



**Fraunhofer**  
ILT

Fraunhofer Institute for Laser  
Technology ILT

30 Years AKL!

April 22–24, 2026 | Program

AKL'26 – International  
Laser Technology Congress

[www.lasercongress.org](http://www.lasercongress.org)

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# Welcome

## AKL'26 – International Laser Technology Congress

In these times of technological transformation, companies are looking for innovative approaches to strengthen their competitive position in global markets. To support this, the AKL – International Laser Technology Congress provides insights into the state of practice-oriented research in laser technology and highlights key industrial developments that are shaping the future. Whether it is about advances in laser beam sources, new application fields, or how digitalization and AI impact photonic production – AKL'26 offers inspiration, innovation, and direct access to leading experts.

For the 15<sup>th</sup> time, laser manufacturers and users from a wide range of industries will come together in Aachen. With more than 500 participants, 80 presentations, and 50 exhibitors, AKL has established itself as the leading European forum for applied laser technology in production. Supported by international industry associations and offering simultaneous translations in German and English, AKL'26 ensures that you gain both practical insights and valuable business contacts.

The European Commission, the European Photonics Industry Consortium EPIC, OptecNet Deutschland as well as the industry associations SPECTARIS, VDA, VDMA and VDI assist the forum as supporting organizations.

Benefit from the place to be for laser users and laser providers! Exchange your new ideas at the laser conference and learn more about latest technological insights in live presentations by Fraunhofer ILT. We are looking forward to your visit!

A blue ink signature of Dr. Jochen Stollenwerk.

Dr. Jochen Stollenwerk

Acting Director of the Fraunhofer Institute for Laser Technology ILT

# Information, Inspiration, Networking

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## AKL'26 – Laser Applications of Tomorrow

### AKL'26 – Laser Technology Conference

The AKL'26 Laser Technology Conference offers a comprehensive overview of current developments in laser materials processing, source development, optical and system technology, and digitalization. With parallel sessions each day, the program covers established fields such as additive manufacturing, cutting and joining, and surface technology, while also addressing future-oriented topics like high-energy lasers a.o. for fusion and AI in Photonics.

Over 90 experts will share technological insights, making AKL'26 the ideal platform for know-how transfer, inspiration, and cross-industry exchange.

### Laser Technology Live

Where research meets practical applications – experience innovation up close! Find out about the latest developments and applications in laser technology at around 60 live demonstrations at Fraunhofer ILT.

### Accompanying Exhibition

International companies from the laser and photonic community showcase innovative products and processes covering all aspects of laser technology.

## Review – AKL'24

- 525 Participants
- 80 Speakers
- 60 Live Presentations
- 58 Exhibitors



### Technology Business Day

The Technology Business Day marks the start of AKL'26 on Wednesday, April 22, 2026, and is directed at executives seeking a strategic overview of photonic and laser markets.

#### Morning

An in-depth look at the global laser markets with analyses of China, the USA, Germany, and the European/global perspective. Participants will gain insights into current market dynamics, trends, and competitive landscapes that drive international business strategies.

#### Afternoon

The focus is on practical industrial examples. Experienced users from innovative companies demonstrate how laser technology is being successfully applied in the six target markets of Automotive, Aerospace, Energy, Microelectronics, Quantum Technology, and Medical Technology.

### Innovation Award Laser Technology

The Innovation Award Laser Technology, awarded by the Arbeitskreis Lasertechnik e.V., will honor outstanding achievements in applied laser R&D. The awards ceremony will take place on the evening of April 22, 2026 in the prestigious Coronation Hall of Aachen Town Hall.

### Conference Language

Lectures are presented in English and German with simultaneous interpreting.

