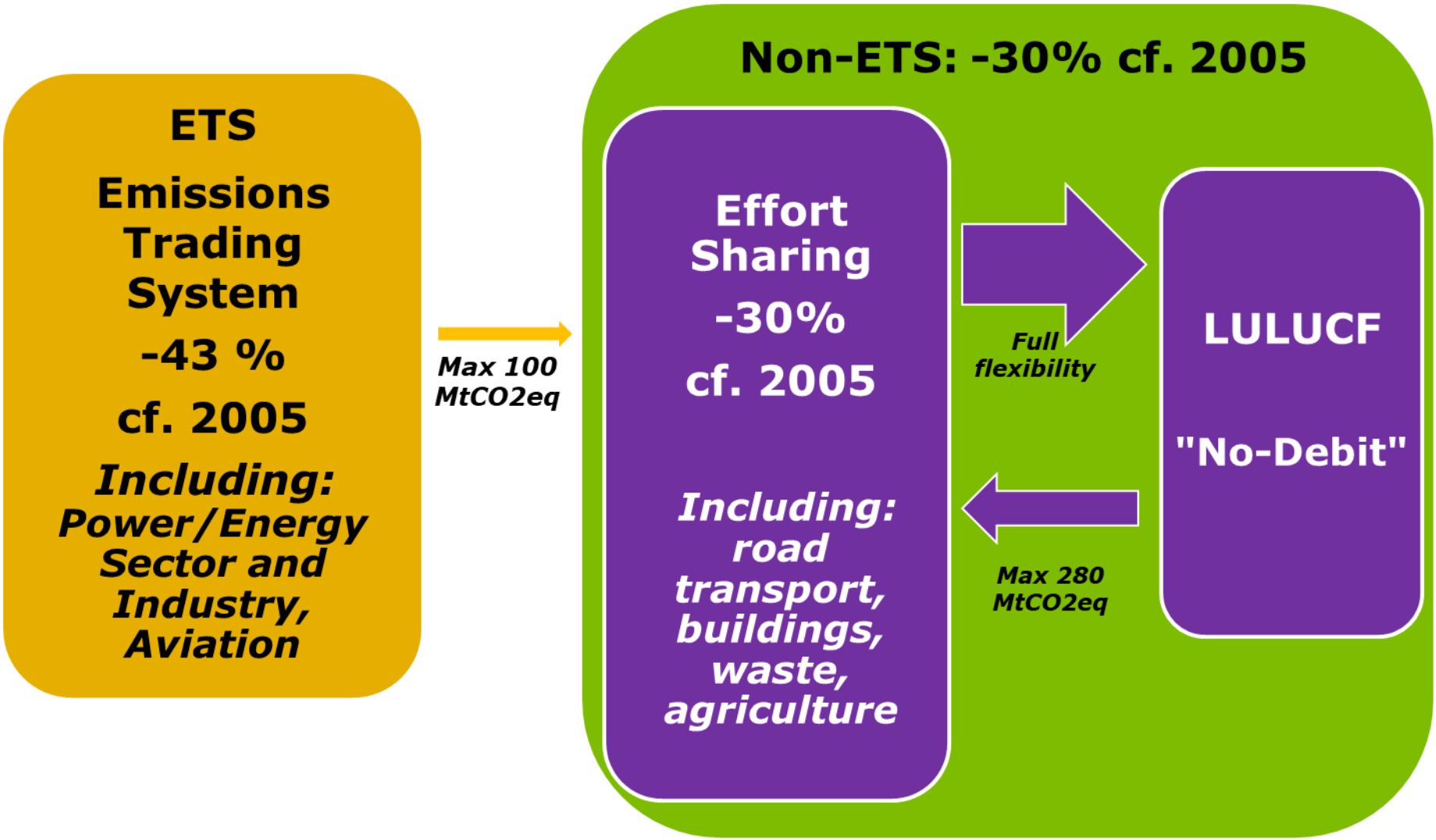
Director, European Commission

Outline

- *Policy framework until 2030*
- *Towards a new 2050 long-term strategy*
- *Conclusions*

