

newTRENDS

Stakeholder workshop

Focus group | Circular economy for the deep decarbonisation of industry

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AGENDA

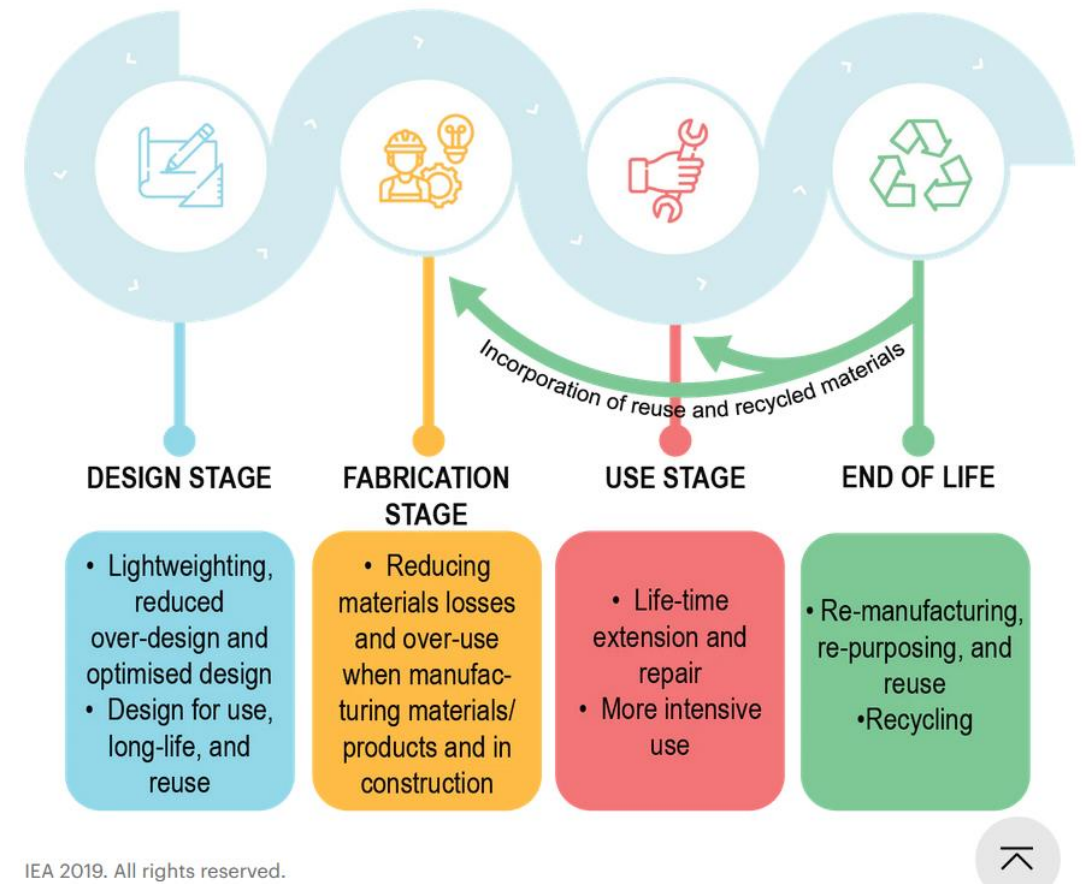
- **Welcome & Introduction (10 minutes)**
- *Menti – Icebreaker (5 minutes)*
- **Policies affecting the industry sector (10 minutes)**
- MIRO – Discussion (15 minutes)
- *Break (5 minutes)*
- **Modelling circular economy for industry decarbonization (10 minutes)**
- MIRO – Discussion (15 minutes)



FRAMING CIRCULAR ECONOMY

Improving circularity and increasing efficiency to achieve sustainable materials management can take many forms:

- Extension of **product lifetime**;
- Reduction of **material losses**;
- **Reuse** of products and materials;
- Increased **recycling** and avoidance of downcycling;
- **Substitution** of GHG-intensive materials with sustainable lower-emission materials;
- Reduction of **waste**.



