



PRESS RELEASE

Aachen, 8th May 2008

Dipl.-Ing. Bertold Hopf, Daimler AG: Prize Winner of the Innovation Award Laser Technology 2008

The **Innovation Award Laser Technology 2008**, initiated by the associations Arbeitskreis Lasertechnik e.V. and the European Laser Institute ELI and provided with 10 000 Euros prize money, has been conferred to **Dipl.-Ing. Bertold Hopf, Daimler AG**, Sindelfingen, Germany on 8th May 2008 in Aachen's town hall. Bertold Hopf has applied to the open call for proposals as representative of the RobScan project team. In the historical ambience of the »Coronation Hall« more than 300 participants of the International Laser Technology Congress AKL'08 attended the awarding ceremony.

Prof. Reinhart Poprawe, vice-president of the association Arbeitskreis Lasertechnik AKL e.V. and director of the Fraunhofer Institute for Laser Technology ILT, pointed out the dedicated work of the RobScan project team and the outstanding innovation in the field of laser technology. **RobScan – Robot-guided remote Scanner for laser beam welding** – is a new laser beam welding process, which has been developed for vehicle body construction by Dipl.-Ing. Bertold Hopf and Dr. Klaus Debschütz and their project team within the Daimler AG. Dipl.-Ing. Bertold Hopf is Head of Material and Production at the Technology Department of Daimler AG in Sindelfingen. Dr. Klaus Debschütz is Head of Materials, Manufacturing, Concepts – Body of Daimler's Group Research in Ulm. The innovation of the RobScan system is the combination of different hardware components and the Daimler-developed process technology and control software. It represents a new approach to laser beam welding using the known advantages of laser welding and extending it with new possibilities in process technology and a new control system to utilize all the possibilities of the remote scanner. It was thus possible to increase the welding speed and improve the welding quality. The RobScan process combines the high speed and precision of scanner optics with the flexibility of a robot. The commercial value to the automotive industry has been convincingly demonstrated.

The **technological impact** includes:

- reduced manufacturing costs for body in white production
- improved quality by better welding results, reduced flange width and increase of stiffness
- decrease in cycle time by welding on the fly
- improved quality assurance by use of a 100% online quality control system
- flexibility in production

The international jury selected on a basis of merit and according to the published assessment criteria (see www.innovation-award-laser.org) **3 innovation teams out of 15 applications as finalists:**

- RobScan – Robot-guided Remote Scanner for Laser Beam Welding

(team representative: **Dipl.-Ing. Bertold Hopf**, Head of Material and Production, Daimler AG, Technology Department, Sindelfingen)

- RAPID: High-power, high-repetition-rate picosecond (ps) laser for industrial high-end micromachining

(team representative: **Dr. Achim Nebel**, Managing director, LUMERA LASER GmbH, Kaiserslautern)

- Ultrafast Laser for Efficient Industrial Micromachining

(team representative: **Dr. Dirk Sutter**, Senior Scientist, Advanced R&D and Product Development Manager, TRUMPF Laser GmbH + Co. KG, Schramberg)

All 3 applications have led to an outstanding innovation in the field of laser technology and are presented in detail on www.innovation-award-laser.org. The 3 finalists were nominees for the Innovation Award Laser Technology 2008. The trophy for the prize winner and the certificates for all finalists were handed over by Dipl.-Ing. Ulrich Berners, president of the Arbeitskreis Lasertechnik AKL e.V., Dr. Stefan Kaierle, president of the European Laser Institute ELI and by Ric Parker, Director Research and Technology of Rolls-Royce plc and guest speaker of the awarding ceremony. The prize winner Bertold Hopf has been furthermore awarded the title of »AKL Fellow« and »ELI Fellow«.

The **Innovation Award Laser Technology** is a European research prize awarded at 2-yearly intervals by the associations Arbeitskreis Lasertechnik e.V. and the European Laser Institute ELI. The award can be conferred on an individual researcher or on an entire project group, whose exceptional skills and dedicated work have led to an outstanding innovation in the field of laser technology. The scientific and technological projects in question must center on the use of laser light in materials processing and the methods of producing such light, and must furthermore be of demonstrable commercial value to industry.

The international jury is consisting of 10 members that are recruited from industry and the research community. The jury's decision was based principally on the following criteria:

- Proven commercial benefit
- Innovative quality of the resulting laser beam source, laser manufacturing process or laser system
- Scientific / technological quality of the underlying research
- Creative approach to technology demonstrated by the designated individual or project group
- Importance of the contribution of the applicant's work to the overall innovative process

Arbeitskreis Lasertechnik AKL e.V.

Arbeitskreis Lasertechnik AKL e.V. is a registered non-profit association formed in 1990 by a group of companies and private individuals aiming to pool their experience and conduct joint public-relations activities in order to spread the use of laser technology in industry and promote the sharing of scientific ideas. The »Innovation Award Laser Technology« aims to reward excellent achievements in applied research and outstanding innovation in the field of laser technology and to shine a spotlight on their authors. In 2008, over 80 laser experts and enthusiasts were signed up as active members of the AKL network. The association's activities include disseminating information on innovations in laser technology, organizing conferences and seminars, compiling educational material dealing with laser technology, stimulating the interest of future young scientists, and providing advice to industry and research scientists on questions relating to laser technology. More information: www.akl-ev.de

European Laser Institute ELI e.V.

Optical technology is taking an increasing hold on all domains of industry and science. Europe already possesses a strong position in this field by virtue of its numerous experts and excellent research and development facilities. Nevertheless, it has been realized that there is an urgent need to link the existing sources of know-how and expertise, and to enhance the performance of joint research activities. Consequently, the European Laser Institute (ELI) has created an efficient platform bringing together the necessary competence and knowledge on optical technologies. By promoting technology transfer within Europe, ELI aims to enhance the international lead of European industry and research in the field of laser technology and photonics. By working in close collaboration with existing national and international organizations, the ELI network of industrial and academic research institutions helps to influence R&D policy on a national and European level. More information: www.europeanlaserinstitute.org

Further information:

- **Regarding the award and the finalists:** www.innovation-award-laser.org
- **Regarding the Arbeitskreis Lasertechnik AKL e.V.:** www.akl-ev.de
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- **Regarding the European Laser Institute ELI:** www.europeanlaserinstitute.org
Contact person: Dr. Stefan Kaieler, President of the European Laser Institute,
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- **Regarding the International Laser Technology Congress AKL'08 (May 7-9):**
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