European Commission

2030 Framework: Reducing domestic greenhouse gas emissions by at least 40% cf. 1990



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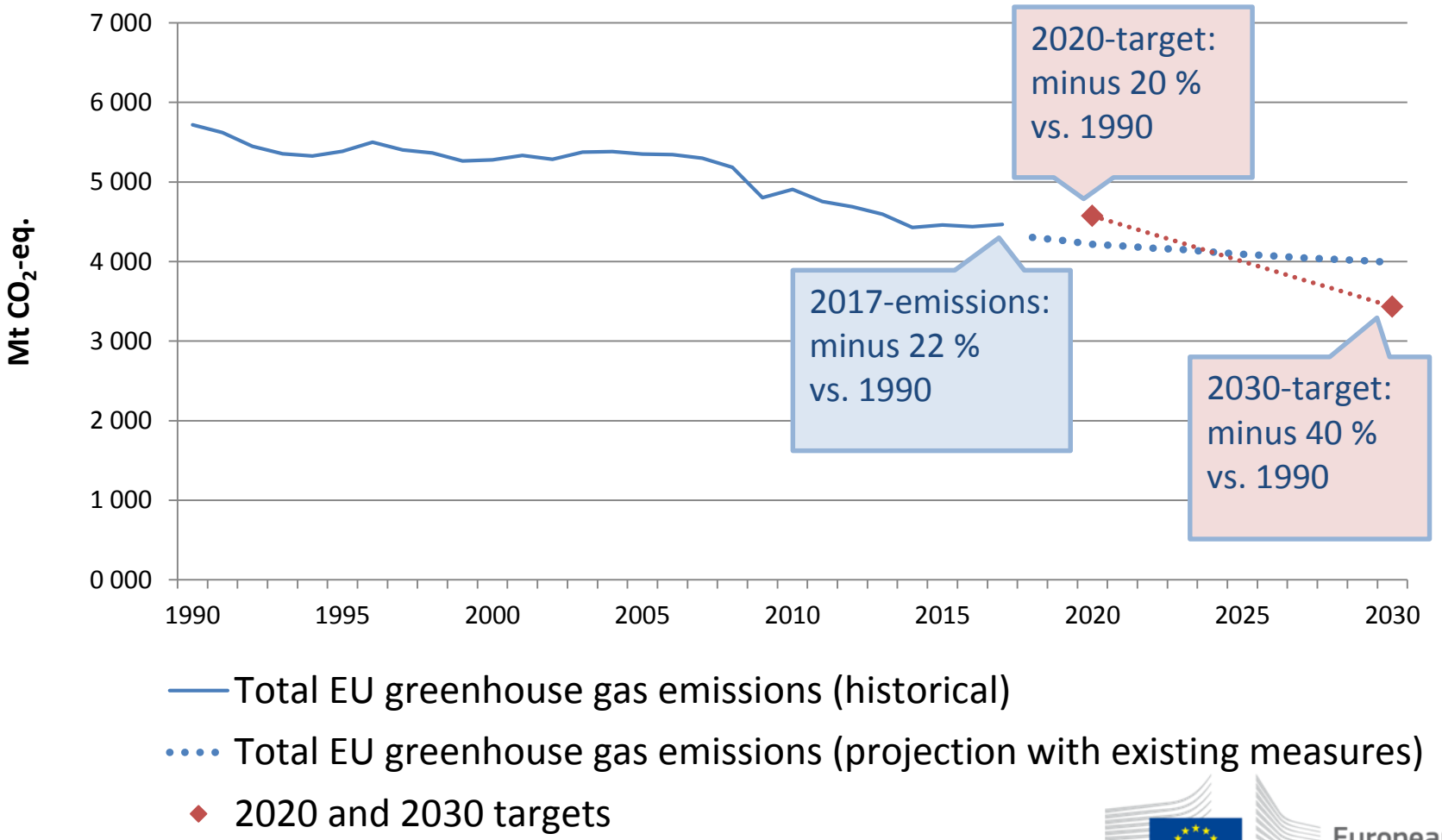
2030 Framework: Development of EU greenhouse gas emissions, 1990 - 2030



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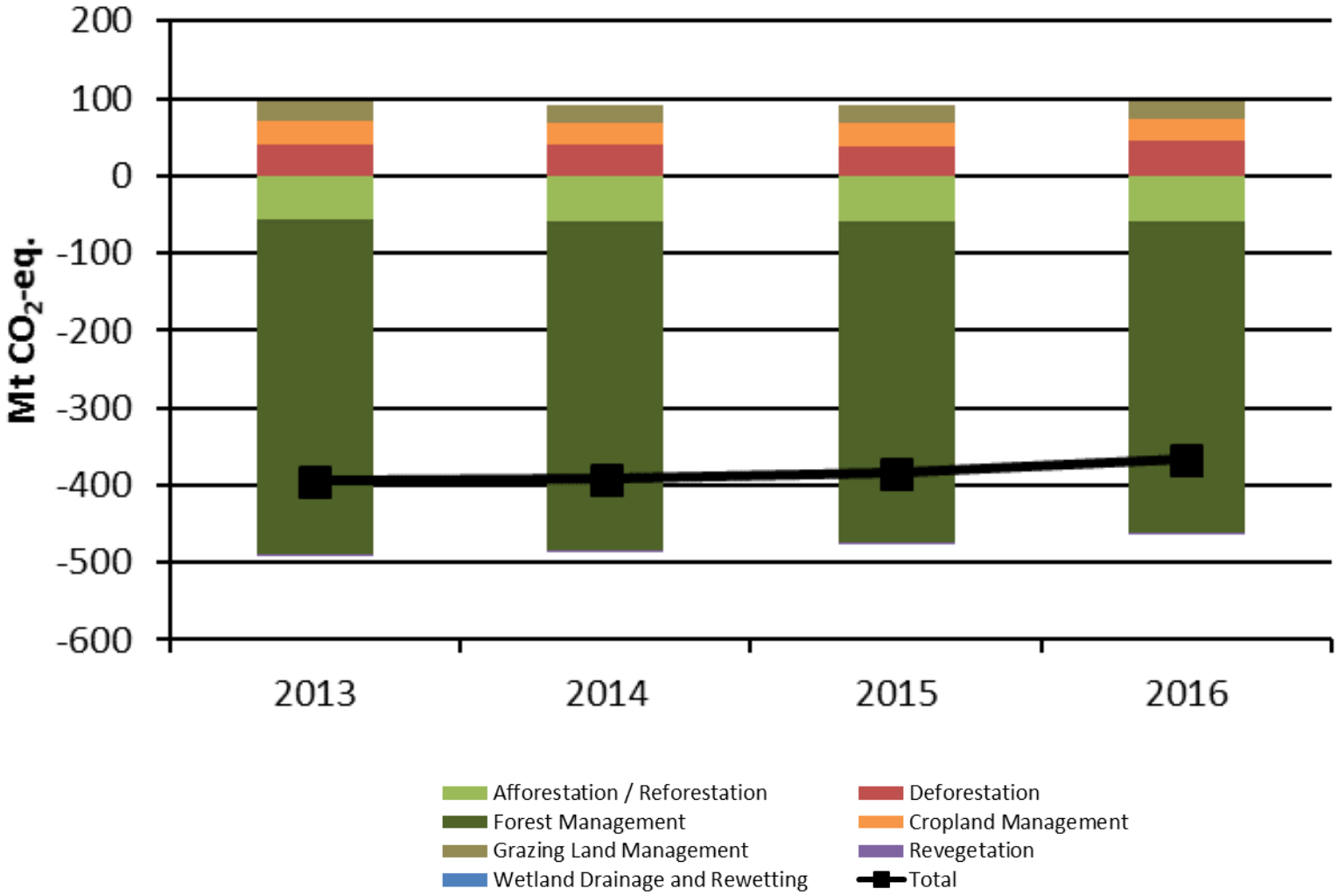
2030 Framework: Reporting of LULUCF emissions under Kyoto Protocol rules



