

## Project information

**Start date:** 01.01.2023

**Call:** HORIZON-CL4-2022-TWIN-TRANSITION-01

**Duration:** 42 months

**Coordinator:** Swerim AB

**Type:** Innovation Action

**Contact:** info@purescrap.eu

The PURESCRAP project is taking an ambitious, major step toward reducing impurities in post-consumer scrap prior to melting by applying highly efficient sensor stations in conjunction with improved scrap processing. The project thereby provides a contribution to the Strategic Research and Innovation Agenda (SRIA) of the Clean Steel Partnership (CSP) and to the achievement of the European Green Steel goals regarding circular economy as well as to the reduction of CO<sub>2</sub> emissions.



## 2<sup>nd</sup> review meeting - online

In the beginning of October, the project consortium gathered for its second review meeting. This time it took place online and we reflected on the progress made during months 19 to 30 of the project. The meeting provided an opportunity to showcase recent achievements, share insights and share the next steps with the project officer and the assigned reviewer. Key developments and challenges of each work package were discussed. We received valuable feedback which motivated the team to progress with the project.



Fig. 1: Project members at the 2<sup>nd</sup> review meeting, October 2025

## Consortium meeting in Buttrio (Italy)



Fig.2: at the consortium meeting in Buttrio

On Friday, 31<sup>st</sup> October 2025, the project partners gathered in Buttrio, both in person and online, for a productive meeting. The morning sessions focused on updates regarding sensor stations, life cycle assessment, and cost analysis. In the afternoon, an exploitation workshop was held, and the next steps were planned. It was a great opportunity to align on progress and share results. A big thank you to Mauro Meneghin and Danieli Automation DIGI&MET for organizing the meeting and hosting us!

# PURESCRAP at European conferences



## ESTEP Spring Dissemination Event 2025 in Krakow (Poland)

At the 2025 ESTEP Spring Dissemination Event in Krakow, Marco Vannucci (Scuola Superiore Sant'Anna) shared research results from the PURESCRAP project, showcasing the work of Scuola Superiore Sant'Anna and Danieli Automation DIGI&MET. His talk highlighted AI-driven copper detection in scrap metal. This marks an important step toward advancing digitalization and sustainability in steelmaking.

Fig.3: Marco Vanucci at the ESTEP Event

## European Steel Technology and Application Days - ESTAD in Verona (Italy)

At ESTAD in Verona, PURESCRAP was featured in two complementary presentations. Jonas Petersson (Swerim AB) introduced sensor solutions for online analysis of post-consumer scrap, a key innovation within the project. Alice Petrucciani (Scuola Superiore Sant'Anna) presented her work on applying Deep Learning techniques to improve scrap quality. Both talks emphasised how innovative solutions can enhance efficiency and sustainability in steelmaking.

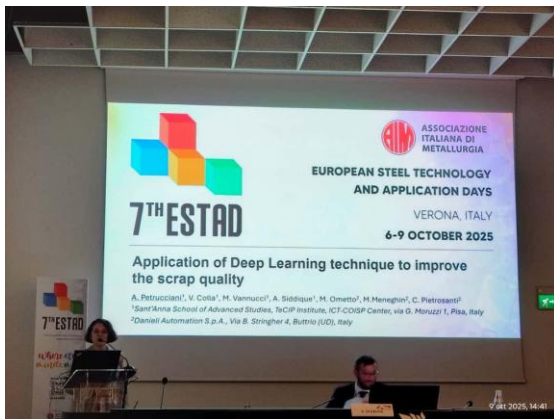


Fig.4: Alice Petrucciani (left) and Jonas Petersson (right) sharing their results at the ESTAD in Verona

## ESTEP Spring Dissemination Event 2025 in Krakow (Poland)

At the ESTEP Annual Event, Alice Petrucciani (Scuola Superiore Sant'Anna) presented further progress on automated copper scrap identification through advanced machine learning. Her work highlights PURESCRAP's ongoing commitment to a detailed characterisation of scrap batches. An accurate chemical analysis of the scrap composition enables tramp- or alloying elements to be used as resources instead of being considered impurities.



Fig.5: Alice Petrucciani at the ESTEP Event

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