



thyssenkrupp engineering. tomorrow. together.

# Carbon2Chem<sup>®</sup>

17th February 2017 | Dr. Wiebke Lüke



# Diversified Industrial Company: Our Business Areas

Key indicators – fiscal 2015/2016

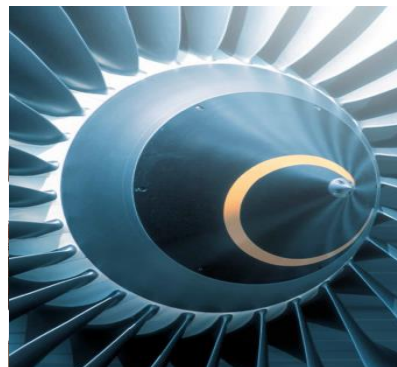
Components  
Technology



Elevator  
Technology



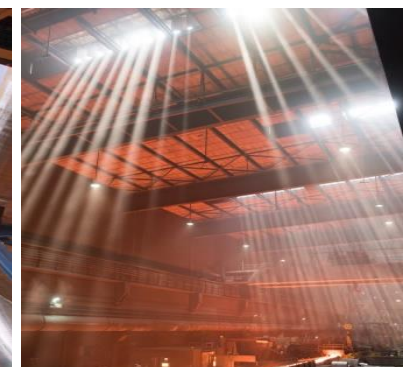
Materials  
Services



Industrial  
Solutions



Steel  
Europe



Steel  
Americas



Sales [€ mn]<sup>1</sup>