» [www.lasercongress.org](http://www.lasercongress.org)

# Program Structure

Wednesday, April 22, 2026

Exhibition at Eurogress Aachen (accompanying)

## Technology Business Day

Photonic and Laser Markets – Market Data and Insights

## Target Markets for Laser Solutions

AUTOMOTIVE

AEROSPACE

ENERGY

MICRO-ELECTRONICS

QUANTUM TECHNOLOGY

MEDICAL TECHNOLOGY

Innovation Award Laser Technology 2026 with Awards Ceremony in the Coronation Hall of Aachen Town Hall (Evening Event)

Thursday, April 23, 2026

Exhibition at Eurogress Aachen (accompanying)

## Gerd Herziger Session

New Perspectives for Lasers in Science and Industry

### Additive Manufacturing

- Laser Powder Bed Fusion LPBF

### Cutting

- Laser Cutting

### Laser Beam Sources I

- Solid State Lasers and Fiber Lasers

### Laser Beam Sources II

- High Energy Lasers for Fusion and Secondary Sources

Laser Technology Live with around 60 Live Presentations at Fraunhofer ILT

Market Place and Business Exchange at Eurogress Aachen (Evening Event "30 Years AKL")

Friday, April 24, 2026

Exhibition at Eurogress Aachen (accompanying)

### Surface Technology

- Laser Material Deposition
- Microstructuring
- Thin Film Processing and Laser-based Optics Manufacturing

### Optical Systems

- Beam Shaping and Guiding

### Joining

- Joining of Metals
- Joining of Plastics and Transparent Materials

### Laser Beam Sources III

- Ultrashort Pulse Lasers
- Lasers with Tailormade Wavelengths
- Diode Lasers

### AI in Photonics

- Process Monitoring
- Process Control and Optimization
- Design and Modeling of Laser Processes and Optics

Final Lecture – Looking Ahead: The Future of Digitization and AI in Photonics

# Program – Preview

**Technology Business Day**  
Wednesday, April 22, 2026



**10:00 a.m. to 12:00 p.m.**

## Photonic and Laser Markets – Market Data and Insights

- Dr. Thierry Robin, TEMATYS (F) – World Market
- Dr. Stefan Ruppik, Coherent Corp. (D) – European Market
- Dr. Henrikki Pantsar, TRUMPF Inc. (USA) – US Market
- Dr. Bo Gu, BOS Photonics (USA) – Chinese Market

**2:00 to 5:30 p.m. (parallel sessions)**

## Target Markets for Laser Solutions

### Automotive

- Marco Wenk, J. & F. Krüth GmbH (D)
- Dr. Jan-Philipp Weerpals, AUDI AG (D)
- Carsten Merklein & Florian Doerrfuss, Schaeffler Technologies AG & Co. KG (D)
- Markus Harke, Volkswagen AG (D)
- Dr. Andreas Russ, Bosch Manufacturing Solutions GmbH (D)

### Aerospace

- Dr. Andy Norton, Rolls-Royce plc (UK)
- Dr. Domenico Furfari, Airbus Operations GmbH (D) – to be confirmed
- Harald Betsch, Liebherr-Aerospace Lindenberg GmbH (D)
- Dr. Tobias Dyck, 4JET microtech GmbH (D)
- N.N., MTU (D) – to be confirmed

### Energy

- Dr. Steffen Berger, Schaeffler Technologies AG & Co. KG (D)
- Dr. Angelika Kiefel, ADMOS Gleitlager GmbH (D)
- Niels Krauch, Photonics Systems Group (D)
- Florian Weil, Weil Technology GmbH (D)
- Simon Vervoort, Everllence SE (D)

*Subject to change without notice.*

**NEW!**

### Microelectronics

- Stefan Janssen, LG Electronics Inc. (KOR)
- Dr. Christian Buchner, SCHMID Group | Gebr. SCHMID GmbH (D)
- Oliver Haupt, Coherent Corp. (D)
- Dr. Ralf Hammer, ASML Berlin GmbH (D)
- Benjamin Bernard, DISCO HI-TEC Europe GmbH (D)

### Quantum Technology

- Prof. Stephanie Wehner, TU Delft (NL)
- Dr. Juris Ulmanis, Alpine of Quantum Technologies GmbH (AT)
- Andreas Gritsch, TUM Center for Quantum Engineering (D)
- Dr. Sebastian Blatt, PlanQC GmbH (D)
- Prof. Hendrik Bluhm, ARQUE Systems GmbH (D)

### Medical Technology

- Dr. Wenko Süptitz, SPECTARIS e.V. (D)
- Dr. Gerald Kunath-Fandrei, Carl Zeiss Meditec AG (D)
- Frank Reinauer, KLS Martin SE & Co. KG (D)
- PD Dr. Christian Blume, Uniklinik RWTH Aachen – Department of Neurosurgery (D)
- Dr. Markus Röhner, CeramOptec GmbH / Biolitec (D)



