COMET Centre (K1)

**K1-MET**

*Competence Center for Excellent Technologies in Advanced Metallurgical and Environmental Process Development*

<table>
<thead>
<tr>
<th>Main location</th>
<th>Linz, Upper Austria</th>
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<tbody>
<tr>
<td>Other locations</td>
<td>Leoben, Styria</td>
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<tr>
<td>Research programme</td>
<td>Raw Materials and Recycling, Metallurgical Processes, Low Carbon Energy Systems, Simulation and Analyses</td>
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</tbody>
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**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 CO2-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)

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

**Selected scientific partners** (max. 5)

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** (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**  
1st Funding period: EUR 18.75 Mio. (4 years)  
2nd 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