



2008

ANNUAL REPORT

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WORD FROM THE PRESIDENT

by Jean-François COUTRIS



Jean-François Coutris,
EPIC President

At the end of 2008, EPIC celebrated its 5th anniversary of bringing more value to its members. Starting with 5 founding members in 2003, of which Sagem was one, EPIC has grown to 80 members throughout Europe today. We are widely recognised as a strong contributing force to building photonics businesses in Europe with commercial presence around the world. The impact of EPIC comes from the concerted action of its members in focus areas designated by the membership and implemented by your Secretary General and the governing Board.

The administration of EPIC has built a strong foundation for our activities as a consortium. The financial results of 2008 were positive with a healthy increase in our strategic reserves. The budget for 2009 is balanced, and there will be no increase in annual membership fees, maintaining a 5-year tradition. Your Board of Governors has re-elected me to a second term as President, and I am pleased and honoured to accept this responsibility. During the next two years, I will use this mandate to address key strategic objectives for the consortium and its members.

This mission of EPIC is to build sustainable growth for European photonics industries, and so our highest priority in 2009-2010 will be to help each of our members build a bridge across the recession.

We will continue to work on our plan to develop new customers and new business opportunities for our members by further development of initiatives with the World Bank and the states of the Arab Gulf region. I invite you to consider joining EPIC on the next mission which is being planned for the autumn of 2009.

EPIC continues offer services and excellent return on investment to its members through help to prepare successful proposals for the 5th photonics call of the European Commission, due in November; and through our programme of workshops and exclusive market reports for members, including a major conference and trade show on "Green Photonics" in February, 2010.

Since 2007 EPIC has offered services to respond to needs of individual members. During the last year we worked on search and recruitment of key 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. I encourage you to contact the EPIC office with your requests.



REPORT OF THE GENERAL SECRETARY

by Thomas P. Pearsall

EPIC priorities and challenges for 2009

In 2008, EPIC membership reached 80 organisations. We were pleased to announce at our annual meeting in Paris that EPIC-led programmes returned more than 500.000 euros in direct benefits to our members. This return is more than twice the amount of all the membership dues paid in 2008. A key long-term objective is to develop new business opportunities for our members, and in 2008 we opened the door to business development and technology exchange in the Arab Gulf countries. During our visit we have uncovered opportunities for photonics in sensors, photovoltaics and lighting. There are equally interesting opportunities in education and training at two universities that are just getting started: the Dubai Institute of Science and Technology, and in Abu Dhabi, the Masdar Institute of Science and Technology.

In 2008, EPIC started to work with the World Bank on Intelligent Lighting for commercial buildings. This is lighting that is both energy efficient and that improves productivity. EPIC member Philips reminds us that public and commercial buildings consume 60% of global lighting electricity usage. Renovating existing buildings with Intelligent Lighting is the best way to harvest the "low-hanging fruit", with a potential savings that exceeds 60 billion euros per year. The Clean Technology Fund of the World Bank is an attractive mechanism to fund this renovation.

The world-wide recession will make 2009 a challenging year for all of us. Our recovery plan for members is based on increasing revenues for members coupled with a programme of strategic benefits. In 2008, the EPIC-led LIFT proposal for fibre laser R&D was funded for more than 9 million euros. In 2009, EPIC is ready to help its members make the most of the call 5 from the European Commission. We can help you to organize and write your proposal.

In addition to revenues, EPIC continues to build member benefits and resources. We will continue to research and publish key market reports, such as "Photonics Energy Generation, 2008". EPIC aims to be the first resource of reliable photonic information in Europe. We will help our members who may be experiencing a cash-flow squeeze in 2009 by an innovative benefit that reimburses registration fees for members who attend workshops and conferences. We are preparing a sequel to the highly-successful ACCORD components access programme.

EPIC now runs the leading programme of photonics workshops in Europe, thanks to our members who identify the topics and develop the programmes. During the next year we will present workshops in thin-film photovoltaics, photonics components manufacturing, access technologies for fiber optic communication at ECOC, fiber lasers in Dresden, and the first European conference on Green Photonic Technologies, organized in collaboration with the Plastic Electronics Foundation, WeAre, and the OIDA. We are pleased to announce the second edition of Invest in Photonics which brings together venture capital and small businesses seeking investment finding.