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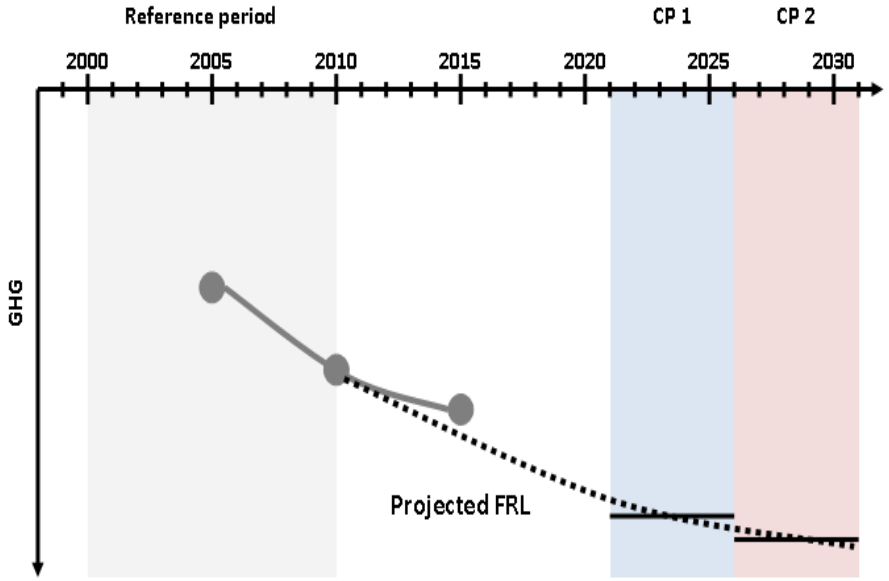
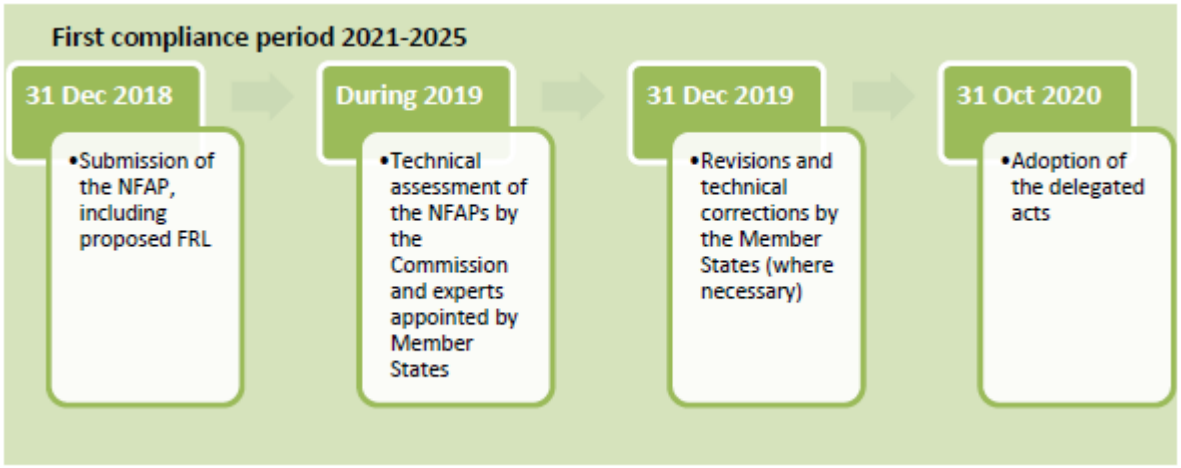
2030 Framework: Member States preparing implementation plans

- *Member States deliver by 31/12/2018*
  - **National Forestry Accounting Plan with projected Forest Reference Level**
  - **National Energy and Climate Plan**





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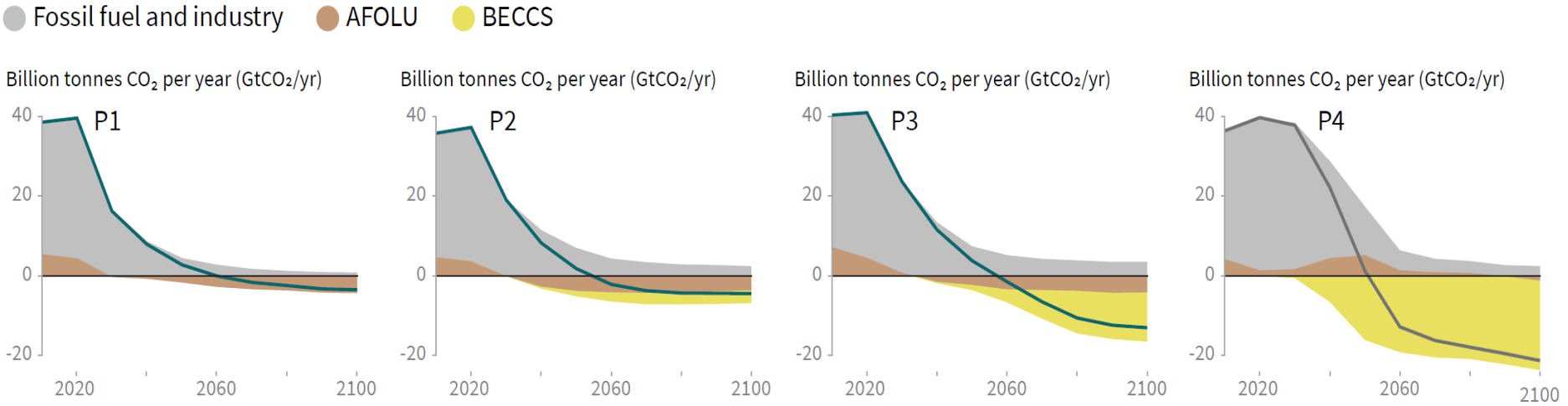
Vision 2050:
IPCC pathways to global net zero CO_2 by 2050

Breakdown of contributions to global net CO_2 emissions in four illustrative model pathways



P1: A scenario in which social, business, and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A down-sized energy system enables rapid decarbonisation of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with CCS nor BECCS are used.

