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Nanotechnology > Competitiveness & innovation
for industrial growth

Rome > march 31 : april 3 > 2009

National Research Council > Piazzale Aldo Moro 7

Networking

Organizers



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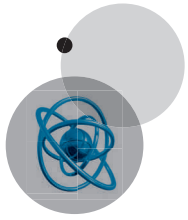
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Assessorato alle Politiche Culturali

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Nanotechnology > Competitiveness & innovation
for industrial growth



Networking

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Foreword

Nanotechnologies represent a new way of manufacturing, which combined with the unique properties of the matter at nanoscale can revolutionise a host of technology sectors. Though nanotechnology-related products are already on the market, the full benefits promised by these enabling technologies are yet to come and their realisation is placed in a medium to long term horizon. Cooperation between public research and industry is fundamental to speed up applications and to transfer the research results to the market.

Nanotec2009.it represents a great opportunity to promote these contacts and to this end, the organisers decided to devote a full day (April 3rd) to a networking event to allow researchers and industrialists to meet and discuss about possible joint initiatives for the development of nanotechnology application.

The major Italian players in nanotechnology from both public research institutions and private enterprises are in fact participating at Nanotec2009.it and thanks to the support of the Italian Institute for Foreign Trade (ICE) also representatives from USA, Japan and China, will be present to establish contacts and exchange information. This gives an international breath to an eventual cooperation which can further boost and strengthen the activity in Italy.

The event has a two stages structure.

An half a day workshop, during which foreign and Italian structures active in nanotechnology and internationally recognised, briefly illustrate their activities and strengths in the field, followed, in the afternoon, by a series of one-on-one, pre-organised meetings, aimed to discuss the possible development of new products, tackle scientific or technological issues, plan research projects and joint ventures, exchange or jointly develop patents/licenses, explore the possibilities and requirements for funding entrepreneurial initiatives.

This catalogue contains the profile of the organisation who request or offer technologies and/or scientific support and provides concrete details that can help to pin point the themes of interest and to better focus and structure the meetings.

The Networking event is organised by AIRI/Nanotec IT, National Research Council (CNR) and Veneto Nanotech in collaboration with the Italian Institute for Foreign Trade (ICE) and with the support of APRE (Agency for the Promotion of European Research).

Friday April 3st
Morning (8.45-13.00)

Networking Day
Presentations on nanotechnology activities from representatives of the USA, China, Japan and Italy delegations

<i>Introduction and opening remarks</i>	AIRI/Nanotec IT, Italian Institute for Foreign Trade (ICE)
<i>Alexei Andreev</i>	Harris & Harris Group Inc, USA
<i>Greg Book</i>	Nanotechnology Research Center (NRC) at Georgia Tech University, USA
<i>W. Richard Chung</i>	San José State University, USA
<i>John Fortner</i>	Rice University –Center for Biological and Environmental Nanotechnology, USA
<i>G.P. Li</i>	University of California, Irvine, USA
<i>Mr. Charlie Chow</i>	Nano-Group Holdings Ltd., China
<i>Mr. Shen Jun</i>	Centre of Nano-Science & Technology, Tongji University, China
<i>Kimi Koyanagi</i>	Nagano Techno Foundation, Japan
<i>Dr. Hiroshi Yanazawa</i>	MEMS-Core, Japan
<i>Giuseppina Padeletti</i>	National Research Council Dep. of Molecular Design Italy
<i>Antonella Tajani</i>	National Research Council Dp. of Materials & Devices, Italy
<i>Diego Basset</i>	Nanofab, Italy
<i>Gualtiero Gusmano</i>	Italian Interuniversity Consortium on Materials Science and Technology (INSTM), Italy
<i>Josè M. Kenny</i>	European Centre For Nanostructured Polymers, Italy
<i>Andrea Di Matteo</i>	STMicroelectronics, Italy
<i>Carlo Falessi</i>	Selex Sistemi Integrati, Italy

LUNCH (13.00-14.00)

Friday April 3st
Afternoon (14.00-17.00)

Networking Day
One to one meeting with the delegates

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Italian Institute for Foreign Trade

The Italian Institute for Foreign Trade (I.C.E., Istituto nazionale per il Commercio Estero) is the government agency entrusted with the promotion of trade, business opportunities and industrial cooperation between Italian and foreign companies.

ICE supports the internationalization of Italian firms and their consolidation in foreign markets and operates through 115 branch offices in 87 countries in the world.

ICE activities are financed by public and private funds: from the Ministry of Economic Development and from the companies, which use its services for advice, information and assistance.

The main activities and services include: information, promotion, multilateral cooperation and training.

Headquarters:

I.C.E. – Istituto nazionale per il Commercio Estero

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Centre of Nano-Science & Technology, Tongji University

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 E-mail: shenj@online.sh.cn
 Web site: <http://www.tongji.edu.cn>
 Contact: Mr. Shen Jun (Professor, Director of Centre of Nano-Science and Technology, Tongji University)

At a Glance

Status: University
Date of foundation: 1907
Employees: 4200

Main Activity

The main products of Centre of Nano Science & Technology are:

- Nanocomposite electrode for high energy lithium ion batteries
- Nanoporous super thermal insulations
- Anti-reflective coatings used in solar cells
- Nanocomposite gas filters
- Nanoporous materials for water purification
- Mesoporous low K films
- Refractive index controllable Optical films
- Colour-shift films

Company Strengths

HIGH END PRODUCTS

Nanomaterials used in energy saving and environmental protection

Sector

NANOTECHNOLOGY

- NANOMATERIALS & CHEMISTRY
 - Coatings/thin films
 - Composites
 - Inorganic
- ENERGY
 - Storage
 - Saving
- ENVIROMENT
 - Protection

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)
- DEVELOPMENT OF NEW PRODUCTS
- JOINT CREATION OF AN ENTERPRISE OR CONSORTIUM
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING



Nano-Group Holdings Ltd.

