Research Highlight

Customer & Value

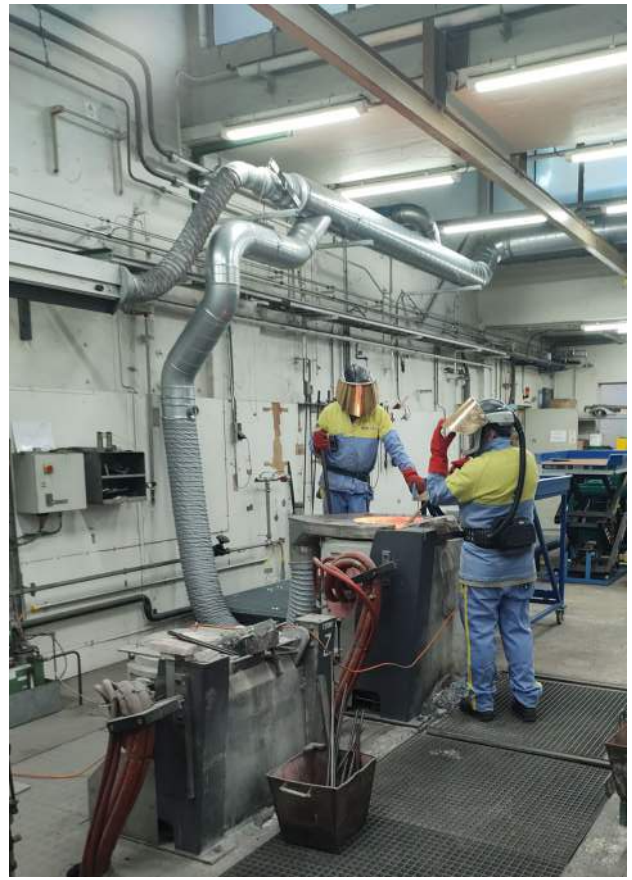
Scrap Melter successfully commissioned

R&D successfully upgraded and commissioned a state-of-the-art scrap melter.
The melter supports development of TSN's strategy towards steel circularity and CO_2 reduction.

TSN is aiming to increase the use of scrap in steelmaking, both in the existing blast furnace – basic oxygen furnace (BF-BOF) route and in the future direct reduced ironmaking – electric arc furnace (DRI-EAF) route.

To increase our understanding of scrap, it is important to investigate and analyse the composition and melting behaviour of a wide range of scrap types. This information can be used to reduce the cost of scrap, to improve the steelmaking process control, and to steer the quality of our products.

A Capex project was started with the aim to have an in-house facility that can support a large number of scrap melts per year. A cross-functional team, involving engineers, business representatives, researchers, and operators designed, constructed and successfully commissioned the scrap melter in 2024 - 2025. The melter is state of the art, with excellent dedusting, steel, dust and slag sampling and rapid melting.



Each trial can melt up to 250 kg of scrap. The melter is partially funded by the "Groeien met Groen Staal" growth fund program.

On December 1st, 2025, the first successful melt was delivered.
In December, 17 melts have been done.

R&D team members
Frank Schrama
Bastiaan de Bruijn
Sebastiaan Epke
Ferry Zwanenburg
Dimitra Papamantellou
Vinod Dhiman
Ali Emami
Peter Kuiper
Wico Verloop
Guido van Beuzekom

Other contributors
Bas Oosterbaan
Robert Stemmer

Departments
Product Dev't & Materials Characterisation
Ironmaking, Steelmaking & Casting
Rolling, Finishing & Measurement
Local Facilities

Research Portfolio
RPC Steelmaking & Casting