

Reducing Industrial Carbon Emissions

Carbon capture, utilisation, and storage technologies

Welcome and Introduction
Martina Fantini

Webinar
24.11.2021



WEBINAR

Reducing Industrial Carbon Emissions

Carbon capture, utilisation, and storage technologies

24 November 2021 | 11:00 CET

*See how industrial plants can successfully and feasibly apply carbon capture and storage, the lucrative opportunities, policy aspects, and success cases. **REGISTER NOW!***

Organised by


-  CLEANER
-  REALISE CCUS
-  C4U

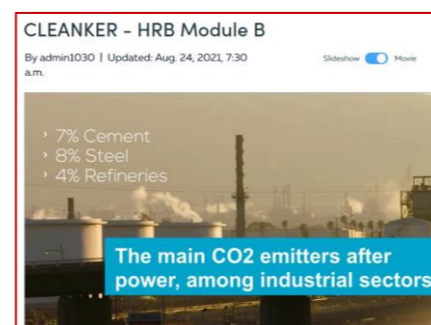
Supported by

-  HORIZON RESULTS BOOSTER

Horizon Results Booster - HRB

- Module A: Identifying and creating a Project Group
- Module B: Helping projects from the portfolio to design and execute a portfolio dissemination plan.

- Video 
- Flyer (print and web versions)
- 2 DEPs between:



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- ❖ On-tap strategic guidance
- ❖ Copywriting and content creation
- ❖ Communicating to Policy & Decision Makers
- ❖ Event Support
- ❖ Social Media Presence



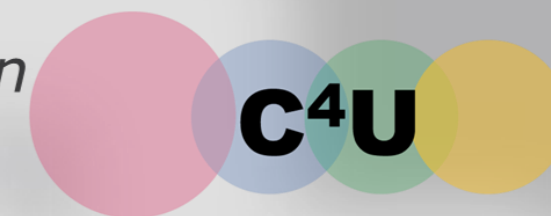
- **CLEANKER**, *Martina Fantini, Maurizio Spinelli*
(01/10/2017 – 30/09/2021)



- **REALISE**, *Inna Kim, Padraig Fleming*
(01/05/2020 – 30/04/2023)