P2: A scenario with a broad focus on sustainability including energy intensity, human development, economic convergence and international cooperation, as well as shifts towards sustainable and healthy consumption patterns, low-carbon technology innovation, and well-managed land systems with limited societal acceptability for BECCS.

P3: A middle-of-the-road scenario in which societal as well as technological development follows historical patterns. Emissions reductions are mainly achieved by changing the way in which energy and products are produced, and to a lesser degree by reductions in demand.

P4: A resource and energy-intensive scenario in which economic growth and globalization lead to widespread adoption of greenhouse-gas intensive lifestyles, including high demand for transportation fuels and livestock products. Emissions reductions are mainly achieved through technological means, making strong use of CDR through the deployment of BECCS.

Source: IPCC Special Report on 1.5 degrees, 2018

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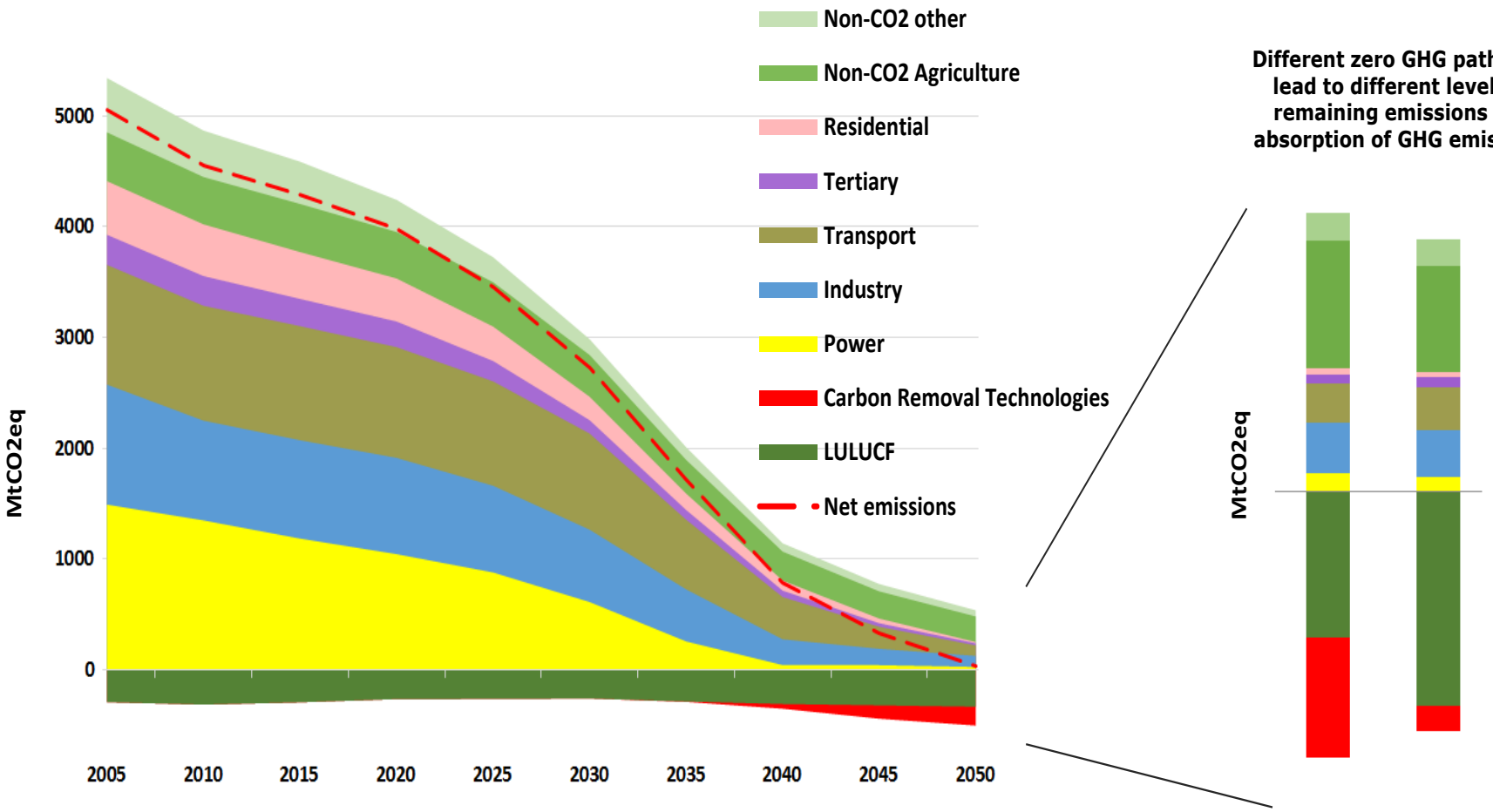
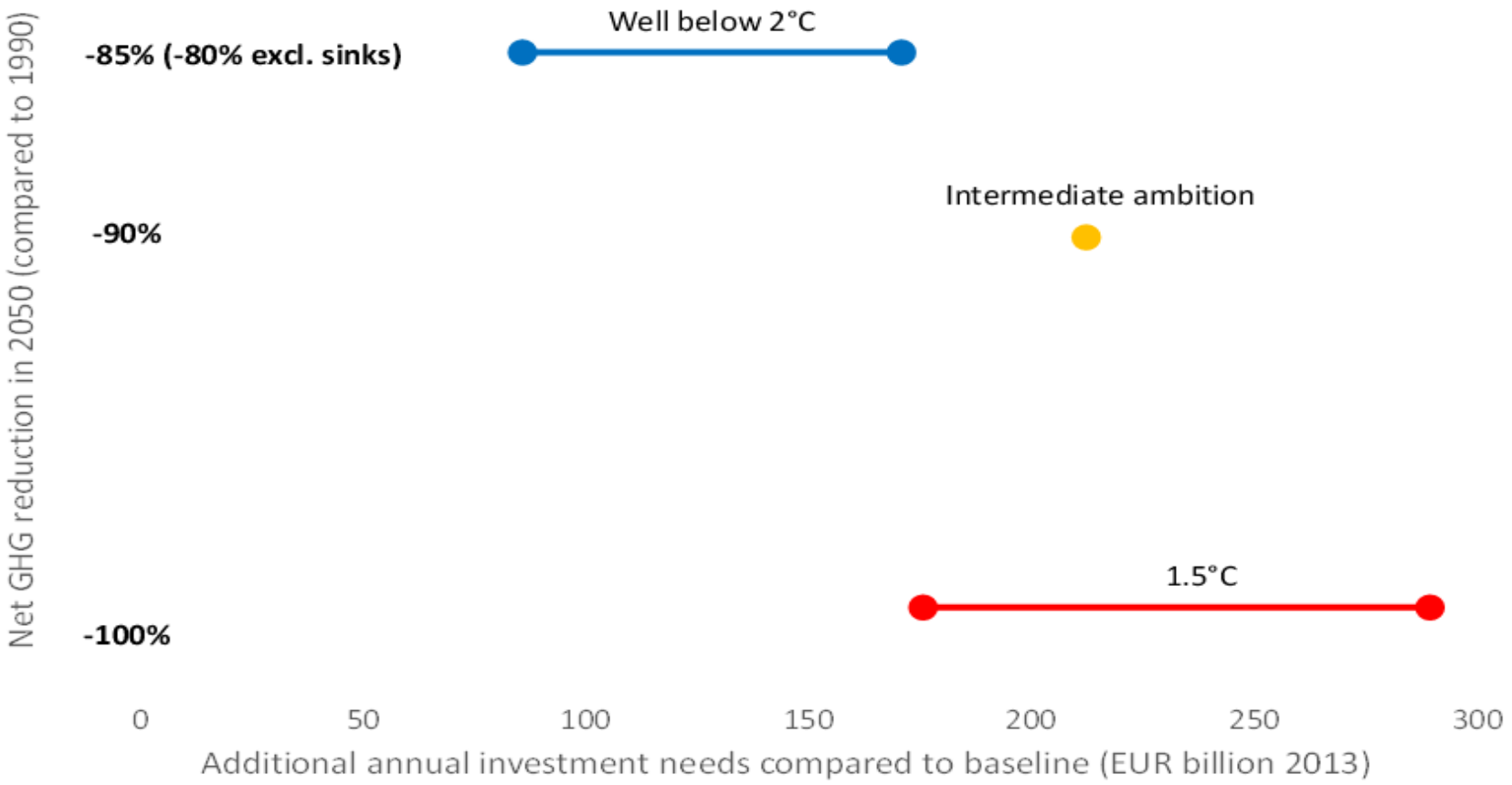
Our Vision for a Clean Planet: A climate neutral EU by 2050