**Please find the detailed program online!**

### Evening Event

**7:00 to 11:00 p.m.**

## Dinner with Presentation of the "Innovation Award Laser Technology 2026"

Venue: Coronation Hall of Aachen's Town Hall  
(Separate registration required, limited space available)

# Program – Preview

## Laser Technology Conference Thursday, April 23, 2026



### Gerd Herziger Session

**8:30 a.m. to 12:00 p.m.**

#### New Perspectives for Lasers in Science and Industry

- Dr. Jochen Stollenwerk, Fraunhofer ILT (D)
- Damien Buet, Amplitude Laser Group (F)
- Trevor D. Ness, IPG Photonics Corporation (USA)
- Dr. Christopher Dorman, Coherent Corp. (USA)
- Dr. Hagen Zimer, TRUMPF Lasertechnik SE (D)
- Prof. Constantin Häfner, Fraunhofer-Gesellschaft e.V. (D)

#### Panel Discussion

#### High Power and High Energy Lasers – Quo Vadis?

- With the speakers of the Gerd Herziger Session

Sessions 1–4 (parallel) | 2:00 to 3:30 p.m.

### 1 Additive Manufacturing

#### Laser Powder Bed Fusion LPBF

- N.N., Toyota Motor Europe NV/SA (BE) – to be confirmed
- Dr. Jacob Rindler, The Exploration Company GmbH (D)
- Daniel Mahlmann, Nikon SLM Solutions AG (D)

### 2 Cutting

#### Laser Cutting

- Stoyan Stoyanov, Fraunhofer ILT (D)
- Mathias Bühler, ANDRITZ Schuler Pressen GmbH (D)
- Fahrettin Uçar, IPG Photonics GmbH & Co. KG (D)

Subject to change without notice.

### 3 Laser Beam Sources I

#### Solid State and Fiber Lasers

- Dr. Mauritz Möller, TRUMPF Laser- und Systemtechnik SE (D)
- Andrey Abramov, IPG Photonics GmbH & Co. KG (D)
- Dr. Robert Bernhard, Civan Lasers Europe GmbH (D)

### 4 Laser Beam Sources II

#### High Energy Sources for Fusion and Secondary Sources

- Dr. Bernd Metzger, TRUMPF Laser- und Systemtechnik SE (D)
- Prof. Markus Roth, Focused Energy GmbH (D)
- Dr. Paul Mason, DiPOLE Systems Ltd. (UK)

NEW!

### Laser Technology Live

**4:30 to 7:30 p.m.**

#### Over 60 Live Presentations with Scientists on site

Venue: Research laboratories of the Fraunhofer ILT and the Center for Digital Photonic Production (with shuttle transfer)



Please find the detailed program online!

### Evening Event "30 Years AKL"

**8:00 to 11:00 p.m.**

#### Market Place and Business Exchange with Snacks

Venue: Eurogress Conference Center – Exhibition area  
(Registration required)

# Program – Preview

**Laser Technology Conference**  
Friday, April 24, 2026



Sessions 5–8 (parallel) | 8:30 a.m. to 4:00 p.m.

## 5 Surface Technology

### Laser Material Deposition

- Adam Dmytryzyn, ILJIN GmbH (D)
- Yann Besner & Philippe Laplante, Tekad industries inc. (CA)
- Viktor Glushych, Fraunhofer ILT (D)

### Microstructuring

- Sönke Vogel, Fraunhofer ILT (D)
- Jochem Peeters, Millux B.V. (NL)
- Dr. Stefan Rung, Schmoll Maschinen GmbH (D)

### Thin Film Processing and Laser-based Optics Manufacturing

- Dr. Edgar Willenborg, Fraunhofer ILT (D)
- Dr. Karsten Braun, Innolite GmbH (D)
- Dr. Sebastian Geburt, Innovavent GmbH (D)

## 6 Optical Systems

### Beam Shaping and Guiding

- Dr. David Dung, Midel Photonics GmbH (D)
- Gwenn Pallier, Cailabs (F)
- Dr. David Blazquez-Sanchez, Precitec GmbH & Co. KG (D)

