# invest' photonics'

International Partnering Convention

OCTOBER 9-10, 2014
BORDEAUX, FRANCE

# Edito

According to the European Commission, enhancing access to finance for innovative firms has been identified as one of the main cornerstones to ensure European economic growth.

Since 2008, the biennal event Invest in Photonics contributes to this objective and focus on creating strategic investment opportunities by bringing together in Bordeaux institutional investors, corporates, venture capitalists with the world's experts on photonics, industry leaders, analysts and photonics entrepreneurs.

Invest in Photonics is an event where early stage companies seeking seed funding, development and later stage financing SMEs can successfully network with qualified international panels of investors and potential partners to further business projects.

This 4th edition will provide you key information on the leading investment areas in the photonics industry: Life Sciences, Consumer Goods, Environment, Energy Efficiency, Avionics and Automotive.

Welcome and enjoy this moment in Aquitaine region!

**Giorgio ANANIA**
Vice President Photonics 21
Chairman Invest in Photonics 2014

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EPIC European Photonics Industry Consortium

OpTecBB

Opticsvalley

OpTech-Net Kompetenznetz Optische Technologien

PHOTONICS 21

SECPhO Southern European Cluster in Photonics and Optics

SPIE.

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# Chairman

**Giorgio Anania**
Vice President PHOTONICS21

DR. GIORGIO ANANIA is an international CEO with over 30 years of experience in managing publicly listed and private technology companies in the US and in Europe. Dr Anania is currently CEO of Aledia, a French disruptive developer of 3D LEDs, Chairman of the Board of Cube Optics AG, a German optical components company, a Vice President of the Photonics 21 Public-Private Partnership, a European industry association/PPP which he helped get started, and occasionally advises international Private Equity funds on acquisitions.
Until 2007 Dr Anania was President and CEO of Bookham Inc. (now Oclaro), one of the world's largest manufacturers of telecom optical components, which he joined in 1998 before it had any revenues, floated on the London and New York markets in 2000, and built up to sales of $230 million/year through a combination aggressive internal growth and acquisitions, followed by integration and restructuring to get the company to financial breakeven.

From 1993 to 1998 Dr Anania was Vice President, Sales, Marketing and Business Development at Flamel Technologies, a French drug delivery company which he helped take public on NASDAQ in 1996.
From 1991 to 1993 Dr. Anania was Principal at OC&C, a McKinsey-Booz Allen strategy consulting spinoff in Paris.

From 1987 to 1991 Dr Anania was Vice President, Business Development and Founder/General Manager, Miniplex venture, at Raychem Corporation, Menlo Park, California, where he created one of the world's first DSL telecom-equipment businesses, and prior to that was a Senior Associate at Booz Allen & Hamilton, management consultants, in New York.
Giorgio Anania holds a BA and MA from Oxford University in England, and an MA and PhD from Princeton University.

# Event Producers

**Audrey DURAND**
CCI BORDEAUX

**Thierry THEVENIN**
CEA

# Organized by

DE LA RECHERCHE À L'INDUSTRIE
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CESTA

CCI BORDEAUX
Alliés pour entreprendre

ALPhA
Route des Lasers
THE PLACE TO BE

# Schedule

## Thursday, October 9th, 2014

| | | | | |
|---|---|---|---|---|
| 1:00 pm | 1:10 pm | Welcome Address | **Giorgio ANANIA**<br>Vice President | PHOTONICS21 |
| 1:10 pm | 1:30 pm | **Photonics industry update: measuring the market** | **Stephen G. ANDERSON**<br>Industry & Market Strategist | SPIE |
| 1:30 pm | 2:30 pm | **Photonics in life sciences: from diagnostics to clinical treatment**<br><br>Moderator:<br>**Bertrand Viellerobe**<br>General Project Manager<br>ALPhA - Route des Lasers | **Christoph THUMSER**<br>Sales Director Europe - Life Sciences Research | LEICA MICROSYSTEMS |
| | | | **Bernard QUERLEUX**<br>Senior Research Associate | L'ORÉAL |
| | | | (tbd) | (tbd) |
| 2:30 pm | 3:30 pm | **The integration of photonics, electronics and IT**<br><br>Moderator:<br>**Giorgio Anania**<br>Vice President<br>PHOTONICS21 | **Babak PARVIZ**<br>Vice President | AMAZON |
| | | | **Gildas SORIN**<br>Chief Executive Officer | NOVALED<br>Aug. 2003 - June 2014 |
| | | | **George UGRAS**<br>General Partner | ADAMS CAPITAL MANAGEMENT |
| 3:30 pm | 3:45 pm | **COFFE BREAK** | | |
| 3:45 pm | 4:30 pm | **Photonics financing: shift from VC to corporates? Roundtable #1**<br><br>Moderator:<br>**Giorgio Anania**<br>Vice President<br>PHOTONICS21 | **Paul THURK**<br>Managing Director | ARCH VENTURE PARTNERS |
| | | | **Christian REITBERGER**<br>Partner | WELLINGTON PARTNERS |
| | | | **Dieter KRAFT**<br>Partner | ROBERT BOSCH VENTURE CAPITAL |
| | | | **David PARKER**<br>Managing Director | OPS INNOVATION |
| 4:30 pm | 5:05 pm | **Elevator Pitch - Session #1** | **SME1, SME1, SME3, SME4 & SME5** | |
| 5:05 pm | 5:50 pm | **What's up in alternative financing? Roundtable #2**<br><br>Moderator:<br>**Jean ROGNETTA**<br>Président<br>PME Finance | **Christian SCHÜTZ**<br>Partner | B-TO-V PARTNERS |
| | | | **Paul HIGGINS**<br>Founder & Chief Operating Officer | CROWD VALLEY |
| | | | **Daniel GUILLOT**<br>Director | CIJE |
| | | | **Jean-Baptiste FAYET**<br>Director | ALTERNATIVA |
| 5:50 pm | 6:25 pm | **Elevator Pitch - Session #2** | **SME6, SME7, SME8, SME9 & SME10** | |
| 6:25 pm | 7:00 pm | **FREE TIME** | | |
| 7:30 pm | 11:30 pm | **GALA DINNER** | | |

