

# PRESS RELEASE

PRESS RELEASE

June 24, 2019 || Page 1 | 4

# The international laser community honors photonics visionary Prof. Reinhart Poprawe for his life's work

Throughout his professional life, Prof. Reinhart Poprawe shaped technological progress in photonics and specifically built up the next generation of young talent for the industry. Now the laser visionary is retiring in the fall of 2019. At the symposium "Digital Photonic Production and Industrie 4.0 and what it means for education and research" 280 laser experts and companions paid tribute to his work as a professor of laser technology, his services in basic and contract research and in the networking of industry and science. The symposium took place on June 23, 2019 in the run-up to the world's leading trade fair LASER World of PHOTONICS in Munich.

In 1996, Prof. Poprawe took over the management of the Fraunhofer Institute for Laser Technology ILT and the Chair for Laser Technology LLT at RWTH Aachen University. Thanks to his great commitment, Fraunhofer ILT, with its associated chairs, has been regarded as Europe's most important institution for applied laser research and contract development for industry for many years. "Prof. Poprawe embodies the Fraunhofer spirit through and through: Our namesake, Joseph von Fraunhofer, was active in optical technologies and, like him, Poprawe has always viewed innovations with a focus on concrete applications", explained Fraunhofer President Prof. Reimund Neugebauer. "Since Fraunhofer ILT was founded in Aachen, Prof. Poprawe has played a key role in shaping the leading position of the German laser industry worldwide. Back when few recognized how positive the impact of technology clusters could be, he had already laid the foundation for the Aachen institute's emphasis on combining optical technologies, mechanical engineering and process technology".

### Networking science and research in a new dimension

High-ranking representatives from science and industry also paid tribute to Prof. Poprawe's consistent and visionary work in photonics: He is one of the initiators of the RWTH Aachen Campus, which is now growing into one of the most important international technology landscapes. Around 30 companies and their laser experts have already established themselves in the photonics cluster on the RWTH campus. With the Digital Photonic Production Research Campus funded by the German Federal Ministry of Education and Research (BMBF), these innovators are establishing new forms of long-term and systematic cooperation between RWTH Aachen University, the Fraunhofer-Gesellschaft and the industry.



# **Excellent global innovative strength**

The spectrum of Fraunhofer ILT innovations during Prof. Poprawe's tenure ranges from the development of Innoslab lasers and the first diode-pumped multi-kW solid-state lasers for industrial applications to the development and use of high-power ultrashort pulse lasers all the way to development of processes and systems for laser powder bed fusion (LPBF) and extreme high-speed laser material deposition (EHLA). All these innovations, some of which have won multiple awards, were developed by motivated engineers and scientists, to whom Prof. Poprawe offered creative freedom with an outstanding infrastructure and a conducive institute culture. On average, a patent was filed every three to four weeks during the decades of Poprawe's work at Fraunhofer ILT. Over the course of 20 years, around 30 companies were founded in this environment, which Prof. Poprawe actively supported with his networks during the critical initial phase.

During his tenure, the number of employees at the Fraunhofer ILT, the associated chairs and the photonics cluster grew from 250 to a total of around 800 laser experts and prospective scientists. In the meantime, an area of around 30,000 square meters is available for R&D activities.

Prof. Poprawe's numerous awards include the Arthur L. Schawlow Award of the Laser Institute of America (LIA) in 2014 and the honorary professorship of Tshingua University in Beijing in the same year. They stand for his international commitment, which spanned all continents. The physicist was particularly active in the USA, China and Japan. His work has often been honored, for example, with the Joseph von Fraunhofer Prize in 1987, the Innovation Prize of the State of North Rhine-Westphalia in 2011, and recently with the Fraunhofer coin.

# Education as a matter close to the heart – for the benefit of society

Poprawe took on a role model in teaching his subject matter: laser technology. He introduced new teaching formats such as "Flipped Classrooms". It was not for nothing that the students awarded him the teaching prize of the Faculty of Mechanical Engineering of RWTH Aachen University four times. In his time as professor, he was also the first assessor of over 200 doctorates. "In addition to learning the essential specialist knowledge, the students must also develop an early awareness of their importance for the photonics industry. In this way, they can be motivated to use their creativity later on for socially relevant topics".

#### **PRESS RELEASE**

June 24, 2019 || Page 2 | 4





### Image1:

Prof. Reinhart Poprawe welcomes the 280 guests of the symposium "Digital Photonic Production and Industrie 4.0 and what it means for education and research".

© Fraunhofer ILT, Aachen, Germany / Klaus D. Wolf.

#### PRESS RELEASE

June 24, 2019 || Page 3 | 4



#### Image 2

F. l. t. r.: Dr. Peter Leibinger, Prof. Burkhard Rauhut, presenter Tobias Ranzinger, Prof. Reinhart Poprawe and Prof. Alfred Gossner discuss the education and research of tomorrow.

© Fraunhofer ILT, Aachen, Germany / Klaus D. Wolf.





Image 3:
More than 200 scientists
earned their doctorates
under Prof. Poprawe, around
60 of whom presented him
with a symbolic doctoral cap
during the event.
© Fraunhofer ILT, Aachen,
Germany / Klaus D. Wolf.

PRESS RELEASE

June 24, 2019 || Page 4 | 4

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.

#### Contact