Fraunhofer



ICTM Conference

March 17–18, 2027 | Aachen

www.ictm-aachen.com/conference

Foreword

Welcome to the 8th Conference of the ICTM – International Center for Turbomachinery Manufacturing Aachen

The manufacturing of aircraft engines and stationary turbomachinery faces growing challenges. Advanced materials, complex component geometries, and increasing demands for productivity, quality, sustainability, and cost efficiency are driving the need for new manufacturing approaches.

To address these challenges, manufacturers are increasingly leveraging data-driven process optimization, intelligent automation, and advanced production technologies to enhance process capability, improve operational resilience, and accelerate innovation. Beyond technical excellence, these developments play a critical role in strengthening competitiveness, reducing lead times, optimizing resource utilization, and supporting strategic business objectives in a rapidly evolving industrial landscape.

The ICTM Conference provides a unique platform for decision makers, technology experts, and applied researchers to exchange the latest developments and discuss future directions in turbomachinery manufacturing. Bringing together stakeholders from across the entire value chain, the conference fosters collaboration, knowledge transfer, and the adoption of innovations that drive industrial competitiveness.

As an additional highlight of the conference, we will be proud to share insights into new developments in manufacturing technology in Aachen during a tour through our R&D shop floors.

We are looking forward to meeting you at the ICTM Conference 2027 in Aachen.

The Topics

Early Bird Registration!

Those bookings by February 10, 2027 will be able to take advantage of 100 € Early Bird discount on the conference fee.

The Topics at a Glance

- Market overview and trends in aviation and stationary turbomachinery
- Design trends
- Digitalization
- Advanced machining
- Additive manufacturing and MRO
- Panel discussion on AI and automations solutions
- Open Shop Floor tour at the Fraunhofer facilities

Speakers

- Design and manufacturing experts of turbomachinery OEM
- Specialists of machine tool and equipment suppliers
- Experts for digitalization and Industrie 4.0
- Experts for Additive Manufacturing MRO and materials
- Representatives of Fraunhofer institutes

Adressee

- Specialists and managers of turbomachine manufacturers, aeronautics and power generation, machine tool and equipment suppliers
- Design and manufacturing engineers
- Stakeholders for laser and machining technologies

Language

Lectures are presented in English.

PROGRAM 1ST DAY

Developments and trends to meet the future challenges in manufacturing aero-engines and stationary turbines



Wednesday, March 17, 2027

Session 1 – Keynotes

9:00 **Welcome and introduction**
Prof. Thomas Bergs, Fraunhofer IPT

9:15 **t.b.d.**
t.b.d., Safran Aircraft Engines

9:45 **Transformation of turbomachinery manufacturing towards decarbonization solutions**
Dr. Angela Serra, Baker Hughes

Coffee break

Session 2 – Design trends

10:45 **t.b.d.**
Brian Rohm, GE Aerospace

11:15 **t.b.d.**
t.b.d.

Lunch break

Wednesday, March 18, 2027

Session 3 – Digitized machining

13:15 **t.b.d.**
Dr. Sascha Gierlings, Fraunhofer IPT

13:45 **t.b.d.**
t.b.d.

14:15 **Digital manufacturing journey: Machine and condition-based monitoring**
Daxing He, RLC (UK) Ltd.

14:45 **t.b.d.**
t.b.d.

Session 4 – Open Shop Floors at Fraunhofer Institutes

14:45 **Highlights – Open Shop Floors at Fraunhofer Institutes**
- Niklas Prätzsch, Fraunhofer ILT
- Pascal Kienast, Fraunhofer IPT