## Friday, October 10th, 2014

| | | | | |
|---|---|---|---|---|
| 8:30 am | 9:30 am | **Photonics opportunities in environment and energy efficiency**<br><br>Moderator:<br>**Giorgio ANANIA**<br>Vice President<br>PHOTONICS21 | **Jean-Luc BEYLAT**<br>President | ALCATEL LUCENT BELL LABS FRANCE |
| | | | **Alessio BEVERINA**<br>Partner | SOFINNOVA PARTNERS |
| | | | **Thibaud LE SÉGUILLON**<br>Chief Executive Officer | HELIATEK |
| 9:30 am | 10:05 am | **Elevator Pitch - Session #3** | **SME11, SME12, SME13, SME14 & SME15** | |
| 10:05 am | 11:05 am | **Photonics in avionics & transportation: is it big enough?**<br><br>Moderator:<br>**Giorgio ANANIA**<br>Vice President<br>PHOTONICS21 | **Denis CHAPUIS**<br>Vice President | AIRBUS |
| | | | **Pierre MORISSEAU**<br>Investment Director | ACE MANAGEMENT |
| | | | **Martin GOEDE**<br>Head of Technology Planning & Development | VOLKSWAGEN |
| | | | **Grégoire ALADJIDI**<br>Director | SAFRAN CORPORATE VENTURES |
| 11:05 am | 11:20 am | **COFFE BREAK** | | |
| 11:20 am | 11:55 am | **Elevator Pitch - Session #4** | **SME16, SME17, SME18, SME19 & SME20** | |
| 11:55 am | 12:20 pm | **EU vision on financing photonics** | **Wolfgang BOCH**<br>Head of the Photonics Unit, DG CONNECT | EUROPEAN COMMISSION |
| 12:20 pm | 12:45 pm | **Concluding remarks and IIP award** | **Giorgio ANANIA**<br>Vice President | PHOTONICS21 |

| # SME | COMPANY NAME | # SME | COMPANY NAME |
|---|---|---|---|
| 1 | LED LINEAR | 11 | EFFECT PHOTONICS |
| 2 | VOLATILES | 12 | SICOYA |
| 3 | CRAYONANO | 13 | ACTLIGHT |
| 4 | DOMO HELIOS | 14 | LUXEXCEL |
| 5 | SUNNA DESIGN | 15 | ALEDIA |
| 6 | MEDLUMICS | 16 | IDEAS |
| 7 | MULTIPHOTON OPTICS | 17 | AUREA TECHNOLOGY |
| 8 | VOPTICA | 18 | CLASS 5 PHOTONICS |
| 9 | SXT-CO | 19 | HOLOGRAFIKA |
| 10 | VALKEE | 20 | AZUR LIGHT SYSTEMS |

# Information

## PALAIS DE LA BOURSE

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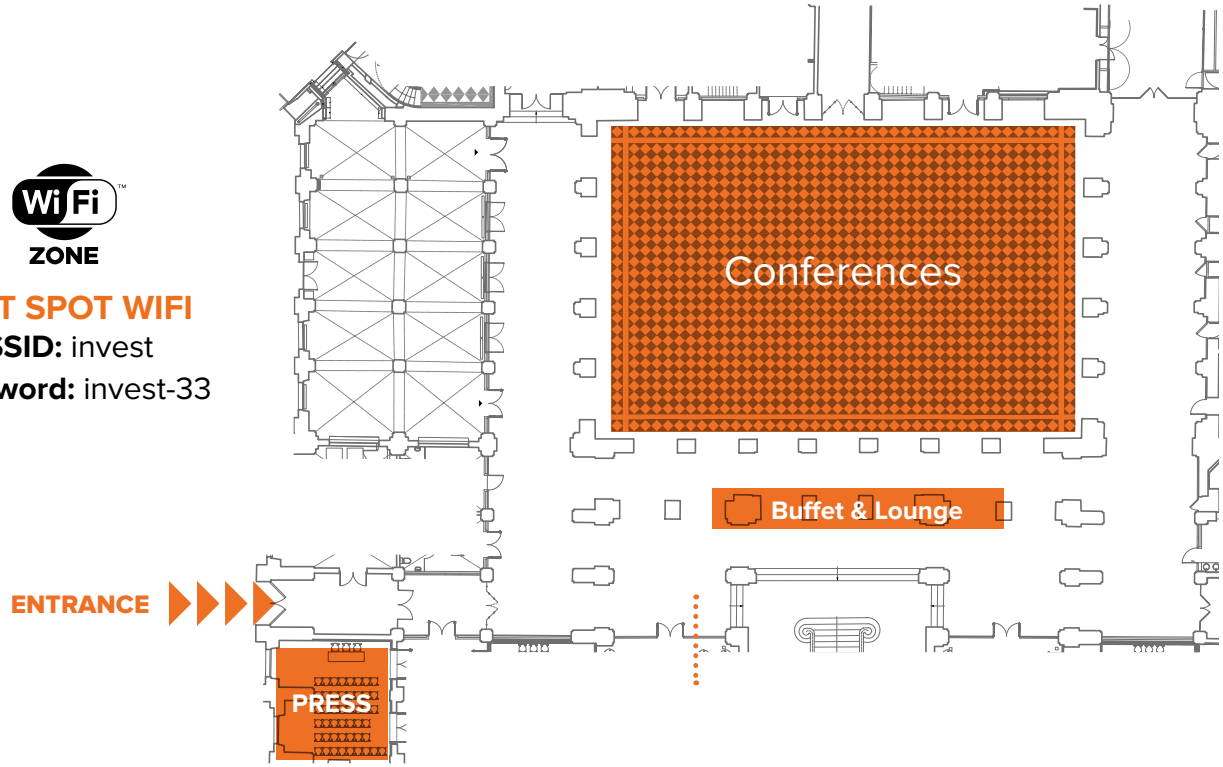
**SSID:** invest
**Password:** invest-33




## CHÂTEAU LAFITTE LAGUENS

Chemin du Loup, 33370 Yvrac – France

### Program

- A guided tour through the cellars of white and red wines
- Wine tasting animation
- **Gala dinner**

### Transport

- Coach transport from the conference location
- Departure foreseen at 7:00 pm

**Thursday, October 9th, 2014**
1:00 pm ▶ 1:10 pm

# Welcome Address

**Giorgio ANANIA**
Vice President Photonics21
Chairman Invest in Photonics 2014

**Thursday, October 9th, 2014**
1:10 pm ▶ 1:30 pm

# *Photonics industry update: measuring the market*

**Stephen G. ANDERSON**
SPIE
Industry & Market Strategist

STEPHEN ANDERSON is a photonics industry expert with an international background and has been actively involved in the lasers and photonics technology marketplace for more than 30 years.