Thomas P. Pearsall, - EPIC Secretary General

SUMMARY BALANCE SHEET



ASSETS

	2008	2007
Cash	192 433	35 741
Charges paid in advance	3 147	183
Membership fees receivable	48 529	27 529
Payments due from EU	0	76 728
Fixed Assets	3 115	1 688
Total Assets	247 224	141 869

LIABILITIES

	2008	2007
Accounts payable	20 977	24 740
Social charges payable	40 467	53 191
Retained earnings	66 359	41 818
Income paid in advance	119 421	22 120
Total liabilities	247 224	141 869

INCOME

	2008	2007
Annual Membership Fees	204 685	200 237
European Programme participation	203 817	195 134
Sale of services	9 001	6 934
Interest of savings accounts	3 150	0
Total Revenues	420 653	402 305

EXPENSES

	2008	2007
Operating costs	175 656	186 096
Taxes	12 022	10 788
Salaries and consulting fees	143 619	130 513
Social Charges	64 256	55 483
Provision for depreciation	535	542
Total Expenses	396 088	383 422

EPIC WORKSHOPS & SYMPOSIA

In 2008 EPIC organized four workshops and symposia. Many of our events were central to the programme of the main European photonics meetings.

Workshop on Photonics on Silicon, Photonics Europe, Strasbourg, France 9 April 2008

EPIC co-organised a 1-day session on Silicon Photonics in Industry which took place on Wednesday 9 April 2008. Industry and research experts in Silicon photonics attended following focussed programme:

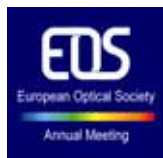
1. Quantum dot comb-laser as efficient light source for silicon photonics - *I. Krestnikov Innolume Inc. (Germany)*
2. Integration of photonics components in state-of-the-art CMOS technology - *Felix Lustenberger, ESPROS Photonics AG (Switzerland)*
3. Integrating silicon photonics with the real world of manufacturing and sales - *Jean-Louis Malinge, Kotura, Inc. USA*
4. Silicon photonics activities in the OIDA - *Jeremy Witzens, Luxtera Inc. USA*
5. Challenges and innovations in very-large CCD and CMOS imagers for professional imaging - *Jan T. Bosiers, DALSA Corp. (Netherlands)*
6. 10Gbit/s transceiver on silicon - *Jeremy Witzens, Luxtera Inc. (USA)*
7. Silicon photonics in Pirelli - *Marco Romagnoli, Pirelli & C. S.p.A. (Italy)*
8. Low loss, high contrast planar optical waveguides based on low-cost CMOS compatible LPCVD processing - *Willem Hoving, XiO Photonics (Netherlands)*

Symposium on Fiber - Radio Convergence, ECOC 2008 Brussels, Belgium, 22 September 2008

EPIC organised the symposium on Fiber Radio Convergence which took place on Monday, 22 September 2008 in Brussels, Belgium. The audience of industry and research experts in Fiber technologies attended following programme:

1. Current situation on FTTH installations in Europe and the convergence of radio-based transmission and access issues
Joeri Van Bogaert, President FTTH Council, Belgium
2. Advantages of integrating fixed and wireless services over a common infrastructure
Anna Pizzinat, France Télécom R&D Réseaux d'Accès, France
3. Developments in video broadcasting and for two-way peer-to-peer video communication
Ralf Schaefer, Heinrich-Hertz-Institut, Germany
4. Innovations in Video Services as driver for Fibre Access
Ingrid van de Voorde, Alcatel-Lucent Research, Belgium
5. A vision on radio over fibre
Richard Penty, University of Cambridge, UK
6. Fiber closing in to the customer's premises: Making the right design decisions
Raf Meersman, COMSOF, Belgium
7. Fiber over Radio Transmission for Networks in Spatial Orbit
Miguel A. Piqueras, DAS Photonics, Spain





Workshop on Biophotonics Business: Opportunities and Challenges for European Companies, EOS Annual Meeting, Paris, France, 1 October 2008

During the EOS Annual Meeting, **EPIC** and the **EOS** co-organized a half-day business workshop.

First, a set of presentations of leading experts from industry set the stage concerning biophotonics business, market outlook and challenges.

1. Biophotonics Business: Opportunities and Challenges for European Companies
Gert von Bally - Center for Biomedical Optics and Photonics, Muenster Germany
2. The Innovation Process: From the Idea to a Product
Jürgen Fleischer and Thomas Zapf - Leica Microsystems, Wetzlar Germany
3. Lab-on-a-chip: Technologies and Markets
Frédéric Breussin - Yole Développement, Lyon France
4. Integrated Raman spectrometer on chip: An optical sensing solution.
Peter Höjerback - Serstech AB, Lund Sweden
5. Optical Sensors for the Real-Time Assessment of Plant Constituents: Decision Support Tools for Agriculture
Jean-Luc Ayrat - Force-A, Orsay France

Next, participants divided into working groups to address key issues on transferring ideas to products. Finally everyone participated in a final session to hear and discuss the results from each working group.