6,807

7,468

11,886

5,744

7,633

1,489

EBIT [€ mn]<sup>2</sup>

335

860

128

355

315

-33

Employees<sup>3</sup>

30,751

51,426

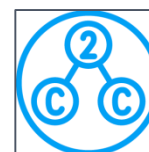
19,754

19,602

27,559

3,847

1. Before consolidation | 2. Before consolidation/Corporate | 3. Before Corporate



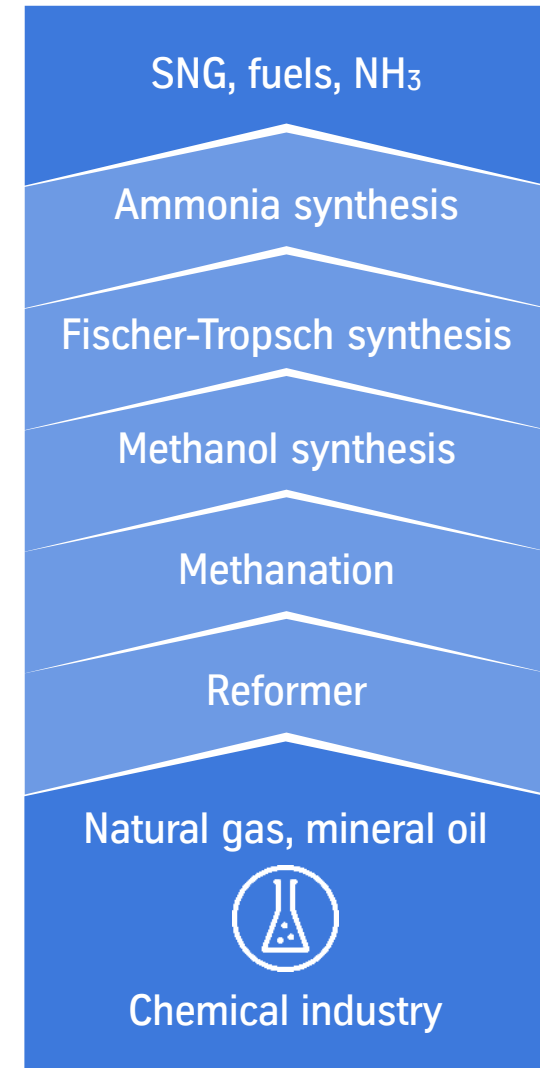
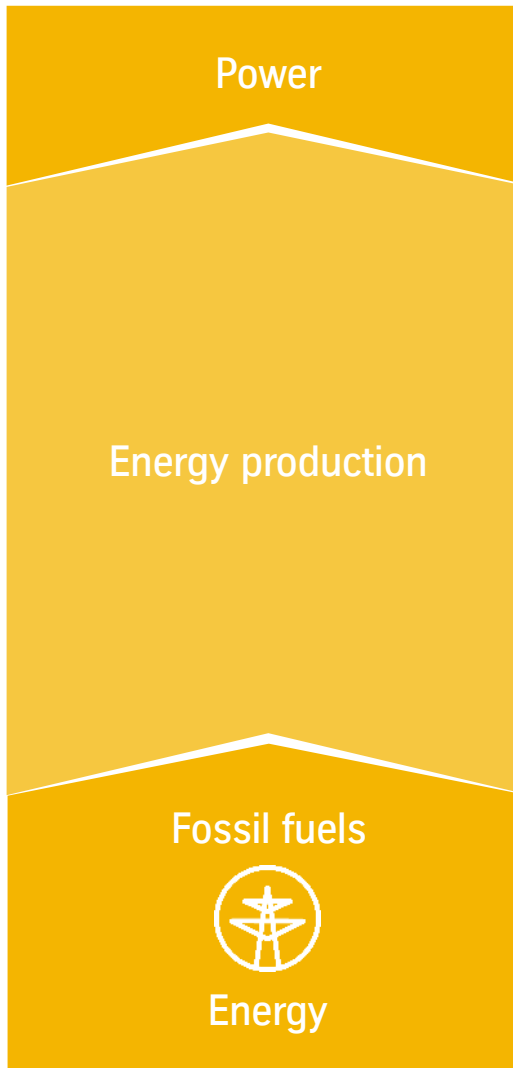
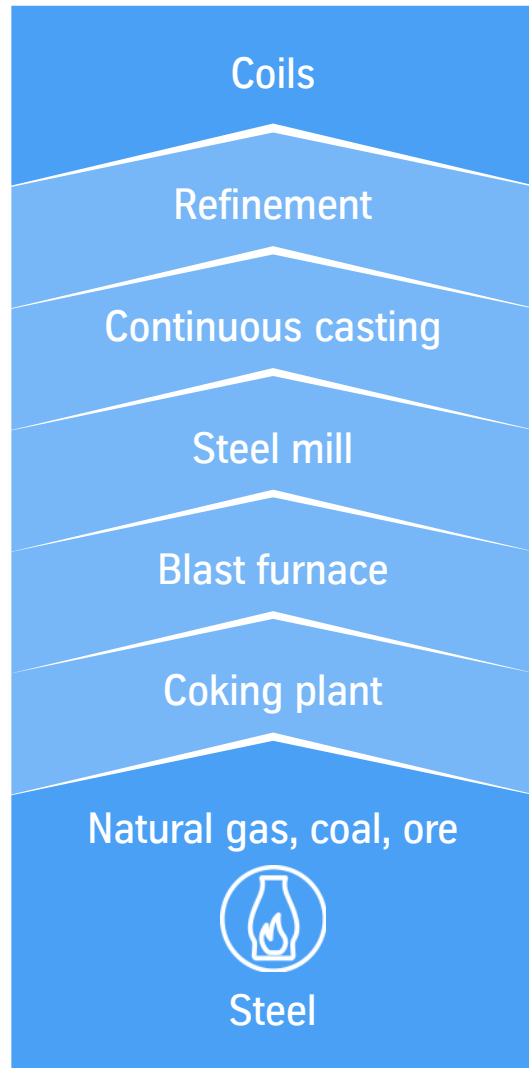
Carbon2Chem®



