

**Contents of this newsletter:**

- International Cooperation & Exchanges
- MONA Workshop I in Strasbourg
- MONA co-organises the Symposium on Photonics Technologies for Framework Programme 7

## International Cooperation and Exchanges

The MONA project foresees the establishment of a 2-way exchange between MONA and nanotechnology programmes in European Community, in the US and in Asia.

Following an invitation to participate in a joint symposium sponsored by the European Commission (EC) and the National Science Commission (NSC) of Taiwan, TP Pearsall travelled to Taiwan where he presented the MONA project in Taipei and Hsinchu, and disseminated the MMONA Frame-of-Reference study.

In return, he received extensive quantitative information on the National Nanotechnology Programme in Taiwan. This information has been synthesised and organised in a CD-ROM, "MONA-Merging Optics and Nanotechnologies in Europe and Asia, vol.1".

The meetings with the NSC and with the Nano Device Laboratory (NDL) were characterised by open and enthusiastic exchanges of information about ongoing projects and future opportunities. Both sides have agreed to schedule further discussions, with the next meeting to be held in Italy in September, 2006."

Thomas P. Pearsall  
EPIC  
Paris, France

*T. Pearsall, EPIC, right with Guo-Chung Chi, Deputy Minister, National Science Council Taiwan*



### **NDL Facility in Hsinchu**

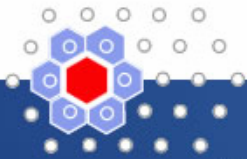
- Completed in 2004
- 3 300 m<sup>2</sup> of state of the art clean-room fabrication
- Total space = 13 200 m<sup>2</sup>
- Nano fabrication capabilities
- 150 mm Si line

For more information: contact  
Laurent Fulbert -  
laurent.fulbert@cea.fr  
Tom Pearsall -  
pearsall@epic-assoc.com

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Redactor in chief: Laurent Fulbert  
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## MONA Workshop 1

On Friday 7 April 2006, the MONA workshop on materials, equipment and applications of nanophotonics took place at the Palais de la Musique et des Congrès, Strasbourg, France.

*This workshop was collocated with SPIE Photonics Europe Conference*

The goal of the workshop was to identify the key issues related to nanophotonic devices at industrial scale. It gathered experts from nanoscale materials, equipment and processes as well as applications and devices.

The program was as follows:

### Introduction (chair: Laurent Fulbert, CEA)

- General presentation of MONA (Laurent Fulbert, CEA)
- Presentation of Photonics21 (Markus Wilkens, VDI-TZ)
- Frame of reference presentation (Dirk Holtmannspötter, VDI-TZ)

### Nano-scale materials (chair: Roel Baets, IMEC)

*Key question: "What are the key issues and challenges in physical understanding and in materials technology?"*

Topics addressed: Semiconductor QD, Colloidal nanoparticles, Nanoplasmonics structures, Silicon nanophotonics, Porous silicon, Photonic crystals

- Synthesis on materials (Roel Baets, IMEC)

### Equipment and processes (chair: Rainer Beccard, Aixtron)

*Key question: "What kind of equipment is needed for R&D and industrial scale production?"*

Topics addressed: Growth of nanoscale structures, Structuring/processing of nanoscale devices, Metrology  
[Synthesis on equipment \(Rainer Beccard, Aixtron\)](#)

### Applications and markets (chair: Krassimir Krastev, Opticsvalley & Eric Mounier, Yole Développement)

*Key question: "Which limitations of the current solutions could nanophotonics help to overcome in your field of interest?"*

Topics addressed: Optical Interconnects, Datacoms/Telecoms, Lighting /Displays, *Data storage*, Image sensors, Sensors, Photovoltaics  
[Synthesis on Applications and markets \(Krassimir Krastev, Opticsvalley & Eric Mounier, Yole Développement\)](#)

For more information: [http://www.ist-mona.org/documents/mona\\_workshop\\_1.asp](http://www.ist-mona.org/documents/mona_workshop_1.asp)



MONA will co-organise the OPERA2015 **Symposium on Photonics Technologies for Framework Programme 7** On October 12-14, 2006 at the Wroclaw University of Technology, Poland

Wroclaw University of Technology (WRUT) in collaboration with the European Photonic Industry Consortium (EPIC), MONA and under the auspices of the European Programme OPERA-2015, is organising a symposium devoted to Photonic Technologies for Framework Programme 7.

More information: <http://www.if.pwr.wroc.pl/~opera2015/>