Highlights:

Workshop 1

"Identification of the main requirements for future ICT devices",
20 and 21 January 2011, Granada, Spain

Topics presented

Nanoelectronics for the Next Decade
Carbon-based Electronics: Graphene
Analog/Mixed-Signal (AMS) Design
Silicon-Based Electronics
Compound Semiconductor Based Micro (Nano) Electronics
Spintronics and Magneto Electronics
The Bridge to Design
Molecular Electronics/QuantumComputing

For the workshop 1 presentations, see:
https://www.fp7-nanotec.eu/WS1-results

Next workshop:

13-14 OCTOBER 2011
Athens, Greece

"Benchmarking of new beyond CMOS device/design concepts"

Tentative sessions:

Molecular Electronics
MEMS in ICT
Solid-State Quantum Computing
Spintronics
Nanowires
Memristors
Graphene/Carbon Nanotubes
Design

For more details and to register to the event:
www.fp7-nanoec.eu
Online Registration: from 15 May 2011

Following workshops:

SPRING 2012
(date tbc)

"SWOT Analysis of benchmarked devices and designs"

AUTUMN 2012
(date tbc)

"Summary and Recommendations on combined Technology-Design Ecosystem"

NANO-TEC is funded by the EC within the FP7-ICT theme under contract number 257964

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NANO-TEC

ECOSYSTEMS TECHNOLOGY and DESIGN for NANOELECTRONICS

1 September 2010 - 28 February 2013

MISSION

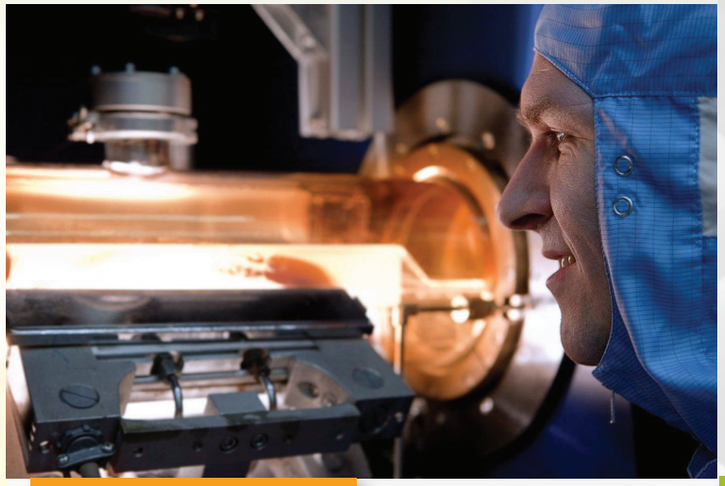
To identify the next generation of nanoelectronic device concepts and technologies for ICT;

To build an academic community in nanoelectronics, addressing specifically research in Beyond CMOS from the combined technology and design perspectives.

SEVENTH FRAMEWORK PROGRAMME

CONTEXT

NANO-TEC stems from the need of a strong R&D competence in Electronic System Design to face the new challenges of technology and the concomitant engineering questions towards novel industrial products emanating initially from academic research.



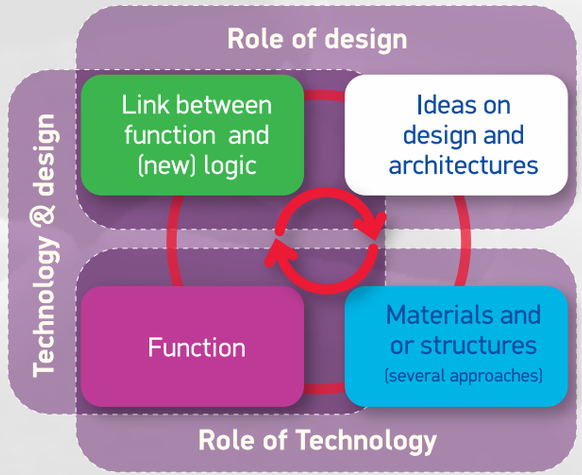
THE NANO -TEC TEAM

- Coordinator: Prof. Dr. Sotomayor Torres (Catalan Institute of Nanotechnology, Barcelona)
- 5 academic laboratories
- 5 small and medium research organizations
- All partners endowed with facilities and expertise in the fields of nanofabrication and nanoelectronics relevant to beyond CMOS such as Silicon Device Fabrication, Single- Electron Devices, Spintronics, and others.
- 20 experts in nanotechnology addressing the key questions for future nanoelectronics:

What comes after CMOS?

What role will Europe play in next-generation nanoelectronics?

CONCEPT



ACTIVITIES

A workshop series with invited experts on beyond CMOS devices, benchmarking and a SWOT analysis of new devices.

A state-of-the-art web platform for working groups, enabling discussions, meetings, communications and access to an information repository.

A report on Emerging Nanoelectronics created through the collaboration with ENIAC Technology Platform.

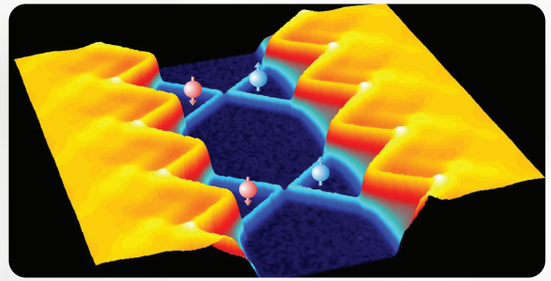
EXPECTED GLOBAL IMPACT

Exchange of ideas and experts in nanoelectronics;

Worldwide cooperation between industry, academia and Member States in research on nanoelectronics;

Promotion of best practices;

Knowledge transfer;



Courtesy of Catalan Institute of Nanotechnology

EUROPEAN IMPACT

Improvement of European competitiveness in future generations of nanoelectronic through:

- reaching smaller and smaller dimensions in components

- decreasing the use of energy

- functionalizing devices for nanoelectronics