



# **EPIC ANNUAL REPORT 2007**





# TABLE OF CONTENTS

Table of Contents	Page 2
President's Overview	Page 3
Report of the General Secretary	Page 4
Summary Balance Sheet	Page 5
EPIC Actions in 2007	Pages 6-7
EPIC Participation in European Projects in 2007	Pages 7-8
New Members	Page 9
List of Members Pa	ages 10-11





# PRESIDENT'S OVERVIEW

#### by Jean-François COUTRIS President of EPIC



Sales figures for photonics components and systems manufactured by European companies grew by more than 15% to more than 36 billion euros in 2007. The strongest sectors are defence, lighting, lithography, photo– voltaics, and communications. Production resources are well-balanced between diverse economic areas which is a very encouraging development. It is a principal strategic objective of EPIC to achieve and maintain this kind of balance.

During 2007, the Board of Governors reviewed the strategic plan, modified objectives to reflect new opportunities and projected the plan into the future in order to maintain a long-term view. We have made changes in three main areas:

#### **Technology focus**

Observing the exceptionally strong growth of the photovoltaic industry especially in Europe, EPIC has added a technology focus area in thin-film photovoltaic cells and systems. Installed photovoltaic power reached nearly 10 Giga watts world-wide in 2007. This is about 10% of installed wind turbine power and about 3% of installed nuclear generating capacity. Nearly half of all the photovoltaic installations in the world last year were made in Germany with Spain in second place. Market tracking information for photovoltaics and other energy sources is now available for members only on the EPIC website.

#### Organisation of R&D activities proposals

EPIC organised teams for R&D proposals in automotive safety and in fiber lasers. EPIC is seeking to lower the cost of proposal preparation for its members, to consolidate similar ideas and so minimise unproductive duplication and competition among its members and to build synergy and networking between EPIC members.

#### Development of services for individual members

EPIC offered services to respond to needs of individual members. We worked on search and recruitment of personnel, technical audits, market studies, strategic planning and proposal preparation for individual members. EPIC wants to provide value to its members where they need it.

EPIC continues to play a very strong role in a number of departments of the European Commission, including the Photonics Unit. Major EPIC initiatives in photonics for automotive safety and support for small business R&D are showing promising results.

EPIC encourages its members to participate actively in the Photonics Technology Platform so that the initiatives proposed by this body reflect the views of its members. EPIC urges its members to join the Board of Stakeholders as an effective way to ensure good governance and effective operation of Photonics21.

On the operations side, EPIC operated according to its budget in 2007, generating a positive result which has contributed to building its reserves. Your Board will be working on building reserves so that EPIC can continue to improve its effectiveness as a professional organisation and to return greater value to its members.



### REPORT OF THE GENERAL SECRETARY

#### by Thomas P. Pearsall

This year has been an important one for European photonics businesses. The business climate was favourable, leading to strong growth in all photonics sectors. Investment in new telecommunications systems in Europe increased by more than 10% compared to 2006, and established that this important component of the photonics business picture is now back on track. Substantial projects for installation of Fiber-to-the-Home will help to extend this growth for the future. Progress toward Europe's first LCD flat-panel display manufacturing facility continued with the approval by the European Commission for state aid from Italy to build a plant near Naples. Photovoltaic installations surged by 60% in Europe.

In 2007, EPIC grew by more than 10% to 80 members, and we are pleased to give a hearty welcome to each of them. We implemented new services and benefits to members, including personnel searches, technical audits, initiatives for small businesses and planning for commercial trade missions. Our aim is to bring more revenues and resources to our members.

EPIC is a strong leading partner to the International Optoelectronics Association which includes the OIDA in the US, the OITDA in Japan, KAPID in Korea, PIDA in Taiwan, Optec-Net in Germany, and associations in Scotland, Australia, Hong Kong and Singapore. We have involved IOA members directly in our European projects like ACCORD. We will continue to build these relationships in 2008.

This year we have all experienced the first results from the new Photonics Unit in Framework Program 7. The photonics call issued in June, 2007 faithfully reflected topics emphasized in the photonics Strategic Research Agenda. The presence of the photonics platform has also raised interest in the community, leading to a significant oversubscription rate of 7 proposals submitted for each proposal retained for funding. The time and money spent by our members on unsuccessful proposals represent a significant loss of resources, and EPIC will work to improve this situation.

