Thriving in the energy transformation

Bringing industrial decarbonisation alive through industrial symbiosis

online workshop, 19th of December 2022

CORALIS

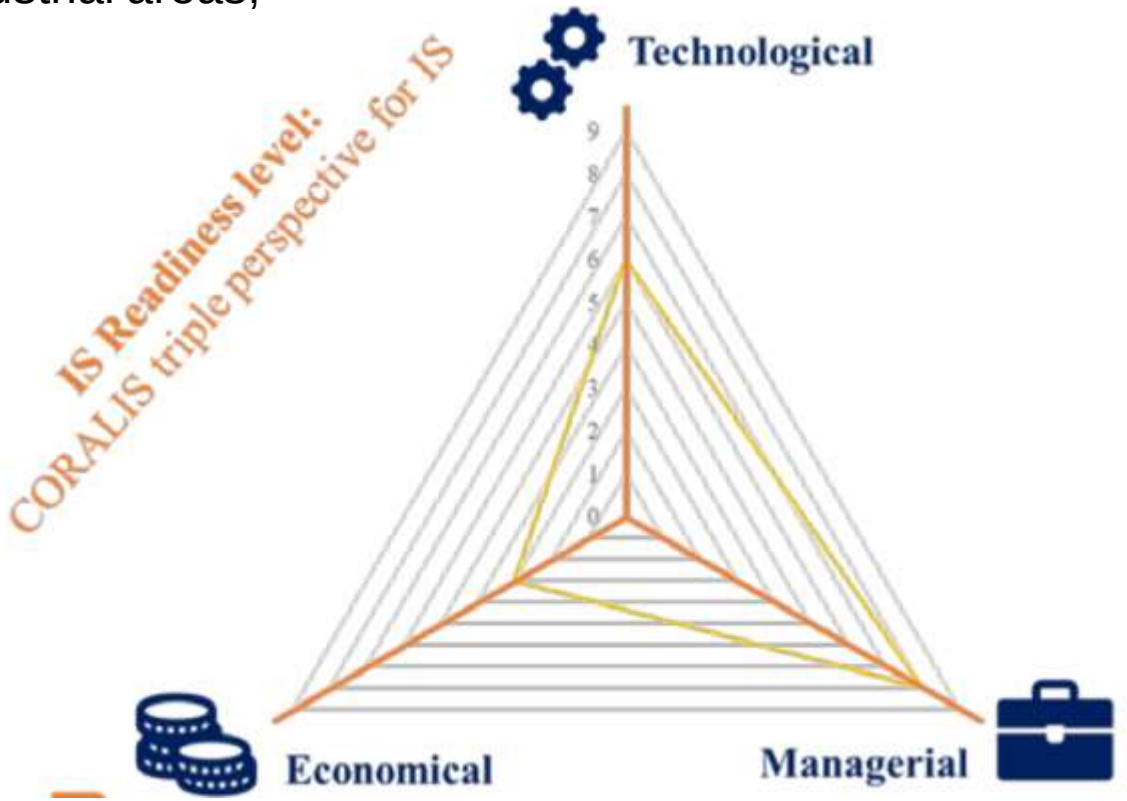
Industrial Symbiosis
in Energy Intensive Industries

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 958337.

What is CORALIS?

CORALIS is a **four-year project** that has been designed as a **demonstration activity for the generation of real experiences on the deployment of Industrial Symbiosis (IS) solutions** and the overcoming of the barriers faced by these initiatives, developing the IS readiness level concept by addressing three factors:

- Technological factors (TRL)-decarbonization of industrial areas, transition to circular economy
- **Managerial factors (MRL)-tools and procedures**
- **Economic factors (ERL)-business models**
- Industrial Symbiosis Readiness Level (IS RL)
  - Sum of TRL, MRL and ERL
  - Pre+Post coralis evaluation
  - **Demos and Lighthouses**