Our Vision for a Clean Planet: A climate neutral EU by 2050 – Additional investments



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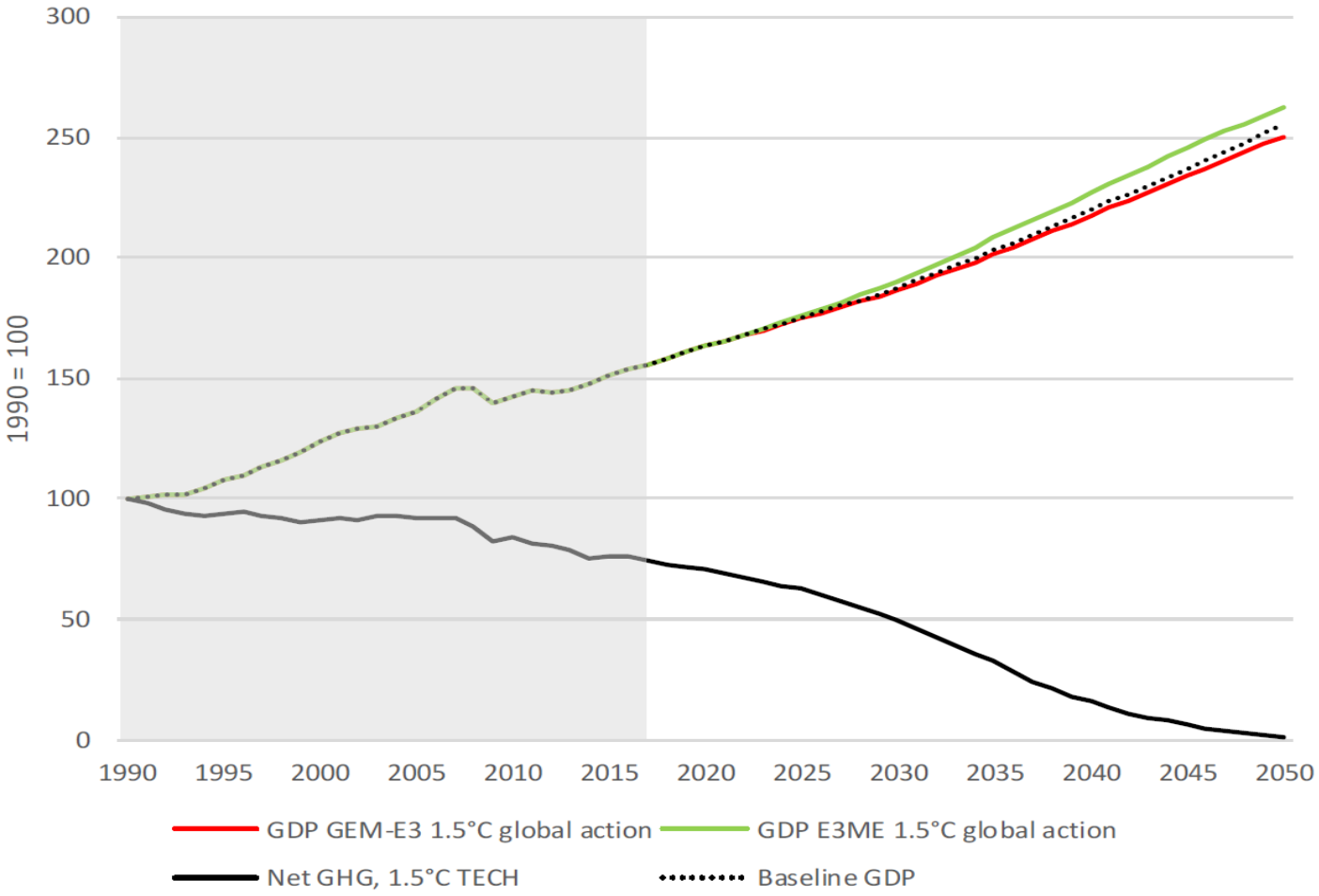
Our Vision for a Clean Planet: A climate neutral EU by 2050 – Economic growth