In the 2009-2010 proposal cycle EPIC will continue to serve its members by organising proposal teams to target directly R&D funding opportunities, and to reduce unproductive overlap and competition where possible. EPIC will continue to serve its members by searching for opportunities for support elsewhere both within the Commission, and beyond the Commission's programmes.



Thomas P. Pearsall, EPIC Secretary General

EPIC 's aim is to bring more revenues and resources to our members

# SUMMARY BALANCE SHEET



#### ASSETS

	2006	2007
Cash	70 246	35 741
Charges paid in advance	1 252	183
Membership fees receivable	14 500	27 529
Payments due from EU	0	76 728
Fixed Assets	2 640	1 688
Total Assets	88 638	141 869

#### LIABILITIES

2006	2007
1 772	24 740
49 197	53 191
22 937	41 818
14 732	22 120
88 638	141 869
	2006 1 772 49 197 22 937 14 732 88 638

#### INCOME

	2006	2007
Annual Membership Fees	200 017	200 237
European Programme participation	112 850	195 134
Sale of services	1 626	6 934
Total Revenues	314 493	402 305

### EXPENSES

	2006	2007
Operating costs	134 044	186 096
Taxes	9 689	10 788
Salaries	124 266	130 513
Social Charges	63 038	55 483
Provision for depreciation	756	542
Total Expenses	331 793	383 422

## **EPIC ACTIONS IN 2007**

#### Workshops, Conferences & Presentations

- MONA Workshop on Building a Nanophotonics Roadmap San Jose, USA, 25 January 2007
- Photonics in 2006-2008: a roadmap for market developments Eindhoven, The Netherlands, 12-13 February, 2007
- Automotive Consortium on Photonics in the Automobile Audi, Ingolstadt, Germany, 26 March 2007
- Consultation and Workshop on Assessment of Prototypes at the European Commission
   EC, Brussels, Belgium, 27 March 2007
- Fiber Laser Consortium EPIC, Paris, France, 27 April 2007
- EPIC exhibited at LASER World of Photonics 2007 Munich, Germany, 18-21 June, 2007
- EPIC actions 2006-2007 at IOA International Optoelectronics Association Munich, Germany, 21 June, 2007

LASER 2007 World of PHOTONICS









Resources for European Manufacturers" at PIRA INTERTECH Workshop on LEDs and OLEDs in Displays & Lighting Cologne, Germany, 23-24 July, 2007

Presentation by T.P. Pearsall on "Technologies, Markets &

- Workshop on LEDs Manufacturing for Lighting & Displays Berlin, Germany, 10-11 September, 2007
- EPIC workshop on Photonics on Silicon
   ECOC 2007, Berlin, Germany, 16 September 2007
- Symposium on Broadband Access Technologies ECOC 2007, Berlin, Germany, 17 September 2007





#### Reports

In November 2007 the report on "LEDs: Manufacturing Technologies 2008" was published by Yole Développement based on the outcomes of

the Workshop on LEDs Manufacturing for Lighting & Displays which took place in Berlin, Germany on September 10-11. The report was distributed at no charge to EPIC members. It is now on sale to non-members for 3900€.





#### **EPIC Website**

During 2007 EPIC has continued to innovate its website <u>http://www.epic-assoc.com</u>. New additional sections have been created like a section for job opportunities, more information about funding in Europe or marketing intelligence in the members' restricted area.

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#### EPIC PARTICIPATION IN EUROPEAN PROJECTS IN 2007

In 2007, EPIC led the organisation of two major project proposals involving EPIC members: ICAREUS, a coordination action to implement safety systems in the automobile and EIFFEL, an integrated project for assessment of fiber laser systems.

SEVENTH FRAMEWORK

In addition, EPIC was a major partner in the following proposals:

- SPRITE: a support action to develop Photonics Platform activities and initiatives on a European level beyond the interest of the Photonics Unit of the Commission
- DAPHNA: a support action to develop the interest of young persons in photonics
- PHORACLE: a support action aimed at developing a virtual educational resource for photonics
- JEPPIX: an integrated project to develop a photonics foundry for III-V semiconductors
- OLED-100: an integrated project to develop the next generation of OLED devices for lighting applications which has been retained for funding.

One successful proposal out of seven applications is consistent with the statistics published by the European Commission showing that 1 out of 7 submitted proposals is retained as a project.

