

Advanced MEMS for RF and Millimeter Wave Communications AMICOM

NoE FP 6 - priority 2, IST; Coordinator:
Prof. Robert Plana - LAAS-CNRS Toulouse



Robert Plana, LAAS-CNRS Toulouse, presenting the AMICOM Network at EURONET Workshop, Sinaia, 2003

The "AMICOM" Network of excellence will be structured into the following three groups of activities:

1. Integrating RF-MEMS activities
2. Joint RF-MEMS Research activities
3. Activities to spread excellence in RF-MEMS

The network will aim to anticipate the research that will be required for the development of future communication systems. It is already apparent that new functionalities will be created through the use of Microsystems for RF and millimeter and wave communications. RF Microsystems will incorporate RF-MEMS components into RF and monolithic microwave integrated circuits (MMIC). This will involve the research in diverse fields, such semiconductor technology, materials science, electromagnetic, mechanical, thermal and electrical modeling, testing and characterization, packaging, reliability and failure analysis.

AMICOM Participants:

- CNRS (Fr) (LAAS-IEMN-IRCOM)
- CHALMERS (SE)
- CRANFIELD (UK)
- EPFL (CH)
- FORTH (EL)
- IMEC (B)
- IMPERIAL COLLEGE (UK)
- IMT-Bucharest (RO)
- ITME (PL)
- MILLILAB&VTT (FI)
- PERUGIA (IT)
- TECHNION (IL)
- TEI CRETE (EL)
- TUD (D)
- TUM (D)
- ULM (D)
- UPPSALA (SE)
- Lab Athens (EL)
- ITC-IRST (IT)
- ENSM (FR)
- METU (TR)
- FRAUNHOFER ISIT (D)



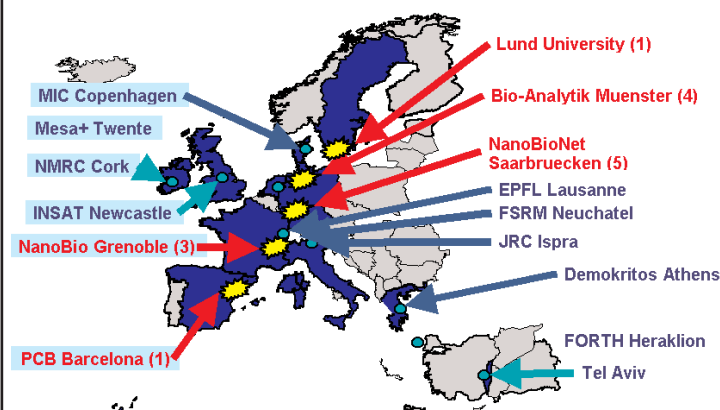
A network for bringing NANOTECHNOLOGIES TO LIFE (NANO2LIFE)

Coordinator: Dr. Patrick Boisseau, CEA France
NANO2LIFE

Nano2Life provides a frame to improve European competitiveness in nanobiotech by integrating excellent organisations, offering access to the largest and most advanced multidisciplinary expertise, facilities and know-how. Integration is achieved by coordinating research, training and communication in academia and industry.

N2L addresses the future need for increasingly efficient, more targeted and less invasive analysis systems for health care or environmental monitoring. They are expected to bring innovative research tools and industrial high-added value in the form of eco-efficient and sustainable devices to biotechnology, the pharmaceutical industry and health care.

IMT-Bucharest - ASSOCIATE PARTNER



Nano2Life has 24 core partners, 15 organisations coming from 5 regional clusters in nanobiotech and **9 centres of excellence** selected according to their complementary expertise. The partners possess wide-ranging scientific and technical expertise, technology transfer and a range of state-of-the-art equipment and facilities which are crucial to the development and characterization of devices and systems addressing the Nano2Life vision and scientific objectives.

Overall objectives:

- To tackle fragmentation
- To durably integrate organisations
- To interface two worlds: nano and bio
- To make EU an international leader
- To translate science into economic benefits
- To educate society about nanobiotech
- To set up an **European Institute of Nanobiotech (EIN)**, a new and lasting legal organisation for research in nanobiotech, with a common management and scientific vision sharing equipment, facilities, personnel, and expertise, having the following features: Excellence centre for European R&D in nanobiotech; Reference centre for industry, science, society, politics, education & training; Issuing calls for proposals in nanobiotech; Central management but local facilities

The main activities of Nano2Life will consist in:

- Joint Research Programme
 - Education & Training Programme
 - Network of shared resources (Humans, know-how, equipments, platforms; Virtual facility)
 - Dissemination & Communication
 - IPR & Knowledge management
 - Ethics (Ethics Board to advice, educate, monitor)
 - Technology Foresight & Strategy (Benchmarking; Roadmap; Strategic plan)
 - Industrial cooperation (ExAC; N2L opportunities; Annual N2L business days)
- (Fragment from the presentation of Nano2Life Network by Dr. Patrick Boisseau, NANOFORUM Workshop, Sinaia, Romania)