15:45 **Transfer to Fraunhofer Facilities by Shuttle Bus**

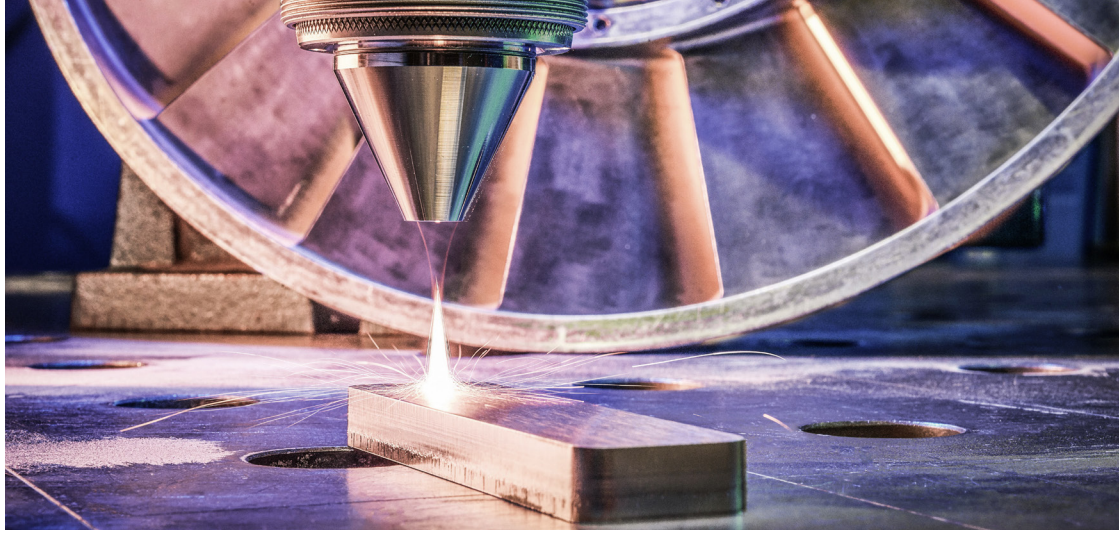
18:30 **End of Open Shop Floors**
Transfer back to Eurogress Conference Center

Neworking Event

20:00 **Networking Event with Dinner**
"Coronation Hall" of Aachen, doors open at 19:30 h

23:30 **End of Evening Event**

PROGRAM 2nd DAY



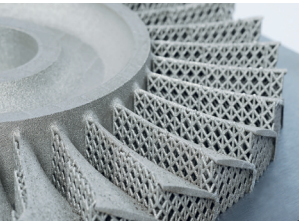
Developments and trends to meet the future challenges in manufacturing aero-engines and stationary turbines

Thursday, March 18, 2027

9:00 **Introduction**
Dr. Thomas Schopphoven, Fraunhofer ILT

Session 5 – Panel discussion AI and Automation – Potentials and challenges for turbomachinery manufacturing

9:05 **Introductory presentation**
9:15 **Panel discussion with:**
- Harry Burroughes, Rolls-Royce Deutschland Ltd & Co. KG
- Martin Hofberger, MTU Aero Engines AG
- Michael Kirbach, DMG MORI Pfronten GmbH
- Viktor Rudel, Fraunhofer IPT



Coffee break

Session 6 – Advanced machining

11:00 **t.b.d.**
Dr. Susanne Großkurth, MTU Aero Engines AG
11:30 **Digital twins for aerospace tooling: Closing the loop between tool application, monitoring and optimization**
Dr. Alexander Krödel, Kennametal Shared Services GmbH
12:00 **Vibration reduction for manufacturing thin walled components**
Pascal Kienast, Fraunhofer IPT

Lunch break

Session 7 – Additive manufacturing, Materials and MRO

14:00 **AM Superalloy powder for the turbine industry: Status and outlook**
Adeline Riou, Aubert & Duval
14:30 **t.b.d.**
t.b.d., toolcraft AG
15:00 **Combining LPBF and LMD for the additive manufacturing of large-scale high-performance components**
Dr. Wilhelm Meiners, Fraunhofer ILT

Session 8 – Closing

15:30 **t.b.d.**
t.b.d.

16:00 **End of the Conference**



Become a Partner!

The industrial exhibition offers an ideal platform to get in personal contact with the ICTM Conference participants. Take the opportunity to present your company with your innovative products and services at the ICTM Conference 2027. Please contact us for further information.

Katharina Schulte
Phone +49 241 8906-420
contact@ictm-aachen.com

Industrial Exhibition

At the accompanying industrial exhibition in the foyer of the ICTM Conference, various suppliers will present new products and latest trends. Benefit from the exchange of information and know-how and discuss innovative solutions for your specific problems face-to-face with the worldwide recognized companies.

Live Presentations

Fraunhofer ILT and Fraunhofer IPT have gained a huge expertise in manufacturing and repair processes in turbomachinery. In Live Presentations they will demonstrate their latest laser and machining technology developments as well as digitalization approaches. Use the opportunity to exchange information with our experts.

Networking Event

The "Coronation Hall" of the Town Hall Aachen will be the location of the Networking Event on Wednesday, March 17, 2027. Take the opportunity for networking after the conference in a relaxed atmos-phere. Please see: www.aachen.de/rathaus.