EPIC membership fees are used to fund the effort needed to prepare proposals. Each decision to participate in a proposal preparation was reviewed by the Board of Governors, with reference to an overall strategic plan to obtain a level of European funding that would contribute approximately 30% of EPIC revenues through the year 2010.

We are pleased to report that we have been successful in winning this level of sustained support.



#### **OLED-100**



The overall goal of OLED-100 is to develop all the necessary technologies forming the basis for efficient OLED applications for the general lighting industry in Europe.

This project will start in September 2008 and will run for 36 months. EPIC will participate in the dissemination activities of the project, and will particularly be involved in the project website and the newsletters.

# ACCORD: Advanced Components Cooperation for Optoelectronics Research and Development

The ACCORD project completed its first year running very successfully, and prepared for a second call for both components and R&D



proposals in 2008. The Accord program is the first of its kind in Europe. It provides performance assessments for pre-commercial components, particularly valuable for SMEs, and creates links between companies and universities that may lead to job opportunities for students and possible future R&D collaborations.

At the end of 2007, two calls have been completed with a high response rate which allowed funding 6 projects for more than 125.000 euros, involving cooperative actions between SME and universities. More information can be found on: <u>www.ist-accord.org</u>

#### **MONA: Merging Optics and Nanotechnologies**

The MONA project, involving 7 EPIC organizations, has been



successfully concluded at the end of 2007, following the publication of the European roadmap for photonics and nanotechnologies.

This first version of the Roadmap highlights the opportunities for technology and business leadership related to nanotechnologies and their impact on photonics. You can download your copy at no charge at: <u>www.ist-mona.org</u>.

# OPERA-2015: Optics and Photonics in the European Research Area

The OPERA-2015 project terminated at the

end of April 2008. The main objective of OPERA-2015 was to support the creation of the Photonics<sup>21</sup> Technology Platform through the stimulation of actions and initiatives at the local, the national, and the EU levels. OPERA-2015 has fostered links between industry and research in order to strengthen Europe's competitiveness. During the 3-year project EPIC has been in charge of communications and organised three workshops to help reach this goal.

#### Photonics Technology Platform & Framework Programme 7

At the end of 2007, the Photonics Unit



of the European Commission had completed its first cycle of proposal solicitation and project funding. The Commission has awarded 90 million euros to R&D projects involving optics and photonics. Some key funded projects are:

- PHOTONICS4LIFE Network of Excellence on emerging field of Bio-Photonics
- HELIOS CMOS foundry
- PHOTONFAB Access to CMOS foundry
- BOOM Si integrated circuits for telecommunications
- FAST-DOT 'Generic' quantum dot lasers for multiple applications
- GIGAWAM Fiber-to-the-home using passive optical networks
- POF-PLUS Do-it-yourself home networks
- PHOSFOS Wearable sensor «skin»

During 2007, EPIC has strongly supported the Photonics Technology Platform through its participation in most of the working groups, delivering updates and meeting minutes to EPIC members. EPIC encourages each of its members to participate in platform activities.

The platform is directed by its Board of Stakeholders, who are chosen from the platform general membership. EPIC urges its members to apply for membership in the Board of Stakeholders as the best way to assure that the platform is responsive to the needs of photonics industries across Europe.

Up to date information about Photonics<sup>21</sup> activities is available on the EPIC website.



## **NEW MEMBERS 2007/2008**



**Enista** OPTICS

**Yenista Optics** Michiel Van der Keur, CEO mvanderkeur@venista.com



Sharp Laboratories Europe Matthias Kauer, Research Manager Matthias.kauer@sharp.co.uk



**Centre for Integrated Photonics** David Smith, CTO David.smith@ciphotonics.com



Swisslaser Christoph Harder, President harder@charder.ch



Horiba Jobin Yvon Didier-Luc Brunet, EMEA Operations Dir. Didier-luc.brunet@jobinvvon.fr

Professor John H. Marsh, CTO john marsh@intenseco.com



Emmanuel Rosencher, Research Director Emmanuel.Rosencher@onera.fr

UPS2 Sean Amos, Business Manager s.amos@ups2.co.uk

# *n*LIGHT

End of 2007 nLIGHT Corporation announced the acquisition LIEKKI based in Lohja, Finland. Contact: Mircea Hotoleanu Mircea.Hotoleanu@liekki.com

# odelo

Automotive Signal Lights

In February 2008 G.L.I. (Global Light Industries) based in Kamp-Lintfort, Germany, was renamed Odelo LEDs. Contact: Jochen Kunze joe.kunze@odelo.de