He joined SPIE – The international society for optics and photonics – in 2011 as Industry & Market Strategist and is responsible for tracking the photonics industry markets and technology to help define long-term strategy, while also facilitating development of SPIE's industrial engagement activities.
Before joining SPIE, Anderson was Associate Publisher and Editor-in-Chief of Pennwell's "Laser Focus World," where he directed the editorial strategy for all media and platforms.
During his 18 year tenure at PennWell, Anderson supervised the Annual Review and Forecast of the Laser Marketplace and led the highly regarded Lasers & Photonics Marketplace Seminar, held annually at SPIE's Photonics West.
He also co-founded the "BioOptics World" brand.
Since 2006 Anderson has served as a member of the jury panel for the Berthold Leibinger Innovationspreis in Germany.
He is a regular presenter of market and industry commentary at many US and international forums.

Anderson holds a chemistry degree from the University of York, (England), and an Executive MBA from Golden Gate University in San Francisco, CA.

**Thursday, October 9th, 2014**
1:30 pm ▶ 2:30 pm

# *Photonics in life sciences: from diagnostics to clinical treatment*

Moderator:
**Bertrand VIELLEROBE**
General Project Manager - ALPhA - Route des Lasers

**Christoph THUMSER**
LEICA MICROSYSTEMS
Sales Director Europe - Life Sciences Research

CHRISTOPH THUMSER joins Leica Microsystems in 1996 and has almost 20 years' experience in sales and marketing of microscopy, optics and imaging systems used in different fields of application in the Life Science market.

Currently he is heading Leica's sales organization in the region EMEA (Europe, Middle East, & Africa) who serves Life Science customers in more than 150 countries.

In 1995, Christoph graduated as an engineer in Optics, optical measurements and Photo technology at University in Cologne and he holds several certificates in business management tools on growth, leadership and lean manufacturing.

Leica Microsystems is a world leader in microscopes and scientific instruments. Founded as a family business in the nineteenth century, the company's history was marked by unparalleled innovation on its way to becoming a global enterprise.

Its historically close cooperation with the scientific community is the key to Leica Microsystems' tradition of innovation, which draws on users' ideas and creates solutions tailored to their requirements. The company is represented in over 100 countries with 6 manufacturing facilities in 5 countries, sales and service organizations in 20 countries, and an international network of dealers. The company is headquartered in Wetzlar, Germany.

**Bernard QUERLEUX**
L'ORÉAL
Senior Research Associate

BERNARD QUERLEUX obtained his doctorate in electronic engineering and signal processing from the University of Grenoble, France, in 1987 and his habilitation in biophysics from Paris-Sud University, France, in 1995. He is currently Senior Research Associate at the Worldwide Advanced Research center of L'Oreal Research & Innovation.

His main research interests concern the development of new non-invasive methods, including numerical modeling for skin and hair characterization. He is also an expert in functional brain imaging for the objective assessment of sensory perception.

Since 2005, Dr. Querleux is serving as Scientific Chairman of the International Society for Biophysics and Imaging of the Skin.

**Thursday, October 9th, 2014**
2:30 pm ▶ 3:30 pm

# *The integration of photonics, electronics and IT*

Moderator:
**Giorgio ANANIA**
Vice President - PHOTONICS 21

**Babak PARVIZ**
AMAZON
Vice President

BABAK PARVIZ is a Vice President at Amazon Corporation.

Prior to joining Amazon in 2014, he was a Director at Google [x] where we founded a led a number of initiatives. He is the creator of Google Glass. He founded, built, and led the program from 2010 to 2013. He is also the co-founder of the Google contact lens effort.
Prior to Google he was the associate Director of the Micro-scale Life Sciences Center and a faculty member at the University of Washington. He has been involved in a number of start-up companies focused on photonics and life sciences.

He received his BA in Literature, BS in Electronics, MS degrees in Electrical Engineering and Physics, PhD in Electrical Engineering; and completed his postdoctoral fellowship in Chemistry and Chemical Biology. His interests span novel computing and communication paradigms, high-tech with social impact, bionanotechnology, bioengineering, MEMS, and photonics.

His work has been put on display at the London Museum of Science and has received numerous recognitions and awards including NSF Career Award, MIT TR35, Time magazine's best invention of the year (2008 and 2012), Your Health Top 10 Medical advance of the year, and About.com top invention and has been reported on in thousands of articles worldwide.
In 2012 he was selected by Ad Age as one of the 50 most creative people in the United States.

**Gildas SORIN**
NOVALED
(August 2003 – June 2014)
Chief Executive Officer

GILDAS SORIN became CEO of the start-up Novaled, located in Dresden (Germany), at the beginning of its activity mid 2003. Under his leadership Novaled has become a world leader in the organic electronic industry. The company delivers some unique materials to all the key OLED players.

Novaled was owned by international risk investors. The company made 4 rounds of financing. Along with an IPO preparation (NASDAQ) a quite successful M&A exit took place end 2013: The company has been sold to Samsung for 260M€
Previously he was with Philips Electronics in Eindhoven (NL) for five years as vice president of the Display Division and, in parallel, general manager of the Philips Plasma Displays group. Prior to that, he served at Thomson Multimedia for 20 years in various executive and management roles, including president of Thomson Plasma, director Thomson LCD, director of the joint venture Thomson / ST Microelectronics dedicated to advanced digital semiconductor's, general manager of Thomson strategic sourcing, and deputy general manager of the worldwide Thomson R&D organization.

Gildas Sorin was elected President of the Organic Electronic Saxony Association, grouping 30 companies and university institutes from Saxony together in 2011, as well as Vice-Chairman of the German display association DFF in 2013. Mr. Sorin is graduated from the Ecole Supérieure d'Electronique de l'Ouest, a French grande école; he attended Thomson University and holds a degree in senior management.

Mr. Sorin is chevalier de l'Ordre National du Mérite, the French national award.

**George UGRAS**
ADAMS CAPITAL MANANGEMENT
General Partner

GEORGE UGRAS joined Adams Capital Management, Inc. (ACM) in 1999 as a General Partner.
ACM is a national venture capital firm specializing in early-stage applied technology investments. Established in 1994, ACM is a lead Series A investor and currently manages $815 million.

He started his venture investing career at Apax Partners which is one of the world's leading private equity funds with $35 Billion under management.
Prior to joining Apax Partners, he was a Management Consultant at McKinsey & Co. in New York City, focused on strategic and operational issues for some of the leading Fortune 500 media and technology clients.

While at McKinsey he worked on public education as well.
He is a director of several private companies and is on the visiting committee at Caltech / JPL where he was a Research Fellow after getting his PhD from Yale.

