The goal of MAPEX is the **system-oriented research and development of materials and processes for sustainable transport and energy applications**. Our research encompasses the fields of natural and engineering sciences as well as mathematics, aiming at a thorough understanding of the process-properties-performance relationships in materials.

The MAPEX members are affiliated to five different university faculties and four external research institutes on the university campus.

Established in 2014 as the governance form of the high-profile area Materials Science and Production Engineering MAPEX has the aim to:

- establish and maintain a network of competencies in the fields of materials science, materials technology, and materials processing;
- increase the visibility of the MAPEX Research Landscape;
- apply for and participate in third-party funding programmes;
- promote cooperative research activities of early career researchers;
- support an interdisciplinary doctoral education;
- cooperatively acquire and share scientific equipment;
- offer our scientists a diverse and family-friendly environment with equal opportunity, quality assurance, and data handling policies at the highest international standards.

This workshop is dedicated to early career researchers (PhD and MSc candidates, postdocs) from the University of Bremen and surrounding institutions looking for career opportunities beyond academia. Please register if you want to meet and get in touch with:

- alumni of the University of Bremen now working in industry,
- the knowledge and technology transfer unit of the University of Bremen,
- scientists and industry partners working on cooperation projects,
- other early career researchers from the field of materials science,
- Andreas Fischer, newly appointed Professor for Metrology, Automation, and Quality Science,
- Join us for the excursion to Airbus site and plant.

During the 7th MAPEX Early Career Researcher workshop you will have the chance to ...

- get in touch with peers, build up your own network of experts,
- learn from others, think outside the box,
- open doors to other experts – become aware of the huge potential for mutual support that you can access on the short way,
- develop ideas for cooperative research projects.
8:15 Registration

session 1

8:45 Welcome
Lucio Colombi Ciacchi, MAPEX, FB4
Hanna Lührs, MAPEX

9:00 Science or research, that is the question
Tanja Klein
Aleris Rolled Products Germany GmbH
Innovation Center Aachen
Research Engineer Refractories

9:30 When Moore's Law hits the Atoms: Atomistic Simulations at Synopsys QuantumATK
Julian Schneider
Synopsys QuantumWise
Copenhagen, Denmark
R & D Manager

discussion & coffee
10:00 – 10:15

session 2

10:15 What to do during semester break? - An inspiring story about India, New York, Bremen and metal 3D printing
Tim Domagala
Materialise
Lena Heemann
Leibniz Institute for Materials Engineering IWT

10:45 From Lab Towards Start-Up: Using graphene as a new approach for hair cosmetics
Felipe Perez
Fraunhofer Institute for Manufacturing
Technology and Advanced Materials IFAM

11:15 Business StartUp and Job Entry – Assistance and support for students, graduates and researchers on their career paths are offered by BRIDGE and the job-oriented Mentoring-Programme “Fokus Berufseinstieg”
Charlotte Simmat and Wiltrud Hoffmann
Knowledge and Technology Transfer Unit
University of Bremen

discussion & lunch
11:45 – 12:30

session 3

12:30 Micro milling in industrial applications or how to drill a hole in a human hair
Matthias Fritz
KERN Microtechnik GmbH, Eschenlohe
Head of Development

13:00 EcoMaT New ways of working
Hubertus Lohner
Airbus Operations, EcoMaT Project leader

plenary talk
13:45 Beating the limits of measurements
Andreas Fischer
Bremen Institute for Metrology, Automation and Quality Science (BIMAQ)
University of Bremen

discussion & coffee
14:45 – 15:00

transfer to Airbus (tram 6 at 15:02)

16:00 excursion to Airbus site and plant
Airbus-Allee 1 (near Bremen Airport)

18:00 dinner and get together
Ständige Vertretung, Böttcherstrasse 3-5