# Simplishow Carbon2Chem®



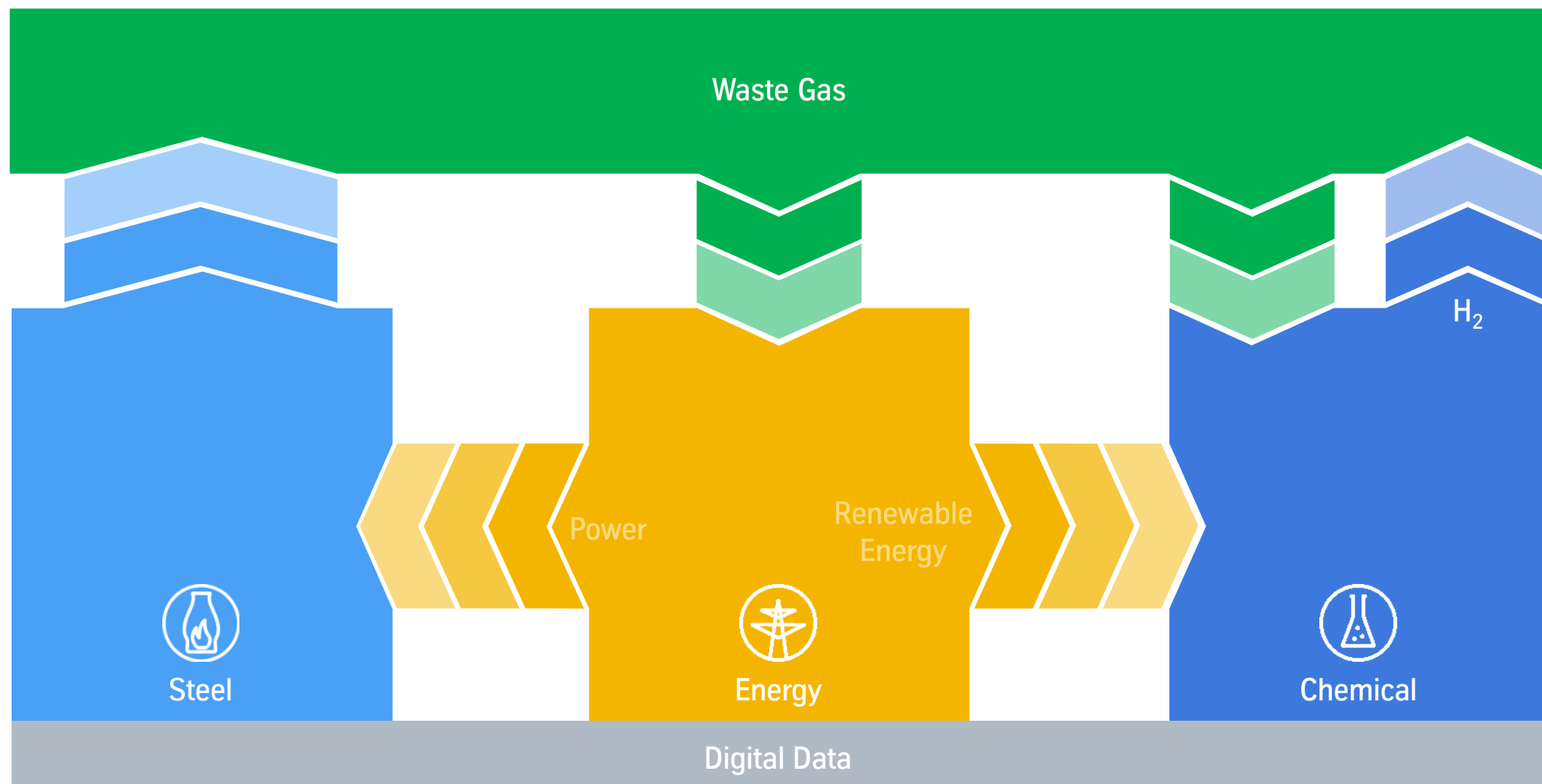
# Value chains of various industries already largely optimized...