## 6 Joining

### Joining of Metals

- Dr. Michael Stapelbroek, FEV Europe GmbH (D)
- Dr. Martin Reimann, Olympus Surgical Technologies Europe (D)
- Jan Brüggenjürgen, Fraunhofer ILT (D)

### Joining of Plastics and Transparent Materials

- Thomas Sontheimer, LPKF WeldingQuipment GmbH (D)
- Dr. Jens Ulrich Thomas, SCHOTT AG (D)
- Christoph Wortmann, Fraunhofer ILT (D)

## 7 Laser Beam Sources III

### Ultrashort Pulse Lasers

- Dr. Martin Gorjan, MKS Inc. (AT)
- Dr. Keming Du, EdgeWave GmbH (D)
- Dr. Andrejus Michailovas, Ekspla UAB (LT)

### Lasers with Tailored Wavelengths

- Dr. Alexander Munk, Fraunhofer ILT (D)
- Dr. Frank Lison, TOPTICA Projects GmbH (D)
- Dr. Toby Strite, IPG Photonics Corporation (USA)

### Diode Lasers

- Wolfgang Horn, Coherent Corp. (D)
- Volker Krause, Laserline GmbH (D)
- Dr. Martin Behringer, ams-OSRAM International GmbH (D)

Subject to change without notice.



Please find the detailed program online!  
[www.lasercongress.org](http://www.lasercongress.org)

# Program – Preview

## Laser Technology Conference Friday, April 24, 2026



Sessions 5–8 (parallel) | 8:30 a.m. to 4:00 p.m.

### 8 AI in Photonics

#### Process Monitoring

- Jon Tatman, EPRI Welding & Repair Technology Center (USA)
- Dr. Michael Ungers, Scansonic MI GmbH (D)
- Julius Neuß, Fraunhofer ILT (D)

#### Process Control and Optimization

- Dr. Andreas Heider, Robert Bosch GmbH (D)
- Konstantinos Skovolas, Bystronic Laser AG (CH)
- Moritz Kröger, RWTH Aachen University – Chair for Laser Technology LLT (D)

#### Design and Modeling of Laser Processes and Optics

- Eric Mottay, h-nu (F)
- Martin Stambke, TRUMPF Laser SE (D)
- Sergii Denega, ASML Netherlands B.V. (NL)

#### Final Lecture (4:00 – 4:30 p.m.)

#### Looking Ahead: The Future of Digitization and AI in Photonics

Prof. Carlo Holly, Fraunhofer ILT / RWTH Aachen University – Chair for Technology of Optical Systems TOS (D)

NEW!



#### Early Bird Discount

Discounted registration fee until February 24, 2026!

## General Information

#### Locations

- **AKL'26** – Eurogress Conference Center  
Monheimsallee 48, 52062 Aachen, Germany
- **Laser Technology Live** – Fraunhofer ILT (with shuttle transfer)  
Steinbachstraße 15, 52074 Aachen, Germany
- **Innovation Award Laser Technology 2026** – Coronation Hall of Aachen's Town Hall Markt, 52062 Aachen, Germany

#### Conference Language

Lectures are presented in English and German with simultaneous interpreting.

#### Conference Fees (per Day)

**€ 749 Regular | € 675 Early Bird | € 600 Early Bird Science**  
Please find detailed Information about prices, discounts as well as all terms and conditions online: [www.lasercongress.org](http://www.lasercongress.org)

#### Hotels

Call-off quotas at special rates from April 21 to 24, 2026

#### Registration online

**Please register online!** All information about registration can be found on our website [www.lasercongress.org](http://www.lasercongress.org) or follow the QR code below:

#### » Early Bird Discount

Until February 24, 2026

#### » Registration Deadline

March 24, 2026



## Contact

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### Organization

Fraunhofer Institute  
for Laser Technology ILT  
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52074 Aachen, Germany  
www.ilt.fraunhofer.de

### Supporting Organizations

- EPIC – European Photonics Industry Consortium
- European Commission
- OptecNet – Competence Networks for Optical Technologies
- Photonics Germany – German Photonics Industry Alliance
- SPECTARIS e.V. – German Industry Association for Optical, Medical and Mechatronical Technologies
- VDA e.V. – German Association of the Automotive Industry
- VDI Technology Center GmbH
- VDMA e.V. – German Engineering Federation

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