

OPERA project gets off to a flying start

OPERA2015 celebrates a successful first year as it develops a common vision for optics and photonics in Europe.

It has been a successful first year for the OPERA2015 project and photonics in Europe.

Firstly, OPERA2015 provided support to Photonics21, a European Technology Platform dedicated to photonics, as it prepared its Strategic Research Agenda (SRA).

Secondly, the project developed and implemented a public relations (PR) and dissemination strategy. Thirdly, OPERA2015 started to compile information on the state-of-the-art in European optics and photonics research as well as industry and market analysis. Finally, the OPERA2015 Forum on the 7th Framework Programme (FP7) and the Photonics Technology Platform was held at Photonics Europe in Strasbourg, France, in April.

Strategic Research Agenda

The SRA *Towards a Bright Future for Europe* was produced by the European Technology Platform Photonics21 in co-operation with OPERA2015.

The SRA provides the basis for a common strategy to achieve strong European leadership in the field of photonics. It will help to coordinate investment into research and development (R&D) at the European, national and regional levels, and will address the funding of photonics research and development under the European Commission's FP7. The SRA was presented to commissioner Viviane Reding by the president of Photonics21 on 4 April at Photonics Europe.

The starting point for preparing the SRA was the Photonics21 workshop, which was held in Brussels on 2 December 2005. More than 250 participants attended the workshop where the content for the first draft of the SRA was discussed. OPERA2015 provided support for the organization of the workshop.

Dissemination and public relations

The PR and dissemination activities of the project have not only addressed the stakeholders in optics and photonics via conferences and articles in specialist journals, but have also opened up communication with non-participating groups and general media.

Various instruments, existing activities and Web portals have been used to disseminate the results of OPERA2015 and inform of project

development. Here is a selection of highlights:

- a database of existing websites, printed media, events, conferences and fairs has been created;
- a dissemination calendar has been prepared with successful contacts;
- www.opera2015.org was launched;
- the EOS Newsletter was published four times a year as a supplement to *Optics & Laser Europe*;
- OPERA2015 had a booth at trade fairs including Laser. World of Photonics, Munich (June 2005) and Photonics Europe (April 2006).

Research and industry analysis

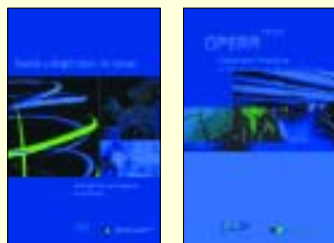
One of the goals of the OPERA2015 project is to set up a database of the links between industry and research in order to strengthen Europe's competitiveness in optics and photonics (O&P). The activities include creating an overview of the O&P industry in Europe and developing a set of O&P innovation strategies. By following through on these plans, the EU FP7 research programme can be targeted towards the effective support of the O&P industry.

The scope of the work also includes an evaluation of the R&D capabilities of European laboratories and universities. The links between industry and R&D will become apparent as this information is analysed. The objective is to contact several hundred companies and R&D organizations within the next few months. We kindly invite the photonics community of Europe to support OPERA2015 by providing information on European industry and research capabilities and innovation strategies.

Forum on FP7

OPERA2015 invited the entire European photonics community to learn the latest developments and to provide further input to the Photonics Technology Platform at a forum held recently at Photonics Europe. Topics that make up the platform include communications and information, display and lighting, and laser-assisted manufacturing and machine vision.

At Photonics Europe, presentations that represented a vision for the next decade of developments in photonics were given by a group of distinguished speakers who had been invited to the occasion.



More than 250 people attended the OPERA2015-supported workshop (top) to discuss the content for Photonics21's Strategic Research Agenda (bottom left). The OPERA2015 project is also developing a public relations plan (bottom right).

Commissioner Reding speaks



The EU Commissioner for information society and media, Viviane Reding, responds to questions concerning the 7th Framework Programme and the role of technology platforms.

EOS: Cohesion versus excellence: Several amendments of the European Parliament propose to consider expense in addition to excellence, and to increasingly relocate research activities into new European Union (EU) member states. Will the Lisbon agenda of excellence be diluted in this way?

VR: The Lisbon agenda concerns all regions of Europe and if there are specific actions proposed for some regions I would not call it dilution of the fundamental principle of scientific excellence. The Lisbon agenda is relevant for both EU cohesion and research policies. Strengthening the research capacities of new member states and some other regions of the EU is in fact included in both policies.