- Break-out session 1: "Bringing Novel Biophotonic Products to Market"
Leader: Thomas Zapf, Leica Microsystems Systems GmbH
- Break-out session 2: "Financial Resources for Growth"
Leader: Géraldine Andrieux, Yole Finance
- Break-out session 3: "Technology Needs for Lab on a Chip"
Leader: Peter Höjerback, Serstech
- Break-out session 4: "User Friendly Products"
Leader: Jean-Luc Ayrat, Force-A



Workshop on Fiber Laser: key challenges and opportunities for market growth, Dresden, Germany, 5-6 November, 2008

Held in Dresden, the workshop attracted more than 300 participants attending following program

- Projections for fibre laser sales
Dr. Tom Hausken Strategies Unlimited, USA
- Fibre lasers for RGB display applications
Dr. Augustin Grillet Barco N.V., Belgium
- Medical application market for fibre lasers
Dr. David Pureur Quantel SA, France
- Defense applications with fibre lasers
Dr. Michel Péalat Sagem DS, France

4 break-out groups worked together on high-power cutting, low-power, medical, technology issues, new applications. Based on the outcome of this session, Dr. Arnold Mayer of Optech Consulting, Switzerland published for EPIC the "Fiber Laser Report 2009".

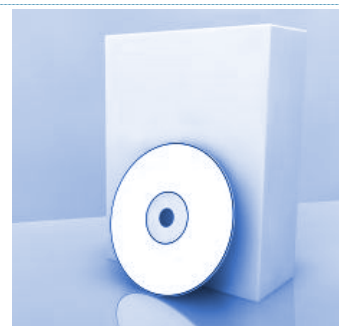


Participants to the workshop on fiber laser

CD REPORTS

A CD Rom report has been produced and distributed to EPIC members after following events:

- **Workshop on Photonics on Silicon**
Photonics Europe, Strasbourg, France 9 April 2008
- **Symposium on Fiber Radio Convergence**
ECOC 2008 Brussels, Belgium, 22 September 2008
- **Workshop on Biophotonics Business: Opportunities and Challenges for European Companies**
EOS Annual Meeting, Paris, France, 1 October 2008
- **International Optoelectronics Association Annual Meeting**
Melbourne, Australia, 6 October 2008
- **Workshop on Fiber Laser: key challenges and opportunities for market growth**



MARKET REPORTS

Report on Fiber Lasers

Dr. Arnold Meyer, Optech Consulting, published for EPIC a report on "Fiber Laser 2009" in early February 2009. Dr. Meyer is a well-known expert in the field of Lasers and his report, based on the outcomes of the Workshop on Fiber Laser held in Dresden, on 5-6 November 2008 is presenting the Fiber Lasers market worldwide. This report is widely cited in the professional journals.

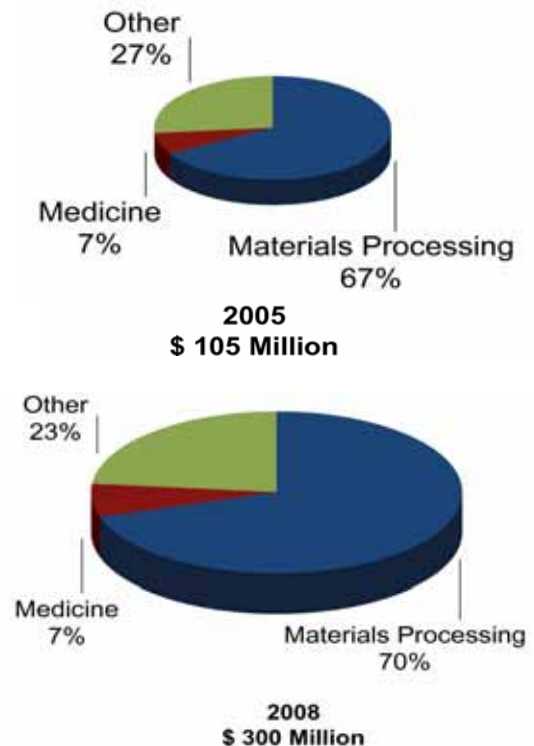
"With an average annual market growth rate of 42% over the last three years fiber lasers have been highly successful, and the worldwide market reached \$ 300 million in 2008. The most important application area is materials processing, with a market volume of \$ 210 million, corresponding to a market share of 70% (2008 world market for all lasers in materials processing: \$ 3.0 billion). Examples of further market growth areas for fiber lasers are: flat sheet cutting, fine processing, and marking."