**Thursday, October 9th, 2014**
3:45 pm ▶ 4:30 pm

# *Photonics financing: shift from VC to corporates?*

## *Roundtable #1*

Moderator:
**Giorgio ANANIA**
Vice President - PHOTONICS 21

**Paul THURK**
ARCH VENTURE PARTNERS
Managing Director

PAUL THURK is a Managing Director of ARCH Venture Partners, which he joined in 2000 as a Kauffman Fellow.

In 2011 he established ARCH's EU office in Dublin.

Mr. Thurk's investment focus is in the physical sciences, including semiconductors, nanotechnology, photonics/optoelectronics, electronics, advanced materials, cleantech, and solid state lighting.

Mr. Thurk was co-founder and initial CEO of InnovaLight (acq DuPont) and CoolEdge Lighting. And, he formerly held various operating roles at NABS – component supplier to the computer industry – ending his tenure there as Director of Operations Asia Pacific.
He holds a BSE from the Wharton School of the University of Pennsylvania, and an MBA from the University of Texas.

ARCH is a US-based, early-stage venture capital firm of 28 years and $1.5 billion under management. ARCH invests at the earliest stages, often co-founding companies directly out of universities and national labs, and continues to invest through to exit. The investment focus is physical and life sciences.

**Christian REITBERGER**
WELLINGTON PARTNERS
Partner

CHRISTIAN REITBERGER is an active business angel and since 2009 serves as a Partner with Wellington Partners, the pan European technology investment firm.
Christian is a savvy technologist with a passion for transforming breakthrough innovations into real businesses that have the potential to improve the state of our world.
He has led venture, growth and buyout investments in the Electronics, Resource Efficiency, Software and Internet Infrastructure area and has served on some 20 boards including NXP Semiconductors, Q-Cells, Heliatek, Orcan Energy and Romo Wind.

Christian spent nine years with Apax Partners where he was a Partner in the Tech & Telecom team and five years with McKinsey where he worked with clients in the electronics, digitial media, telecom and medtech industries.
He earned a PhD in physics from the University of Vienna with sub auspiciis praesidentis distinction.
He conducted research at CERN and had exposure to a number of corporate R&D labs.
In his spare time he tries to keep up to speed in cognitive robotics, quantum gravity and data science

**Dieter KRAFT**
ROBERT BOSCH VENTURE CAPITAL
Partner

DIETER KRAFT, Investment Partner at Robert Bosch Venture Capital GmbH (RBVC), is responsible for the European Venture Business of RBVC. Being more than 20 Years with Bosch Dieter holds contacts to the Bosch management organization and is broad based in technology. Before he joined RBVC in June 2009 he was heading the Systems engineering Division of Hybrid Electric- and Electric Vehicles within Bosch worldwide.

Dieter's professional background is operational business within Hardware / Software of automotive electronics and Software for telecommunication networks. Heading a Corporate Research Division he was in charge of communication and energy networks, Software methods and architectures, electric drives, human machine interaction and new business areas for Bosch.

Dieter got his PhD at University of Frankfurt in nuclear and atomic physics and got some insights to mathematics, pharmacology and nuclear medicine during his studies.

**David PARKER**
OPS INNOVATIONS
Managing Director

DAVID PARKER has enjoyed a varied and successful career in the Photonics arena. Post graduating he worked in the area of high-speed photonic devices at the GEC Research Centre where in parallel he gained his PhD. He then joined BT&D technologies in the late eighties. The company was an early leader in the exploitation of active InP devices and subsystems for telecom and datacom applications and was acquired by Hewlett Packard (subsequently Agilent Technologies).
During his career at Agilent David worked in Manufacturing, Marketing and R&D in various management positions before becoming the General Manager of the Division and a corporate Vice President of Agilent. During his tenure the business grew rapidly with global operations and became a true leader in this sector.
After a short period with the Marconi Group, during which the businesses he was responsible for were successfully transitioned into new ownership, (for example to sale of MOC to Bookham), David took over and reinvented the spin out company Southampton Photonics.
He and the team transitioned this company from an ailing telecom components company into one of the leading suppliers of Fibre Lasers for industrial material processing.
During this time David led several funding rounds, a floatation on the London stock market and the successful sale of the business to TRUMPF. Having grown the business to its current state David left SPI in March this year to pursue other business interests..
In parallel with this David has served on the board of three Venture backed early stage companies and is currently the Chairman of Perpetuum Ltd. In addition to this he is a Venture Partner at the London Stock Market listed Imperial Innovations and runs an advisory company OPS Innovations Ltd.
In September David was honoured to be made a Fellow of The Royal Academy of Engineering in recognition of his contribution to the field of Photonics and Lasers.

**Thursday, October 9th, 2014**
4:30 pm ▶ 5:05 pm

SESSION #1

# Elevator Pitch

## LED Linear

Pascalstr. 9
47506 Neukirchen-Vluyn
Germany

LED Linear™
linear lighting solutions

LED LINEAR develops and manufactures high quality linear lighting systems based on LED for technically sophisticated interior and exterior lighting. Main products are linear and scalable lighting modules and systems based on LED, with an ingress protection from IP00 up to IP68. On the basis of the modular LED tool kit more than 14 million lighting fixtures can be built. Thus specific and individual custom solutions can be generated.

SPEAKER Carsten SCHAFFARZ, CTO

## VOLATILES

Malteser Str. 74-100
12249 Berlin
Germany

volatiles

VOLATILES exploits the unique potential of smart lighting panels and creates a hard- and software system capable of transforming any surface into a dynamic light source, displaying personal lighting scenes. With a new lighting-as-a-service model, volatiles enters a market no longer exclusively driven by energy efficiency but by entirely new ways to consume lighting.

SPEAKER Fabian METZELER, CEO

# CRAYONANO

Otto Nielsens vei 12 / Postbox 2339, Sluppen
7004 Trondheim
Norway

CRAYONANO is a material technology company specialized in providing nanowire semiconductors on graphene. Based in Norway, the Company founded in 2012 is a spin-off from the Norwegian University of Science and Technology. CrayoNano provides wafers to industrial partners for high-efficiency, flexible, extremely thin and lightweight solar cells or LEDs able to absorb or emit large amounts of light from a small area. CrayoNano is now raising a Series A of €3 million.

SPEAKER Morten FROSETH, CEO

# DOMO HELIOS

10 rue FARADAY
33700 Mérignac
France

DOMO-HELIOS provides solutions in buildings' energy optimization. The company addresses public authorities buildings, housing as well as industrials and corporate buildings. From its positioning in energy management, Domo-Helios ambitions to become a major player in the smart home and buildings market . The company is looking for financial and industrial partners to support its growth.

