

Munich, June 2014  
**Press release**

## **World's leading trade fair is industry and research flagship LASER World of PHOTONICS 2015 adds additional hall**

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**Munich. With 1,130 exhibitors occupying 42,000 square meters, the last LASER World of PHOTONICS was fully booked down to the last stand. However, the increasing importance of the key technology photonics is unabated and, with it, the demand for exhibition space. In 2015 the manufacturers will get what they are after: the world's leading trade fair will expand by one hall to 55,000 square meters.**

**From 22 to 25 June 2015 the international laser and photonics industry will be meeting for the industry's flagship show in Munich. Taking place in parallel is the international scientific elite's get-together at the World of Photonics Congress 2015.**

A modern society would no longer be conceivable without photonics. Nowadays, light is used as a high tech tool in the most varied fields. Whether in mobile phones, cars, household appliances, medical technology or energy efficiency – nowadays people are surrounded by technologies based on lasers and optical technologies. Not for nothing did UNESCO declare 2015 to be the “International Year of Light and Light-based Technologies” (IYL 2015).

For more than 40 years, the world's leading trade fair has been the preeminent global market place for all matters pertaining to lasers and photonics. Dr. Reinhard Pfeiffer, Deputy CEO, Messe München GmbH said: “The photonics industry is an industry of the future and the driving force behind numerous other industries. We sense the need for the technology from the growth in exhibitor numbers and from the fact the halls were becoming ever fuller. In 2015 we will be upsizing the LASER World of PHOTONICS from four to five halls.”



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### **Three focus topics for all facets of photonics**

The LASER World of PHOTONICS exhibition spans all aspects of the application of photonics – already established applications and industry newcomers and future markets alike. A new highlight and focus topic in 2015 is the “imaging” field. There is scarcely a single production sector nowadays capable of dispensing with industrial image processing, combining stringent quality control with optimal efficiency. There is a huge need for solutions. Their use is extremely diverse, for example in testing and measurement technology, optics, medical and photo technology, electronics and material processing.

“Laser systems for manufacturing” are already established but remain among the trade fair visitors’ favorites. This second focus topic, boasting the largest exhibition footprint at the LASER World of PHOTONICS, showcases the entire gamut of laser applications in material processing and machining. The spectrum ranges from macro to micro material processing and on to additive manufacturing – also known as 3D printing. The laser is also increasingly the option of choice as a machining tool for lightweight construction solutions or hybrid material combinations. Twinned with robots and the appropriate system peripherals, laser systems cater for users’ every conceivable wish, in automation matters as well.

In the third focus area, “Biophotonics & medical technology”, medical and scientific companies are showcasing solutions from spectroscopy and microscopy to therapeutic and manipulation processes.

Laser and optoelectronics, optical information and communication, optics and manufacturing technology for optics, sensors, test and measurement technology and optical measuring systems complete the exhibition portfolio.

### **Trends: Additive manufacturing or 3D-printing, ultra-short pulse lasers and 3D X-ray microscopy**

A veritable extravaganza of innovation awaits the visitor at the LASER World of PHOTONICS 2015: if 30 years ago lasers were “only” used as a welding machine, nowadays laser technology is transforming entire production processes: additive manufacturing – also known as 3D printing – is currently writing a new chapter in the annals of the industrial revolution. Additive manufacturing is enjoying ever greater use in industrial production, such as in the

manufacturing of prototypes, one-off items and small production runs, quickly and cheaply. For example, car manufacturers use laser build-up welding in rapid prototyping as a technique for manufacturing specimen components. In the 3D printing arena, selective laser melting has developed into a serious manufacturing process, capable of achieving geometries of almost any complexity. Where casting or milling was used in the past, nowadays a laser can build the product up layer by layer from the very finest metal powder.

The ultra-short pulse laser is increasingly being used, enabling a multitude of applications by virtue of its cold machining and as a non-wearing tool, suitable for ever more sensitive materials. Interesting new application fields are opening up here, above all in the joining of lightweight construction or hybrid materials.

There are important potential uses for ultra-short pulse lasers to be found in the medical technology arena as well, enabling non-destructive diagnostic procedures to be performed. For example, one successful field of application in the context of cancer diagnosis is tissue analysis without the need for biopsy. Ultra-short pulse lasers are used here: the short-wave laser light's characteristics lend themselves to the precise imaging of cell size organisms. Compared with conventional diagnosis procedures involving tissue removal, this procedure is faster and the patient does not need to undergo an operation.

Yet another promising imaging application when it comes to living tissue imagery is 3D X-ray microscopy. This enables three dimensional images of organisms of interest on the nanometer scale. In the next few years it might supplant the widely-used computer tomography (CT) technique. 3D X-ray microscopy is more powerful than CT both in terms of contrast and resolution.

### **Outstanding forecasts: steady growth of photonics market**

The global photonics market is on an upward trend. According to the latest edition of the "Branchenreport Photonik (Photonics industry report)", all the economic indicators are pointing to long term growth again in the wake of subdued development in 2012 and 2013.

Photonics is of strategic importance to the German government, which has identified it as one of the key technologies of the future in its high tech strategy.

