

COMET CENTRE (K2)

MATERIALS CENTER LOEBEN FORSCHUNG GMBH

RESEARCH PROGRAMME: IC-MPPE – INTEGRATED COMPUTATIONAL MATERIALS,
PROCESS AND PRODUCT ENGINEERING

Main location: Leoben (Styria)

Other locations: none

Thematic area: Materials & production



Thematic focuses

- Fundamentals for integrated computational material, process and product engineering
- Material engineering
- Process engineering
- Product engineering

Planned realisation and outcomes

The COMET Center IC-MPPE focuses on the integrated computer-aided development of materials, production processes and products. The goal is to support companies from the production sector in the realization of material-based, resource-saving and climate-friendly innovations as well as in the digitalization of the production chain. To this end, IC-MPPE develops hybrid physics-based and data-based models and software tools, and it accelerates development processes through the use of artificial intelligence.

History of establishment

1999: Founded as a competence center under the Kplus Competence Centers Program

2008 to 2017: K2 Center MPPE, project volume ~ 110 million € (completed)

2018 to 2026: K2 Center IC-MPPE, project volume ~ 88 million € (ongoing)

COMET FACTSHEET

Selected company partners (max. 10):

1. voestalpine Stahl GmbH
2. voestalpine BÖHLER Edelstahl GmbH & Co KG
3. AMAG Rolling GmbH
4. Ceratizit Austria GmbH
5. RHI Magnesita GmbH
6. Siemens Mobility GmbH
7. Primetals Technologies Austria GmbH
8. AT&S Austria Technologie & Systemtechnik Aktiengesellschaft
9. Infineon Technologies Austria AG
10. ÖBB Infrastruktur AG

Selected scientific partners (max. 5):

1. Montanuniversität Leoben (Austria)
2. Austrian Academy of Sciences (Austria)
3. Vienna University of Technology (Austria)
4. Politecnico di Milano (Italy)
5. University of Warwick (United Kingdom)

Selected international¹ partners (max. 5):

1. Robert Bosch GmbH, Germany (Germany)
2. Ceratizit Luxembourg S.a.r.l. (Luxembourg)
3. International Zinc Association (USA)
4. Hegenscheidt MFD GmbH (Germany)
5. Lucchini RS S.p.a. (Italy)

Duration: 01.01.2018 – 31.12.2026 (9 years)

Staff employed at the Centre: 124 FTE, thereof 100 scientists

Management: Prof. Dr. Reinhold Ebner

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¹ Partners with headquarters outside Austria