Unit 1006, 10/F., Carnarvon Plaza, 20 Carnarvon Road– Kowloon, Hong Kong,
CHINA

Telephone: 00852-27340404

Fax: 00852-30117215

E-mail: charlie@nanogh.com

Web site: <http://www.nanogh.com>

Contact: Mr. Charlie Chow (Technical Director)

At a Glance

Status: Large Company

Date of foundation: 1997

Employees: 15

R&D Personnel : 7

Turnover : USD3,000,000.00

Turnover in R&D : 25%

Export: Nano meter material and Nano treated fabric and garments

Export Destination: China, Turkey, Belgium, Thailand, USA

Main Activity

Nano-Group Holdings Ltd. is a Nanotechnology R&D and Integrator. It has developed Nanometer material to be applied in various industries. Textile and Garments industry is its first and main industry to give added-value to the products. With the application of Nanotech treatment, they bring the sustainability and innovation to textile and garments industry worldwide. Its research in the hotel laundry industry proved the nanotech application save the consumption of fresh water, energy saving and less pollution to the environment., etc.

Company Strengths

HIGH END PRODUCTS

Value added to textile products.

INNOVATIVE PROCESSES/SERVICES/PRODUCTS

Member of the drafting committee in the Nanotech treated Cloth Standardization in China 2007.

NETWORKING

Nano-Group members in various countries.

R&D

Nanometer Material.

EXPERTISE

Bridge the gap to commercialization from lab.

Sector

NANOTECHNOLOGY

– INORGANIC

– TEXTILES

Type of Cooperation

- COMMERCIAL INTERMEDIARY (DISTRIBUTOR, GENERAL AGENT, ETC.)
- DEVELOPMENT OF NEW PRODUCTS
- IDENTIFICATION OF NEW CUSTOMERS
- MUTUAL/COMMON DISTRIBUTION AGREEMENT
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSE



Italian Institute for Foreign Trade

Hokkirigawa T. Yamaguchi

Laboratory, Graduate School of Engineering, Tohoku University

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 Fax: 0081-22-795-6897
 E-mail: yamatake@gdl.mech.tohoku.ac.jp
 Web site: <http://www.glocaldream.mech.tohoku.ac.jp/en/index.html>
 Contact: Takeshi Yamaguchi (Assistant Professor)

At a Glance

Status: University.
Date of foundation: 1907
Employees: 600

Main Activity

The Hokkirigawa T. Yamaguchi Laboratory, Graduate School of Engineering, Tohoku University main activities are:

- Research & development in the field of tribology, such as friction and wear of materials;
- Development of new carbon materials from rice by-products and their application as tribo-materials.
- Dry linear sliding bearings which can be used without lubricants
- Dry chain using resin composites using RB ceramics powder as filler
- Light driving unit for electrical wheel chair using rubber/RB ceramics composites
- High slip-resistant shoe soles
- Friction and wear testing apparatus

Company Strengths

HIGH END PRODUCTS:

Carbon materials made from rice by-products, Dry linear sliding bearing, Dry chain, Light driving unit for electrical wheel chair, high slip-resistant shoe sole materials, etc.

PATENTS/LICENSES/TRADE MARKS/QUALITY CERTIFICATIONS

About 62 patents in Japan and about 60 international patents

INNOVATIVE PROCESSES/SERVICES/PRODUCTS:

RB ceramics and RH ceramics which are made from rice bran and rice husk, respectively

NETWORKING

Sendai-city, Miyagi prefecture, local companies in Japan.

R&D

New carbon materials from rice by-products and their application to tribo-elements such as sliding bearings, etc.

EXPERTISE

Tribology (related to friction, wear, lubrication), carbon materials, etc.

Sector

NANOTECHNOLOGY

- COMPOSITES
- FUNDAMENTAL RESEARCH
- INORGANIC

Type of Cooperation

- DEVELOPMENT OF NEW PRODUCTS

Partnership Proposal

The university have developed new hard porous carbon materials RB ceramics which are made from rice bran, i.e. the by-products of rice, and have clarified that they show low friction and low wear without lubricants in air. It has also developed dry linear sliding bearings and high slip-resistant shoe soles by use of the RB ceramics through collaboration with local companies in Japan.



Italian Institute for Foreign Trade

MEMS-CORE Co. Ltd.

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Telephone: 0081-22-777-8717

Fax: 0081-22-777-8718

E-mail: yanazawa@mems-core.com

Web site: <http://www.mems-core.com>

Contact: Dr. Hiroshi Yanazawa (Director)

At a Glance

Status: Spin Off

Date of foundation: 2001

Employees: 25

Turnover: JPY 260,000,000

Turnover in R&D : 7%

Export: JPY 50,000,000

Export Destination: USA

Main Activity

MEMS-CORE has 6,4 inch compatible dedicated MEMS Fabrication line. 90% of turnover comes from the contracted development which covers various MEMS Industrial area, including sensor, switch, biochemistry, probe etc. Since 2009, we will start small size production (~200 wafers/month).

Company Strengths

HIGH END PRODUCTS

Bio-devices, Sensors, Ink-jet head etc.

PATENTS/LICENSES/TRADE MARKS/QUALITY

CERTIFICATIONS

MEMS-CORE has Professor Esashi as a technical adviser and keeps intimate discussion daily. 3 Patents

INNOVATIVE PROCESSES/SERVICES/PRODUCTS

MEMS-CORE can pursue many kinds of development.

NETWORKING

MEMS-CORE collaborates several companies which develops original MEMS fabrication equipment.

R&D

Doing collaboration with National Research Centers. 5 researchers who used to work for Hitachi Central Research Laboratory lead R&D in MEMS-CORE

EXPERTISE

MEMS device/Process development and fabrication.

Sector

NANOTECHNOLOGY

- NANOMEDICINE
 - Diagnostic
 - Drug Delivery
- MEMS/ NEMS
- ENERGY
 - Monitoring

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)
- DEVELOPMENT OF NEW PRODUCTS
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING

Partnership Proposal

- Collaboration for new MEMS device/process development.
- Collaboration for customized equipment development.



Italian Institute for Foreign Trade

Nagano Techno Foundation

1-18-1 Wakasato, 380-0928– Nagano City, JAPAN

Telephone: 0081-26-226-8101

Fax: 0081-26-226-8838

E-mail: techno@tech.or.jp; koyanagi@tech.or.jp (private)

Web site: <http://www.tech.or.jp/eng/>

Contact: Dr. Kimi Koyanagi (Project Manager)

At a Glance

Status: Non profitable organization for creating innovation activity onto local industries and supporting collaborative research between University and SME.