Source: EEA Decarbonisation Benefits of Sectoral Circular Economy Actions Project



CIRCULAR ECONOMY GAINING MOMENTUM

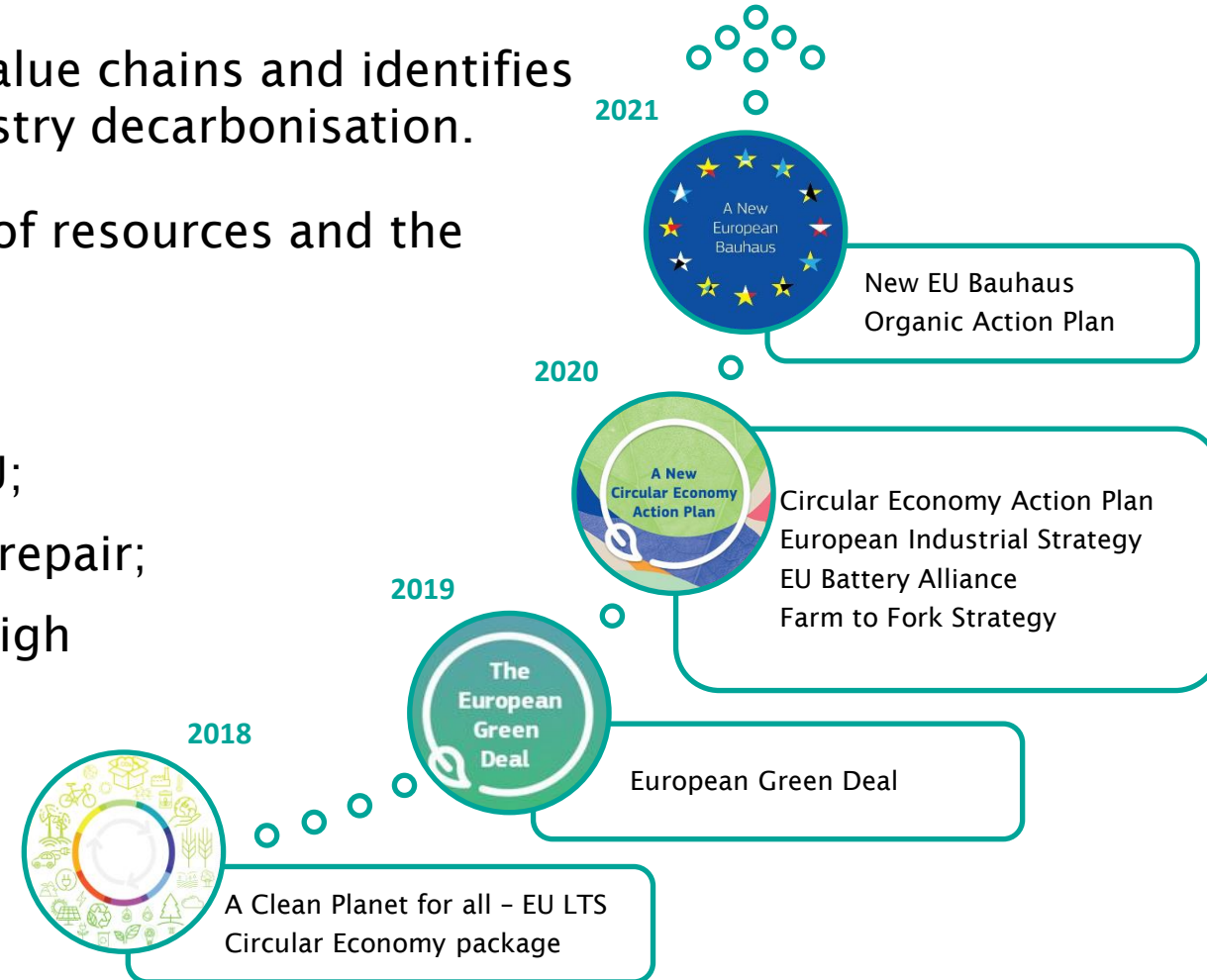
2018 EU LTS highlights relevance of industrial value chains and identifies Circular Economy as a relevant measure for industry decarbonisation.

2019 EU Green Deal promotes the efficient use of resources and the transformation to a clean and circular economy.

2020 CEAP sets the following goals:

- Sustainable products as standard in the EU;
- Empowerment of consumers, e.g. right-to-repair;
- Focus on resource-intensive sectors with high potentials for a Circular Economy;
- Reduction of waste.

