# 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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</thead>
<tbody>
<tr>
<td>Other locations</td>
<td>Leoben, Styria</td>
</tr>
<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

| Duration | July 2015 – June 2023 (8 years) |

## Staff employed at the Centre

| Staff | 42 FTE (thereof 35 scientists) |

## Total costs

<table>
<thead>
<tr>
<th>Period</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>1&lt;sup&gt;st&lt;/sup&gt; Funding period</td>
<td>EUR 18.75 Mio. (4 years)</td>
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<tr>
<td>2&lt;sup&gt;nd&lt;/sup&gt; Funding period</td>
<td>EUR 22.67 Mio. (4 years)</td>
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## Management of the Centre

- Gerold Huemer, K1-MET GmbH, FO

## Contact:

- Stahlstraße 14, 4020 Linz
- +43 732-6989-75603
- Gerold.Huemer@k1-met.com, www.k1-met.com

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1 Partners with headquarters outside Austria

The COMET Centre is funded within COMET – Competence Centers for Excellent Technologies – by BMK, BMDW as well as co-financing federal provinces. The COMET programme is managed by FFG. >> [www.ffg.at/comet](http://www.ffg.at/comet)