Date of foundation: 2001

Employees: 37

Main Activity

The Nagano Techno Foundation main activities are:

- Introduction of advanced technology into local SMEs.
- Creating Consortium on specific technology.
- Managing the Knowledge Cluster Initiative Program at nanotechnology smart devices in Nagano Prefecture.
- Human resources development.

Company Strengths

INNOVATIVE PROCESSES/SERVICES/PRODUCTS

- The Cluster Initiative Program
- CNT composite materials
- Surfactant nano particle
- DeskTop Factory (Micro Machines)

NETWORKING

- Create Universities and SMEs networking
- Create SMEs networking

Sector

NANOTECHNOLOGY

- NANOMATERIALS & CHEMISTRY
 - Coatings/Thin films
 - Composites
 - Fibres
 - Inorganic
 - Organic
 - Others: Surfactant nano particles

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)
- JOINT CREATION OF AN ENTERPRISE OR CONSORTIUM

Partnership Proposal

Nagano Prefecture is rich of technology in the manufacturing industry, especially in relation with ultra high precision industry. They would like to foster technological exchange and collaboration, matching not only Nano technology but other advanced technology.



Georgia Tech Nanotechnology Research Center

791 Atlantic Drive, 30332-0269. Atlanta, GA, USA
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E-mail: Greg.book@gatech.edu
Contact: Mr. Greg Book (Asst. Director, External Users)

At a Glance

Status: University
Date of foundation: 2008
Employees: 30

Main Activity

The Ga. Tech Nanotechnology Research Center (NRC) is a user research facility that provides academic and industrial researchers access to equipment needed to undertake nanotechnology research and new product development. The NRC consists of the Pettit Microelectronics Building, PMB, and the Marcus Nanotechnology Building, MNB. The NRC has a total of 2000 sq meters of Inorganic cleanroom adjacent to 600 sq meters of Organic cleanroom to promote the cross-collaboration of biological and biomedical researchers with semiconductor, MEMS and electronic device researchers.

Company Strengths

HIGH END PRODUCTS

Nanolithography, BioMEMS, microfluidics

INNOVATIVE PROCESSES/SERVICES/PRODUCTS

The GT NRC provides training on and access to a wide variety of equipment. That equipment includes e-beam, optical and imprint lithography, a wide variety of deposition techniques, plasma and thermal processing equipment, a variety of characterization equipment, and various types of biological processing and characterization tools.

NETWORKING

Over 500 discreet researchers used the GT NRC on 2008, providing an exceptional environment for cross collaboration.

R&D

They mostly do research, but also provide the environment to incubate small companies.

EXPERTISE

Semiconductor, MEMS and BioMEMS fabrication.

Sector

NANOTECHNOLOGY

- COATINGS/THIN FILMS
- DRUG DELIVERY
- FUNDAMENTAL RESEARCH
- MEMS/ NEMS
- METROLOGY
- NANOFABRICATION
- PRODUCTION
- TEXTILES

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)



Italian Institute for Foreign Trade

Harris & Harris Group, Inc.

420 Florence St. Suite 200–94301 Palo Alto, (CA), USA

Telephone: 650 321-2668

Fax: 650 321-1569

E-mail: alexei@tinytechvc.com

Web site: www.tinytechvc.com

Contact: Alexei Andreev (Executive Vice President, Managing Director)

At a Glance

Status: Venture Capital Firm

Main Activity

Invest in primarily companies utilizing “tiny” technology, mainly nanotechnology.

Sector

NANOTECHNOLOGY

- NANOMATERIALS & CHEMISTRY
 - Coatings/Thin films
 - Composites
 - Inorganic
 - Organic
- NANOMEDICINE
 - Diagnostic
 - Tissue engineering
- ELECTRONICS AND DEVICES (ICT)
 - MEMS/ NEMS
- ENVIRONMENT
 - Protection
 - Remediation
 - Monitoring
- NANOBIO TECHNOLOGY

Type of Cooperation

- DIRECT INVESTMENTS
- FINANCIAL PARTICIPATION
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSE
- VENTURE CAPITAL



Rice University –Center for Biological and Environmental Nanotechnology

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Telephone: 001-713- 3483131
E-mail: jfortner@rice.edu
Web site: www.rice.edu; http://cben.rice.edu
Contact: Dr. John Fortner

Main Activity

Rice University's world renown nanotechnology focus is highly integrated into a number of disciplines ranging from policy making decisions to fundamental physical – chemical processes. Rice has two outstanding centers that highlight current nano-based research, development and education: The Center for Biological and Environmental Nanotechnology (CBEN) and The Smalley Institute (SI).

CBEN

The US National Science Foundation supported Center for Biological and Environmental Nanotechnology (CBEN) mission is to discover and develop nanomaterials that enable new medical and environmental technologies.

The mission is accomplished by the following:

- Fundamental examination of the 'wet/dry' interface between nanomaterials, complex aqueous systems, and ultimately our environment (Theme 1).
- Engineering research that focuses on multifunctional nanoparticles that solve problems in environmental and biological engineering (Themes 2, 3).
- Educational programs that develop teachers, students, and citizens who are well informed and enthusiastic about nanotechnology.
- Innovative knowledge transfer that recognize the importance of communicating nanotechnology research to the media, policymakers, and the general public.

This mission is inspired by the observation that because of their small size and unique properties, nanomaterials interact with and control biological systems in entirely new ways. Our research exploits these novel capabilities to develop innovative biomedical and environmental technologies. To ensure that our technologies flourish, our outreach addresses broader issues such as technology transfer, public acceptance, and workforce training.

The Center for Biological and Environmental Nanotechnology fosters the development of this field through an integrated set of programs that aim to address the scientific, technological, environmental, human resource, commercialization, and societal barriers that hinder the transition from nanoscience to nanotechnology. Please visit the website for more information: <http://cben.rice.edu/>

CBEN Research

The Center's research focuses on investigating and developing nanoscience at the "wet/dry" interface. Water, the most abundant solvent present on Earth, is of unique importance as the medium of life. The Center's research activities explore this interface between nanomaterials and aqueous systems at multiple length scales, including interactions with solvents, biomolecules, cells, whole-organisms, and the environment. These explorations form the basis for understanding the natural interactions that nanomaterials will experience outside the laboratory, and also serves as foundational knowledge for designing biomolecular/nanomaterial interactions, solving bioengineering problems with nanoscale materials, and constructing nanoscale materials useful in solving environmental engineering problems.

