

ReMFra

Newsletter #7



The ReMFra project

The objectives of the ReMFra project is to demonstrate and qualify a system for the recovery and the valorisation of the metal and mineral fractions contained in steel making processing residues, to improve the metal recovery yield, to reach the full circularity and to reduce the environmental impact of the steel sector all over Europe.

INCITE workshop

From **May 13-15, 2025**, the **INCITE Workshop** was held in **Sevilla, Spain**, focusing on **innovative techniques in the iron and steel sector**.

As part of the programme, **Silvia Tosato (Tenaris)**, our project manager, presented the **ReMFra project**, sharing insights into its goals and advancements in sustainable steelmaking.



She focused on the potential of the two state-of-the-art processes at the core of ReMFra: the **Plasma Reactor** and **RecoDust**. Both technologies aim to recover **metallic and mineral fractions** from a wide variety of by-products generated in iron and steelmaking, offering promising pathways toward a more circular and sustainable industry. We would like to thank **EUROFER** and the **Joint Research Centre (JRC)** for the opportunity to present our work and engage in valuable discussions on future technologies for **climate-neutral steel production**.

ESTAD 2025

From **October 6-9, 2025**, the **7th European Steel Technology and Application Days (ESTAD)** will take place in **Verona, Italy**.

As part of the conference, an extended abstract titled **“Zinc Flexible RecoDust Process”** will be presented by **Wolfgang Reiter (K1-MET GmbH)**. The talk will focus on the **RecoDust process** and its **flexibility in treating various steelmaking dusts**, with a strong emphasis on **zinc recovery**.



Communication activities



We are pleased to share that another peer-reviewed article was recently published, titled:

"Treatment of Recycled Metallurgical By-Products for the Recovery of Fe and Zn Through a Plasma Reactor and RecoDust."



metals

an Open Access Journal by MDPI

The article was published in the journal "Metals" and appeared in the Volume 15, Issue 8 (1 August 2025). The paper focuses on the valorisation of key residues from electric steelmaking, exploring innovative approaches for recovering iron and zinc. In particular, the study investigates the use of a Plasma Reactor and the RecoDust process as promising technologies to enhance resource efficiency and circularity in the steel industry



Outlook on the next activities

Work package 4 and 5 is currently in progress:

Task 4.1: The Plasma Reactor purchasing are ongoing in the LF3 station inside the Tenaris Dalmine Steelshop.

Task 4.2: The operative practices (OP) for Plasma have been defined and will be validated during the preliminary trials.

Task 5.3: The first RecoDust demo trials have been performed and will continue in the coming months.

Task 5.4: The analysis of the first RecoDust demo trials is in progress and will be continued in the coming months as further trials are performed.



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PROJECT PARTNERS:



Starting with the project coordinator, the consortium is composed as follows:

- [Tenaris Dalmine](#) (Italy, Coordinator)
- [Tenova](#) (Italy)
- [RINA Consulting – Centro Sviluppo Materiali](#) (Italy)
- [European Steel Technology Platform](#) (Belgium)
- [voestalpine Stahl](#) (Austria)
- [Montanuniversität Leoben, Chair of Thermal Processing Technology](#) (Austria)
- [FEhS Institut fuer Baustoffforschung e.V.](#) (Germany)
- [thyssenkrupp Steel Europe](#) (Germany)
- [Tata Steel Netherland Technology](#) (The Netherlands)
- [Barna Steel \(Celsa Group\)](#) (Spain)
- [K1-MET](#) (Austria)

FUNDING SCHEME AND CONSORTIUM

✓ Call: Horizon Europe Clean Steel Partnership (HORIZON-CL4-2021-TWIN-TRANSITION-01-19)

Type of action: Innovation Action (IA)

Granting authority: European Health and Digital Executive Agency

✓ The ReMFra project receives funding by the European Union (Grant Agreement no. 101058362).

A LinkedIn channel is available.

[ReMFra: Übersicht | LinkedIn](#)