2020/2021... more intensive examination of individual products/sectors



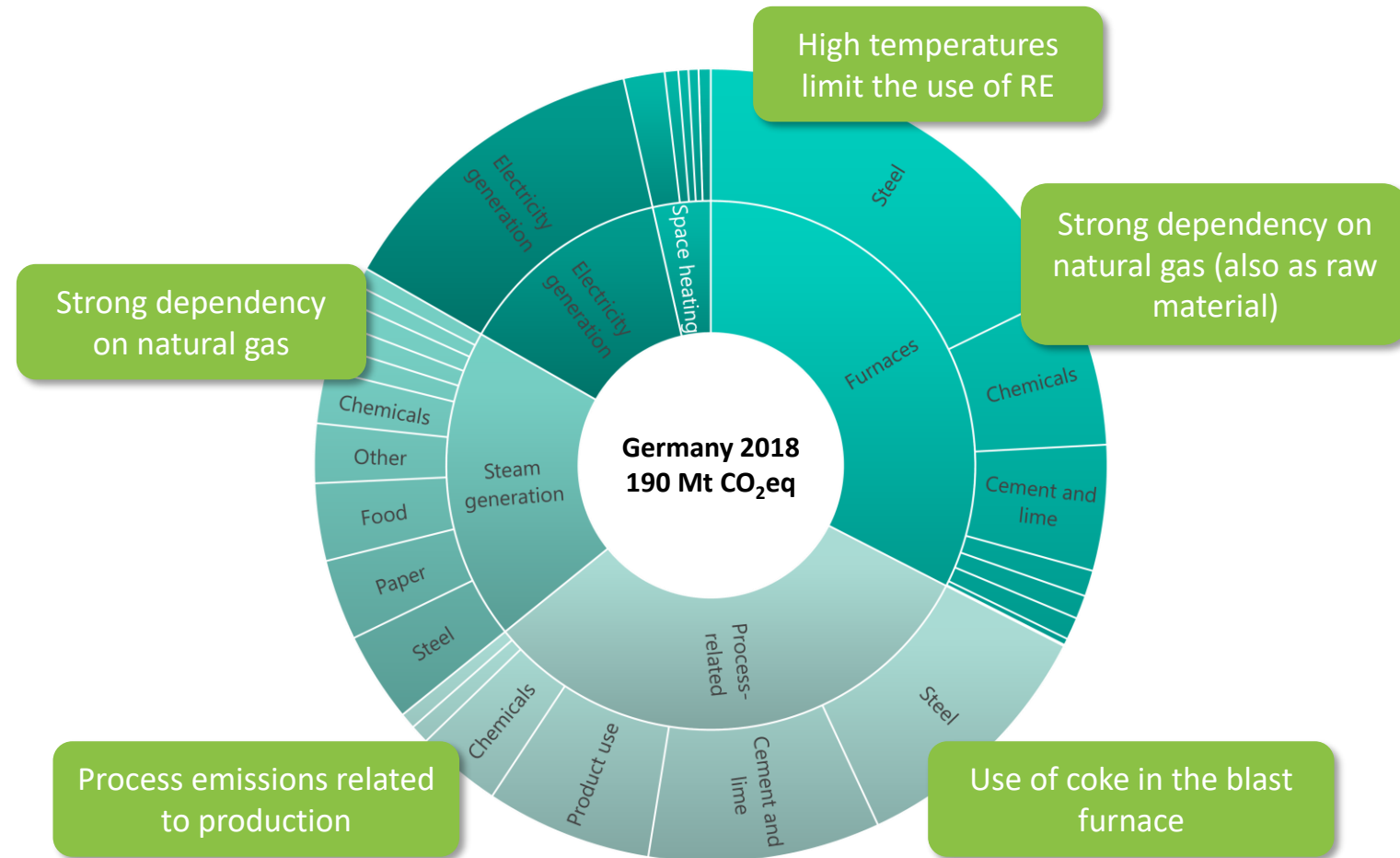
CONTRIBUTION OF CIRCULAR ECONOMY

- Limited but **increasing number** of studies
- Studies **vary significantly** regarding scope, method and ambition level
- Often **globally or regionally aggregated** studies
- Sectors in which high potentials are seen
 - **Buildings/ construction industry**
 - **EI industries:** steel, cement, plastics, aluminium
 - **Transport/ vehicles**
 - **Food**
- Depending on study and sector GHG avoidance potentials of **40 to 70 percent** are stated



INDUSTRY DECARBONISATION

- Diverse challenges for all application areas
- Industrial transformation needs high quantities of carbon-neutral energy sources
- Energy Efficiency and Circular Economy as backbone of carbon-neutral production
- Reduce final energy demand and costs of transformation



