

Community

Conference Notes

Industry Leaders and Public Authorities Celebrate EPIC 10th Anniversary

The EPIC anniversary was celebrated through a rich combination of activities, bringing together the focus on public policy as well as the European photonics community cohesion. Meetings with the European Commission, an EU Funding session, the presentation of the EPIC Phoenix Award, and the two panel discussions on technology and business made up the core of the event. The occasion concluded with a festive and entertaining dinner, which provided an additional networking opportunity in a convivial environment. One hundred sixty delegates from 26 countries attended the occasion, including executives from industry and representatives from public authorities. Anne Matsuura, Senior Science Advisor at the Optical Society (OSA), presented EPIC and its Director General Carlos Lee with a recognition (Figure 1) at the occasion of its 10th anniversary. EPIC was recognized by OSA for its sustained effort in promoting the photonics industry in Europe for a decade.

The keynote presentation by Luc Van den hove, CEO of imec, gave participants the opportunity to peak into the exciting possibilities in the field of Medical and Life Science fuelled with electronics and photonics technologies in the short-term, which triggered great interest and discussion in the subsequent panel discussions.

The photovoltaic technology also put forward several comments related to pricing, manufacturing, and regulation, but Eicke Weber from Fraunhofer ISE reminded all of the importance of access to capital for large-scale manufacturing capability and also clarified misconceptions about the cost of PV and how in some regions it is already competitive. The discussion was very down to earth addressing issues such as access to skilled labor and increasing the involvement of women, public procurement as a tool to promote the uptake of new technologies for instance in LED street lighting, and optimization of funding possibilities including the use of regional development funds. Martin De Prycker, ex-CEO of startup Caliopa, said that public funding can be a golden cage

and encouraged innovators to go out and start up on their own. At the moment, however, industry is still heavily reliant on support from public authorities (even though the accessibility and priorities need to be reviewed); hence, a possible call for follow-up action may be coordinated by EPIC on behalf of its members.

Drew Nelson, President of EPIC, asked for regulations to be aligned and supportive of Europe's priorities, pointing out that GaAS and InP have been placed by the European Chemicals Agency on the list of substances of very high concern (SVHC) and that EPIC asked for a diligence process.

Carlos Lee, Director General of EPIC, reminded that photonics often do not demand high production volumes and that it was important for companies to have access to low-scale manufacturing through foundries or universities who already have the necessary equipment and infrastructure.

Regularly, the discussion was brought back to politicians, elected by citizens, hence, the need for further promotion of photonics toward the public at large (Figure 2). A unique opportunity for raising awareness of photonics will be during the United Nations recognized 2015 Year of Light. The initiative, supported by EPIC and many organizations worldwide, will provide the opportunity in the 2014–2016 timeframe to coordinate activities raising awareness of photonics. A participant suggested to compliment this with an annual 'Day of Photonics' for long-term systematic awareness of the industry's importance and contribution to addressing our societal challenges.

The session on EU Funding gathered 70 companies with extensive experience in EU Funding and which are currently planning their participation in the upcoming calls. In addition to the Photonics calls, also opportunities in Electronics were presented, and EPIC promised to organize joint meetings with other sectors such as Life Science, Transport, Security, Energy, and other fields where photonics play an enabling role.

The event was also the opportunity for the International Optoelectronics Association to meet; EPIC hosted the 18th IOA meeting at which market data and technology trends could be shared among eight associations from Europe/America/Asia for further dissemination among their members. The IOA was sponsored by Photonics Finland and SWISSPHOTONICS. Sponsors of the



Figure 1 The EPIC Phoenix Award 2013 recognizing entrepreneurship in the field of photonics was presented to Advanced Fibreoptic Engineering from the UK. Nick Martin, CEO of AFE, receives the award from Drew Nelson, President of EPIC.

anniversary event included CEA-LETI, CSEM, Edmund Optics, and Laser World of Photonics.

Carlos Lee, Director General EPIC
www.epic-assoc.com

Preview: Laser Optics/OSA Optics and Photonics Congress

Berlin, Germany, 18–20 March 2014

Laser Optics 2014 is a trade show in the heart of Berlin. Organized by Messe Berlin, it is changing its concept toward joint developments and applications of optical technologies and microsys technology. Thereby, it unites the former event series Laser Optics Berlin LOB and microsys.