SPEAKER Christian BAUDON, CEO

# SUNNA DESIGN

ECOPARC
17 rue du Commandant Charcot
33295 Blanquefort
France

SUNNA DESIGN designs, manufactures and sells LED solar lighting solutions, dedicated to public lighting in rural or low / non-electrified zones. The Company has developed a technology ensuring enhanced lifetime with controlled costs, adapted to rough conditions in developing countries. With more than 1000 units sold worldwide, the company targets a production capacity of 100 000 units a year for a revenue of 15M€ in 2017.

SPEAKER Thomas SAMUEL, CEO

**Thursday, October 9th, 2014**
5:05 pm ▶ 5:50 pm

# *What's up in alternative financing?*

## *Roundtable #2*

Moderator:
**Jean ROGNETTA**
President - PME FINANCE

**Jean-Baptiste FAYET**
ALTERNATIVA
Director

JEAN-BAPTISTE FAYET graduated from Panthéon-Sorbonne University in Paris (Master of Law) and from Humboldt University of Berlin (Master in Business).

He successively served as an Economic Analyst at the French Embassy in Kuala Lumpur, as a Real Estate Manager at AEW (Paris) and as a Property Derivative Trader at Crédit Agricole (Paris/London).

Since 2013, he joined Alternativa, a Multilateral Trading System, and is serving as Director for the South-West region of France.

**Daniel GUILLOT**
C.I.J.E.
Director

DANIEL GUILLOT has been involved in the laser and photonics marketplace for more than 30 years. He joined Spectra Physics in 1979 with a physics degree and held sales and marketing management positions in France, Germany and California.

In 1991 he took a general management position at Uniphase Corp. moved the company to JIT production, started and developed its solid-state laser activities through R&D and acquisitions. In 1995 he created his own laser company in France, Nanolase, focused on microchip laser technology.

His company was acquired in 2001 and Daniel dedicated himself to helping start-up companies, mostly in Photonics, on strategic and funding issues. He is an active private investor, serves on investment committees, and gives lecture on entrepreneurship in management schools.

**Paul HIGGINS**
CROWD VALLEY
Founder & Chief Operating Officer

Serial entrepreneur with an operational background in finance and technology companies. PAUL HIGGINS was previously responsible for the development of the Crowd Valley product suite as part of the Grow VC Group.

Paul is a regular speaker on new financial models and crowdfunding and has been involved in working with Crowd Valley's pioneering customers across the financial services sector, as well as advising global institutions such as the World Bank and national regulators such as Italy's CONSOB.

Paul has 10 years' experience working in various operational, sales, marketing, and product roles within technology companies, including two B2B startups that have achieved 8-figure exits following 100% year-on-year growth. He started his career in product development and testing roles at IBM's Hursley Research Lab in the UK before going on to eBay, UBS, and Barclays.

Paul holds an MA. (Hons) in Computer Science and Philosophy from Churchill College, Cambridge University.

**Christian SCHÜTZ**
B-TO-V PARTNERS
Partner

DR. CHRISTIAN SCHÜTZ is Partner and responsible for the Life Science and Cleantech investments in the b-to-v portfolio. He joined B-TO-V in 2003 as Investment Manager and became a B-TO-V Partner in 2008.

Since 2003, he has been managing over 20 investments in start-up companies and the set-up and reporting of both b-to-v Funds in Luxembourg. He is member of the b-to-v Board of Directors and the General Partners of both b-to-v Funds.

Christian studied international business administration, holds a master's degree and earned a PHD in Banking and Entrepreneurial Finance from the European Business School (ebs), Oestrich-Winkel.

**Thursday, October 9th, 2014**
5:50 pm ▶ 6:25 pm

# Elevator Pitch

SESSION #2

## MEDLUMICS

Ronda de Poniente 16 1E
28760 Tres Cantos
Spain

Medlumics was founded in 2009 to exploit the capability of Silicon Photonics for the integration of Optical Coherence Tomography in medical devices. A first round of funding of 3,5M€ in 2011 was used to develop the first product for the dermatology market, the next round will be dedicated to the development of a RF ablation guidance system to be integrated in surgical catheter, this market is a 1.3B$ adressing a population of up to 10M patients in 2025.

SPEAKER Eduardo MARGALLO, CEO

## MULTIPHOTON OPTICS

Hauptstrasse 54
63843 Niedernberg
Germany

Multiphoton Optics (MPO) GmbH sells customized high-performance 3D Laser Lithography equipment based on two-photon absorption (TPA) processes which are used to create arbitrary 3-dimensional structures within the volume and on the surface of suitable materials. MPO's technology is a breakthrough for laser to fiber coupling and addresses the telecom and datacom market as well as emerging biomedical markets.

SPEAKER Ruth HOUBERTZ, CEO

# VOPTICA

CEEIM
30100 Murcia
Spain

Voptica is developing, producing and commercializing personalized vision evaluation systems leading to customized eye vision therapy and treatment. Collaborating with leading medical devices companies, Voptica is entering into the industrialization phase of its innovation.

SPEAKER Guillermo M. PEREZ, CTO

# SXT-Co

School of Physics
UCD
Belfield, Dublin
Ireland

SXT-Co is being founded to make synchrotron-like Soft X-Ray Tomography techniques available to biologists at lab level. Affordable systems will let SXT-Co democratize these techniques, currently limited to 4 facilities globally. With SXT-Co technology the Life Sciences and Bioengineering research industries will enter a new paradigm in the understanding of cell and tissue structure and functions.

SPEAKER Fergal O'REILLY

# VALKEE

Elektroniikkatie 3-5
FI-90590 Oulu
Finland

VALKEE Ltd is an innovative medical technology company who developed a portable and discreet personal bright light therapy device, based on the brain's inherent photosensitivity. Valkee device substitutes the mood-elevating effects of sun by channeling a 10,000 lux beam of bright light at photosensitive regions of the brain through the ear canal and skull. Valkee is a clinically tested Class II(a) medical device.

SPEAKER Pekka SOMERTO, CEO

**Friday, October 10th, 2014**
8:30 am ▶ 9:30 am

# *Photonics opportunities in environment and energy efficiency*

Moderator:
**Giorgio ANANIA**
Vice President - PHOTONICS 21

**Jean-Luc BEYLAT**
ALCATEL LUCENT BELL LABS FRANCE
President

JEAN-LUC BEYLAT is the current President of Alcatel-Lucent Bell Labs France, and is also Chairman of the Business Cluster for Systematic Paris–Region, which has more than 700 members and investments of more than 2 billion Euros in research and development. Jean-Luc Beylat was elected as president of the French Association for Competitivity Clusters on the 16th December 2013.

