

COMET CENTRE

AC2T research GmbH

RESEARCH PROGRAMME: INTRIBOLOGY – Tribology Intelligence – Customized Tribology for Industrial Innovation

Main location: 2700 Wiener Neustadt (Niederösterreich)

Other locations: none

Thematic area: Material & Production



Thematic focuses

- Integration of data-driven methods in tribo-diagnostics
- elaboration of generic models for lubricant & interface mechanisms and friction surface phenomena
- investigation of wear processes and wear reduction strategies
- elaboration of application-oriented digital models for the modelling of tribological systems relevant for industrial practice
- investigation of tribosystems under special atmospheres like H₂ and ammonia

Planned realisation and outcomes

INTRIBOLOGY will intensify trend-setting the research on and validation of tribological systems through data-driven methods, thereby enabling customized solutions and fostering industrial innovation in European and Austrian industry. Thematic focus of INTRIBOLOGY is driven by the challenges of the energy and mobility transition and the circular economy, as well as the resulting issues concerning CO₂-neutral energy sources and sustainable materials and lubricants. This will lead tribology into an era of digital transformation, and the high potential of tribology to make a significant contribution to the global challenge of “decarbonisation” is significantly raised and made visible to customers and the society.

History of establishment

2002: formation of A2T research GmbH as operating organization

2009: *Kplus* Center of Competence for Tribology

2010 – 2020: COMET K2 Excellence Centre of Tribology (XTRIBOLOGY)

2020 – 2029: COMET K2 Excellence Centre of Tribology (INTRIBOLOGY)

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COMET FACTSHEET

Selected company partners (max. 10):

1. voestalpine Stahl GmbH (AT)
2. Magna Powertrain GmbH & Co KG (AT)
3. OMV Exploration & Production GmbH (AT)
4. voestalpine Tubulars GmbH & Co KG (AT)
5. OMV Downstream GmbH (AT)
6. ANDRITZ AG (AT)
7. Miba Gleitlager Austria GmbH (AT)
8. Wien Energie GmbH (AT)
9. Plasser & Theurer, Export von Bahnbaumaschinen, Gesellschaft m.b.H. (AT)
10. Leobersdorfer Maschinenfabrik GmbH (AT)

Selected scientific partners (max. 5):

1. TU Wien, 13 Institutes (AT)
2. Polytechnic University of Bari - Department of Mechanics, Mathematics and Management (It)
3. Technische Universität München - Lehrstuhl für Maschinenelemente (DE)
4. EMPA Materials Science and Technology (CH)
5. University of California Merced, Dept. of Mech Eng (US)

Selected international¹ partners (max. 5):

1. TotalEnergies One Tech SAS. (FR)
2. Toyota Motor Europe NV/SA (BE)
3. Komatsu Ltd. (JP)
4. Robert Bosch GmbH (DE)
5. SKF B.V. (NL)

Duration: April 2020 until March 2029 (9 years)

Staff employed at the Centre: 95 FTE, thereof 85 scientists

Management: Prof. DI Dr. Andreas PAUSCHITZ, General Manager
Dr. mont. Ewald BADISCH, Scientific Manager

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¹ Partners with headquarters outside Austria