The location of the event is the fairground close to the famous Funkturm (Figure 3). The trade show is accompanied by a number of scientific congresses and an even bigger number of networking events. Additionally, there will be strong career-focused activities with a pupils' day, two student days, and a job board at the tradeshow.

Congress 'Optical Sensors and CPS'

The Congress 'Optical Sensors and Cyber-Physical Systems' is new in the program and highlights the interfaces between optical technologies and microsystems. It is organized in cooperation with the Fraunhofer Institute for Reliability and Microintegration (IZM). The chair of the program committee is Prof. Dr. Klaus-Dieter Lang, Director of the Fraunhofer IZM. In addition to the Fraunhofer IZM, the congress is organized by Berlin Partner for Business and Technology, the Center for Microsystems Technology (ZEMI) and Messe Berlin GmbH. The main topics are:

- Sensor in production engineering
- Biological and medical sensor systems
- Applications of fiber optic sensors
- Semiconductor laser diodes for sensor applications
- Multichannel spectroscopy
- New components and materials
- Hybrid and monolithic system integration

Sessions will take place on 19–20 March 2014 in Hall 14.2, entrance hall 14 (entrance east).

OSA Optics and Photonics Congress: Research in Optical Sciences

Again, the Optical Society of America OSA joins in with a number of topical meetings ranging from high-intensity lasers over quantum information to a workshop on new optical (i.e., plasmonic) materials. More details on these workshops can be found on the OSA website www.osa.org/en-us/meetings/optics_and_photonics_congresses.

1. High-Intensity Lasers and High-Field Phenomena (HILAS)

Date: 18–20 March 2014

Topic Categories:

- High-peak power lasers and high-intensity laser-matter interactions
- Recent progress in terawatt to petawatt lasers and the amplification of few cycle pulses
- Laser technology for fusion and laser-based EUV and X-ray sources
- Strong field laser science including interactions with atoms, molecules, clusters, and plasmas
- Advances in attosecond science
- High harmonic generation, high-field rescattering physics, relativistic nonlinear phenomena, intense pulse propagation
- Plasmas in ultrahigh fields and laser based particle acceleration



Figure 2 Panel Discussion on ‘Science, Research, and Applications.’

Anne Glover, Chief Scientific Advisor to the President of the European Commission; Thomas Skordas, Head of Photonics Unit, European Commission; Eicke Weber, Director, Fraunhofer Institute for Solar Energy Systems (Germany); Christian Bosshard, Vice President, CSEM (Switzerland); Santiago Royo, Director, UPC-CD6 (Spain); Gediminas Raciukaitis, Head of Department, Center for Physical Sciences and Technology (Lithuania).



Figure 3 The location of the event is the fairground close to the famous Funkturn (Photo: Messe Berlin GmbH).

2. Quantum Information and Measurement (QIM)

Date: 18–20 March 2014

Topic Categories:

- Entanglement-enabled quantum technologies
- Quantum information processing and computing
- Precision quantum measurement and quantum metrology
- Nonclassical light sources and novel detectors
- Quantum imaging
- Quantum sensors
- Integrated and on-chip quantum devices
- Quantum communication systems
- Quantum optics of light-atom interactions
- Quantum repeaters and quantum memory
- Quantum opto-mechanics
- Quantum spintronics devices and applications
- Quantum simulation

3. Workshop on Optical Plasmonic Materials

Date: 19 March 2014.

This 1-day workshop will focus on materials such as aluminum-doped zinc oxide, tunable/phase change materials like vanadium dioxide, and novel materials that can be used for active plasmonics and optical metamaterials having new properties. The list of invited speakers is excellent; for instance, Harry Atwater and Harald Giessen are invited.

Supporting Program

The trade show and conference give excellent opportunities for networking. Therefore, it is not surprising that a number of initiatives and projects use the occasion to hold a meeting there. In the following, we will count a number of such events without claiming completeness.

