



EPIC B2B Roundtable Meeting

The event is organized by EPIC in conjunction with OPTRO2014 in partnership with 3AF



www.optro2014.com



Aerospace & Defence
<http://www.linkedin.com/groups/Aerospace-Defence-65111/about>



EPIC

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Laser Technologies for Applications and Systems in Defense & Security

The purpose of the meeting is to facilitate the exchange of information between the photonics component and system suppliers and integrators of the Aerospace, Security and Defence industry. Based on an examination of subjects proposed by technology-integrators, Laser technologies in the following technical fields are primarily considered:

- Active imaging
- Fiber laser
- QCL
- Laser range finder
- Laser designator
- Laser polarimetry and vibrometry
- Laser spectroscopy
- Lidar
- 3D imaging
- Air vehicles self-protection
- Laser tracking systems
- Turbulence correction

EPIC B2B Roundtable Concept

Component and system suppliers from small/medium/large companies who have a new or innovative technological solution present their technologies to integrators who seek specific capabilities and performance. The technologies presented should be innovative and new and ready for integration into a final system. Integrators will briefly present their needs and requirements in the field of Photonics. Participants will have ample opportunities to network and be able to discuss business and technology details during the event. The EPIC B2B Roundtable accelerates the presence in the market of key competitive technologies.

Date & Location

30 January 2014 - 14:00 at OECD Conference Center, 2 rue André Pascal, 75016 Paris

Registration & Fee

Register online: www.optro2014.com

- EPIC Members, 3AF Members, OPTRO visitors, exhibitors and invited participants: 80/100 EUR before/after 16 December 2013.
- Non-Member 170/200 EUR before/after 16 December 2013.

Note: There is an opportunity to exhibit and we recommend you attend the conference!

EPIC is the industry association that promotes the sustainable development of organisations working in the field of photonics in Europe. Our members encompass the entire value chain from LED lighting, PV solar energy, Photonic Integrated circuits, Optical components, Lasers, Sensors, Displays, Projectors, Optic fiber, and other photonic related technologies. We foster a vibrant photonics ecosystem by maintaining a strong network and acting as a catalyst and facilitator for technological and commercial advancement. EPIC works with its members to build a more competitive photonics industrial sector, capable of both economic and technological growth.



Lionel Garcia

3SGROUP is a leading provider of innovative optical products and solutions for the photonics industry. The portfolio includes:

- Active components: pump and seed laser modules at 980nm, 1064nm and 1550nm
- Passive components: pump and signal combiners, active/passive fiber assemblies and FBG sensors
- Sub-systems: pulsed and continuous fiber lasers and amplifiers operating at 1 μ m, 1.5 μ m and 2 μ m

Application fields include: Space, Automotive, Safety and defense, Material processing, Medical, Metrology and Telecommunication.



Stephen Day, Business Development Manager

ADVANCED FIBREOPTIC ENGINEERING provide custom fibre optic packaging of coaxial mounted laser diodes. We also can provide environmental testing, fibre terminations including polyimide for high temperature applications and fibre optics assembly. Following the last EPIC meeting in Glasgow on defence and security we have started the development of a fibre optic rotary joint.



Jan-Erik Källhammer, Director Visual Enhancement & Cognitive Systems

AUTOLIV is a worldwide leader in automotive safety and a technology leader with a wide product offering for automotive safety. Autoliv develops and manufactures automotive safety systems for all major automotive manufacturers. Autoliv has developed a system for drivers' night vision enhancement based on an uncooled infrared camera. The system is now in production by several premium OEMs. We are now looking at vision enhancement systems in inclement weather such as rain, fog and snow.



Craig Stacey, Principal Research Scientist

BAE SYSTEMS is a global defence, aerospace and security company with approximately 90,000 employees worldwide. BAE Systems delivers a wide range of products and services for air, land and naval forces, as well as advanced electronics, security, information technology solutions and customer support services.



Martin Hübner, Senior Scientist Imaging Technologies, Airbus Defence and Space

CASSIDIAN OPTRONICS offers high performance electro-optical system solutions for military and security applications, based on thermal imagers (cooled and uncooled), VIS, NIR and SWIR imagers, direct sight rifle scopes, laser range finders and designators. System solutions are integrated into stabilized platforms for tanks, armoured vehicles and ships. Sensors are also offered in combination with submarine periscopes and optronics mast systems.

Cassidian, an EADS company, is a worldwide leader in global security solutions and systems, providing Lead Systems Integration and value-added products and services to civil and military customers around the globe: air systems (aircraft and unmanned aerial systems), land, naval and joint systems, intelligence and surveillance, cyber security, secure communications, test systems, missiles, services and support solutions.



