

COMET Centre (K1)

K1-MET	
Competence Center for Excellent Technologies in Advanced Metallurgical and Environmental Process Development	
Main location	Linz, Upper Austria
Other locations	Leoben, Styria
Research programme	Raw Materials and Recycling, Metallurgical Processes, Low Carbon Energy Systems, Simulation and Analyses
Planned realisation and outcomes	
Methods to measure material properties of metallurgical slag systems should be developed. The RecoDust process for a recovery of iron and zinc from steelmaking dusts should be scaled-up (from 300 to 1,000 kg/h). The Hydrogen Plasma Smelting Reduction (direct CO ₂ -lean steelmaking from iron ore with hydrogen) will be tested in pilot-scale (100 kg batch operation). Within the area of metallurgical plant and process modelling, methods for a real-time simulation should be developed and brought to an industrial readiness level.	
History of establishment	2001: Start of competence network Knet MET 2008: Start of the consortium (ARGE) K1-MET 2015: Start of funding period 1 of K1-MET GmbH
Selected company partners (max. 10)	Selected scientific partners (max. 5)
1. Andritz AG 2. Ebner Industrieofenbau GmbH 3. Fronius International GmbH 4. Montanwerke Brixlegg AG 5. OMV Refining & Marketing GmbH 6. Plansee SE 7. Primetals Technologies Austria GmbH 8. RHI Magnesita GmbH 9. Scholz Austria GmbH 10. voestalpine Stahl GmbH	1. University of Applied Sciences - Upper Austria 2. Graz University of Technology 3. Johannes Kepler University Linz 4. Montanuniversität Leoben 5. TU Wien
	Selected international partners ¹ (max. 5)
	1. FEhS – Institut für Baustoff-Forschung e.V. 2. TU Bergakademie Freiberg 3. University of Duisburg-Essen 4. Helmholtz-Institute Freiberg for Resource Technology
Duration of the COMET Centre	July 2015 – June 2023 (8 years)
Staff employed at the Centre	42 FTE (thereof 35 scientists)
Total costs	1 st Funding period: EUR 18.75 Mio. (4 years) 2 nd Funding period: EUR 22.67 Mio. (4 years)
Management of the Centre	Gerold Huemer, K1-MET GmbH, FO
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¹ Partners with headquarters outside Austria