More information can be found on the report page of the EPIC website:

<http://epic-assoc.com/publications/?at=19>

World market for fiber lasers

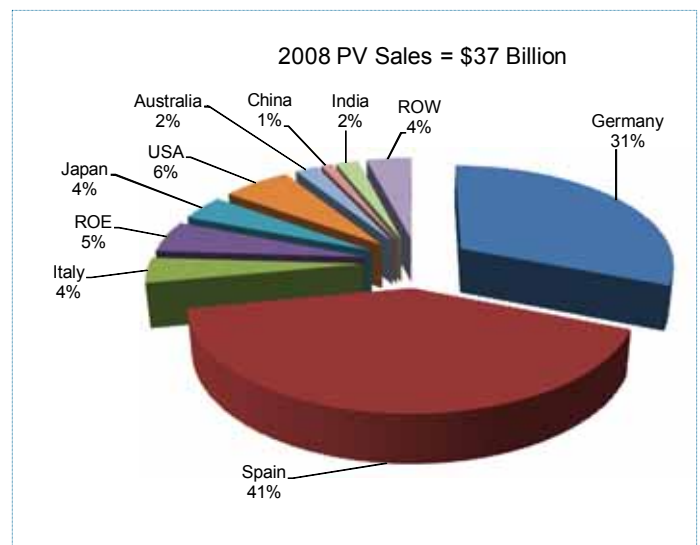
Source: Optech Consulting



Report on Photovoltaics

In December 2008, EPIC published and distributed a Market Report on "Photovoltaic Energy Generation" presenting the perspectives for the photovoltaic market worldwide and focusing on Europe as the market leader for PV installations' deployment.

In March 2009 EPIC published an update on Solar Photovoltaics showing consolidated market figures for 2008. With ~ 37 billion euros in sales in 2008, Spain is the largest market with 40% of installations and Germany is the second largest market with 30% of installations.



"LEDs: Manufacturing Technologies 2008"

Yole Développement published for EPIC a report based on the outcomes of the Workshop on LEDs Manufacturing for Lighting & Displays which took place in Berlin, Germany on September 10-11, 2007.

An EPIC member recently sent following testimonial about the services EPIC is providing to its membership: "We, as a member of EPIC, have benefited tremendously from its network, interactions with fellow



members, newsletters and market reports. The report "LED Manufacturing Technologies, 2008 Edition" represents one of the best in the class. It provided in depth analysis on the market trend, key players, IP landscape, as well as technology options and key challenges facing the LED industry. It is an excellent reference for both marketing and technical professionals".

EPIC CONFERENCES & MEETINGS

EPIC took part in several conferences and meetings and made following presentations:

- **Photovoltaics, Solid-state Lighting and Fiber Lasers: Growing Photonics Markets in Europe,** Photonics Conference, Eindhoven, Netherlands, 12-13 February 2008
- **EPIC Workshop on Photonics on Silicon,** Photonics Europe, Strasbourg, France 9 April 2008
- **Fiber Laser Consortium: Leadership in Fiber Laser Technologies,** Strasbourg, France, 8 April 2008 EPIC Paris, France, 12 June 2008
- **MONA: Presenting the European Nanophotonics Roadmap,** Leipzig, Germany, 13 June 2008
- **Opportunities for Industry in Emerging Nanophotonics Technologies,** Micro-Optics Conference Brussels 26 August 2008
- **International Optoelectronics Association Annual Meeting,** Melbourne, Australia, 6 October 2008
- **Roadmap for LED Lighting,** WeAre Meeting, Eindhoven, Netherlands, 30 October 2008
- **Invest in Photonics: Finance for SMEs,** Bordeaux, France 11-12 December 2008



PUBLICATIONS 2008-2009

- **“Innovations in Economical Solar Power”**
Rashid Khan, D.W. Merfeld, T. P. Pearsall, Michael Geyer, and Reinhold H. Dauskardt, *Advanced Materials & Processes*, pg 45-48, November 2008
- **“The MONA Roadmap for Photonics and Nanotechnologies”**
Thomas Pearsall and Laurent Fulbert, *IEEE Nanotechnology Magazine*, pg 6-12, December, 2008
- **“Industry Associations Create Stability during Downturns”**
Thomas Pearsall is interviewed by Jacqueline Hewitt, *Optics and Laser Europe*, pg 38, n°171, April 2009
- **“Surviving the Downturn – the European Report”**
Thomas Pearsall, *Laser Focus World*, pg 48-58, June 2009.
- **“Europe’s Accord Bridges Gap between R&D and Product Launch”**
Chris Gracie, Thomas Pearsall, Peter Van Daele, Domenico Giannone, Denis Trégoat, Miguel Llera, Stéphane Demiguel, and Sergiusz Patela, *Europhotonics*, pg 28-32, June-July 2009
- **“The Solar Imperative”**
Thomas Pearsall, *ElectroOptics Hardtalk*, pg 46, June-July 2009