Jordi Riu, R&D Engineer



Centre for Sensors, Instruments and Systems Development
UNIVERSITAT POLITÈCNICA DE CATALUNYA

Member of EPIC

CD6 will present its novel and cost-effective 3D imaging lidar capable of measuring range images with a spatial resolution which can be reconfigured through an on-the-fly configuration approach, adjustable from one frame to the other and with a maximum resolution of 1Mpx. A double-patented novel concept of scanning enables to change dynamically the 3D image resolution and the frame rate depending on external images provided by sensors like thermal camera or standard CCD sensors. In comparison to commercial flash ladars, it can provide higher performance in terms of resolution and versatile in a cost-effective way that can be 10 times cheaper when compared to commercial devices. It is also bad weather tolerant and dust penetrating. Applications like UGV guidance, 3D surveillance, object detection and tracking, and under foliage detection from UAV are possible through this real-time imaging system.



Johan Rothman



Member of EPIC

CEA. LETI is an institute of CEA, a French research-and-technology organization with activities in energy, IT, healthcare, defence and security. Leti specializes in nanotechnologies and their applications, from wireless devices and systems, to biology, healthcare and photonics. NEMS and MEMS are at the core of its activities. In addition to Leti's 1,700 employees, there are more than 250 students involved in research activities, which makes Leti a mainspring of innovation expertise. Leti's portfolio of 1,880 families of patents helps strengthen the competitiveness of its industrial partners.



Francois-Eric Billioud, Systems Engineer

DASSAULT AVIATION is a worldwide leading company in defence and business aviation. Our military and civilian aircrafts integrate imaging and laser systems bringing a high contribution their operational capabilities.



Vincenzo Rinaldi, Technical Project Officer on Optronics

The **EUROPEAN DEFENCE AGENCY** is an agency of the European Union based in Brussels, Belgium. Set up in 2004, it is a Common Foreign and Security Policy body reporting to the Council of the European Union. Its primary role is to foster European defence cooperation. eda.europa.eu



Florian Lenhardt, Sales Engineer



DILAS, the diode laser company, offers products for defence applications in a wide selection of configurations from 632-2200nm, including single bars, stacked arrays (vertical and horizontal), fiber-coupled modules and others. The diode laser, by virtue of its breadth of power and wavelength offerings, configurability, modularity, compactness, high-efficiency and ability to operate under harsh environmental conditions lends itself very well to the demanding requirements of defence applications. DILAS maintains ISO-9001:2008 certified facilities with the highest standards for quality, reliability and performance.



Joachim Gieseke, Division Manager Security & Safety



FRAUNHOFER HHI core competencies are in the areas of Photonic Networks and Systems, Mobile Broadband Systems, Photonic Components and Electronic Imaging. Optical and opto-electronic components and modules are developed and manufactured. Our range includes InP-based lasers and detectors with wavelengths from 1.1 μm to 2.0 μm . For Security Applications we developed "Eye Safe" High Power Laser Diodes with wavelengths in the regime of 1450-1550 nm High Power with 18W pulsed- and 4W CW-output power. Possible applications are medical applications, pump source for DPSSL, range finding/LIDAR, gated viewing, trace gas detection and material processing.



Denis Guilhot, Program Manager



ICFO-The Institute of Photonic Sciences hosts 300 researchers organized in 23 research groups working in 60 state-of-the-art research laboratories, equipped with cutting-edge facilities for nanofabrication, characterization, imaging and engineering. It is located in a specially designed, 14.000 m²-building situated in the Mediterranean Technology Park in the metropolitan area of Barcelona, Spain. The institute hosts an active Corporate Liaison Program that aims at creating collaborations between all types of industries and ICFO researchers. It is also proactive in fostering entrepreneurial activities and spin-off creation among ICFOians. The institute was given the top worldwide position in the Physics category of the "Mapping Scientific Excellence" ranking published by the Max-Planck Society.



David André, Sales Engineer

LASER COMPONENTS produces components for laser technology and optoelectronics industry in house; many products are developed based on customer request. In addition, LASER COMPONENTS offers premium components from selected manufacturers. LASER COMPONENTS employs more than 160 people worldwide. In addition to our headquarters in Germany, we have sales offices in the USA, France and the UK. Our production facilities are located in Canada, the USA and Germany. Our large portfolio is divided into the following categories: Detectors, Laser Diodes, Laser Modules, Electronics, Laser Optics, Optical Filters, Measurement Technology, Fiber Optics, and Laser Accessories. Just as diverse as those products, so are their respective applications which span from sensor technology to range-finding, from civil to security and defence applications.



Jean-Claude Le Marec, Capability Leader in EO & Laser Sensors

MBDA, created in 2001, is an industry leader and a global player in the missile and missile systems sector with an unrivalled product portfolio covering the whole range of requirements. MBDA has prime contractor capabilities demonstrated on more than 45 missile system and countermeasure programmes in operational service, an Extensive experience of international programmes e.g. Storm Shadow/SCALP, Taurus, Aster, Meteor, Milan Supported by three major shareholders: Airbus Group, BAE Systems, Finmeccanica.



Pierre Bourdon, Special Advisor Laser Sources and Systems

ONERA is the French aeronautics, space and defense research lab. A multi-disciplinary organization with experimental means unique in Europe, ONERA brings expertise to government programs, both institutional and industrial. The Theoretical and Applied Optics Department" studies and develops new laser solutions for Lidar applications and active imaging, based on fiber lasers and other solid state lasers.



