

# PRESS RELEASE

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## **AKL'20: Improving productivity through digitization in the laser industry**

**From May 6 to 8, 2020, laser manufacturers and users from various branches will meet at the AKL'20 for the 13th time. Featuring over 600 participants, 87 speakers and over 50 sponsors and exhibitors, the "AKL – International Laser Technology Congress" has established itself as the leading forum for applied laser technology in Europe. The program of events is already available at [www.lasercongress.org](http://www.lasercongress.org) – where you can also register now for AKL'20.**

The AKL'20 follows the proven structure of past years, so this time the first conference day, Wednesday, May 6, 2020, will be dedicated to the parallel expert forums with the trend-setting topics Additive Manufacturing and Process Monitoring & AI. For the first time, Fraunhofer ILT is also dedicating a separate forum to quantum technology. The Technology Business Day (TBT) gives participants an overview of different laser markets, and the Laser Technology Beginners Seminar provides an excellent opportunity for newcomers to enter the world of laser technology.

### **Forum "Process Control & AI": optimizing the use of lasers with AI**

The use of AI in laser technology is more in demand than ever. The spectrum of research aspects ranges from machine learning in industrial practice to the use of augmented reality and data analysis with neural networks. The focus of the forum "Process Control & AI" is on practical applications: New processes in laser micro and macro processing will increase productivity while deep learning will make it possible to efficiently evaluate a sensor's data. One application example is the qualitative evaluation of laser-welded seams in order to detect defects reliably during production. In addition to data evaluation, the forum will also focus on how data can be obtained with solid sensor technology.

### **Forum "Additive Manufacturing": breakthrough for metal AM**

At this event, attendees can delve into AM technologies all day. First, the focus is on laser material deposition (LMD): How is the LMD process used, for example, in the aerospace industry? And how can it penetrate other industrial markets? The second part of the forum deals with Laser Powder Bed Fusion (LPBF). To help 3D printing achieve its breakthrough in the manufacturing industry, the entire data chain must be considered. Therefore, experts will illuminate how LPBF processes can be monitored using appropriate process sensor technology.

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#### **Editorial Notes**

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### **New in the program: forum “Quantum Technology”**

It is already possible to selectively prepare, control and use individual photons. However, using single quantum states for new applications – that's still up in the air. Quantum technologies are currently being promoted internationally at a cost of billions. Here, we see ourselves at the beginning of a technical revolution that will enable fundamentally new applications. These include quantum imaging, quantum communication and quantum computing. In the forum “Quantum Technology”, interested participants will gain insight into the current state of research and development.

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### **Laser markets – acquiring a leading edge for decision-makers**

At the Technology Business Day (TBT) event, managing directors, marketing decision-makers and sales managers will get an overview of the laser markets in Europe, Asia and the Americas. The event will focus on the automotive industry, microelectronics, aviation technology and energy technology. Dr. Klaus Löffler from TRUMPF Laser- und Systemtechnik GmbH in Ditzingen, Germany will share his views on the laser market in Europe and trends in the worldwide laser market.

In addition, Fraunhofer ILT will offer newcomers its Laser Technology ABC's seminar on May 2, 2018. This event provides companies with little awareness of laser technology a structured, real-world overview. Topics include selecting suitable beam sources and handling systems for various applications as well as the legal requirements that apply to industrial laser technology.

### **Presentation of the “Innovation Award Laser Technology”**

Traditionally, the first day of the AKL – International Laser Technology Congress ends with the presentation of the “Innovation Award Laser Technology”, endowed with 10,000 €. The Arbeitskreis Lasertechnik e. V. and the European Laser Institute ELI award this European prize for applied science at a festive dinner in the coronation hall of the Aachen City Hall on Wednesday evening. Applications will be accepted until January 15, 2020. Additional information is available here:  
[www.innovation-award-laser.org](http://www.innovation-award-laser.org)

### **Supporting organizations**

The Fraunhofer Institute for Laser Technology ILT organizes the AKL'20 – International Laser Technology Congress. This forum benefits from the following organizations: the European Commission, the European Photonics Industry Consortium (EPIC),

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Arbeitskreis Lasertechnik e. V., the European Laser Institute (ELI) and OptecNet as well as the German industrial associations SPECTARIS, VDA, VDMA and VDI.

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**Registration for AKL'20 now possible!**

The conference will take place in English and German with simultaneous interpreting into both languages. Make sure to register no later than March 4, 2020 for an AKL'20 early-bird discount: [www.lasercongress.org](http://www.lasercongress.org)



**Image 1:**  
More than 600 participants can expect over 80 practically relevant and comprehensive lectures at the AKL'20 in Aachen, organized by the Fraunhofer ILT.  
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**Image 2:**  
Prof. Johannes Henrich Schleifenbaum, Head of Competence Area for Additive Manufacturing at Fraunhofer ILT and Chair for Digital Additive Production DAP at RWTH Aachen University, will moderate the forum "Additive Manufacturing" at AKL'20 again.  
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**Image 3:**  
Registration are now possible at [www.lasercongress.org](http://www.lasercongress.org). Early bookers can secure a discount of 10 percent.  
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The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. Its research activities are conducted by 72 institutes and research units at locations throughout Germany. The Fraunhofer-Gesellschaft employs a staff of more than 26,600, who work with an annual research budget totaling 2.6 billion euros. Of this sum, almost 2.2 billion euros is generated through contract research. Around 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects. International collaborations with excellent research partners and innovative companies around the world ensure direct access to regions of the greatest importance to present and future scientific progress and economic development.

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