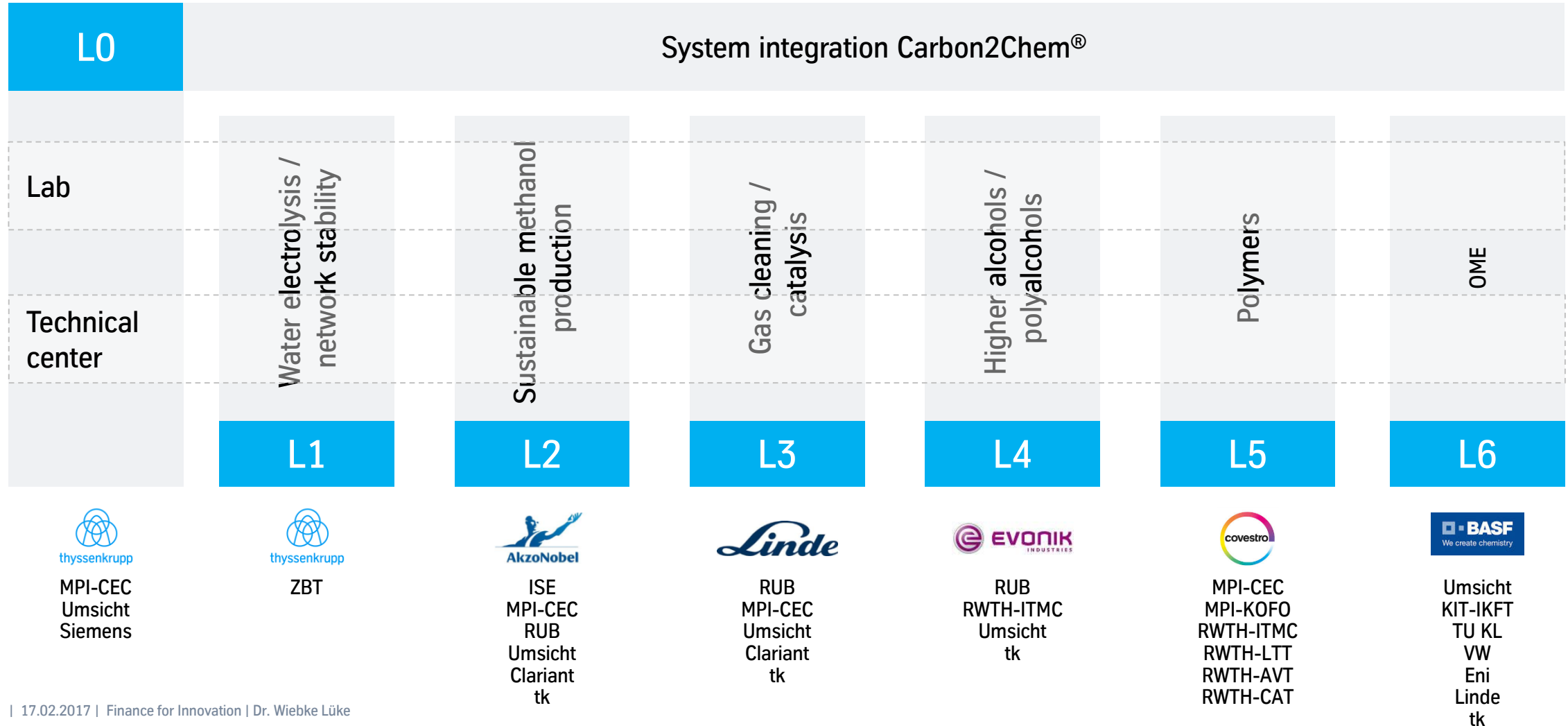
# Network stabilization in the energy-optimized cross-industrial network