The Commission's proposal for cohesion policy in 2007–2013 aims to increase coherence between cohesion policy and other Community policies such as research. The structural funds can be used to build up research and innovation capacity in all regions, thereby increasing their competitiveness and enabling their participation in the Framework Programmes for Research and the proposed Competitiveness and Innovation Programme.

In addition, the Commission's proposal for the 7th Framework Programme (FP7) for Research includes ways to develop research strategies and to unlock the research potential of the EU's convergence and outermost regions to stimulate their greater participation in EU research activities. Such measures could include twinning, networks for exchanging know-how and expertise, secondments, acquisition of research equipment and awareness-raising activities.

EOS: Would it be conceivable to assign the basic and frontier research to the European Research Council and the application-oriented research to the technology platforms, and to thus establish two complementary research instruments?

VR: I do not believe in strict separations. The current research and innovation process calls for an interactive process, where all stakeholders are involved. Innovation requires a continuous two-way flow of knowledge and ideas between basic research and industrial and applied research. This is mainly what is supported in information and communication technology (ICT) in the Framework programme. The technology platforms will help us to identify the priorities that this collaboration should focus on.

EOS: With the Small Business Innovation Research (SBIR) programme, the US has an

SME programme with a financial value of more than \$1 bn (€803 m). American SMEs can submit project proposals within the scope of SBIR without the obligation to involve further partners. Is a comparable programme intended or conceivable for Europe?

VR: The Commission has carefully followed the SBIR programme in the US but the situation and challenges facing European SMEs are different from the US. A simple copying of the American programme is unlikely to work. For example, in Europe it is more efficient to manage funding programmes directed at single SMEs at local and regional levels. This is what is being done in the national programmes for innovation and for supporting SMEs. The total budget for these programmes is equivalent to, if not higher than, the SBIR. In addition the proposal for the FP7 includes specific measures targeting SME groupings, such as the CRAFT scheme.

EOS: A lot of amendments of the European Parliament propose to further develop the role of the technology platforms towards a body for applied research and even to the point of an administrative co-ordinator. Would this be conceivable from the point of view of the European Commission? Technology platforms have played a minor role within the present preparations and strategies for the FP7. How can the importance and financing of the technology platforms be seen within the course of the FP7?

VR: European Technology Platforms (ETPs) help industrial and academic research communities in specific technology fields to co-ordinate their research and tailor it to a common Strategic Research Agenda (SRA), which sets out R&D goals, time frames and action plans for technological advances that are relevant to industry and society. Their objectives have a strategic importance for Europe in both economic and social terms. The input of ETPs will be taken into account when we are preparing the work programme.

The Commission has, in the communication of 16 June 2004, stated that the research agendas of technology platforms might be supported partially from the Framework programme using the normal instruments of the FP7. There will be no budget pre-allocation to any such platform in the Framework programme, and it is important to remember that for ETPs, the Framework programme is just one source of funding among many others.

The only exception is that in a limited number of cases, some "joint undertakings" might be created for the implementation of an SRA

developed by a technology platform. The platforms using this mechanism would then be called Joint Technology Initiatives.

EOS: Training and further education is an important topic for the technology platforms – and of course for Photonics21. Is it conceivable to consider and to use the results worked out by the technology platforms as a supporting instrument for the Bologna process? Is it politically conceivable or desirable to establish “European graduate schools” for certain fields at excellence locations in Europe instead of creating virtual organizations?

The US investment in ICT is four times higher than the funding volume provided for IST in Europe. At the kick-off event of the Photonics21 technology platform in Brussels on 2 December 2005, you said that this fact gives the EU much room for improvement. How can this be shaped and implemented?

VR: There are a number of different ways in which we in Europe can improve our position. One is the need to increase greatly our investment in R&D. This is a cause that I have consistently fought for in the budgetary discussions at European level. R&D is important for the future of Europe, both for the quality of life of our citizens and for maintaining the growth of our industry.

In addition there is a need for increased investments from national and regional levels and especially from the European industry itself. Industry should be encouraged to quickly translate research results into innovation and to achieve critical mass by establishing research and manufacturing ecosystems. We have to ensure that our efforts are coordinated and focused by creating a coherent strategy that mobilizes public and private investment in the most efficient way possible. This is exactly

“I have consistently fought for an increase in R&D investment at the European level.”

Viviane Reding

where a technology platform such as Photonics21 can play a vital role with its SRA.

When investing in R&D, it is important to have a cost-benefit analysis to ensure correct focus of efforts. We must concentrate on those areas in ICT, such as photonics, which show great promise, that are of strategic importance and where we can expect a greater return on investment.

