

CORALIS

**Creation Of new value chain Relations through novel Approaches
facilitating Long-term Industrial Symbiosis**

From Theory to practice: the CORALIS experience

EU Sustainable Energy Week

14th October 2021



CORALIS

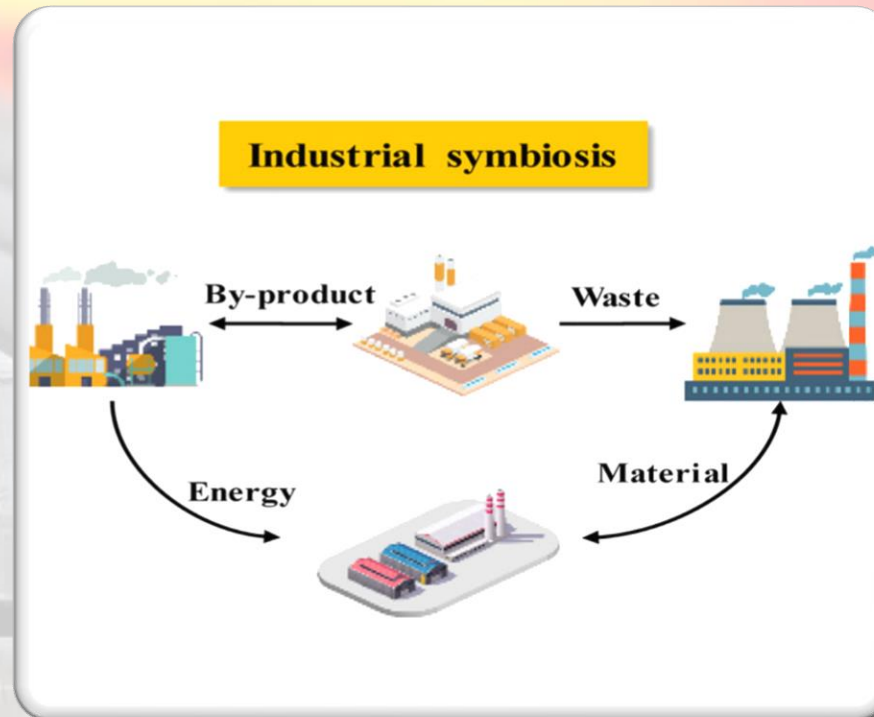
Industrial Symbiosis
in Energy Intensive Industries



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

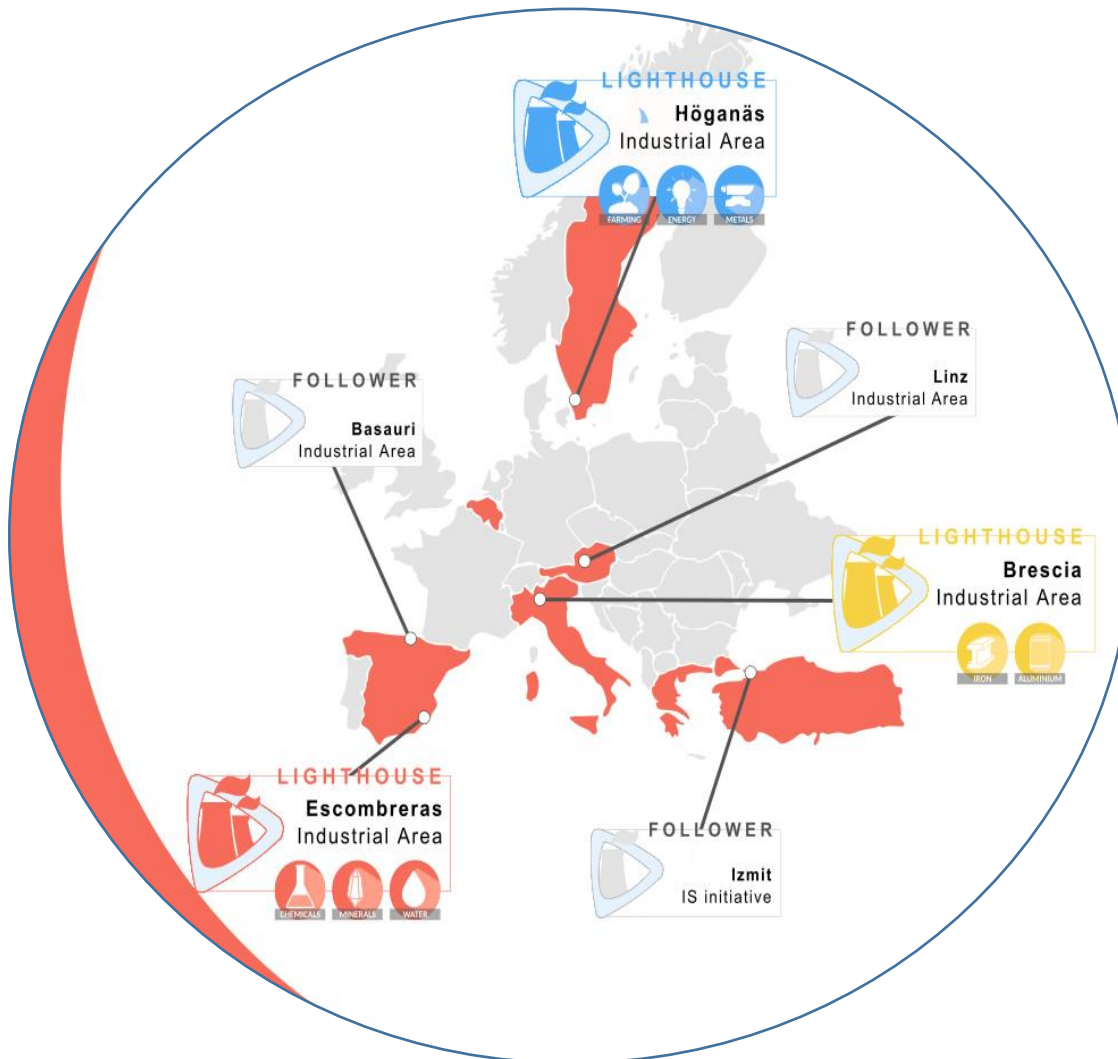
What is Industrial Symbiosis?

