

COMET CENTRE

K1-MET GMBH

RESEARCH PROGRAMME: K1-MET SUSMET4PLANET –
“SUSTAINABLE DIGITALIZED METALLURGY FOR A CLIMATE
NEUTRAL AND RESOURCE EFFICIENT PLANET”

Main location: Linz (Upper Austria)

Other locations: Leoben (Styria)

Thematic area: Materials & Production, Energy & Environment



Thematic focuses

- Metallurgical Process Efficiency & Circularity
- Decarbonisation & Sector Coupling
- Simulation & Data Analyses

Planned realisation and outcomes

K1-MET is a competence center doing research on Sustainable Digitalized Metallurgy for a Climate Neutral and Resource Efficient Planet (“SusMet4Planet”) and is collaborating closely with the Austrian steel industry. The competence center’s strategy is aligned with the goal of 55 % CO₂ reduction until 2030 and climate neutrality until 2050, in line with the European Green Deal, Fit-for-55, or the Sustainable Development Goals (SDGs) and Austria’s even more ambitious goal of climate neutrality until 2040. K1-MET is essential to the continuation of the prolonged successful track record of the Austrian steel and processing industry, and contributes to make it more competitive, sustainable, and lead to economic growth.

Three strategic goals are the mission of K1-MET:

- Increase process efficiency and strengthen circularity in metallurgy
- Push forward the decarbonisation of the metallurgical industry and sector coupling
- Generate and use of metallurgical process knowledge through digital technologies

History of establishment

2001: Start of the K_{net} MET competence network 2008: Start of the working group (ARGE) K1-MET

2015: Start of the 1st funding period of the competence center K1-MET GmbH

2019: Start of the 2nd funding period of the competence center K1-MET GmbH

2023: Start of the 3rd funding period of the competence center K1-MET GmbH

COMET FACTSHEET

Selected company partners

1. Alpacem Zement Austria GmbH
2. Andritz AG
3. Boehler Edelstahl GmbH & Co KG
4. Calderys Metalcasting Germany GmbH
5. CEMTEC Cement and Mining Technology GmbH
6. Ceram Austria GmbH
7. CGI Solutions GmbH
8. Ebner Industrieofenbau GmbH
9. Ermafa Environmental Technologies GmbH
10. LAT Nitrogen Austria GmbH
11. Leube Zement GmbH
12. Linde Gas GmbH
13. LINETECHNOLOGY GmbH
14. LTB Lastertechnik Berlin GmbH
15. Montanwerke Brixlegg AG
16. Next Generation Elements GmbH
17. OMV Exploration & Production GmbH
18. Paul Wurth S.A.
19. Primetals Technologies Austria GmbH
20. Prozess Optimal CAP GmbH
21. RHI Magnesita N.V.
22. Scholz Austria GmbH
23. Tata Steel Nederland Technology BV
24. Ternium Brasil LTDA
25. VA Erzberg GmbH
26. voestalpine Stahl GmbH
27. voestalpine Stahl Donawitz GmbH
28. Wacker Chemie AG

Selected scientific partners

1. Bundesanstalt fuer Materialforschung und-pruefung (BAM)
2. University of Applied Sciences Upper Austria
3. HyCentA Research GmbH
4. Joanneum Research Forschungsgesellschaft mbH
5. Johannes Kepler University Linz
6. Linz Center of Mechatronics GmbH
7. Montanuniversitaet Leoben
8. RWTH Aachen University
9. Swerim AB
10. Technische Universitaet Bergakademie Freiberg
11. Graz University of Technology
12. Vienna University of Technology
13. University of Oulu

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Selected international¹ partners

1. Bundesanstalt fuer Materialforschung und -pruefung (BAM)
2. Calderys Metalcasting Gemany GmbH
3. LTB Lasertechnik Berlin GmbH
4. Metalcasting Gemany GmbH
5. Paul Wurth S.A.
6. RWTH Aachen University
7. Swerim AB
8. Tata Steel Nederland Technology BV
9. Technische Universitaet Bergakademie Freiberg
10. Ternium Brasil LTDA
11. University of Oulu
12. Wacker Chemie AG

Duration: 1 July 2023 – 30 June 2031 (8 years)
Staff employed at the Centre: 64 FTE, thereof 55 scientists

Management: Thomas Buergler, CEO
Susanne Michelic, CSO

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¹ Partners with headquarters outside Austria