Cover of Optics & Laser Europe, April 2009

INVEST IN PHOTONICS: FINANCE FOR SMES



Invest in Photonics: The first international partnering convention dedicated to the business development of photonics

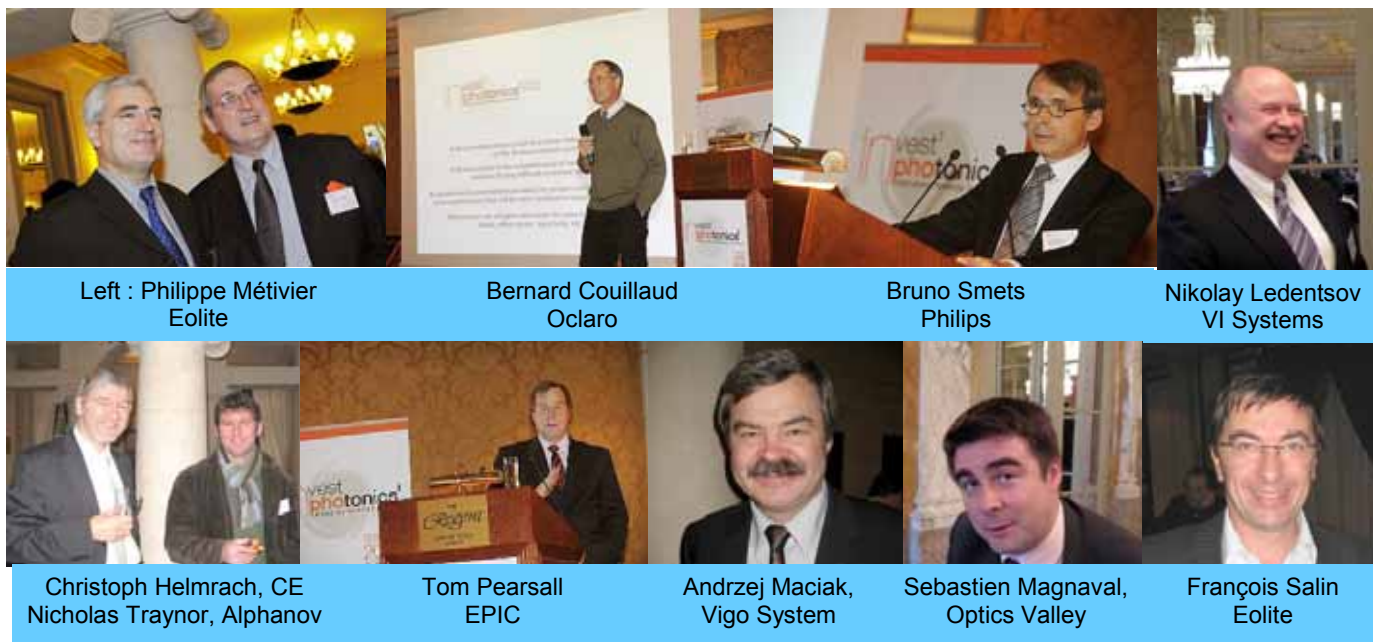
Invest in Photonics took place in Bordeaux on 11-12 December 2008. The objective was to facilitate meetings between entrepreneurs and executives from the photonics industries on one hand and on the other investors and analysts following a broad range of photonics applications sectors (energy, environment, telecom, health, industry, consumer technology...). EPIC was involved in the organization and promotion of the convention.

More than 40 company candidates from all over Europe and North America, seeking to raise from 1 Meuros to 100 Meuros, prepared presentation applications. The Technical Committee evaluated each business plan regarding 3 main criteria - the company market size, the level of product innovation, and the growth potential. The Committee selected the 18 most fundable companies for a presentation the 11 and 12 December 2008. Two EPIC members were among this group: VI Systems, Berlin Germany and Vigo Systems, Warsaw Poland.

The program of the 2-day event included presentations by:

- Bernard Couillaud - Board of Directors of EPIC member Oclaro
- Stephen G. Anderson - Associate Publisher / Editor-in-Chief - Laser Focus World
- Bruno Smets - Director External Relations of EPIC member Philips Lighting
- Dennis Matthews - Professor and Director - Univ. of California and NSF Center for Biophotonics
- Bill Magill – Professor at INSEAD and Venture Capital Scout
- Jean-Pierre Lartigue - Vice President, Marketing & Communications- Alcatel-Lucent
- Francesco d'Avack - New Energy Finance
- Christoph Helmraath - Principal Scientific Officer Photonics - European Commission
- Thomas Pearsall - General Secretary - EPIC

EPIC participants



EPIC PARTICIPATION IN EUROPEAN PROJECTS

European projects help EPIC to stay up-to-date on technology developments, creating synergies among EPIC members and building a solid revenue base to support operations and growth. In 2009 EPIC will help build project teams for Call 5 and also seeks to participate in projects where we can bring added value.