Jean-Luc first joined Alcatel in 1984 and worked on semiconductor lasers. In 1992 he launched various activities concerning WDM transmission. In 1996 he was named as Director of Systems Departments and Optical Networks at Alcatel's research centre, where he was responsible for global research-based activities and terrestrial and submarine transmission. In 2000, he joined Alcatel Optic as Programme Director then as Vice President for network solutions.

Jean-Luc holds a doctorate in physics on semi-conductor lasers and their application, awarded by The University of Pierre Marie Curie (UPMC, France). He is a member of the Administration Council of INRIA, of the Etablissement Public Paris-Saclay, of IRT SystemX and ITEA. He is also a member of the executive committee of KIC ICT labs of the European Institute of Innovation and technology. In February 2013, he was selected by the European Commission to take part in CONNECT Advisory Forum (CAF). Finally, with Pierre Tambourin he is co-author of a report entitled "Innovation: a major issue for France", which was commissioned by the government in April 2013.

**Alessio BEVERINA**
SOFINNOVA PARTNERS
Partner

ALESSIO BEVERINA is Partner in technology where he focuses in the cleantech field. Alessio started with Sofinnova Partners in April 2005 as an analyst within the technology team, focusing on the semiconductor, components, energy, materials and systems domains. He is now fully dedicated to cleantech. He began his career in 1997 as a researcher at LETI, one of the most important European Labs in the research field applied to electronics. From 2000 to 2003, he worked in the central R&D group for STM icroelectronics, in charge of advanced CMOS technologies. Alessio holds 5 patents and has published several publications. Alessio graduated from Politecnico di Milano, with a degree in chemical engineering, specialising in the chemistry and physics of solid materials, and with an MBA from the Ecole Superieure de Commerce de Paris (ESCP-EAP). Alessio is a Kauffman Fellow. Alessio currently serves on the boards of McPhy Energy, Revolt and Neosens

**Thibaut LE SEGUILLON**
HELIATEK
Chief Executive Officer

Based in Dresden, Germany, THIBAUD LE SÉGUILLON is currently CEO of Heliatek Gmbh, a high-technology start-up in the OPV- Organic Photovoltaic field. Heliatek is a global leader in OPV technology utilizing nano molecules. The light-weight, flexible and possibly translucent next generation solar panels provide clean solar energy wherever it's needed.
Mr. Le Séguillon was previously based in Shanghai, China, where he was the President of Parlex Corporation, a 1500- employee, $100MM worldwide leader in flexible interconnect that is part of the Johnson Electric Group. The company had engineering centers in the US and Europe, 2 manufacturing sites in the US, and a manufacturing site in China and in the UK.
Previously, Mr. Le Séguillon was Vice President, Computer, Consumer, Communications, Automotive, Industrial and Appliance Business Units of Parlex. He led a worldwide business development/engineering team and led direct sales efforts focusing on key customers and contract manufacturers, including HP, Infineon, Honeywell, 3M, Flextronics, and Foxconn. Additionally, he played a key role in restructuring plants in Mexico, the US, and China, and redeploying product line manufacturing.
Prior to working in China, Mr. Le Séguillon worked in Boston, MA, for Parlex Corporation (NASDAQ: PRLX) as Vice President of the Multilayer and Cable Business, where he was in charge of engineering, quality, HR, materials, logistics, and customer functions at 2 manufacturing operations. He also oversaw a manufacturing operation in Mexico.
Earlier in his career, Thibaud advanced in product engineering, sales engineering, and product marketing management roles to the position of General Manager at Axon' Cable Inc., a subsidiary of Axon' Cable SA, based in Chicago, IL.
Mr. Le Séguillon is a Board Member and Life Member of AETS-ESEO, and a French Trade Counselor, Conseiller du Commerce Exterieur de la France. Mr. Le Séguillon has a Master of Business Administration in International Business from RMS-Reims Management School and a Master of Science in Engineering from ESEO-Ecole Superieure d'Electronique de l'Ouest.

**Friday, October 10th, 2014**
9:30 am ▶ 10:05 am

SESSION #3

# Elevator Pitch

## EFFECT PHOTONICS

Torenallee 20
5617BC EINDHOVEN
Netherland

EFFECT Photonics is a 2011 spin out of the University of Eindhoven, which aims to commercialise the proprietary InP Integrated Photonics Platform. The company is developing modules based on a DWDM System on Chip which will deliver the lowest cost per channel in the marketplace. This product is receiving strong traction, driven by the deployment of 4G networks and the company is raising funds to complete industrialization and initiate sales within the next 18 months.

SPEAKER James REGAN, CEO

## SICOYA

Straße des 17 Juni 135
10623 Berlin
Germany

sicoya

SICOYA is a fabless company which designs and sells packaged 100Gb/s transceiver chips that are based on silicon photonics technologies for the Datacom market. By leveraging a novel packaging approach and using a unique architecture these chips are representing the only highly scalable solution to address all of the three current issues in datacenters at the

SPEAKER Sven OTTE, CEO

# ACTLIGHT

Parc Innovation EPFL
PSE-C, CH-1015 Lausanne
Switzerland

Actlight is a fabless company with a strong patent portfolio protecting a new type of CMOS photodetectors. The company co-develops with world class foundries some components enabling reduced power consumption in wearable devices. This product will hit the market in a timeframe of 18 months generating revenues from licencing.

SPEAKER Fredrik UDDEGARD, CEO

# LUXeXceL

Amundsenweg 25
4462GP, Goes
Germany

LUXeXceL's additive process is invented to 3Dprint smooth components. This allows LUXeXceL to print optical components directly from a CAD file without post-processing. The fast and scalable process enables optics designers to walk a perfect route from fast prototyping, easy iterating to manufacturing the exact required volumes in days. Many industries have already adopted LUXeXcel's process for prototyping, the lighting industry

SPEAKER Richard VAN DE VRIE, CEO

# ALEDIA

17 rue des Martyrs
Building M23
38054 Grenoble Cedex 09
France

ALEDIA develops 3D light emitting diodes (LEDs) based on a revolutionary micro-wire technology that drastically reduces the cost of making LEDs and that facilitates integration of LEDs and electronics. ALEDIA is the only company in the world able to manufacture LEDs directly on standard large-size 200mm silicon wafers, using standard microelectronic foundries. Founded in Oct. 2011 as a spin-out from CEA-LETI in Grenoble, ALEDIA has raised €12M in its series A financing in 2012 with leading US/European investors Braemar Energy, Sofinnova, Demeter and CEA Investissement.