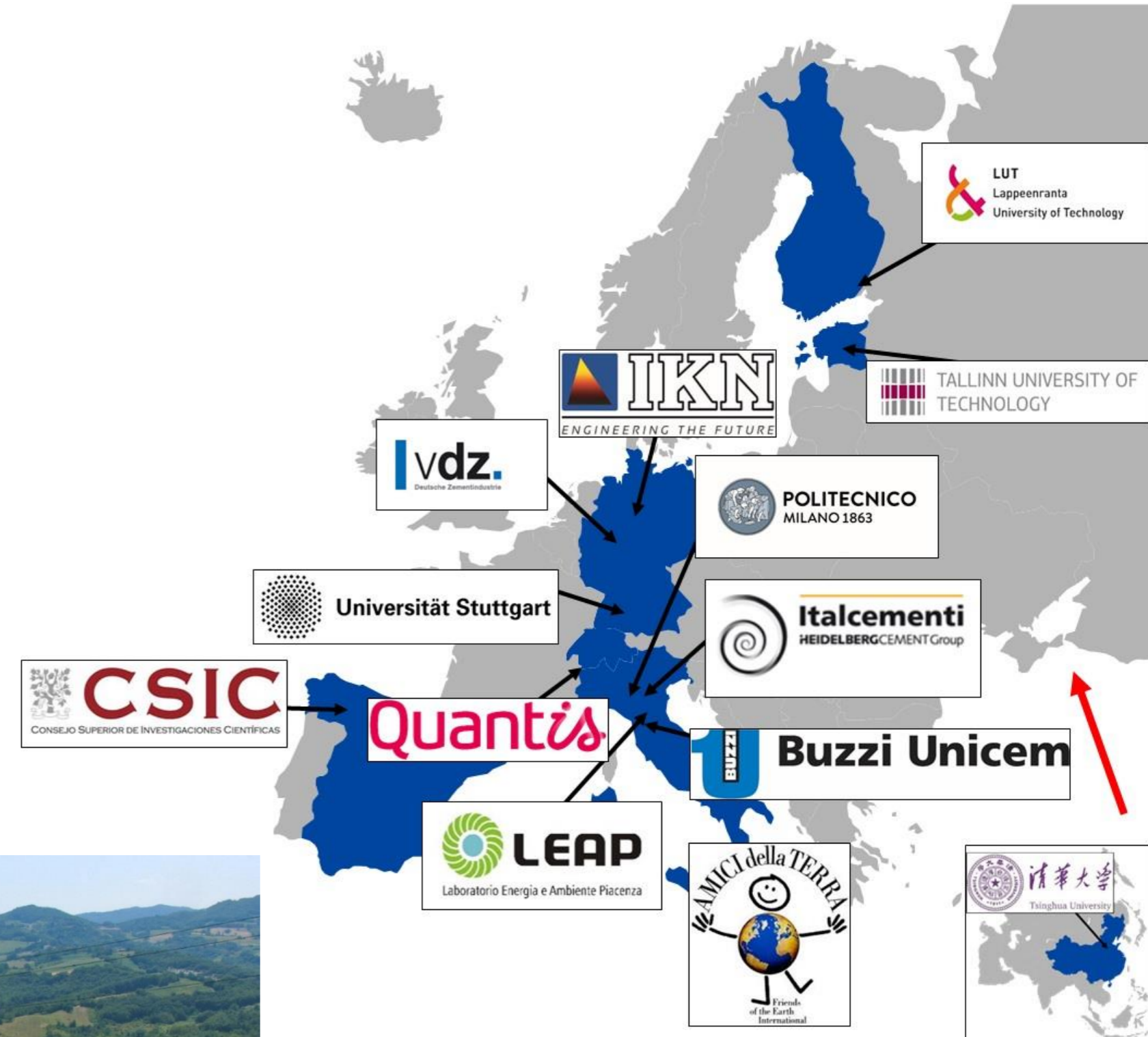
- **C4U**, *Elena Catalanotti, Haroun Mahgerefteh, Lillian Lochner, Julie-Anne Hogbin*
(01/04/2020 – 31/03/2024)