EPIC is part of **OLED100.eu**, an integrated research project which brings together a consortium of experts from leading industry and academic organizations to accelerate the development of organic light-emitting diode (OLED) technologies in Europe. It receives €12.5 million funding by the European Community's Seventh Framework Programme to form the technological basis for efficient OLED applications for the general lighting industry in Europe.

Targets set by the project include achieving 100 lumens per watt power efficacy, more than 100,000 'lifetime hours', a unit area of 100cm by 100cm and costs of €100 per square meter or less.

Partners in the OLED100.eu consortium include:

- 1 Bartenbach LichtLabor GmbH, Austria
- 2 **European Photonics Industry Consortium*** (EPIC), France
- 3 Evonik Degussa GmbH, Germany
- 4 Fraunhofer Institute for Photonic Microsystems (IPMS), Germany
- 5 Microsharp Corporation Limited, Great Britain
- 6 Novald AG, Germany
- 7 OcÈ Technologies B.V., The Netherlands
- 8 **OSRAM Opto Semiconductors GmbH**, Germany
- 9 **Philips Technologie GmbH, Business Center OLED Lighting**, Germany
- 10 **Philips Technologie GmbH Forschungslaboratorien**, Germany
- 11 Physikalisch-Technische Bundesanstalt (PTB), Germany
- 12 Saint-Gobain Recherche S.A., France
- 13 Siemens AG, Germany
- 14 Technische Universität Dresden, Institut fuer angewandte Photophysik, Germany
- 15 Universiteit Gent, Belgium

Project coordinator is

Dr. Stefan P. Grabowski
Philips Technologie GmbH
Forschungslaboratorien
Email:

Stefan.Grabowski@philips.com

Website: www.oled100.eu

(* = EPIC Members in boldface)



ACCORD: the Advanced Components Cooperation for Optoelectronics Research and Development is still going on. ACCORD's purpose is to purchase at marginal cost pre-competitive photonic devices from innovative European companies and put them in the hands of European researchers and students and facilitate transfer of device evaluation results to potential end-users, assisting companies to access new markets and new applications.

The ACCORD Consortium partners are:

- **IBBT, Ghent University**, Belgium
- **European Photonics Industry Consortium**, France
- Multitel, Belgium
- **Haute Ecole Spécialisée de Suisse Occidentale**, Switzerland
- **Wroclaw University of Technology**, Poland
- **Sagem Défense Sécurité**, France
- Scottish Optoelectronics Association, United Kingdom
- **Perfos**, France.

ACCORD Project Coordinator

Prof. Peter Van Daele

IBBT - Ghent University

Dept. of Information Technology (INTEC)

Email: peter.vandaele@intec.UGent.be

Website: www.ist-accord.org

Project participants at the OLED100.eu kick-off meeting



NEWLY-FUNDED EUROPEAN PROJECTS

LIFT

LIFT, *Leadership in Fiber Laser Technologies* is an Integrated Project involving 20 partners (including 13 EPIC members) with a budget of 17 million euros. The LIFT project will establish international leadership for Europe in the science, application and production technologies for material processing by fibre lasers through the development of innovative laser sources. The project is coordinated by EPIC Members Fraunhofer IWS (Dresden) and Fraunhofer IOF (Iena).

The project has been accepted for funding and should start in September 2009.

The project has been accepted for funding and will begin in September 2009.

List of participants:

3S Photonics, France, **Bookham**, UK, Corelase, Finland, Crystal Fibre, Denmark, Dilas, Germany, **Eolite**, France, **EPIC**, France, **Fraunhofer IOF**, Germany, **Fraunhofer IWS**, Germany, **Gooch & Housego**, UK, Ixfiber, France, OptoSkand, Sweden, **Perfos**, France, **University of Swansea**, UK, **Politecnico Torino**, Italy, **Quantel**, France, Raicol, Israel, Rofin Sinar, Germany, **SPI Lasers**, UK, **Time Bandwidth**, Switzerland, TU Tampere, Finland.