SPEAKER Xavier HUGON, CTO

**Friday, October 10th, 2014**
10:05 am ▶ 11:05 am

# *Photonics in avionics & transportation: is it big enough?*

Moderator:
**Giorgio ANANIA**
Vice President - PHOTONICS 21

**Denis CHAPUIS**
AIRBUS DEFENCE & SPACE
Vice President,
Head of Global Innovation Network
for Electronics, Sensors, Signal
Processing and Systems Integration

DENIS CHAPUIS, 57 yo, joined the French Naval Academy in 1975 and the French Submarine Force in 1979. He specialized in Submarine Launched Ballistic Missiles. He had three command tours, one Diesel Attack Submarine, one SSN (Fast-Attack, nuclear powered submarine) and one SSBN (Nuclear powered, ballistic missiles launcher submarine). He has also been Project Officer of the new Barracuda class of fast attack submarines being presently built for the French Navy, and of the M51 ballistic missile, currently deployed.

In 1993, he graduated from the US Naval War College in Newport. He left the French Navy in 2000 to join PSA Peugeot Citroën as a senior research manager, in charge of Chassis Systems and associated electronics for three years, then in charge of Hybrid Vehicles & alternative propulsion, Electric and Electronic Architecture as well as systems integration, for another three years.

He then spent one year as the Engines & Gearboxes Product Planner for PSA worldwide, before joining EADS, now Airbus Group.

Since February 2007, he acts as a Research & Technology Coordinator for the whole Airbus Group, in charge of Electronics, Sensors, Signal processing and System Integration.

**Grégoire ALADJIDI**
SAFRAN CORPORATE VENTURES
Director

Safran Corporate Ventures is the venture capital arm of the global Aerospace, Defense & Security group Safran. Its investments support the development of companies with disruptive technologies and business models in areas such as materials, advanced manufacturing, sensors, energy, robotics or software, that will help meet the challenges of the aerospace, defense and security industries. The investments primarily consist of acquiring minority stake in selected companies to accelerate their growth, while building synergies with Safran.

GREGOIRE ALADJIDI (42) has been entrepreneur and VC investor. Prior to joining Safran in July 2014, he was director of the seed fund Demeter 3 at Demeter Partvners. He has been involved and active in over 15 start-ups and SMEs since 1997.

**Pierre MORISSEAU**
ACE
Investment Director

PIERRE MORISSEAU joined ACE Management in 2013, following 5 years in capital growth within France sovereign wealth fund, the Fonds Stratégique d'Investissement (FSI).Prior to that time, Pierre served within EADS-Eurocopter and Safran-Snecma in France, then in Leveraged Finance within Société Générale Corporate & Investment. Banking, both in Paris and London between 2005 and 2009. Pierre graduated from French aerospace engineering school Ecole Nationale de l'Aviation Civile (2002) and holds an MBA from ESSEC Business School (2005).

**Martin GOEDE**
VOLKSWAGEN
Head of Technology Planning & Development

Since 2002, MARTIN GOEDE worked at Volkswagen Group and is a specialist for current and future car production processes and technologies. He is Director of Technology Planning & Development at Production Volkswagen in Wolfsburg and was previously Head of Research Vehicle Concepts at VW Group Research after being the manager of Light Weight Design. Among others, he coordinated the Super Light Car European project.

He received his PhD in Mechanical Engineering / Production Technologies from Leibniz University (Hannover) and held Scientific and Management Functions at Lazer Zentrum Hannover

**Friday, October 10th, 2014**
11:20 am ▶ 11:55 am

SESSION #4

# Elevator Pitch

## IDEAS

Martin Linges Vei 25
1364 Fornebu
Norway

The company IDEAS develops, produces and commercializes gamma radiation detectors used in space and advanced medical imaging equipment. IDEAS is launching a new activity based on state-of-the-art spectroscopic gamma ray imaging camera dedicated to monitor nuclear power plants and cyclotron facilities contamination and security. Driven by nuclear plants decommissioning programs as well as increasing number of nuclear facilities under construction, IDEAS is addressing a 800M€ market.

SPEAKER Gunnar MAEHLUM, CEO

## AUREA Technology

18 rue Alain Savary
25000 Besançon
France

AUREA Technology provides systems and OEM solutions based on its proprietary single photon detection technologies. The company develops for its customers new generation of high-performance, very compact and easy-to-use optical instruments for research, instrumentation and biomedical markets. The company is currently reinforcing its OEM activity in providing high integration solutions to systems manufacturers addressing photonics related markets.

SPEAKER Jérôme PRIEUR, CEO

# CLASS 5 Photonics

Notkestrasse 85
D-22607 Hamburg
Germany

Class 5 Photonics, a shared spin-off of Helmholtz-Institute Jena and DESY in Hamburg, holding the world record in high power femtosecond lasers. Class 5 receives a significant traction from the R&D market in numerous applications such as ultrafast spectroscopy and attosecond science or 3D nanoprinting for further miniaturization of medical implants. The vision is that the proprietary OPCPA technology will make these new applications economicallly viable and will generate an industrial market within the next 3 to 4 years.

SPEAKER Robert RIEDEL, CEO

# HOLOGRAFIKA

pf. 100
1704 Budapest
Hungary

Holografika is a Hungarian venture, the company developed a proprietary glasses-free 3D visualisation technology, including real 3D display devices, software applications, cameras and 3D data compression solution. This approach demonstrated its value in Head up Displays for automotive which represents a $8.3 billion market by 2020 (CAGR 25,8%). The strategy is to spin-out this activity to focus on this business opportunity based on a joint development program and licencing model.

SPEAKER Balogh TIBOR, CEO

# AZUR LIGHT SYSTEMS

11 Avenue de Canteranne
Cité de la Photonique - Bâtiment MEROPA
33600 Pessac
France

Established in 2010, Azur Light Systems pioneers new fiber laser technology with unprecedented wavelength flexibility (including the world's first blue fiber laser). First to market for several attractive industrial and biomedical applications, cash-flow positive, and with a growing industrial customer base, the company is seeking to accelerate market penetration and new

SPEAKER Nicholas TRAYNOR, CEO

**Friday, October 10th, 2014**
11:55 am ▶ 12:20 pm

# *EU vision on financing photonics*

**Wolfgang BOCH**
EUROPEAN COMMISSION
Head of the Photonics Unit, DG Connect

WOLFGANG BOCH is Head of Photonics Unit in the European Commission, Directorate General for Communications Networks, Content and Technology (DG CONNECT), based in Brussels, Belgium.