CBEN Education

Given the goal of transforming nanoscience into a strong, vital discipline, the Center must draw new talent into the field. Educational outreach efforts develop programs to identify, recruit, and train the nanoscience workforce of the future. As a centerpiece program, 9th grade teachers in the minority-rich Houston school district are being trained to engage in the more successful but challenging discovery-based teaching style. The Center provides content lectures and tutoring to these educators and offers a meaningful experience in research laboratories. These teachers also identify students to participate in a Center science academy. New curriculum and textbook development, a summer Research Experience for Undergraduates program, and research in Center-funded laboratories extend the Center's educational outreach activities to the undergraduate and graduate levels.

CBEN-ICON Industrial Connections

In addition to a more traditional industrial affiliates program, the Center embraces the increasing importance of small and startup companies in high technology development by partnering with Rice's Jones Graduate School of Management in an entrepreneurial education program. This provides Center members with the skills needed for the more active interactions such organizations demand, and through associated activities brings scientists, students and business experts together to ensure the formation of successful startups based on Center research. The interactions



Italian Institute for Foreign Trade

with industry have led to understand that among the greatest barriers to successful commercialization of nanotechnology are concerns over safety, environmental impact, and public education. In addition to scientific research in these areas, CBEN is addressing these issues more comprehensively through ICON, the International Council on Nanotechnology, a broad-based coalition including representatives of industrial, governmental, academic, and public concerns.

Smalley Institute:

The Smalley Institute at Rice University has dedicated to leading the world in solving humanity's most pressing problems through the application of nanotechnology. As Professor Richard E. Smalley so aptly put it, "Rice's research reputation comes from solving the hardest problems in science. Others can work on the easy ones, the applied problems. Focus on the grand challenges, the holy grails in nanotechnology. Professor Smalley identified the Top Ten Problems Facing Humanity over the next 50 years as energy, water, food, environment, poverty, terrorism & war, disease, education, democracy, and population.

The Smalley Institute currently focuses on 5 Grand Challenges: energy, water, environment, disease, and education. Rice University researchers endeavor to impact each Grand Challenge through the application of nanotechnology which we categorize into eleven Nanotechnology Disciplines.

- Analytical Nanotechnology
- Nanotechnology in Biology, Health, and Medicine
- Nanotechnology enhanced Devices
- Nanotechnology Education
- Nanotechnology in Energy
- Environmental Nanotechnology
- NanoMaterial
- NanoPhotonics
- NanoPhysics
- NanoScience/NanoEngineering
- Sociological Nanotechnology

Because of the multidisciplinary nature of nanotechnology, many Smalley Institute researchers work in 3 or more of these focus areas. The University invite to Learn More about the specific Grand Challenges and Nanotechnology Disciplines through the Smalley Institute website (<http://cnst.rice.edu>).

Sector

NANOTECHNOLOGY

- ENVIRONMENT
 - Monitoring
 - Protection
 - Remediation
- METROLOGY



San José State University

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Fax: 408 924-4057

E-mail: wrchung@email.sjsu.edu

Web site: <http://www.engr.sjsu.edu/wrchung>

Contact: W. Richard Chung, Ph.D. (Professor)

At a Glance

Status: University

Number of employees, r&d personnel: 2000+ staff members on campus, but only a few hundred are involved in R&D (mainly faculty members)

Year of establishment: 1857

Main Activity

- 1) Development of inorganic/organic Nanocomposites (the major applications will be for gas separation, bio-sensing, semiconductors, etc.)
- 2) Research and development of organic substrates for microfluidics (using plasma treatment and laser ablation to roughen organic substrates)
- 3) Improving interfacial bonding strength between two dissimilar materials (the study is focused at the interface between nanoparticles and polymeric resins)
- 4) Preliminary work on self-assembly polymers (e.g. dendrimers and star polymers) and surface Plasmon resonance characterization for bio-molecules

Company Strengths

HIGH END PRODUCTS

Intellectual Properties (such as patents and know-hows)

NETWORKING

aligned with major corporations in Silicon valley

R&D

currently collaborated with IBM-Almaden Research Center, NASA-Ames Research Center, Stanford Research Institute International, Hitachi Global Storage Inc., Membrane Technology Research, Inc.

Sector

NANOTECHNOLOGY

- NANOMATERIALS & CHEMISTRY
 - Coatings/Thin films
 - Composites
 - Fibres
 - Inorganic
 - Organic
- ENVIRONMENT
 - Monitoring
 - Protection
 - Remediation
- ENERGY
 - Production
 - Saving
 - Storage
- ELECTRONICS AND DEVICES (ICT)
 - MEMS/ NEMS
- NANOBIO TECHNOLOGY
- TRANSPORT & AEROSPACE

Type of Cooperation

- JOINT CREATION OF AN ENTERPRISE OR CONSORTIUM
- DEVELOPMENT OF NEW PRODUCTS

Partnership Proposal

Improved fracture resistance in composite structures -by adding nanoclays, carbon nanotubes, or graphene particles in a traditional fiber-reinforced composite structure, the mechanical properties and fracture resistance of the composite can be enhanced.



Italian Institute for Foreign Trade

University Of California, Irvine

Calit 2, suite 4100 Irvine, (CA), USA

Telephone: 949 8249073

Fax: 949 8248197

E-mail: gpli@calit2.uci.edu

Web site: www.uci.edu

Contact: G.P. Li (Director)

At a Glance

Status: University

Number of Employees: 230 affiliated faculty

Years of establishment: 2001

Main Activity

The main activity of University of California are:

- R&D-eHealth Technologies
- R&D Green IT
- R&D Interactive digital Media
- R&D visualization
- R&D proto typing nanotechnology facilities (3)-I.N.R.F., BiON, Zeiss Center of excellence

Company Strengths

PATENTS/LICENSES/TRADE MARKS/QUALITY CERTIFICATIONS

40-70

R&D

telecommunication and information technology, nano-technology related fields

EXPERTISE

Nano and Bio technology, energy technology and visualization tech.

