



The Fibreoptic Industry Association

www.fia-online.co.uk

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**Documentation circulated to FIA Members
under the
PHOTONICS KNOWLEDGE TRANSFER NETWORK**

ICT CALL 2 Information Day: **Photonics & Paradigms
27 June 2007, 1 Victoria Street, London**

The European Commission's Second call for proposals in the ICT Programme is expected in early June 2007. This call will command a budget approaching 500M€. The 2007-2008 workprogramme describing all the objectives of call 2 can be found at ftp://ftp.cordis.lu/pub/fp7/ict/docs/ict-wp-2007-08_en.pdf

The call will include important research opportunities for:

- ***Photonic components for lighting, sensing and communications; their design and fabrication***
- ***The 'Internetwork' of the future – its structure design and testing.....***

These will be run by Commission units that have been newly founded with the commencement of Framework 7:

- **Unit F4 - New Infrastructure Paradigms and Experimental Facilities**
- **Unit G5 - Photonics**

This information day will focus on the objectives to be run by these new units:

- ICT-2007.1.6: New Paradigms and Experimental Facilities
- ICT-2007.3.5: Photonic components and subsystems

Attendees will hear senior speakers from each unit describe and explain their understanding of the research opportunities to be offered in their domains by the second call. Additional speakers from Industry will describe the background and research context for their domains adding some personal extrapolation.

The information day will be divided into two parts joined by a networking lunch. Before lunch the Photonics objective will be addressed, with New Paradigms and Experimental Facilities in the afternoon.

The content of the two sessions will be at a fairly detailed level; in order to set the scene and make this more understandable for newcomers, the day will commence with an optional introductory briefing to be given by National Contact Point staff.

The day will close with a description of the form of research funding adopted by the Commission for FP7, with particular reference to the Model Grant Agreement, together with early feedback following the close of the first call.

The event will be held at the DTI's Conference Centre, 1 Victoria Street, London, SW1H 0ET. Directions can be found at the following link: <http://www.dti.gov.uk/about/aboutus/where-to-find-us/index.html>

To make a booking, please go to the following link: <http://www.fp7uk.org/site/Events/default.cfm>

Further information or questions to the ICT support line 0871 191 0112

OBJECTIVE ICT-2007.3.5: PHOTONIC COMPONENTS AND SUBSYSTEMS

Target outcomes

- a) **Core photonic components and subsystems**, which are essential in multiple application fields: (1) High performance lasers. (2) High brightness, power efficient solid-state light sources for ICT and general lighting applications. (3) Optical fibres for high performance and for specific functions. (4) High performance image sensors. (5) Sensors exploiting innovative sensing principles.
- b) **Application-specific photonic components and subsystems** for application fields, which are strategic for Europe and which are important drivers of photonics technology development: Components and subsystems for: (1) truly cost effective broadband core networks at 40 Gb/s or beyond per channel. (2) scalable, future-proof and economic broadband access and local area networks. (3) minimally invasive medical diagnosis and prevention. (4) sensing for environment, well-being, safety and security.

RTD on photonic components and subsystems may also cover related materials and fabrication technologies (including mounting and packaging), and related photonic system concepts.

- c) **Underlying technologies:** (1) *Integration and manufacturing technologies:* Holistic approaches for: reducing the size and cost of photonic components and subsystems; improving their performance, manufacturability and testability; increasing their degree of functional integration; advancing photonic/electronic convergence. (2) *Design methodologies and tools:* Holistic and widely applicable approaches for designing photonic components to improve design quality and efficiency. This includes work on modelling, simulation and characterisation.
- d) **Complementary measures:**
 - *Joint assessment* by users of prototype components, subsystems and equipment from European suppliers.
 - *Networking, integration and structuring* of advanced photonics RTD capacities and activities.
- e) **Support measures:**
 - Access to centres of expertise and foundries to facilitate the deployment of advanced technologies.
 - Raising the interest of young people in careers in photonics, and stimulating cross-national schemes for graduate education.
 - Supporting the development of RTD strategies through roadmapping, consensus building, coordination with Member or Associated States, and international cooperation.

Expected Impact

- Leading position of European industry in high-value photonic products.
- New photonic based applications in several industrial sectors with emphasis on communications, health, well-being, environment, safety and security.
- Continued European leadership in RTD in photonics from components to systems, securing the necessary human resources and knowledge to design, produce and use new generations of photonic components.

Funding schemes

a-c): CP; d): CP, NoE; e): CSA

Indicative budget distribution

90 M€

- CP 76 M€ of which a minimum of 26 M€ to IP and a minimum of 30 M€ to STREP;
- NoE 9 M€;
- CSA 5 M€

Call

FP7-ICT-2007-2