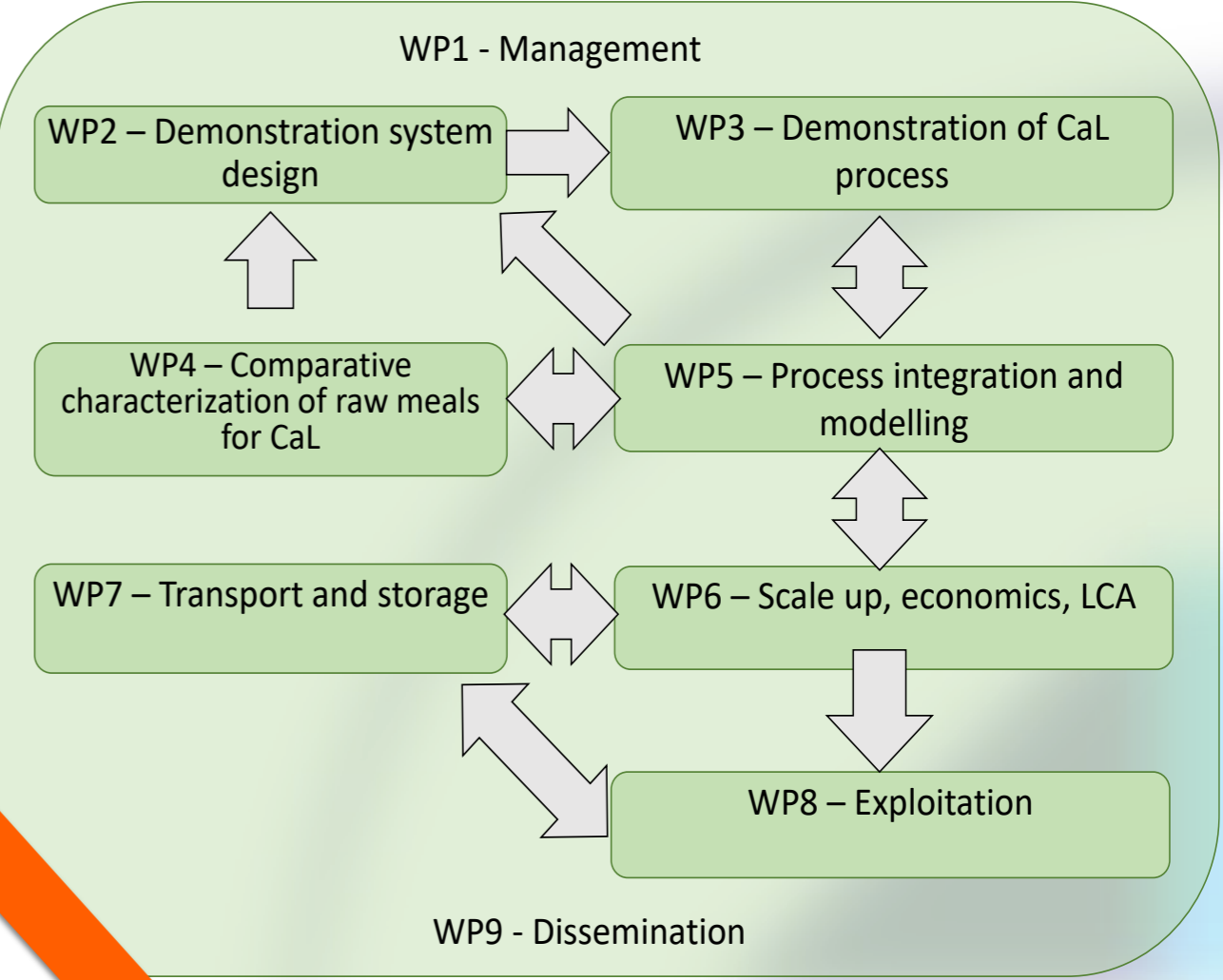
CLEANKER Project

- Starting date: October 1st 2017
- Duration: 4 years + 6 months
- Total budget: € 9.237.851,25
- UE co-financing: € 8.972.201,25
- Chinese government founding: 265.650 €
- Partner: 13 from 5 EU member states + Switzerland and China

The ultimate objective of CLEANKER is advancing the integrated Calcium-looping process for CO2 capture in cement plants.



CLEANKER Project



REALISE Project



Partners

Advisory Board



REALISE Objectives

Reduction of GHG emissions

Increase of cost- and implementation- effectiveness

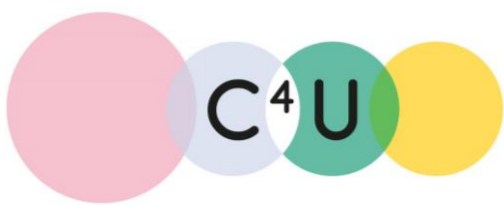
Using low-energy HS-3 solvent → decrease of the energy demand of CO₂ capture by 30%

Maximization of performance thanks to efficient solvent management → active component losses decreased by >80%

Use of plastic equipment → lower CO₂ capital costs by 15%

Coupling of available facilities with the power sector → lower the capture costs by at least 30%