Caveat:
This does not take into account differences in climate change damages, nor adaptation costs between baseline and 1.5° C.

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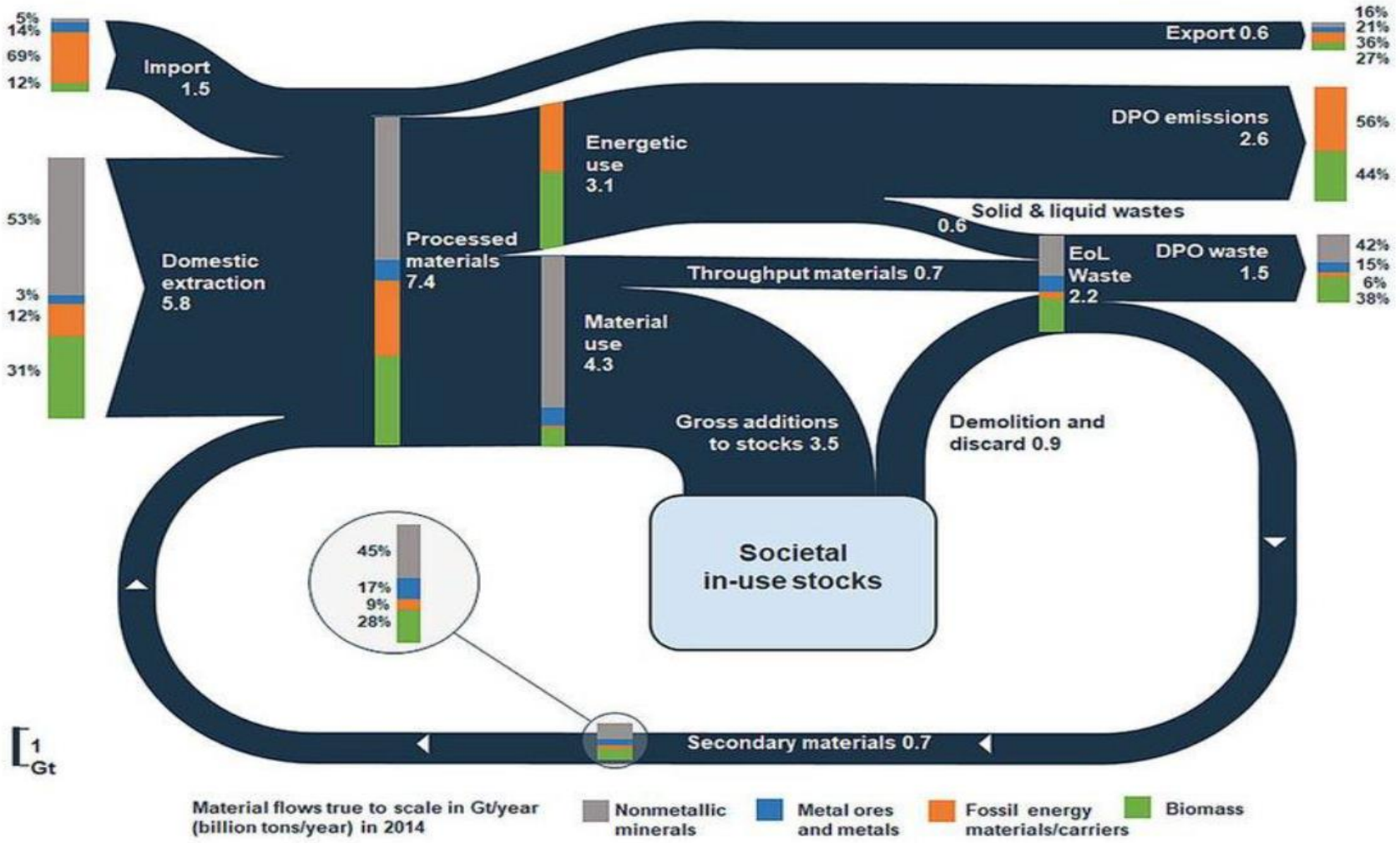
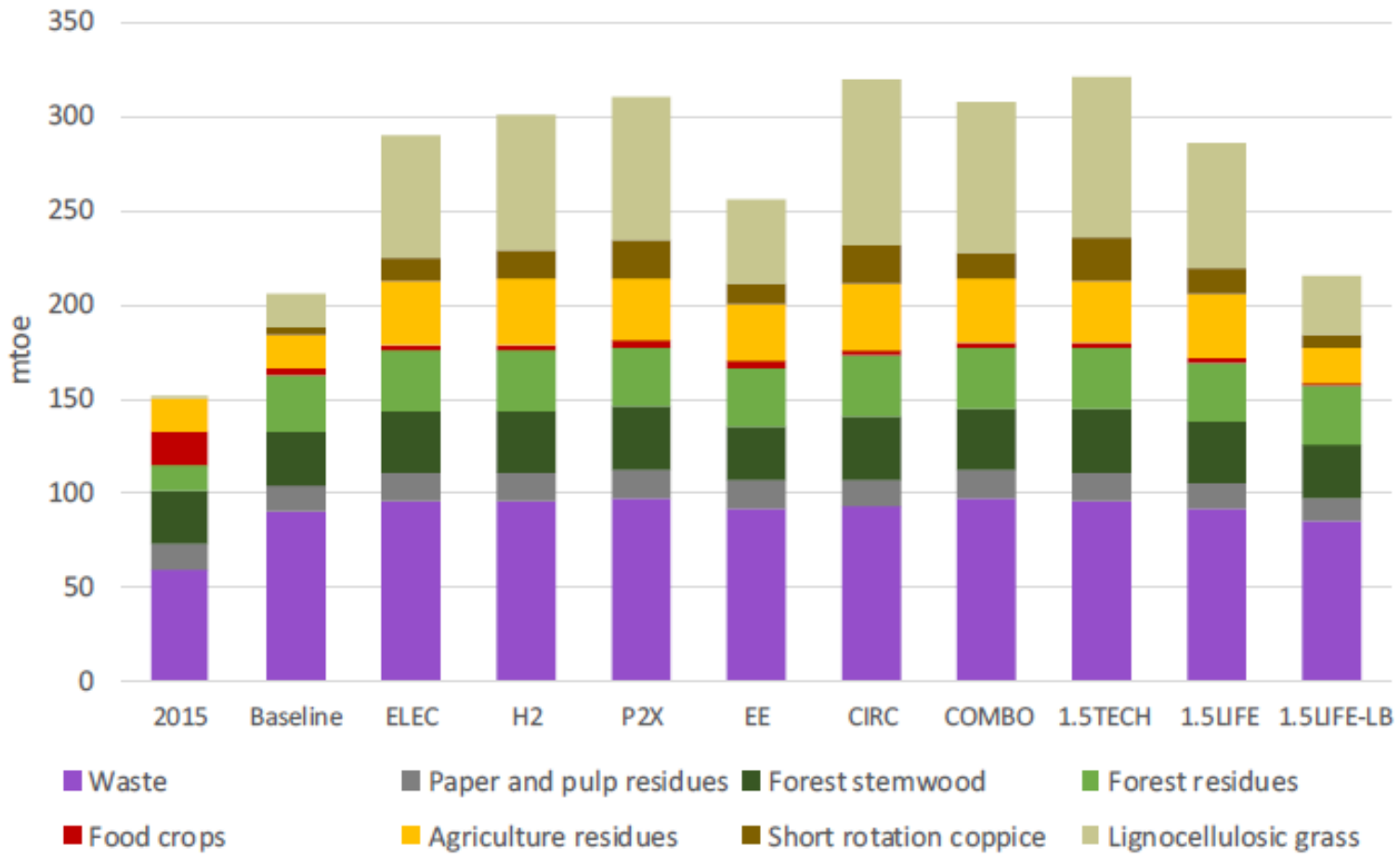
Vision 2050: Material flows in 2016