Consortium

32 participants

Project timeline
1 October 2020 - 30 September 2024

Project costs
22.7 Mio. €

EU contribution
~ 18 Mio. €

https://www.coralis-h2020.eu/

Agenda (i)

Schedule	Title	Speaker
14:00 - 14:10	**Intro & warm up**	Johannes Lindorfer, Energieinstitut an der Johannes Kepler Universität Linz, Austria
14:10 - 14:25	**Pathways to a deep decarbonisation of the industry sector: Potentials and challenges for chemicals and steel production**	Andrea Herbst, Fraunhofer Institute for Systems and Innovation Research (ISI), Germany
14:25 - 14:40	**Decarbonisation of ammonia production: an update from the Ammonia Energy Association**	Kevin Rouwenhorst, Ammonia Energy Association (AEA), Europe
14:40 - 14:55	**The state of play in ammonia synthesis and decomposition research**	Josh Makepeace, University of Birmingham, School of Chemistry, United Kingdom
14:55 - 15:10	**Electrochemical synthesis of ammonia in solid electrolyte cells**	Michael Stoukides, Aristotle University of Thessaloniki, Chemical Engineering Department, Greece
15:10 - 15:20	Coffee break	

Agenda (ii)

Schedule	Title	Speaker
15:20 - 15:35	**Viable options for decarbonisation and use of clean hydrogen**	Joachim von Scheele, Linde Gas Global Commercialization, Germany
15:35 - 15:50	**Decarbonisation scenarios for the European steel industry**	Thorsten Hauck, VDEh-Betriebsforschungsinstitut, Process Optimisation Iron and Steel Making, Germany
15:50 - 16:05	**Cross-fertilization of knowledge and technologies for fostering steelmaking decarbonization through industrial symbiosis**	Antonello Di Donato, RINA Consulting - Centro Sviluppo Materiali S.p.A., Italy
16:05 - 16:20	**Decarbonising downstream steel processing with H_2 and NH_3 as alternative fuels**	Nico Schmitz, RWTH Aachen University, Industrial Furnace Technology, Germany
16:20 - 16:30	**Wrap-up & conclusions**	Johannes Lindorfer, Energy Institute at the Johannes Kepler University Linz, Austria

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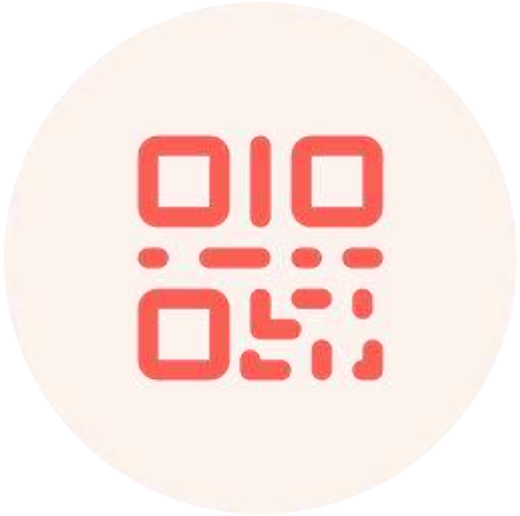

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In which sector do you work?

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What's your professional background?

(1-3 key words, multiple answers possible)

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What are you're experiences with Industrial Symbiosis?

(1-3 short sentences, multiple answers possible)

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15:35 - 15:50	**Decarbonisation scenarios for the European steel industry**	Thorsten Hauck, VDEh-Betriebsforschungsinstitut, Process Optimisation Iron and Steel Making, Germany
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Wrap up

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Have you learned something new about Industrial Symbiosis in this workshop?

(1-3 short sentences, multiple answers possible)

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Have you learned something new about transition options for the steel and chemical industry?
(1-3 short sentences, multiple answers possible)

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What are you're main takeaways from today for YOUR work?

(1-3 short sentences, multiple answers possible)

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Any other feedback you'd like to share with us?

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Any questions?

Thank you for your attention!

Thank you!

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 958337.

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