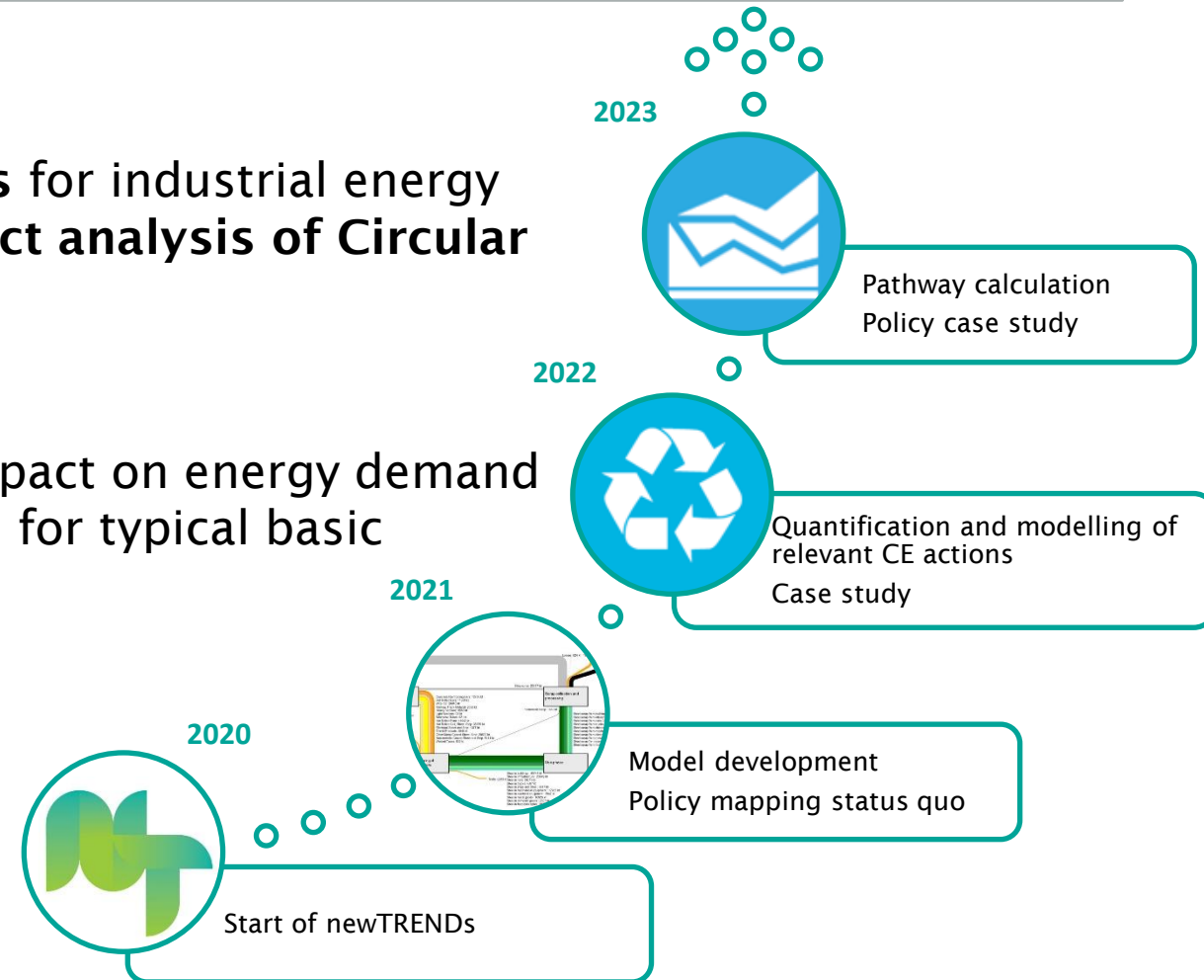
newTRENDS FOCUS STUDY

Research objective

Improvement of existing modelling techniques for industrial energy demand and CO2 emissions to support the **impact analysis of Circular Economy on ambitious GHG reduction**

Research questions

- How can the related CE technologies, their impact on energy demand and CO2 emissions **quantified and modelled** for typical basic material use sectors?
- What **contribution** can the circular economy make to decarbonising the industrial sector?
- How could different **scenarios** of a circular low-carbon industry look like?



MENTI - ICEBREAKER

Answer to questions on **menti.com** using this code

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Looking forward to the discussion!

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