Eneka Idiart-Barsoum, Head of Innovation & SMEs department

OPTICSVALLEY, created in 1999, is the first photonics cluster created in France. With a staff of 15 employees, Opticsvalley develops support actions for its 200 plus members. Through its network animation (contacts in enterprises, labs, academic institutions, etc.), information dissemination and support activities, Opticsvalley promotes innovation, contributes to the Paris-Region's economic development, supports other regional & local actors and facilitates the convergence of optics, electronics and software engineering. It has a specific support "the Employment exchange" open to industry and research entities. Opticsvalley provides individualized support to SMEs: a tailor-made service & methodology offering analysis, concerted evaluations and action plans, focused on the SME's development project, including the mobilization of different resources (R&D partners, financing, training, export, business operation...).

Member of EPIC





Mark Fraser, Systems Engineer, Airborne Solutions

RAYTHEON UK is a wholly owned subsidiary of Raytheon Company. We have strong capabilities in Missions Systems integration within defence, national security and commercial markets. Raytheon designs, develops and manufactures a range of high technology electronic systems and software at our UK facilities. Our Airborne Solutions department primarily operates as Systems Integrator for a series of Special Mission Aircraft in the C4ISTAR domain. Imaging Systems and Lasers for airborne applications are a key point of interest for enhancement of current aircraft or for use on future aircraft programmes.

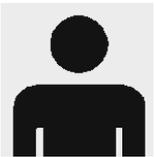


Eléonore Hardy, Regional Sales Manager

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resolution
spectra systems

RESOLUTION SPECTRA SYSTEMS offers Ultra-high Resolution Spectrometers (typ. 0.005 nm) in the visible and near-infrared range dedicated to laser characterization. Based on the extremely compact and robust SWIFTST technology, these innovative spectrometers are also proposed as Original End Manufacturer sub-system. It opens the possibility to integrate high performance spectrometers in laser systems. www.resolution-spectra.com



Roger Smith

SCD (SemiConductor Devices) develops and manufactures a full spectrum of infrared detectors and laser diodes. The company's advanced concepts and cutting-edge technologies have positioned it as one of the world's leading sources for high-end infrared components in the market. A substantial effort is invested in research & development activities, to ensure superiority for our current and future customers. SCD's modern facility is located in the heart of the Galilee mountains, in the north of Israel.



Emmanuel Ageorges, Product Manager

SEE FAST TECHNOLOGIES is a French company that manufactures smart high speed cameras based on high speed CMOS sensors associated with FPGA to perform embedded image processing. The ProclImage250 reaches 252 fps at 640x480 and faster speeds in ROI. The ProclImage500-G3 reaches 505 fps at 1280x1024 and faster speeds in ROI. We also offer our expertise and services to implement, and even develop, custom image processing algorithms, as well as designing custom smart high speed cameras.



Andrew Sijan, Capability Manager, Lasers
 Luke Pillans, Product Design Authority
 Stuart Cripps, Infrared detector product design authority

SELEX ES is a large international supplier with an extensive portfolio of electronic and information solutions for defence, aerospace, space, security high-integrity surveillance, network management, information security and mission-essential services. In relation to the OPTRO 2014 conference, we are a world leading supplier of sensors and systems, including surveillance and fire control radar and advanced electro-optical/infrared surveillance, platform protection and targeting systems.



SensUp, Nicolas Picard

Member of EPIC



SENSUP designs and manufactures OEM (Original Equipment Manufacturer) optical systems based on lasers technology. Defense and Security Applications:

- Target's distance measurement by laser telemetry for medium and long range
- Vehicle's guidance and obstacle detection by laser scanning (LIDAR)



Marc Larive, Marketing Manager

SOFRADIR is the leading developer and manufacturer of highly advanced infrared (IR) detectors for military, space and industrial applications. Its vast IR product portfolio covers the entire spectrum from the visible and near infrared to very far infrared. Sofradir pioneers developments in cooled IR detectors based on a sophisticated high performance technology, Mercury Cadmium Telluride (MCT) to which Indium Antimonide (InSb), Indium Gallium Arsenide (InGaAs) and Quantum Well Infrared Photodetector (QWIP) technologies are now added. Many of the world's missile seekers, targeting pods, armored vehicle cameras, handheld goggles and other airborne, naval and ground vehicle applications use Sofradir's military-grade, battlefield proven IR equipment. Sofradir holds the unique position as the only maker of IR detectors in Europe to be space-qualified.



Henrik Jensen, Commercial Product Manager Airborne Solutions, Defense & Security

TERMA is a global supplier of mission-critical solutions for the defense, aerospace, and security markets. Terma Airborne Systems is engaged within the following business activities: electronic warfare self-protection systems for fixed and rotary wing aircraft, applied aerostructures, as well as audio solutions for improved situational awareness. With more than 2,000 aircraft in operation, Terma is a well established and highly recognized supplier of electronic warfare solutions for fighters, helicopters, and transport aircraft.