Sector

NANOTECHNOLOGY

- NANOMATERIALS & CHEMISTRY
 - Inorganic
 - Organic
 - Composites
- ELECTRONICS and DEVICES
 - MEMS/ NEMS
- ENERGY
 - Production
 - Storage
 - Saving
- ENVIRONMENT
 - Monitoring
- NANOMEDICINE
- NANOBIO TECHNOLOGY
- NANOFABRICATION
- NANOTOOLS/INSTRUMENTS
- METROLOGY
- FUNDAMENTAL RESEARCH

Type of Cooperation

- DEVELOPMENT OF NEW PRODUCTS
- JOINT CREATION OF AN ENTERPRISE OR CONSORTIUM

Partnership Proposal

Calit2 is built on collaboration and offers many opportunities for faculty, students, companies and community organizations to get involved with research and outreach activities. At UCI, more than 200 faculty and students actively engage in Calit2 activities. Some reside in the building, conducting research and working with students, while others maintain home department locations but collaborate on institute projects with peers from various disciplines. The affiliated researchers utilize funding, and administrative and student support opportunities-all value-added services that Calit2 brings to the campus and its partners. Close ties with industry are an essential component of Calit2's unique research approach.

This partnership accelerates development of new technologies that benefit the public and the economy. It facilitates creative strategies to improve technology transfer, speeding downstream commercialization of research discoveries. More than 100 companies-large and small, public and privately held-have become Calit2 partners.



Italian Institute for Foreign Trade

CNR – Department of Materials & Devices

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Fax: +39 06 4993 7407

E-mail: segreteria.dmd@cnr.it

Web site: www.dmd.cnr.it

Contact: Antonella Tajani, Ph.D.(Support to the Direction)

At a Glance

Status: Public Research Organisation

Number of employees (of which R&D personnel): About 1000 employees; 900 on R&D: 700 researchers and 200 technicians + about 700 research associates (University professors, postdocs, PhD students, ...)

Turnover: About 120 MEuro (95% on R&D)

Year of establishment: 2005 (as Department of CNR)

Main Activity

Synthesis of nanostructured materials by top-down and bottom-up processes; nanostructured and functional surfaces and interfaces; diagnostic technologies for nanomaterials and nanosystems.

Nanostructured systems and devices for photonics, optoelectronics and spintronics; NEMS: nanodevices based on the control of single or few particles; magnetic nanoparticles; controlled growth of single wall carbon nanotubes (SWCNTs) horizontally oriented and suspended on polysilicon and silicon oxide substrates; nanostructured glass ceramics; multifunctional and non conventional nanodevices for ICT, quantum cryptography, nanomechanics, nanofriction and related devices.

- Coherent processes and devices in nanosystems: quantum computing with scalable architectures, many-body effects and derived nanodevices, nanostructured hybrid systems.
- Molecular nanotechnologies: nano-structure/molecule interfacing; single-molecule optoelectronic, magnetic, and photonic devices; molecular functionalization and corresponding devices.
- Nanobiotechnologies for life science: intracellular nano-probes; application to drug delivery; lab-on-chip for genomics and proteomics; biological system-circuit interfacing.
- Nanobiotechnologies for ICT: biological elements used as templates to implement ICT architectures; ICT based architectures which include elements of biological origin, such as proteins, DNA, entire cells; "bioinspired" nano-(opto)-electronics.
- Methods for computer design of nanosystems: development and application of simulation methods optimized for the design and operation of inorganic, organic, and biologic nanosystems.

Company Strengths

R&D: The MD Department represent an unique pool of researchers and academics with deep knowledge in a broad area of nanosciences and nanotechnologies. Fabrication facilities and know-how are also widely available.

Sector

NANOTECHNOLOGY

- NANOMATERIALS&CHEMISTRY
 - Inorganic
 - Organic
 - Composites
 - Coatings/Thin films
 - Fibres
- ELECTRONICS & DEVICES (ICT)
 - MEMS/NEMS
 - Photonics
- NANOMEDICINE
 - Diagnostic
 - Drug Delivery
- NANOBIO TECHNOLOGY
- NANOFABRICATION
- NANOTOOLS/INSTRUMENTATION
- TRANSPORT & AEROSPACE
- ENERGY
 - Production
 - Storage
 - Saving
- FUNDAMENTAL RESEARCH

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING
- JOINT CREATION OF AN ENTERPRISE OR CONSORTIUM

Partnership Proposal

We offer our expertise and know-how to companies for dedicated research programs.

We are also interested in the preparation of joint research proposals to be submitted to Public Bodies and Funding Agencies.

CNR – Department of Molecular Design

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 Web site: www.dpm.cnr.it
 Contact: Giuseppina Padeletti, (Director of Institute)

At a Glance

Status: Public Research Organisation
Number of employees (of which R&D personnel): 1112, of which 814 in R&D
Turnover: 75,6 Millions of Euros, of which 62,4% in R&D
Year of establishment: 2006

Main Activity

Design of new molecules with biochemical properties

The general objective of the project, involves the design, realization, characterization and pre-competitive development of new molecules with predetermined biochemical properties, as well as innovative processes within the industrial, medical and pharmaceutical biotechnology.

Nano-structured polymeric systems and membranes

Objectives of the project are the development, the advanced characterization and the engineering of macromolecular systems with different levels of structural organization with the aim of developing multi-functional structures designed for sectoral and cross-sectoral applications. The integration of pre-existing competences in the field of synthesis and chemical modification (bulk and surfaces), advanced characterization, design techniques, engineering and processes will be focused to the development of added value materials and the related processes and technologies

Innovative products and processes for sustainable chemistry

The project consists of nine research lines, eight of them with strategic value. Two research lines are strictly related to the current energetic needs and deal with some fundamental aspects of "hydrogen economy". Three additional research activities are focused on the optimisation of chemical processes for the production of bulk and fine chemicals in terms of efficiency and selectivity. These research activities will be carried out following the principles of Sustainable Chemistry.

Waste removal and valorisation of renewable resources are common aspects of a number of research lines and the focus of one strategic project.