International Center for Turbomachinery Manufacturing

Joint platform of Aachen institutes to cooperate with industry and collaborative developments

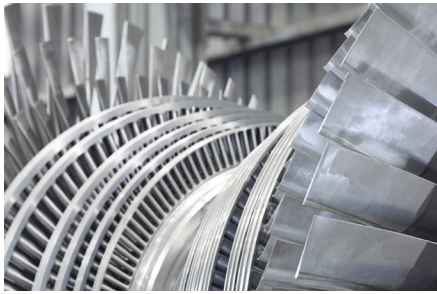
The ICTM Aachen is a joint initiative of the Fraunhofer IPT, the Fraunhofer ILT, the DAP, MTI and WZL of RWTH Aachen University. It offers an integrated and interdisciplinary platform focusing on production and repair technologies primarily, providing R&D solutions in the full range of competencies of the participating research institutes. As turbomachinery manufacturing is a highly interdisciplinary market the ICTM Aachen also pursues R&D approaches eared to design trends and the use of advanced materials. Aim of the ICTM Aachen is to speed up technological innovations and to transfer them into industrial applications.

ICTM Community

The ICTM Partner Community is the workgroup of industry partners and R&D institutions of the ICTM Aachen. It conducts collaborative R&D regarding manufacturing and repair of turbomachinery in the context of advanced machining, additive manufacturing and digitalization.

Collaborative R&D

Based on the fixed annual contributions of each of the ICTM industry partners a set of collaborative R&D projects is conducted. These projects allow high synergies and significant benefits of cooperation in particular for pre-competitive issues. All of the collaborative R&D projects are defined and conducted integrating all partners to input their particular demands and participate in the results. The Projects are selected by the ICTM Community on the annual R&D meeting.



Terms and Conditions

The ICTM Conference is organized by the Fraunhofer Institutes ILT and IPT and focuses on current and future trends as well as developments for the manufacturing and repair of aero engine and stationary turbomachinery components.

Registration Fee

The registration fee for the ICTM Conference 2027 is 1295 € per person. This includes the conference participation (1170 € free of tax under § 4 UStG) and the Networking Event (125 € incl. VAT), the conference proceedings, lunch, light refreshments and coffee breaks on both conference days. It also covers the shuttle service to the Live Presentations at the Fraunhofer facilities on March 17, 2027.

Please note that the conference participation cannot be booked without the Networking Event.

Cancellation

In case of cancellation before March 8, 2027 the fee will be refunded less 200 euros handling charges. Otherwise the full fee will be charged and we will send the proceedings to you or welcome a substitute participant instead.

Registration Deadline

Please register by March 8, 2027 at the latest.

Registration

Please register online at:
https://www.ictm-aachen.com/conference



Location

The imperial city of Aachen, located in the heart of Europe, offers a variety of sights, elegant stores as well as numerous bars in the picturesque, historic city center. Aachen's immense scientific potential, its future-looking economic structures and conveniently situated location, where three countries – Germany, Belgium and the Netherlands – meet, offer the ideal context for a successful conference.We are looking forward to welcoming you at the ICTM Conference 2027!

Hotels

A certain contingent of hotel rooms with special negotiated rates has been reserved for the participants of the ICTM Conference 2027. We recommend early reservations. For further information please visit:
https://www.ictm-aachen.com/conference

Fraunhofer ILT

With more than 490 employees and over 40 spin-offs, the Fraunhofer Institute for Laser Technology ILT in Aachen is one of the leading contract research and development institutes in its field. For more than 40 years, the Fraunhofer ILT experts have been developing and optimizing laser beam sources and laser processes for production and metrology, energy and mobility, medical and environmental technology, as well as quantum technology.

Fraunhofer IPT

The Fraunhofer IPT combines knowledge and experience from all areas of production technology. Our expertise is geared towards the current challenges of particular industries, technologies and product areas, with a strong focus on aerospace and stationary turbomachinery. Our R&D services range from process design and prototype manufacturing to the development of comprehensive manufacturing concepts. We develop processes, products and concepts up to high Technology Readiness Levels (TRL).

Contact

Fraunhofer Institute
for Production Technology IPT
Dipl.-Ing. Daniel Heinen
Phone +49 241 8904-443
info@ictm-aachen.com
www.ipt.fraunhofer.de

Fraunhofer Institute
for Laser Technology ILT
Dr. Thomas Schopphoven
Phone +49 241 8906-209
contact@ictm-aachen.com
www.ilt.fraunhofer.de