In the seven years to 2020, the biggest EU framework program for research and innovation, “Horizon 2020”, with 80 billion euros of funding, aims to help small companies generate the ultimate in innovation, in photonics as well.

### **World of Photonics Congress: where the international research elite meets**

In 2015 the World of Photonics Congress, which traditionally takes place in parallel with the LASER World of PHOTONICS and is one of the three biggest scientific photonics congresses anywhere in the world, will be entirely under the “International Year of Light and Light-based Technologies” banner. It is here that the international scientific elite will be meeting from 21 to 25 June, 2015 to exchange views on the latest developments in laser and photonics research.

In keeping with the Year of Light, numerous Nobel Prize Laureates are expected to speak at the 2015 congress. For example, Prof. Theodor Hänsch and Prof. Serge Haroche will be among those delivering plenary lectures. Prof. Hänsch, Director at the Max Planck Institute for Quantum Optics in Garching near Munich, has a reputation as a pioneer in laser spectroscopy and was awarded the Nobel Prize for Physics in 2005. Prof. Serge Haroche, Professor of Quantum Physics at the Collège de France, was awarded the Nobel Prize for Physics in 2012 for research into the interaction between light and material. Prof. Federico Capasso will open the World of Photonics Congress. The Italian American physicist, who teaches at Harvard University, is the recipient of a whole string of accolades, for example the Arthur-L.-Schawlow Prize in Laser Physics, the King Faisal Prize, the IEEE Edison Medal, the Berthold Leibinger Future Prize and also the OSA’s R. W. Wood Prize. Prof. Capasso is known for developing the quantum cascade laser.

With its six conferences, the World of Photonics Congress is addressing all disciplines of the photonics sciences – from fundamental research to application-related areas such as optical measuring technology, lasers in manufacturing, biophotonics and biomedical optics as well as optical component manufacturing processes. International scientific societies such as EPS, OSA, SPIE, WLT and IEEE ensure the topicality and high scientific quality of the contributions. In 2013 around 3,500 international participants attended the Congress with its more than 2,800 lectures and poster presentations.

Press releases:

<http://world-of-photonics.net/en/laser/press/pressreleases>

More on World of Photonics Congress:

<http://world-of-photonics.net/en/photonics-congress/start>

Photos: [http://media.messe-muenchen.de/Laser/index\\_e.jsp#1394615082046\\_0](http://media.messe-muenchen.de/Laser/index_e.jsp#1394615082046_0)

### **About LASER World of PHOTONICS**

The LASER World of PHOTONICS trade fairs and their congresses are the most important marketplaces and think tanks for the worldwide laser and photonics industry and its users. They combine research and applications and promote the utilization and further development of optical technologies.

Messe München International has held LASER World of PHOTONICS every two years since 1973. The fair was the first event to focus on the sector for optical technologies in the world.

At the same time the World of Photonics Congress - Europe's largest and the world's third biggest photonics congress - is held in cooperation with the world's leading organizations in this field.

A spin-off event, LASER World of PHOTONICS China, is the leading regional trade show for optical technologies in China. It takes place in Shanghai every year, in spring. The LASER World of PHOTONICS INDIA takes place since 2012 every year and is a regional trade fair for optical technologies in India. It takes place 23-25 September 2014 in Bangalore.

With a total of **1,880 exhibitors and more than 67,500 visitors** in Munich, China and India, Messe Muenchen International is the world's leading trade show organizer for lasers and photonics.

The websites at [www.world-of-photonics.net](http://www.world-of-photonics.net) feature information on the photonics trade shows, industry information, product innovations, and application reports and are a virtual platform for optical technologies.

### **About the conference program at the World of Photonics Congress**

The world's leading scientific organizations in the field of photonics will organize conferences under the umbrella of the World of Photonics Congress from June 21 – 25, 2015:

- "CLEO/Europe-EQEC", organized by the European Physical Society (EPS), sponsored by the EPS Quantum Electronics and Optics Division, OSA, IEEE/LEOS
- "Optofluidics", "Manufacturing of Optical Components" and "Advanced Optomechanical Engineering", organized by the European Optical Society (EOS)
- "LiM - Lasers in Manufacturing", organized by the Scientific Laser Society (WLT);
- "ECBO - European Conference on Biomedical Optics", organized by the Optical Society of America (OSA) and the International Society for Optics and Photonics (SPIE)
- Optical Metrology, organized by SPIE Europe

The conference program is rounded out by application panels featuring practical lectures about laser and photonics applications organized by Messe München.

### **Messe München International**

Messe München International is one of the world's leading trade show companies. In Munich alone it organizes around 40 trade shows for capital and consumer goods, and key high tech industries. Each year more than 30,000 exhibitors and around two million visitors take part in the events held at the Messe München exhibition center, the ICM – International Congress Center München, and in the MOC Veranstaltungszentrum München. The leading international trade fairs of Messe München International are all independently audited.

In addition, Messe München International organizes trade shows in China, India, Turkey and South Africa. With a combination of affiliates abroad – in Europe, Asia and in Africa – and over 60 foreign

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representatives actively serving over 100 countries, Messe München International has a worldwide business network. The Group also takes a pioneering role as regards sustainability: It is the first trade-fair company to be awarded energy-efficiency certification from the technical inspection authorities TÜV SÜD.

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