Another aspect which is just as important as investment in R&D is education and training. Without a sufficient supply of trained people coming from European universities and technical schools, it will be very difficult for European industry to compete with the US and in particular with Asia.

We need to get more young people interested in following careers in engineering and science. We need closer co-operation between industry and universities to ensure that industry has early access to the bright new ideas coming from academia while at the same time giving the right industrial orientation to university education and research.

These questions were prepared by Prof. Chris Dainty (National University of Galway), Prof. Wolfgang Sandner (Max Born Institut für Nichtlineare Optik und Kurzzeitspektroskopie im Forschungsverbund Berlin e.V.) and Prof. Peter Seitz (CSEM Zürich).

The EOS annual meeting comes to Paris

The venue this year is Paris, France, on 16–19 October.

The EOS annual meeting will be held in Paris, France, on 16–19 October and will be run in conjunction with the OPTO exhibition at the Porte de Versailles.

The EOS is proud to announce that two distinguished Nobel prize winners in physics will be plenary speakers at the event. Claude Cohen-Tannoudji, ENS, Laboratoire Kastler Brossel, France, and Wolfgang Ketterle of MIT, US, will give plenary talks on 16 and 17 October.

The 2006 annual meeting will feature six topical meetings, three of which will be held jointly with the Quantum Electronics and Optics Division of the European Physical Society. The six topical meetings are: biophotonics and biomedical optics (QEOD/EPS and EOS); extreme optics (QEOD/EPS and EOS); nanophotonics,

metamaterials and optical microcavities (QEOD/EPS and EOS); micro-optics, diffractive optics and optical MEMS; photonic devices in space and nonlinear optics: from sources to guided waves. More details can be found at www.myeos.org/events.

EOS Board elections 2006

2006 is an election year for the EOS Board and there will be five seats to be filled. We invite all EOS members to take advantage of this opportunity and take part in the election to the Board in July. Every member of the EOS will be informed by e-mail about the procedure of the election. For more information see the EOS website, www.myeos.org, or contact Petra Bindig at the EOS office in Hannover, e-mail: bindig@myeos.org.

Calendar

DATE	EVENT	LOCATION
16–19 May	LAMP 2006 International Congress on Laser Advanced Materials Processing	Kyoto, Japan
18–19 May	2nd EOS Short Course on Optical Fabrication Technology	St Gallen, Switzerland
5–7 June	WIO 06 Fifth International Workshop on Information Optics	Toledo, Spain
19–22 June	CGIV 2006 Third European Conference on Colour in Graphics, Imaging and Vision	Leeds, UK
10–14 July	7th National Symposium on Display Holography	St Asaph, UK
28–31 August	ROMOPTO 2006 Micro- to Nano-Photonics	Sibiu, Romania
4–7 September	ICO Topical Meeting on Optoinformatics/ Information Photonics	St Petersburg, Russia
13–15 September	Speckle 2006	Nîmes, France
16–19 October	EOS Annual Meeting and Topical Meetings	Paris, France

For more information about any of these events, visit www.myeos.org.

Are you a member of EOS?

Look at the benefits

Individual members are eligible for:

- a regular *EOS Newsletter* e-mail;
- reduced conference fees;
- reduced prices for the EOS journal;
- free subscription to *Optics & Laser Europe*;
- and, for those living outside Germany, a 50% discount on a subscription to the German-language journal *Photonik*, published by AT-Fachverlag.

Additional benefits for corporate members:

- a company profile in the EOS directory;
- a presence on the EOS website;
- free advertisements for jobs in the EOS market;
- reduced conference fees for all employees.



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EOS IOP

EOS 2006 membership fees

Individual members (who do not belong to a branch or affiliated society of the EOS):	€40
Students (who do not belong to a branch or affiliated society of the EOS):	€10
Corporate members (regardless of the number of employees of the company or members of the institute):	€200

Individual members of the branches Dga0 (Germany), SFO (France), SSOM (Switzerland), SOS (Sweden) and SIOF (Italy) are automatically full individual members of the EOS. Individual members of the affiliated societies Promoptica and CBO-BCO (Belgium), CSSF (Czech and Slovak Republic), DOPS (Denmark), FOS (Finland), the Optics Division of the Norwegian Physical Society (Norway), the Optics Division of the Polish Physical Society (Poland), ROS (Romania), SEDO (Spain), LAS (Russia) and the Optical Group of the Institute of Physics (UK) are automatically associate members of the EOS.

Membership information

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