Source: Mayer et al (2018)[830].

Vision 2050:
Providing bioenergy feedstock



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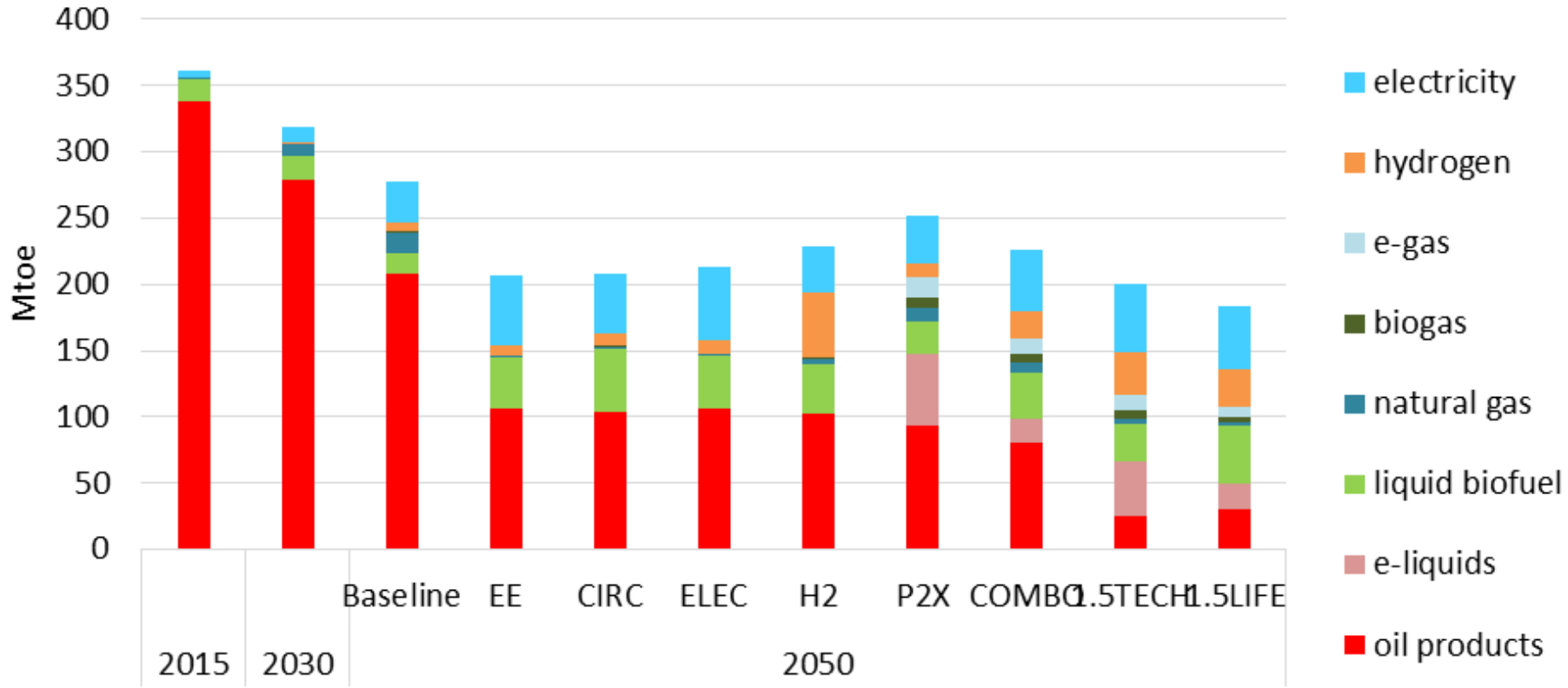
Vision 2050: Fuelling mobility