Industrial Symbiosis (IS) engages diverse **organizations in a network to foster eco-innovation and long-term culture change**. Creating and sharing through the network yields mutually profitable transactions for novel sourcing of required inputs, value added destinations for non-product outputs, and improved business and technical processes.



Lu, C., Wang, S., Wang, K., Gao, Y., & Zhang, R. (2020). Uncovering the benefits of integrating industrial symbiosis and urban symbiosis targeting a resource-dependent city: A case study of Yongcheng, China. *Journal of Cleaner Production*, 255, 120210.

CORALIS in DATA



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Start date: **1st October 2020**

End date: **30th September 2024**

Consortium: **29 partners from 7 countries**

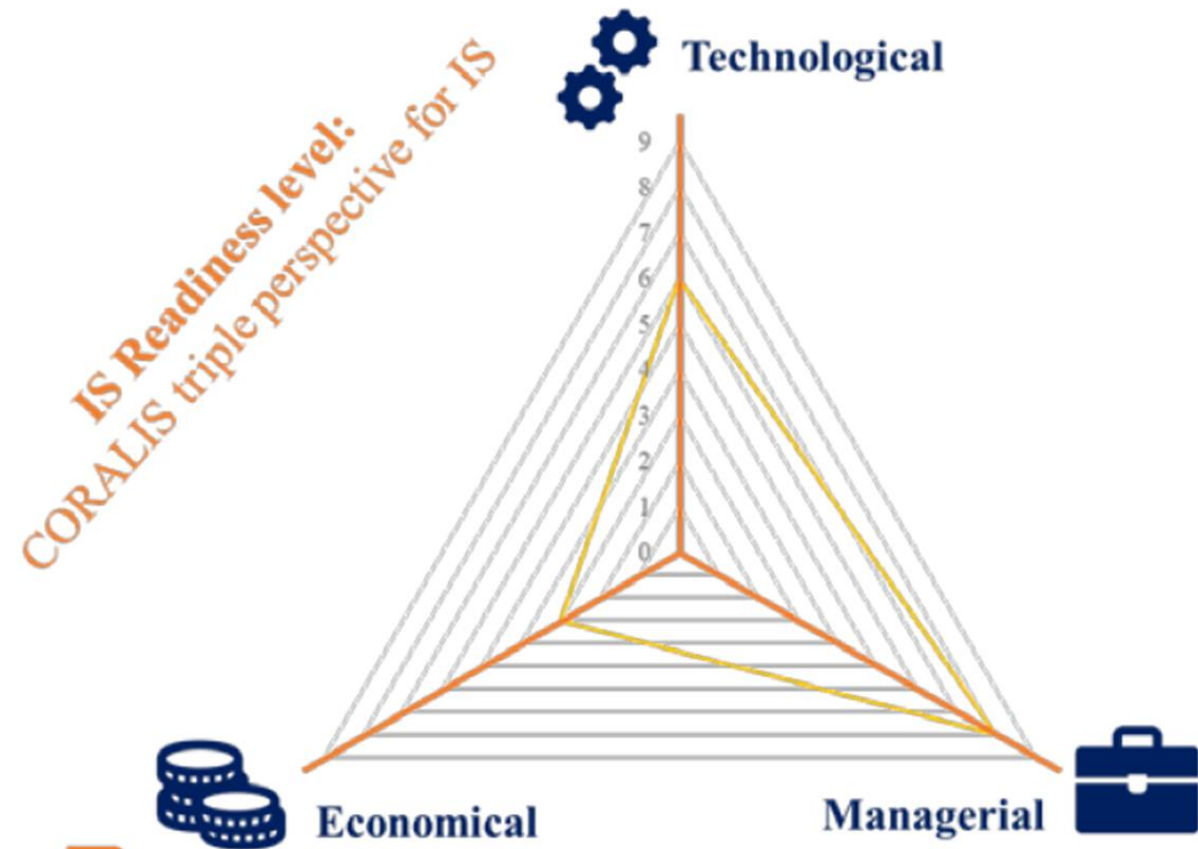
Total Budget: **22.72 M**

EU Contribution: **177.99 M**



CORALIS has been designed as a demonstration project 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



Why is CORALIS needed?

- ▶ IS projects are unique and one-a-kind projects → Deeper understanding of IS success cases and their economic and managerial aspects of IS are needed.
- ▶ CORALIS will develop a set of best practices to help in the replication of cross-sectoral and cross-national IS initiatives.
- ▶ CORALIS will be the technology driver to untap new business models. Application of novel technologies and approaches will promote the resource and energy efficiency, to help the companies to face the new societal challenges.

The main objective of CORALIS is to create **pathways** for the decarbonisation of resource and energy intensive sector value chains through the implementation of viable IS approaches combining new business and management strategies with innovative technology-based enablers.

The specific CORALIS goals include:

- ▷ Deeper understanding on the IS performance and conditioning factors
- ▷ Promotion of design and management of IS projects through the empowerment of the IS facilitators
- ▷ Profitability and sustainability of the IS opportunities in the CORALIS industrial areas
- ▷ Contribution to the decarbonization of the value chains
- ▷ Exploitation of identified symbiosis synergies in the CORALIS industrial areas
- ▷ Raising awareness and facilitate knowledge transfer