Technology Workshop

- ‘Optical Interconnect in Data Centers’
The event is organized by EPIC and the EU project PhoXTroT with the support of IEEE/CPMT.
Contact: Tolga Tekin, Fraunhofer IZM (Tolga.Tekin@izm.fraunhofer.de) and Carlos Lee, EPIC (carlos.lee@epic)
Pre-registration: www.epic-assoc.com/events
- Meeting: Cluster Optics and Microsystems Technology Berlin/Brandenburg
Organizer: OpTecBB
Contact: Dr. Frank Lerch, lerch@optecbb.de
Details: www.optecbb.de
- German-Polish-Workshop on Nitride Semiconductors

The ‘German-Polish-Workshop on Nitride Semiconductors’ is taking place for the third time and is organized by Berlin WideBaSe.

Contact: Prof. Klaus Jacobs, jacobs@fbh-berlin.de
Details: www.berlin-widebase.de

- European Project Meeting
Organizer: Fraunhofer Heinrich Hertz Institute
Details: www.hhi.fraunhofer.de/en
- European Funding Event
Organizer: EPIC – with the support of Photonics Cluster Berlin Brandenburg, OpTecBB and Berlin Partner for Business and Technology. This event offers free registration.
Details: www.epic-assoc.com
- 8th ‘Light and Health’ symposium
Organizer: Technical University of Berlin, the German Academy for Photobiology and Phototechnology (DAfP) and the German Lighting Society (LiTG)
Contact: Heike Schumacher, heike.schumacher@tu-berlin.de
Details: www.li.tu-berlin.de

Besides all these meetings, there will be two student days on 18 and 19 March. All students can visit the laser optics exhibition on these days for free. There are even some events for those who have not started an optics career yet: The Pupils’ Day on 20 March 2014. The Pupils’ Day provides information about the various job perspectives and training opportunities in optical technologies and microsystems technology. Upon registration, school classes can obtain specific information; they can experiment and take part in a pupils’ rally.

www.laser-optics-berlin.de

Preview: SPIE Photonics Europe

Brussels, Belgium, 14–17 April 2014

SPIE Photonics Europe has established itself as the biggest photonics conference in Europe every other (even) year. The conference location is the SQUARE Brussels Meeting Centre in the heart of the European capital. It is just a few steps away from the Brussels central train station, overlooking the city from the hillside of Mont des Arts.

As one may see in the following list, the European elite of scientists in applied optical and photonics research meets here in not less than 18 subconferences:

- Metamaterials (Chairs: Allan D. Boardman; Nigel P. Johnson; Kevin F. MacDonald; Ekmel Özbay)
- Nanophotonics (Chairs: David L. Andrews; Jean-Michel Nunzi; Andreas Ostendorf)
- Photonic Crystal Materials and Devices (Chairs: Sergei G. Romanov; Gabriel Lozano; Dario Gerace; Christelle Monat; Hernán R. Míguez)
- Micro-Structured and Specialty Optical Fibres (Chairs: Kyriacos Kalli; Alexis Mendez)
- Biophotonics: Photonic Solutions for Better Health Care (Chairs: Jürgen Popp; Valery V. Tuchin; Dennis L. Matthews; Francesco S. Pavone)
- Micro-Optics (Chairs: Hugo Thienpont; Jürgen Mohr; Hans Zappe; Hirochika Nakajima)
- Optical Modelling and Design (Chairs: Frank Wyrowski; John T. Sheridan; Jani Tervo; Youri Meuret)
- Optical Micro- and Nanometrology (Chairs: Christophe Gorecki; Anand K. Asundi; Wolfgang Osten)
- Silicon Photonics and Photonic Integrated Circuits (Chairs: Laurent Vivien; Seppo Honkanen; Lorenzo Pavesi; Stefano Pelli)
- Semiconductor Lasers and Laser Dynamics (Chairs: Krassimir Panajotov; Marc Sciamanna; Angel Valle; Rainer Michalzik)
- Laser Sources and Applications (Chairs: Jacob I. Mackenzie; Helena Jelínková; Takunori Taira; Marwan Abdou Ahmed)
- Nonlinear Optics and its Applications (Chairs: Benjamin J. Eggleton; Alexander L. Gaeta; Neil G. R. Broderick)
- Organic Photonics (Chairs: Barry P. Rand; Chihaya Adachi; David Cheyns; Volker van Elsbergen)
- Optics, Photonics and Digital Technologies for Multimedia Applications (Chairs: Peter Schelkens; Touradj Ebrahimi; Gabriel Cristóbal; Frédéric Truchetet; Pasi Saarikko; Jukka-Tapani Mäkinen)
- Real-Time Image and Video Processing (Chairs: Nasser Kehtarnavaz; Matthias F. Carlsohn)
- Photonics for Solar Energy Systems (Chairs: Ralf B. Wehrspohn; Andreas Gombert)
- Optical Sensing and Detection (Chairs: Francis Berghmans; Anna G. Mignani; Piet De Moor)
- Quantum Optics (Chairs: Alexander V. Sergienko; Arno Rauschenbeutel; Thomas Durt)