In January 2008 Gooch & Housego brought together five leading players in the photonics industry including SIFAM under the Gooch & Housego brand name. Contact: Andrew Robertson arobertson@goochandhousego.com



### LIST OF EPIC MEMBERS

<u>Aixtron</u> Thin-Film Deposition Equipment

Alcatel- Thales III-V Laboratory Telecommunication & Defence

ALSI Laser Separation and Dicing

ASML Special Applications Advanced Optical Lithography

Audi Automotive Lighting

Barco Display Manufacturing

Bookham Technology Optical Communications Components

Cambridge Display Technology Optoelectronic Polymer Technology

CEA-LETI Microphotonics Technology Development

Cedova Optoelectronic Device Fabrication

CEIT Education and Research

Centre for Nanophotonics FOM Nanophotonic Technologies

Centre for Nanotechnology, Micro and Photonic Systems Microphotonics and Biophotonics

Chalmers University of Technology Education and Research

<u>CIP Centre for Integrated Photonics</u> Optoelectronic Components

Dow-Corning Photonics Materials & Custom Services

Edmund Optics Passive Optical Components

Eolite Systems Fiber Laser

Ericsson Microelectronics

ESKO Graphics Graphics Reproduction and Display Exalos Superluminescent Diodes

FiconTEC Advanced Packaging & Test Equipment for Photonic Systems

France Telecom R&D Telecommunications

Fraunhofer Institute for Applied Optics and Engineering Precision Optical Coatings

Fraunhofer Institute for Laser Technology Laser Sources and Applications

Fraunhofer Institute for Material and Beam Technology Laser Materials and Surface Processing

Fraunhofer Institute for Reliability and Microintegration Photonics Packaging

Fraunhofer Institute for Telecommunications Heinrich Hertz Institute Technology for Communications

German Aerospace Center Project Funding and Management

Gooch & Housego Fibre Optic Solutions

Haute Ecole ARC Ingénierie Education and Research

Hermia Technology Centre Photonics Industry Development

Horiba Jobin Yvon Optical Spectroscopy

ICFO – Institut de Ciencies Fotoniques Education and Research

Imagine Optic Sensing equipment & adaptive optics

Innolume Quantum-dot Lasers

INSA-Lyon Education and Research

Institute of Photonics University Durham Education and Research

INTEC Department of Information Technology Education and Research



Intense High Power Lasers

IQE Epitaxial Thin Film Fabrication

Kista Photonics Research Center Microphotonics Technologies

Laser Diagnostic Instruments Lasers

Mario Boella Institute / Politecnico de Torino Education and Research

Merge Optics Compact Photonic Modules

<u>Microelectronics Institute of Barcelona (Imb-CNM, CSIC)</u> Education and Research

nLIGHT Corporation High Power Lasers

odelo LED Solid-State Lighting Modules

ONERA Aerospace Laboratory

OptoGaN Solid-State Lighting

OpticsValley Photonics Industry Development

Osram Opto Semiconductors Solid-State Lighting

Perfos Specialty Optical Fiber Technologies

Philips Lighting Solid-State Lighting

PicoGiga International Solid-State Lighting

Politecnico di Milano Education and Research

ProLas Laser Material Processing

Quantel Solid-State Lasers

Robert Bosch GmbH Electronics

Rohm and Haas Specialty Optical Materials SAES Getters Photonics Components and Materials

Sagem Défense Sécurité Defence, Space and Aeronautics

Scuola Superiore Sant'Anna Education & Research

Sharp Laboratories Europe Optical Imaging

Spectra Physics Laser Sources and Applications

SPI Lasers Fibre Lasers

SÜSS Microtec Component Fabrication and Packaging

Swisslaser Industrial Association

<u>3S Photonics</u> Optical Communications Components

Technical University of Berlin Education and Research

Time-Bandwidth Products
Laser Sources and Applications

TopGaN Laser Diodes

Umicore Germanium Substrates Thermal Imaging Optics

University of Naples "Federico II" Education and Research

u<sup>2</sup>t Photonics Optical Communications Components

UPS<sup>2</sup> Ultra Precision & Structured Surfaces

Vigo System Sensors

VI Systems Optoelectronic Devices

Wrocław University of Technology Education and Research

Yenista Fiber optic solutions



## Contact

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