The use of nanotechnologies and the environmental constraints imposed to the catalytic processes are part of each research line and emerge as the heart of one of them specifically dedicated to multifunctional porous materials. The use of "white" biotechnology to accomplish low-environmental impact sustainable chemical syntheses is the core of a specific research project which collects the most important expertises existing on this topic in the CNR

Nano-organized systems with electronic, photonic and magnetic properties

Integration of the molecular design of nanostructured multifunctional materials together with multiscale fabrication of innovative architectures of novel optoelectronic and photonic devices for next manufacturing and biodiagnostic is the general aim of the Project. The Project works at the interface of nanotechnologies, organic optoelectronics and photonics and biohybrid systems

Molecular design of thin films and surfaces

The project is developed in the strategic field of molecular manipulation aimed at the fabrication of thin films and multifunctional surfaces. The project is focused on the design and synthesis of inorganic and hybrid organic-inorganic multifunctional systems and on the widespread characterization of their composition, morphology and structure up to the testing of their functional performances. Potential applications of the obtained scientific results concern the up-to-date technologies of photonics, optics, (bio)sensing and energy production. With this aim, the scientific activity of the project is developed along three principal research lines: i) organization and reactivity of molecular precursors and functional molecules on surfaces (also activated); ii) manipulation, functionalization and modification of surfaces and thin films; iii) comprehension of the structure-properties relationships of surfaces and thin films through the development of theoretical and experimental atomic and molecular-scale methodologies.

Enabling technologies for Drug Discovery

The research activities carried on by the research Units are aimed at three specific objectives, in correspondence with the strategic lines of the new national and European programs, Drug Design, Development and Delivery, Discovery of Targets and Biomarkers, Study of Systems and Modeling.

Computational modelling

the most significant motivations are related to the increasingly central position of molecular modelling and computer simulations in connection with:

- the rationalization at the molecular level of material properties;
- the targeted synthesis of innovative products and materials, by means of molecular design;
- the design and optimization of nanosystems for a wide range of applications, ranging from electronics, to catalysis, to the development of (bio)materials endowed with sophisticated features.

Company Strengths

- NANOMATERIALS & CHEMISTRY
 - Inorganic
 - Organic
 - Composites
 - Coatings/Thin films
- NANOMEDICINE
 - Diagnostic
 - Drug delivery
 - Tissue Engineering
- ENERGY
- NANOBIO TECHNOLOGY
- NANOFABRICATION, NANOTOOLS, INSTRUMENTATION
- FUNDAMENTAL RESEARCH

Sector

- ACTIVATION OF NEW PROJECTS (R&DT)
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING
- DEVELOPMENT OF NEW PRODUCTS

ECNP – European Centre for Nanostructured Polymers Scarl

Loc Pentima Bassa, 21, 05100, Terni, ITALY
 Telephone: 0744 492939
 Fax: 0744 492934
 E-mail: kenny@unipg.it
 Web site: www.ecnp.eu.org
 Contact: Prof. José M. Kenny (President of the Board)

At a Glance

Status: Private Research Center

Turnover: 500.000 € (100%)

Number of employees, r&d personnel: 10 (10)

Year of establishment: 2006

Main Activity

The European Centre for Nanostructured Polymers (ECNP) has been generated by the 12 core partners of the European Network of Excellence NANOFUN-POLY with the main objective of coordinating, integrating, promoting and performing activities of research, dissemination, education, training and technology transfer related to polymer nanotechnologies. Founder partners are: INSTM (Florence-Italy) through the University of Perugia, SICOMP (Sweden), IPF (Dresden-Germany), INSAVALOR (Lyon-France), INASMET (San Sebastian, Spain), FORTH (Patras, Greece), Lodz Polytechnic (Poland), University of Utrecht (NL), Institute of Macromolecules (Prague, Czech R.), CSIC (Spain) and UMBRIA INNOVAZIONE (Italy)

The principal activities of the ECNP are:

- To promote the organisation, management and execution of research and training activities in the areas of nanostructured polymers and composites;
- To promote and develop activities connected to the technological transfer of polymeric products and processes related to the industrial sector;
- Knowledge management in the specific area of polymer nanotechnology.

The ECNP is devoted to the study of processing-structure-property relationships of nanostructured polymers and polymeric nanocomposites for bulk applications and coatings surface treatments; applying advanced scientific tools including polymer chemistry, processing, advanced characterization and Life Cycle Analysis.

ECNP has already three subsidiary locations in Terni (Italy), Alessandria (Italy) and Lyon (France). The opening of nNew locations, hosted by the ECNP members, is planned for 2009.

ECNP is already active in several European projects and organizes and Annual Conference on Nanostructured Polymers and Nanocomposites. The next one will be held in Paris (France) on April 15-17, 2009.

Company Strengths

NETWORKING

ECNP is a consortium of 12 European research centres and is networked with other 24 research centres worldwide and with an Industrial Council of more than 40 companies working in the field of polymeric materials.

Moreover ECNP is an active research centre of the Umbria Technological District with active programs with the main industries in the region.

R&D

Expertise on hyperbranched polymers, polymer nanocomposites, nanocomposites with carbon nanoobjects (nanotubes, nanofibres, graphenes), nanostructured coatings, flexible organic materials for electronics (including sensors and photovoltaic applications), advanced processing routes including reactive extrusion, advanced physicochemical characterization of nanostructured polymers and nanocomposites including rheology.

EXPERTISE

Training, Knowledge management

Sector

NANOTECHNOLOGY

- NANOMATERIALS & CHEMISTRY
 - Organic
 - Composites
 - Coatings/Thin films
 - Fibres
 - Nanocomposites, nanotubes, nanofibres, graphenes
- NANOBIO TECHNOLOGY
- TRANSPORT & AEROSPAOCE
- TEXTILE
- FUNDAMENTAL RESEARCH

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING

Partnership Proposal

- Organization, management and execution of European Research Projects (FP7)
- R&D on nanostructured polymers and nanocomposites for different industrial applications: packaging, textiles, flame retardant materials, tissue engineering, aerospace, naval, car, appliances.

INSTM – Italian Interuniversity Consortium on Materials Science and Technology

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 Web site: www.instm.it
 Contact: Prof. Gualtiero Gusmano

At a Glance

Status: Public Research Organisation

Number of employees (of which R&D personnel): 2082 employees of which 2073 R&D personnel

Turnover (of which in R&D): year 2007 turnover 27.756 kEuro of which 78,46% in R&D

Year of establishment: 1992

Main Activity

Research and development in materials science and technology, with more than 500 associated researchers being involved in the field of nanotechnology and nanostructures materials for different applications.