(* = EPIC Members in boldface)



EuroPIC

EuroPIC European manufacturing platform for Photonic Integrated Circuits coordinated by EPIC Member Centre for Integrated

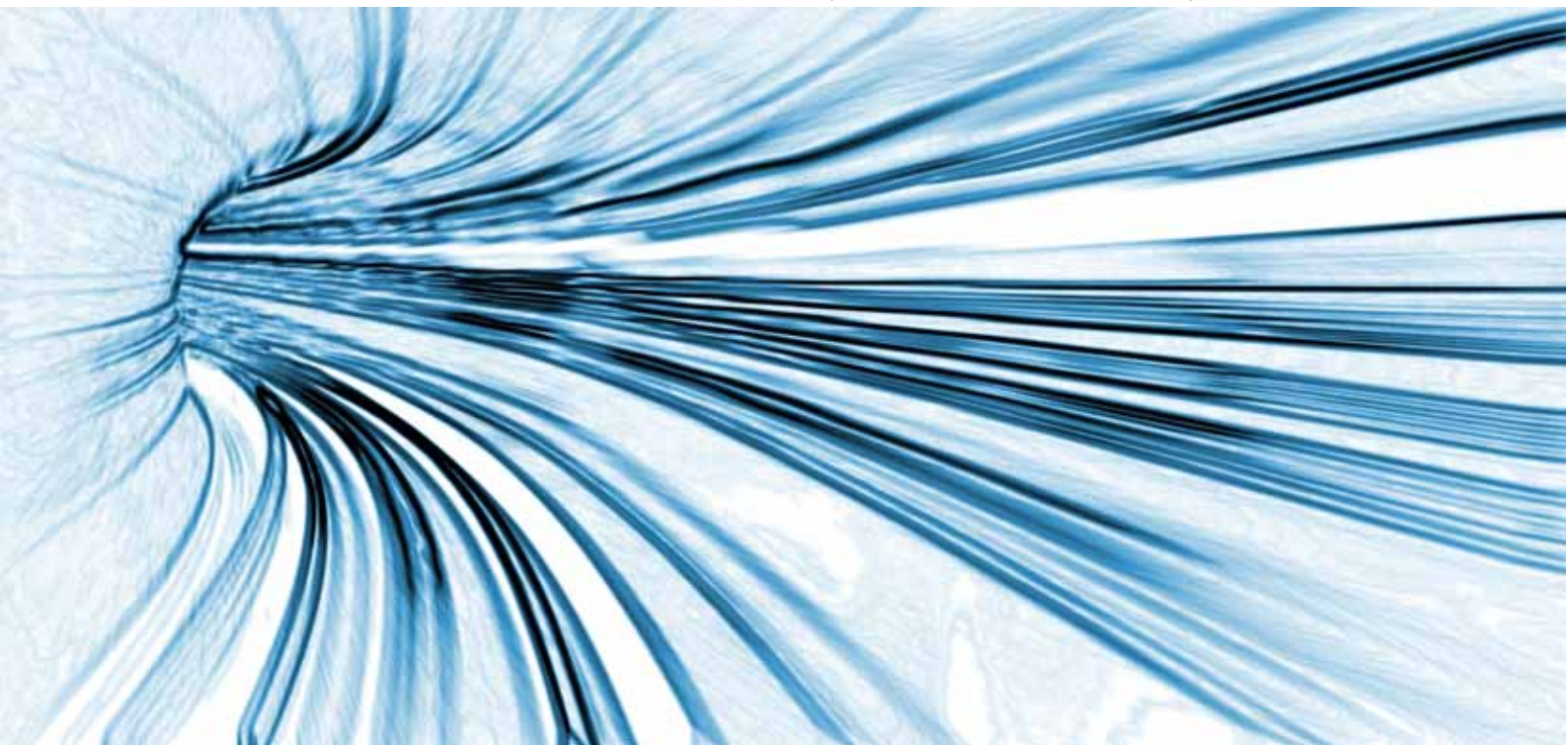
Photonics Ltd. (CIP). The objective of EuroPIC is to effect a fundamental change in the way applications based on photonic integrated circuits (PICs) are designed and manufactured in Europe. The key development is to facilitate access by small companies (SMEs) to development and manufacturing of photonic Microsystems in the form of advanced but very cost effective PICs.

The project has been accepted for funding and will begin in September 2009.

List of participants:

The Centre for Integrated Photonics Ltd, UK, Willow Photonics Ltd, UK, **Bookham Technology plc**, UK, Phoenix BV, The Netherlands, Technische Universiteit Eindhoven (TU/e), The Netherlands, BB Photonics, The Netherlands, **Alcatel-Thales III-V Lab**, France, Genexis, The Netherlands, Photon Design Ltd, UK, Filarete, Italy, University of Cambridge, UK, FibreSensing, Portugal, Baas B.V., The Netherlands, **Fraunhofer Institute for Telecommunications Heinrich Hertz Institute**, Germany, **Cedova B.V.** The Netherlands, VanderHoek Photonics, The Netherlands, **EPIC**, France.