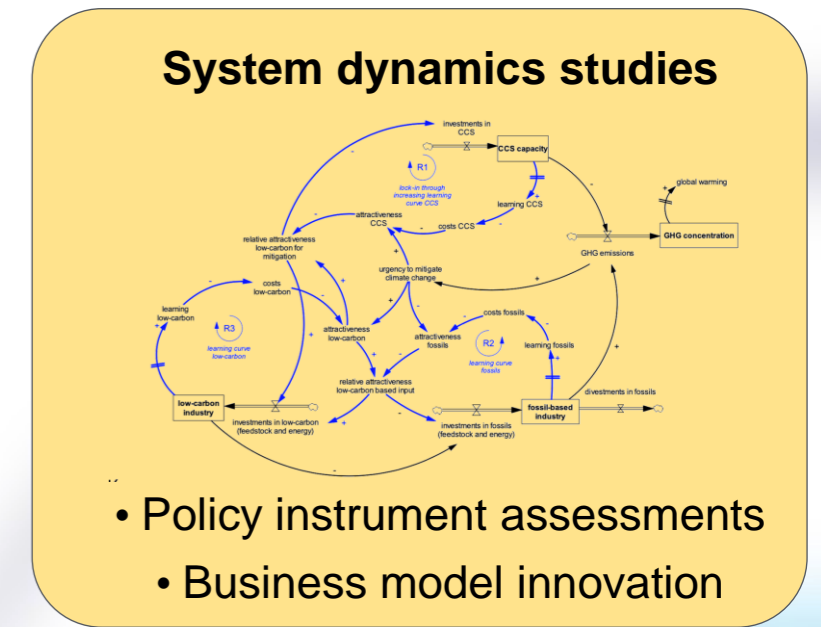
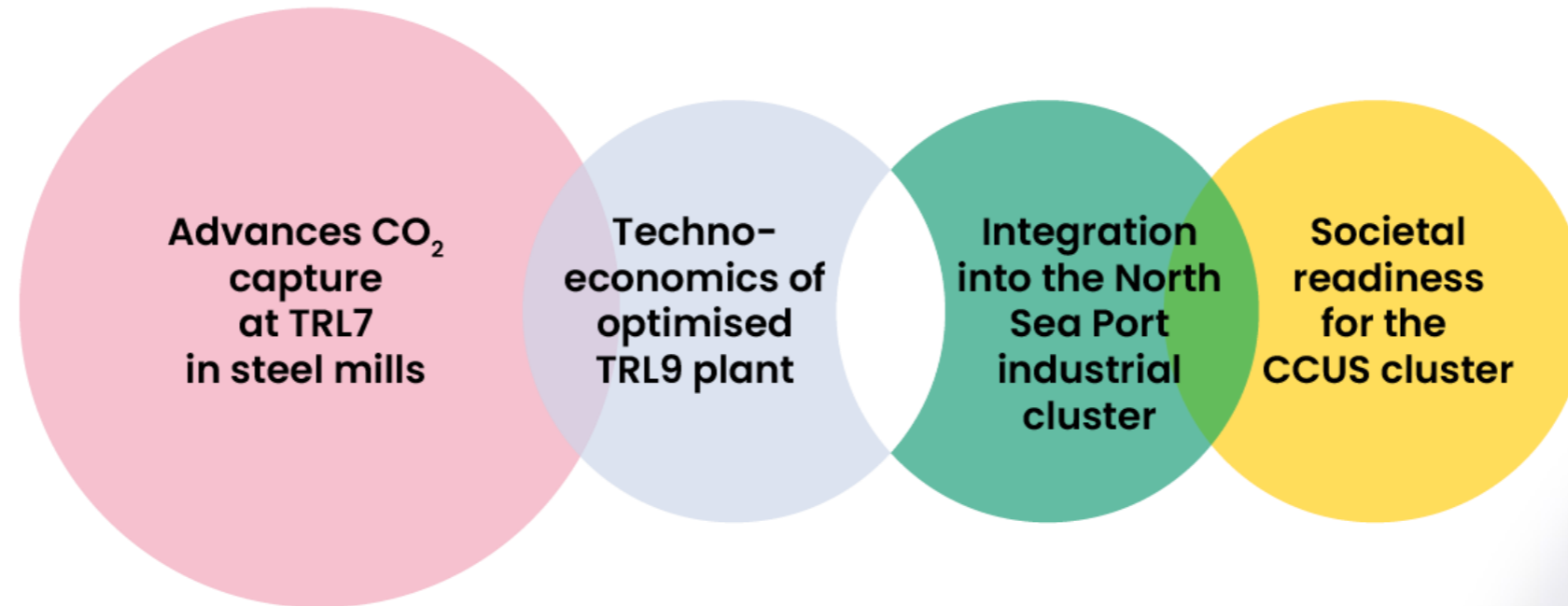
Safe, flexible and guided-choice regarding CO₂ capture scenarios thanks to an open-access simulation tool