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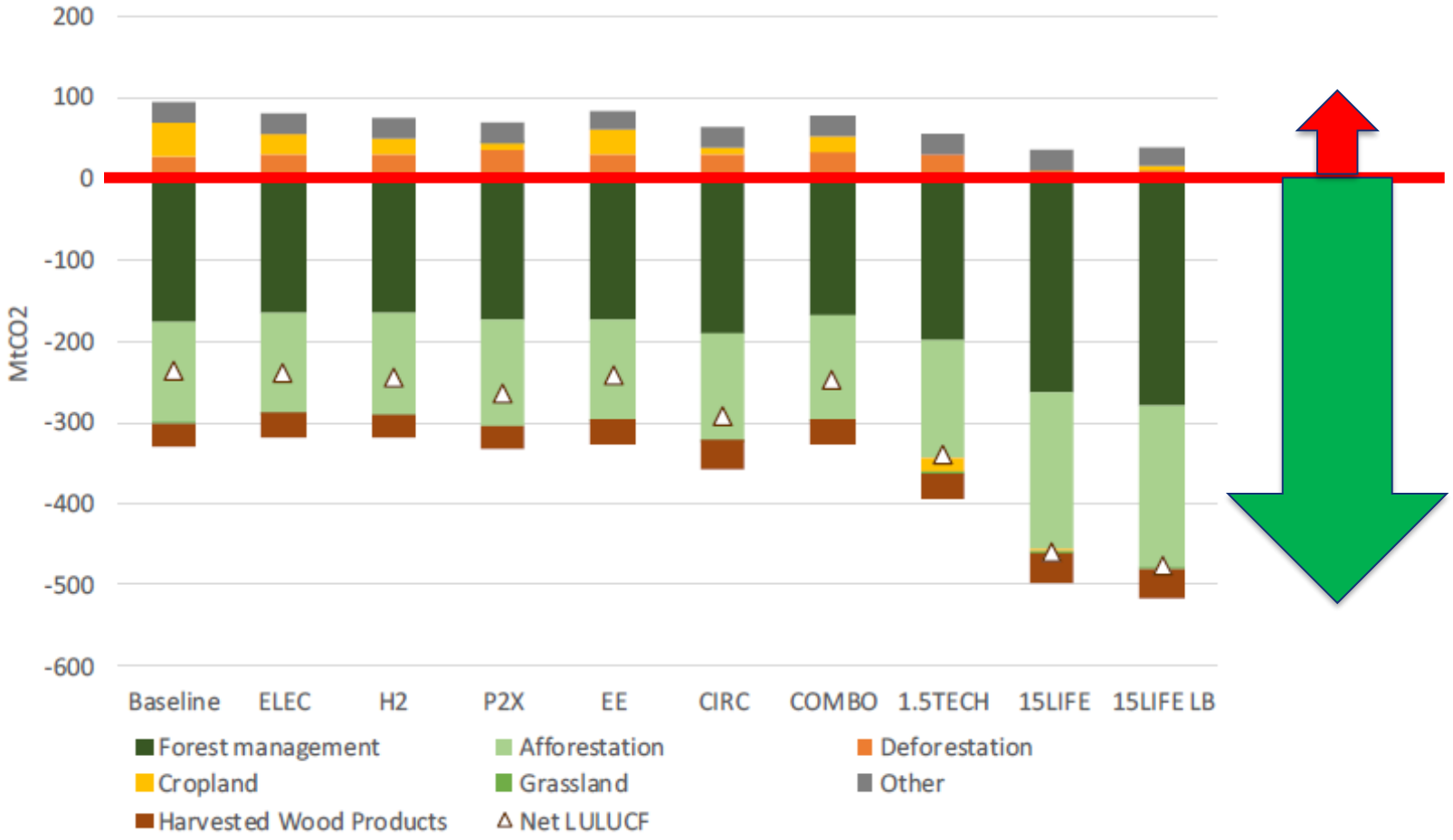
Vision 2050: Enhancing removals



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Conclusions: Driving forward highly productive sustainable land use

Establish new business opportunities

- Bio-feedstock for zero-carbon industry
- Advanced biofuels
- Substituting building materials

Increase capabilities of land and forests to store more carbon in the future ('negative emissions')

- Improve standing stocks, increment rates
- Sustainable soil management
- Limit deforestation and increase afforestation

Adaptation to adverse effects of climate change

- Increase resilience to changing weather patterns and extreme weather events

#EU2050

https://ec.europa.eu/clima/news/commission-calls-climate-neutral-Europe-2050.en