(* = EPIC Members in boldface)



NEW MEMBERS

In 2008 / 2009 EPIC has welcomed Alphanov and Aifotec as new members



ALPhANOV, Talence, France

ALPhANOV, through its capacity to mobilize competencies and expertise in the field of optics and lasers, acts as a "technological amplifier" serving innovative projects for research scientists, engineers, laboratory specialists, SMEs and corporate industrial groups.

ALPhANOV is active in following fields: Laser processes and micro-machining, Laser sources and instrumentation, Optical development and imagery, Terahertz applications and Medical applications.

EPIC contacts are Benoît Appert-Colin and Nick Traynor

Email: benoit.appert-collin@alphanov.com

Email: nicholas.traynor@alphanov.com



AIFOTEC Fiberoptics GmbH, Meiningen, Germany

AIFOTEC Fiberoptics GmbH develops, produces and markets fiberoptic components with the focus on new assembly technologies for the reduction of footprint, costs and power dissipation.

The company has pioneered a unique Hybrid Integration Technology (HIT) which makes use of platform assemblies in combination with innovative Laser Soldering, Gluing and Globe Top Processes.

AIFOTEC Fiberoptics GmbH provides Photonic Development Services (PDS) and Photonic Manufacturing Services (PMS) based on his advanced new HIT technology.

EPIC contact is Gunther Vollrath

Email: Gunther.Vollrath@aifotec.com



Bookham changes to Oclaro

End of April 2009 Bookham, Inc. and Avanex Corporation announced they have closed their merger, thereby creating one of the largest suppliers of optical components, modules and subsystems to the long-haul and metro telecommunications markets. Also announced the newly combined company will be named Oclaro, Inc.

Oclaro headquarters will be San Jose, California. Alain Couder will be the president and Andy Carter will be the CTO.

The company's organization will be structured around three customer-facing operating units focused on Transmission, Regeneration and Optical Routing, and Advanced Photonic Solutions as follows:

1. Transmission: 10G and 40G Optical Components, Transponders, and Tunable Transceivers
Adrian Meldrum - EVP
2. Regeneration and Optical Routing Amplification (Components, Gain Blocks, Controlled Amplifier Modules, Subsystems); Dispersion (Fixed DC and Tunable DC); Wavelength Routing (WSS, Passives, Interleavers, and Subsystems)
Richard Smart - EVP
3. Advanced Photonics Solutions High Power Lasers and VCSELs; Photonics Tools and Filters
Yves LeMaitre - EVP

EPIC contact is Andy Carter

Email: andy.carter@oclaro.com

University of Swansea, Wales, United Kingdom



Swansea University
Prifysgol Abertawe

The Photonics Research Group as part of the Institute of Advanced Telecommunications (IAT) was formed in 2005 as a new department of Swansea University. The activities of the research centre extend from telecommunications to fields such as optical biomedical applications, optical devices and a diverse variety of implementations for lasers and devices. The group has both the expertise and the facilities to carry out experimental and theoretical research across a wide range of research fields.

EPIC contact is Stefano Taccheo

Email: S.Taccheo@swansea.ac.uk

LIST OF EPIC MEMBERS

[Aifotec Fiberoptics](#)

Photonic components manufacturing

[Aixtron](#)

Thin-Film Deposition Equipment

[Alcatel- Thales III-V Laboratory](#)

Telecommunication & Defence

[ALSI](#)

Laser Separation and Dicing

[Alphanov](#)

Lasers

[ASML Special Applications](#)

Advanced Optical Lithography

[Cambridge Display Technology](#)

Optoelectronic Polymer Technology

[CEA-LETI](#)

Microphotronics Technology Development

[Cedova](#)

Optoelectronic Device Fabrication

[CEIT](#)

Education and Research

[Centre for Nanophotonics FOM](#)

Nanophotonic Technologies

[Centre for Nanotechnology, Micro and Photonic Systems](#)

Microphotronics and Biophotonics

[Chalmers University of Technology](#)

Education and Research

[CIP Centre for Integrated Photonics](#)

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 Ciències Fotoniques](#)

Education and Research

[Imagine Optic](#)

Sensing equipment & adaptive optics

[Innolume](#)

Quantum-dot Lasers

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Education and Research

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Education and Research

[Intense](#)

High Power Lasers

[IQE](#)

Epitaxial Thin Film Fabrication

[Kista Photonics Research Center](#)

Microphotonics Technologies

[Laser Diagnostic Instruments](#)

Lasers

[Liekki now nLIGHT Corporation](#)

High Power Lasers

[Mario Boella Institute / Politecnico de Torino](#)

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Compact Photonic Modules

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