Advanced Carbon Capture for Steel Industries Integrated in CCUS Clusters

C⁴U addresses the essential elements for the optimal integration of CO₂ capture in the iron and steel industry as part of the CCUS chain. This spans demonstration of two highly efficient solid based CO₂ capture technologies for optimal integration into an iron and steel plant and detailed consideration of the safety, environmental, societal, policy and business aspects for successful incorporation into the North Sea Port CCUS industrial cluster.

<https://c4u-project.eu/>

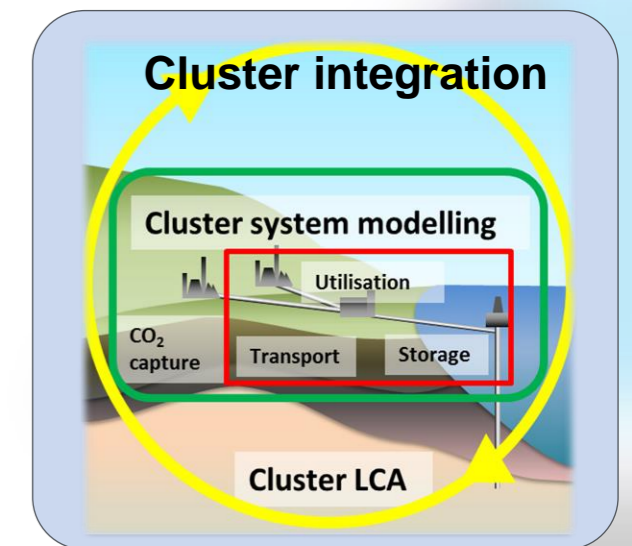
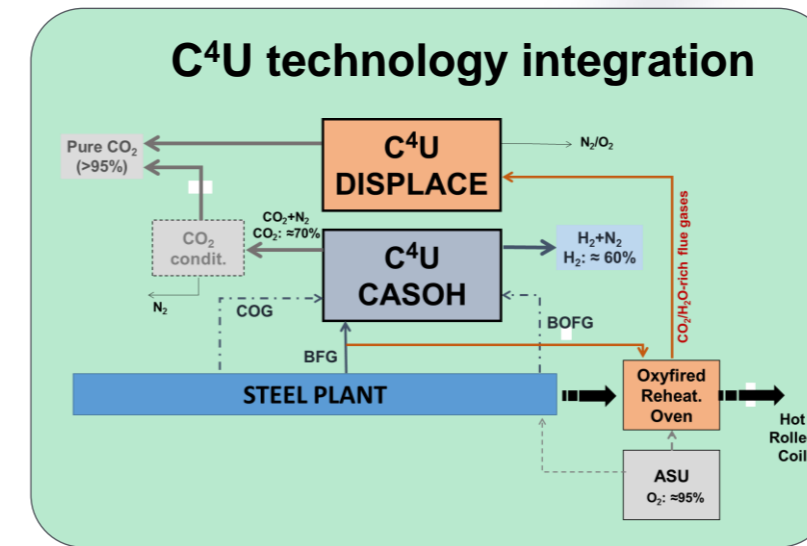


- Policy instrument assessments
- Business model innovation

DISPLACE – High temperature sorption-displacement process for CO₂ recovery

CASOH – Calcium Assisted Steel-mill Off-gas H₂ production

DISPLACE column



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Project Period
April 2020 - March 2024

Overall budget
€ 13,845,496



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