## Chemical products as energy storage and metallurgical gas as a binding



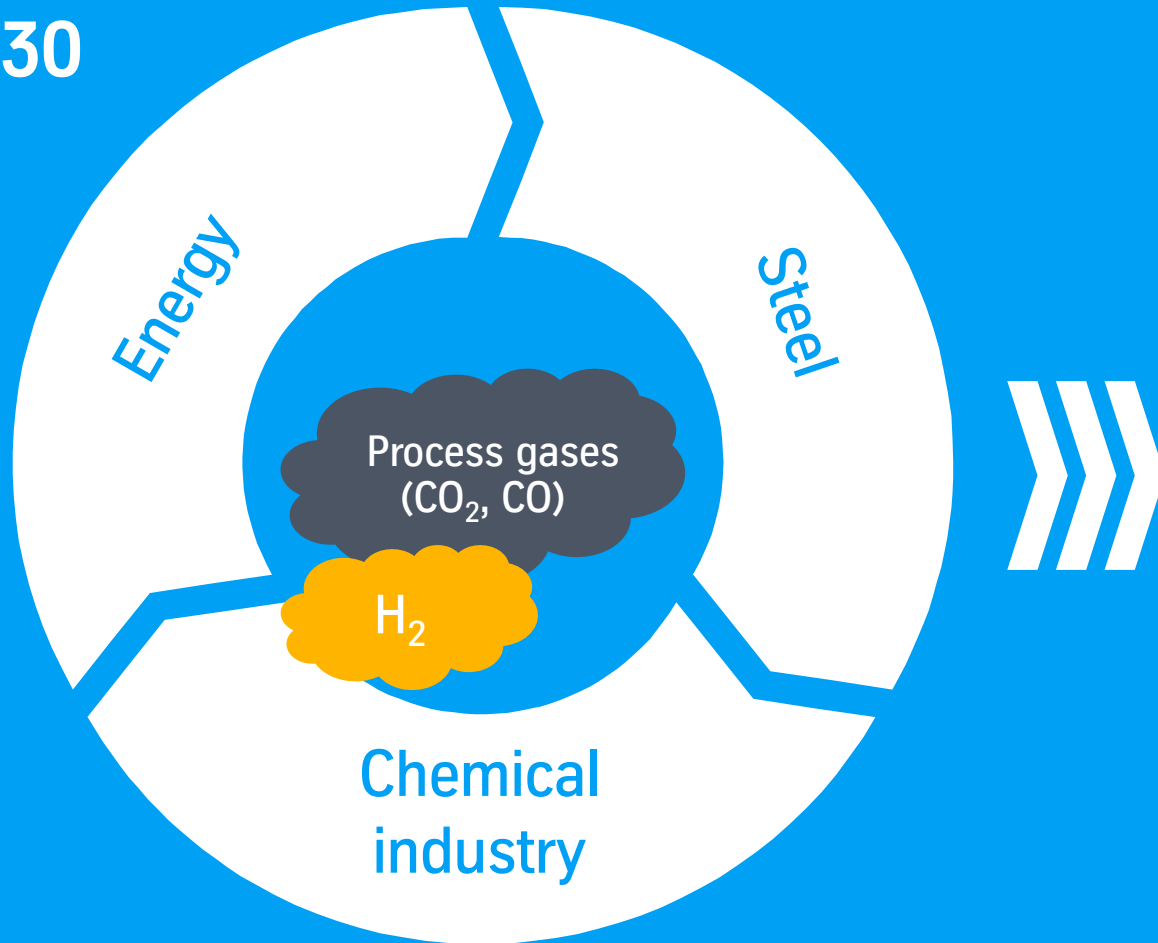


# Carbon2Chem®: Project partners and sub-projects

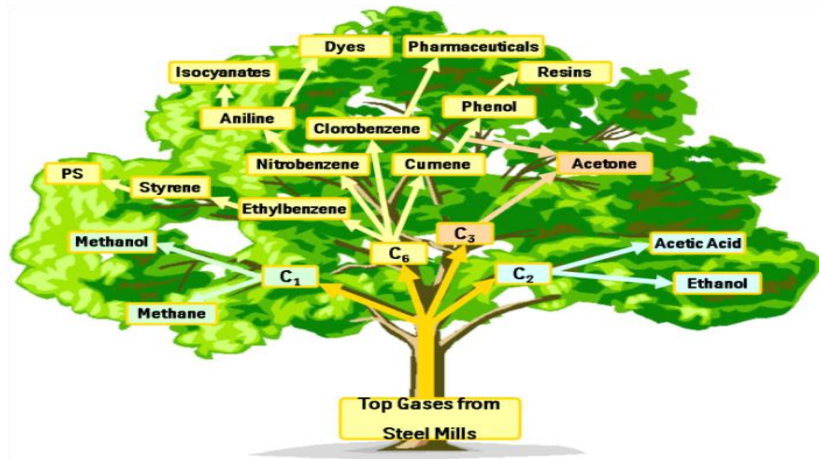


# Carbon2Chem<sup>®</sup>: Cross-sectoral emission reduction

Vision for 2030  
and beyond



# Paving the way to the future: overcoming the hurdles



Paris: net carbon zero is the goal!

**Technical barriers:**  
R&D, proof of concept, demonstration,  
deployment, upscaling

€ **Financial barriers:** €  
R&D plus Deployment financing schemes,  
business models for CCU and infrastructure

§ **Legal barriers:** §  
MRV Rules for CO<sub>2</sub> as feedstock  
Role of CCU in EU ETS, EU Renewable Directive, etc.

C (✓) **Conceptual and Linguistic barriers:** ↑CO<sub>2</sub>  
Not „decarburization“, but avoiding CO<sub>2</sub> emissions!

Let's start here and now!





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tomorrow.  
together.



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