Symbio-Steel: Fostering Industrial Symbiosis solutions for the steel sector by results monitoring and dissemination from national and EU funded projects coupled to definition of cross-sectorial synergy scenarios

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Introduction

Industrial Symbiosis: transactions between different industry sectors, also involving technological and non-technological challenges. It concerns the use by one company or sector of underutilized resources from another.

Industrial Symbiosis implementation results in:

- ➢ reducing dependence on critical materials, mitigating supply risks
- ➢ replacing virgin materials
  - → reducing CO_2 emissions
  - → transforming existing resources in the value chain into a usable form.

Exploring Industrial Symbiosis between the steel sector and other industries → redefining inter-industry collaboration, enhancing resource efficiency, and fostering sustainability.

Objectives of the project

Symbio-Steel will focus on the current state, upcoming techniques, and developments of Industrial Symbiosis implementation, to reach proactive cross-sectorial cooperation and integrations.

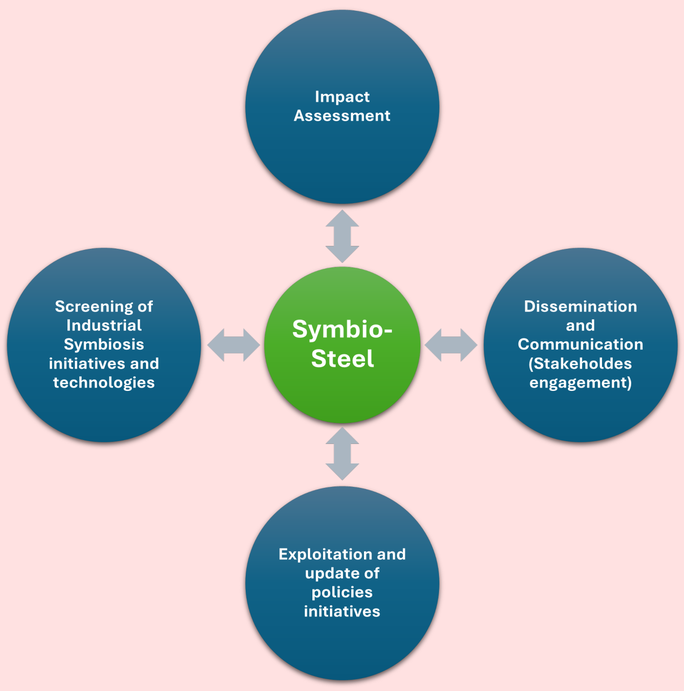
Overall objective: paving the way to a wider uptake of Industrial Symbiosis solutions in the steel sector, exploiting and spreading knowledge on most promising and available results, supporting synergies with other industrial sectors.

Main objectives:

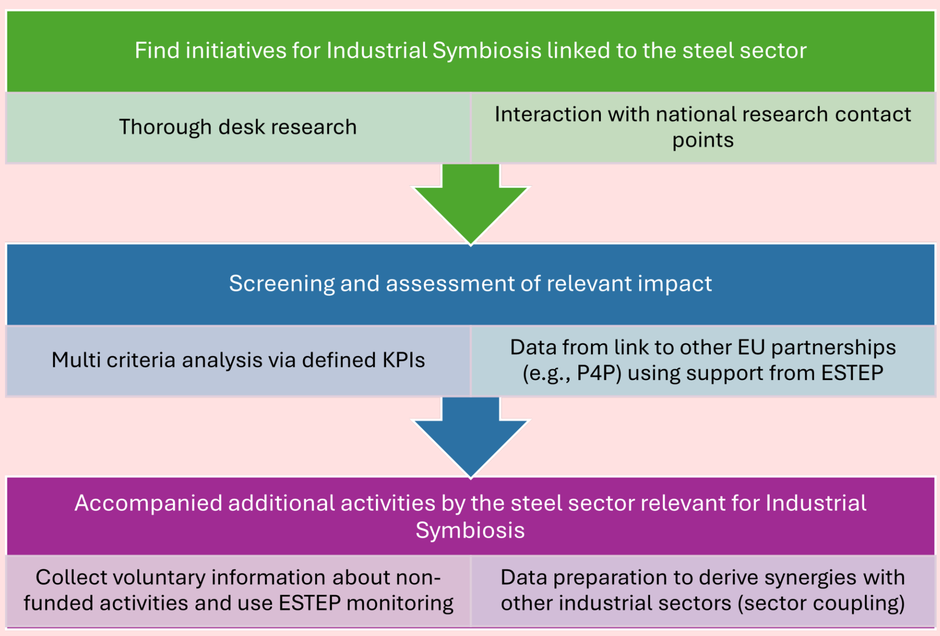
- ➢ Monitoring and assessing impact of Industrial Symbiosis initiatives on steel sector.
- ➢ Assessing Industrial Symbiosis with respect to the transformation of steel industry to decarbonized next generation steelmaking.
- ➢ Development of guidelines on how to enhance Industrial Symbiosis in the steel industry.
- ➢ Meeting skills demands and attracting young talents.

Procedure outline

The approach proposed by Symbio-Steel:



Screening of Industrial Symbiosis initiatives with accompanied impact assessment:



Expected Results

- ➢ Spreading most promising research results.
- ➢ Monitoring and assessing the impact of Industrial Symbiosis initiatives through selected and/or elaborated KPIs.
- ➢ Assessing and disseminating innovative Industrial Symbiosis solutions contributing to the transition towards C-lean steel production.
- ➢ Identifying gaps and potential for initiatives engaging different industrial sectors.
- ➢ Developing a virtual forum to engage stakeholders within and beyond steel.
- ➢ Developing implementation scenarios involving energy intensive industries.
- ➢ Providing policy recommendations to EC identifying the important future R&D issues and optimal use of funding opportunities.
- ➢ Providing guidelines on how to enhance uptake of Industrial Symbiosis in the steel sector by improving sector coupling.
- ➢ Road mapping to future Industrial Symbiosis with respect to next generation steelmaking.
- ➢ Supporting attraction and retention of young talents by involving them in workshops, webinars, and seminars.

Your opinion is important
Please compile our survey.

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