Scientific and Technological skills are:

- metallic materials and related technology;
- ceramic materials and related technology;
- polymeric materials (plastics, rubber and fibres) and related technology;
- composite materials and related technology;
- materials and technologies for biomedical applications;
- materials with special electric, magnetic and optical properties;
- heterogeneous and homogeneous catalysts;
- deterioration and preservation of components and structures;
- surface treatments and modifications

The industrial fields involving the main interactions with INSTM are: Chemistry, Electronics, Mechanical Engineering, Transport, Civil Engineering, Rubber and Plastics, Biological and Sanitary Medicine, Energy and Environment; Packaging.

Company Strengths

HIGH END PRODUCTS

Research activity on Materials (properties and performance); Development on laboratory scale of pilot processes; Implementation on laboratory scale of materials and devices.

PATENTS

5 (5 IT, 2 EU, 1 PCT)

INNOVATIVE PROCESSES/SERVICES/PRODUCTS

Processes, Services and Materials as indicated in details in the "Activity Section".

NETWORKING

With 44 participating Universities, INSTM coordinates in a single organization essentially all the National Universities where research on

material science and technology is carried out, looking to materials chemistry and related technologies.

INSTM is involved in a large number of collaborations with the main Italian, European and International organisations and laboratories working in the area of materials science and technology. INSTM takes part in several running EU projects, such as large projects involving academia and industry and networks of excellence.

As an example, the main national and European INSTM project experiences are listed in the following

National Projects

- Molecular compounds and hybrid nanostructured materials with resonant and non-resonant optical properties for photonic devices – FIRB;
- Advanced Technologies for the knowledge, preservation and valorisation of ceramic, vitreous and musive materials in the Mediterranean area – FIRB;
- Converging strategies for the design, development and fabrication of multi-functional micro- and nano-devices for the detection and local chemo-therapy of cancer cells - FIRB;
- Development and validation of novel metal-ceramic materials for HVOF coatings of gas turbine components – FIRB;
- Polymer electrolyte and ceramic fuel cells: demonstration of systems and novel materials development – FISR;
- Inorganic and hybrid nanosystems for the development and innovation of fuel cells – FISR.

European Excellence Networks (INSTM coordination)

- Nanostructured and functional polymer-based materials and nanocomposites (NANOFUN-POLY)
- Molecular Approach to Nanomagnets and Multifunctional Materials (MAGMANET)
- Integrated Design of Catalytic Nanomaterials for a Sustainable Production (IDECAT)

European Integrated Projects

- Nanoscale Integrated processing of self-organizing multi-functional organic materials (NAIMO)
- Structural Ceramic Nanocomposites for Top-End Functional Applications (NANOKER)

R&D

Through the integration of a “critical mass” of knowledge, INSTM competes at the highest level, with innovative, pure and applied research projects in order to satisfied the needs and quality standards of national, international and industrial research

EXPERTISE

Schematically, the INSTM research expertises can be categorized in the following activity macro-areas: a) materials and process technologies and transport systems; b) materials and technologies for energy demand and environmental safety; c) materials and intelligent systems for information,transmission and storage; d) materials and technologies for health and nutrition; e) materials and technologies for cultural heritages.

The final aim of the INSTM consortium is the development and valorisation of interrelations between academia and industry, sustaining the development of joint activities as a function of applicative requirements.

Sector**NANOTECHNOLOGY**

- NANOMATERIALS & CHEMISTRY
 - Inorganic
 - Organic
 - Composites
 - Coatings/Thin films
 - Fibres
- ELECTRONICS AND DEVICES (ICT)
 - MEMS/NEMS
 - Photonics
- NANOMEDICINE
 - Drug delivery
 - Tissue Engineering
- ENVIRONMENT
 - Remediation
 - Protection
 - Monitoring
- NANOBIOTECHNOLOGY
- TRANSPORT & AEROSPACE, FOODS, TEXTILE
- NANOFABRICATION
- FUNDAMENTAL RESEARCH, CULTURAL HERITAGE, COMPUTATIONAL TOOLS

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING
- JOINT CREATION OF AN ENTERPRISE OR CONSORTIUM
- OTHER: Training courses to qualify personnel; Dissemination activities: public citizen awareness and knowledge dissemination.

Partnership Proposal

Strengthening and development of new collaborations and technological scientific synergies between INSTM and other international research organisations/industries (public/private) active in the field of Nanotechnologies also aiming at starting common initiatives and projects.

NANOFAB

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Fax: +39 0415093988

E-mail: d.basset@nanofab.it

Web site: www.nanofab.it

Contact: Diego Basset (Nanofab Director, Civen Scientific Director)

At a Glance

Status: SMEs

Number of employees, r&d personnel: 45 of which 40 R&D

Year of establishment: 2003

Main Activity

Nanofab is the Venetian laboratory for the research on nanotechnologies applied to materials. The mission of NanoFab is supporting research and innovation of the enterprises. It is part of Veneto Nanotech, the Italian Cluster of Nanotechnology, and was realized in 2003. Nowadays Nanofab is constituted by Civen (the association of the three Universities of Padova, Venezia and Verona), Veneto Nanotech, VEGA (the Venice Getaway for Science and Technology), the Chamber of Commerce of Venice and Veneto Innovazione.

Nanofab research activities are mainly focused on the following fields:

- surface treatments and coating deposition for mechanical, protective, decorative, functional applications;
- nanostructured light alloys with high mechanical performances obtained by means of High Velocity Compaction and sintering of metallic powders;
- nanostructured polymers for mechanical and functional applications;
- sensors and biosensors for environmental monitoring, food control, gene expression investigation and microbiological diagnosis;
- monitoring of fine, ultrafine and nanoparticles in workplaces air, to estimate the exposure of workers involved in nanotechnological processes.

Nanofab laboratories are equipped with 3 clean rooms and more than 80 instruments. Among them some advanced characterization tools like atomic force, electron and optical microscopes, compositional analysis and many others can be used for fully investigating the properties of nanostructured materials

Company Strengths

HIGH END PRODUCTS

Research activity and technology transfer for supporting companies in the development of new products or improvement of existing products.

PATENTS

A. Patelli, S. Vezzù, P. Falcaro, S. Costacurta, "Rivestimenti nanostrutturati con migliorate proprietà funzionali o meccaniche e metodo di preparazione degli stessi." Italian Patent, application n° VE2008A000058

NETWORKING

Part of the Italian cluster for Nanotechnologies, in strong cooperation with Universities, other research centers and many enterprises.

