

CONCLUSIONS



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- **Replacing coal by waste** in fluidized bed CHP plants
 - Is beneficial regarding sustainability and economics
 - Is technically feasible
 - Requires management of corrosion
- **Converting** fluidized bed CHP plants to **oxyfuel combustion**
 - Can enable negative CO₂ emissions
 - Is technically feasible
 - Ilmenite as bed material improves fuel conversion
- **Chemical looping combustion**
 - Is particularly suited for new-built CHP plants
 - Has been demonstrated at semi-industrial scale
 - CCS more economical and sustainable than CCU

WAY FORWARD



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- **Demonstrating CO₂ capture** from existing CHP plants
 - Oxyfuel combustion
 - Carbonate looping
- **Advancing** commercialization of **chemical looping combustion**
 - Enlarging fuel basis while managing corrosion
 - Enhancing process performance and flexibility
 - Design of CO₂ processing steps
 - Demonstration at industrial scale
- **Novel CO₂ neutral processes**
 - Energy storage
 - Metals as fuels



CORAL

Dr.-Ing. Jochen Ströhle

Energy Systems and Technology

Mail: jochen.stroehle@est.tu-darmstadt.de

Phone: +49 6151 16 23003

Otto-Berndt-Straße 2, 64287 Darmstadt / Germany

www.est.tu-darmstadt.de

LOUISE



Federal Ministry
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and Climate Action

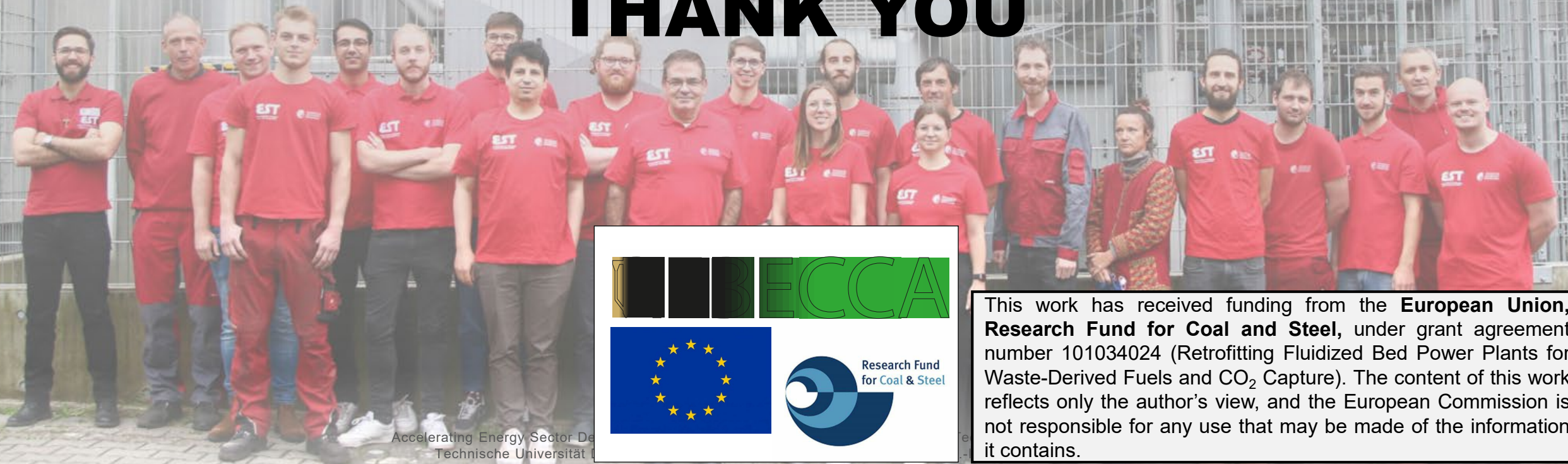
Accelerating
CCS
Technologies



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THANK YOU



Accelerating Energy Sector De
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