W. Boch has held previously numerous management positions in the European Commission and was working in a wide range of areas and different positions on Information and Communication Technologies research (ICT), within the EU Framework Programmes for Research. From 2007 – 2013 he was Head of Unit for "Future and Emerging Technologies – Proactive Initiatives" and «FET Flagships». Previous to his engagement in FET, during the 6th Framework Programme (2002-2006) he was in charge of managing and developing the area of European Grid Technologies Research. Since 2012 he serves as member of the World Economic Forum Global Agenda Council on Complex Systems.

His educational background is in Electrical Engineering and Informatics with a focus on feedback and control Systems. He holds a Masters Degree in Electrical Engineering from the University of Karlsruhe, Germany. Prior to joining the European Commission he worked for 10 years in high-tech R&D in the German aerospace and avionics industry.

## Concluding Remarks
by Giorgio ANANIA

## Invest in Photonics 2014 Award
by BNP PARIBAS

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© CEA/Mathias SGANDURA - 2012

## Aquitaine, a hub for photonics

# The CEA

The CEA (French Alternative Energies and Atomic Energy Commission), is a French government-funded technological research organization, which is involved in setting up collaborative projects with many partners around the world.
The CEA is active in four main areas: low-carbon energies, defense and security, information and health technologies. In each of these fields, the CEA maintains a cross-disciplinary culture of engineers and researchers, building on the synergies between fundamental and technological research.
The CEA is based in ten research centers in France, each specializing in specific fields. The CEA benefits from the strong regional identities of these laboratories and the partnerships forged with other research centers, local authorities and universities.

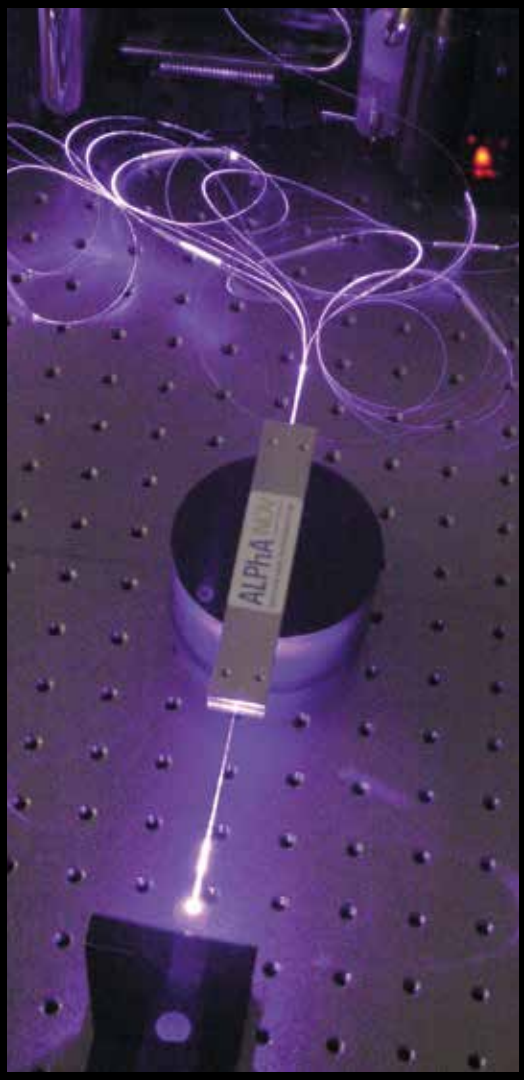
The CESTA (Aquitaine Scientific and Technical Studies Center), the center located near Bordeaux, is hosting the Megajoule Laser (LMJ), one of the most important tools of the Simulation Program conducted by CEA for Defense. The LMJ will be one of the world's most energetic lasers.
The LMJ, which is scheduled to operate a first experiment in December 2014 and its prototype the Laser Integration Line (LIL), which has been operated since 2002 until March 2014 are exceptional resources, both for their technical characteristics and their performances. Part of operational time is devoted to scientific community, in accordance with the policy approved by the Ministry of Defense.

The PETAL (PETawatt Aquitaine Laser) project launched in 2003 at the initiative of the Aquitaine Region, the French Minister for Research and the European Union, is a very high power laser beam dedicated to civilian research which will be coupled with the LMJ,, launched in 2003, consists of the construction of a long pulses of a few nanoseconds
Thus the LMJ/PETAL will be a very large research facility unique in Europe for the conduct of studies on physics of extreme in hot and dense plasmas.

LMJ/PETAL offers a real opportunity for local industrial development. The industrial requirements of the LMJ/PETAL need to be fulfilled not only during its construction and assembly but also throughout its entire operation period. The CEA strategy to promote the involved companies settlement nearby the LMJ plant responds to a genuine industrial policy aimed at creating sustainable employment in the fields of laser and optics in Aquitaine.

CEA supports the rise of new technologies. LMJ/PETAL is a breeding ground for innovations, which may lead to technology transfer businesses with the neighboring industrial companies, especially SMEs. Some innovations have already found their place in everyday life, others are full of promises with applications for instrumentation, energy, healthcare, laser processes etc. The CESTA is an active member of ALPhA – Route des Lasers photonic cluster.








# Route des Lasers

www.routedeslasers.com

Labelled by the French Government in 2005 and classified in 2012 among the efficient competitiveness clusters, the Route des Lasers cluster is dedicated to support Laser, Optics & Photonics technology development and diffusion throughout large industrial sectors, such as aeronautics and embedded systems, healthcare, new energy and lightning, vision and metrology...

It provides to its 117 members (industry, research and education photonics actors in Aquitaine) an array of strategic tools for addressing tomorrow's markets, among which:

- The Technology Resources Center ALPhANOV, to boost and mature innovation through collaborative innovative projects
- The Institut d'Optique Graduate School and PYLA training platform, for initial and in service education / training
- Business parks dedicated to photonics, Laseris 1 & 2, Cite de la Photonique
- An application cluster for industrial solar systems 'SYSOLIA™'
- An emerging application cluster for bio-photonic solutions 'BIPSA™'
- Collective export actions (support on major international trade shows abroad, taking part in European programs, etc)
- An international business partnering convention 'Invest in Photonics™'
- The Institut d'Optique d'Aquitaine, a brand new building of about 15,000 m2 located on the Bordeaux university campus, federating the active force of the Aquitaine photonics sector
- International references in laser science and technology research, such as LOMA, LP2N, CELIA, CEA, Center of excellence LaPhiA
- State-of-the-art research instruments, Laser Megajoule and Petawatt Laser, two scientific flagships for global visibility, openly available to the scientific community.