Exhibition and Photonics Innovation Village

The accompanying exhibition will be open on Tuesday, 15 April, and Wednesday, 16 April. An exhibition floor plan can be downloaded at <http://spie.org/x12303.xml>. One

important feature will be the Photonics Innovation Village. This is a special area within the actual exhibition featuring:

- research teams from universities, nonprofit institutions, and research centers who are working on research, new applications, and product development.
- young innovators who are developing the photonics-based products of the future.

Beside this area, there will be a European Village showcasing Europe's (and the world's) finest research programs. The 6th edition of the Photonics Innovation Village is organized by the Vrije Universiteit Brussel and their B-Phot Photonics Team managed by AOT Board member Hugo Thienpont (see www.b-phot.org).

The main intention of this initiative is to encourage the transfer of optics/photonics research and technology into new and useful products. Accordingly, all participants of the Village are encouraged to display a prototype or demonstration. Furthermore, participants will rally for some prizes: In the categories, 'Best Innovation by an Individual Researcher' and 'Best Innovation by a Multilateral Project, Organisation or Company', the Innovation Village Selection Committee will grant awards for the best technological innovation. Category winners will receive an award of €1500. The first and second runner-up will each win €500. Awards are sponsored by the Brussels Capital Region Government.

www.photonicseurope.org

Preview: 115. DGAO Tagung 2014

Karlsruhe, Germany, 10–14. June 2014

The German Society of Applied Optics DGaO is one of the oldest optical societies in the world. It has the long-standing tradition to convene in the week after Pentecost. The 115th Annual Meeting of the DGaO will take place in Karlsruhe from 10 to 14 June 2014. The local chair is Professor Christian Koos from the Karlsruhe Institute of Technology, Institute of Photonics and Quantum Electronics (IPQ).

Karlsruhe is a pleasant town with rich history and beautiful architecture. The city was planned about 300 years ago with the palace tower (*Schloss*) at the center and 32 streets radiating out from it like the spokes of a wheel, so that one nickname for Karlsruhe in German is the 'fan city' (*Fächerstadt*).

Today, Karlsruhe is also a famous place for science and research. It is the home of the KIT, the Karlsruhe Institute of Technology, with 9,000 researchers one of the largest research institutions in Europe.

The main topics of this year's DGaO Meeting will be:

- Micro- and nanophotonics
- Biophotonics and optofluidics
- Terahertz- and IR-Photonics
- Optical metrology
- Image and signal processing
- Systems design in optics and photonics

While abstracts were due in January, the main program will be published in March 2014. All authors are required to submit a two-page summary of their presentation by 25 July 2014. The early bird registration for all visitors will end on 11 May 2014 (Figure 4).

DGaO Young Scientist Award

For the second time, the German Society of Applied Optics (DGaO) will award the best dissertation and the best

master thesis from a German speaking country in the field of applied optics. The DGaO Young Scientist Award will be presented at the annual meeting in Karlsruhe.

There will be separate cash awards for the best PhD dissertation and the best Master's thesis of 2013, along with a 1-year full membership of the DGaO. The winners will also be invited to the Karlsruhe meeting to give a presentation of their work.

In order for a student to be considered, supervisors will need to submit the original thesis in PDF file, via the DGaO secretary (dgao-sekretariat@dgao.de). The supervisor will also need to submit the following:

- thesis summary (max. 2 pages)
- appraisal statement
- curriculum vitae of candidate
- list of publications, patents related to thesis (if applicable).

Submission deadline for the prize is 16 March, 2014.

www.dgao.de



Figure 4 The main conference location will be the Konzerthaus Karlsruhe (Photo: Wikipedia/Christophe Finot).