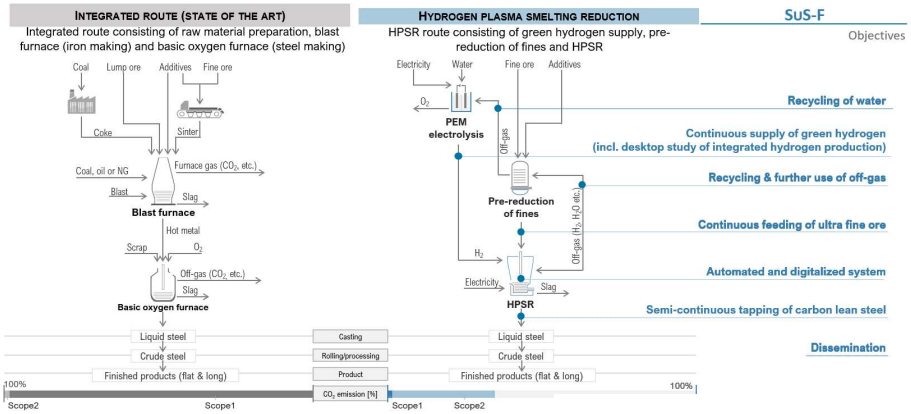
WIVA P&G
Energy Model Region

SUSTAINABLE **STEELMAKING**

Europe is in the transition to a climate-neutral, competitive and circular or resource-efficient economy and has set ambitious targets with the Green Deal. The **iron and steel industry** is a central part of the European economy. It has to face various challenges to achieve the climate targets associated with the transition **towards CO2-neutral production by 2050**.

Hydrogen plasma smelting reduction (HPSR):

- High-quality steel
- in one process step
- CO2-neutral with the use of
  - green hydrogen
  - green electricity
- from a (semi-)continuous process



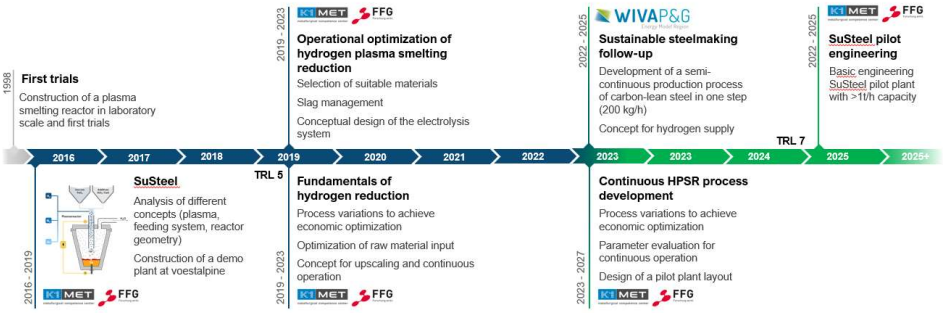
The planned measures are intended to set the course for further upscaling and integration into established steel production sites of this **globally unique reduction technology** for steel production from iron ores in one process step. This can significantly contribute to the **decarbonisation** of steel production through the industrial use of **green hydrogen as a reducing agent**. In this way, sustainable development in Europe is to be ensured while at the same time **safeguarding Austria as a business location**. Furthermore, this project is intended to serve as an **incentive for the progress and strengthening** of developments in **the hydrogen sector**.

voestalpine
ONE STEP AHEAD.

K1 MET
metallurgical competence center

MONTAN UNIVERSITÄT LEOBEN

PIRHOFER Automation
process in motion



Project Start: 1.10.2022

Duration: 3 years

Consortium:

- K1-MET GmbH (K1-MET)
- Pirhofer Automation (Pirhofer)
- Montanuniversity Leoben (MUL-ESM)
- voestalpine Stahl Donawitz GmbH (VASD)
- Voestalpine Stahl (VAS)
- Hydrogen Initiative Showcase Region Austria Power & Gas (WIVA P&G)

Contact:

- Michael Zarl (K1-MET): michael.zarl@k1-met.com

www.wiva.at

VEREIN WIVA P&G - Wasserstoffinitiative Vorzeigeregion Austria Power & Gas

This project is funded by the Austrian climate and energy fund and runs within the scope of the program „Vorzeigeregion Energie“.