R&D

Nanostructured protective and functional coatings, polymers, metallic alloys, sensors and biosensors.

EXPERTISE

Synthesis and characterization of nanostructured materials

Sector

NANOTECHNOLOGY

- NANOMATERIALS & CHEMISTRY
 - Inorganic
 - Organic
 - Composites
 - Coatings/Thin films
 - Fibres
- NANOMEDICINE
 - Diagnostic
- ENVIRONMENT
 - Monitoring
- NANOBIOTECHNOLOGY
- FOODS
- TEXTILE
- NANOFABRICATION
- METROLOGY
- FUNDAMENTAL RESEARCH

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING

Partnership Proposal

Proposal 1

Luminescent nanoparticles, phosphors and coatings with controlled compositions, absorption and emission properties for applications in solar energy, lightening, textile patterning, bio imaging, sensing.

Proposal 2

Single layered and multilayered coatings for protective applications, mechanical and tribological performances, gas and vapour barrier, anticorrosion, self cleaning on metallic or polymeric substrates.

Proposal 3

Nanocomposite and nanostructured polymers with improved gas and vapour barrier properties, mechanical and tribological performances, thermal stabilities for applications in the automotive, sport system, packaging, furniture.

SELEX Sistemi Integrati, a Finmeccanica company

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E-mail: cfalessi@selex-si.com

Web site: www.selex-si.com

Contact: Carlo Falessi (Technology Strategy Senior Advisor, Special Projects)

At a Glance

Status: Large Company

Number of employees, r&d personnel: 3200, 1089 R&D

Turnover: 780Meuro, 120Meuro R&D

Year of establishment: 1950

Main Activity

- Nanofab
- Nanovalves
- CNT for Thermal Management
- CNT based Nanosensors
- TeraHz Technologies
- CO NanoSensors

Company Strengths

HIGH END PRODUCTS

Radar Sensors & Systems, System of Systems

INNOVATIVE PROCESSES/ PRODUCTS

GaAs, GaN, HTCC

NETWORKING

At present with > 35 Universities & Research Centers

R&D

Microelectronics, Photonics, Nano, HRT Processing, Middlewares,

Active Antennas

EXPERTISE

Synthesis and characterization of nanostructured materials

Sector

NANOTECHNOLOGY

- ELECTRONICS AND DEVICES (ICT)
 - MEMS/ NEMS
 - Photonics
 - TeraHz
- TRANSPORT & AEROSPACE

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&DT)

Partnership Proposal

TeraHZ Sources, Muon Tomography

STMicronics

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Web site: www.st.com

Contact: Gianguido Rizzotto. (Advanced .R&D Director TR&D – Foreign Member Russian Academy of Sciences)

At a Glance

Status: Large Company

Main Activity

The Post silicon Technology is a Advanced R&D team of the Technology R&D Corporate Group of STMicronics.

The main task of PST team is to develop Technology Platforms based on the combination of multifunctional organic materials, optimized by design, with Soft and NanoImprint Lithography manufacturing, for:

- Low-cost printed electronics systems on plastics
- Hybrid and organic molecular electronics subsystems: ultra low-cost biosensors, Full Plastic biosensor demo system
- Carbon nanotubes-based vacuum electronic devices and CNT-based composite materials.

Printed full organic electronics project

- A set of printed electronics thin-film transistors and logic gate
- Design and development of a reduced complexity 4 bit organic microprocessor by printed electronics technology already demonstrated at 5micron and planned for June 09 the 200nm version.
- Integration in a RF-powered system on plastics

Printed Molecular electronics project

Bio-functionalization of nano-scale silicon devices

- A set of new class printed arrays of specialized nanoscale devices to be used for the electrical detection of proteins as well as bio-molecules and chemicals, capitalizing on the molecular grafting and nano-imprint technologies.
- Integration of a full plastic microfluidic: demonstrated biosensor system. Elettrowetting microfluidic based sensors partially demonstrated and full system ready by June 09

Company Strengths

HIGH END PRODUCTS

Low cost printable sensor array for bio-molecules and chemicals, printable electronics, polymer based microprocessor/microcontrollers. functionalized CNT polymers with very high conductivity and N-type semiconductors. CNT based diodes/triodes

INNOVATIVE PROCESSES/SERVICES/PRODUCTS

Nanofabrication process and chemical grafting on silicon surface. CNT synthesis for various applications: CNT enhanced Polymers, CNT based diodes and triodes

NETWORKING

A*STAR Singapore, NTU Singapore, LETI and LITEN (CEA), CALTECH, Berkeley, UCSD, UCLA, CNR, Nanotechnology Institute of Russian Academy of Sciences, INFN, IMAST, Obducat, Optomec, Fraunhofer, IMEC, Altran, Universite' Libre'de Bruxelles

EXPERTISE

Soft and NanoImprint Lithography, nanoelectronics, Photo-Lithography, microcontact printing, Multiscale Modelling, Chemical Synthesis, chemical physics characterization of surface, Electronics CAD, evaporation process, CNT growth, softcomputing and Multiobjective Optimization Techniques.

Sector

NANOTECHNOLOGY

- NANOMATERIALS&CHEMISTRY
- ELECTRONICS & DEVICES (ICT)
- NANOMEDICINE
 - Diagnostic
- NANOBIO TECHNOLOGY
- NANOFABRICATION
- NANOTOOLS/INSTRUMENTS
- ENERGY
- METROLOGY
- FUNDAMENTAL RESEARCH

Type of Cooperation

- ACTIVATION OF NEW PROJECTS (R&D)
- TECHNOLOGY TRANSFER OR PRODUCTION LICENSING
- DIRECT INVESTMENTS
- JOINT CREATION OF AN ENTERPRISE OR CONSORTIUM
- FINANCIAL PARTICIPATION
- DEVELOPMENT OF NEW PRODUCTS

Partnership Proposal

Printed full organic electronics, Bio-functionalization of nano-scale silicon devices, printed arrays of specialized nanoscale devices to be used for the electrical detection of proteins as well as bio-molecules and chemicals, CNT synthesis for a variety of applications: from CNT enhanced Polymers to CNT based Diodes and Triodes

The Networking event is organised by AIRI/Nanotec IT, National Research Council (CNR) and Veneto Nanotech in collaboration with the Italian Institute for Foreign Trade (ICE) and with the support of APRE (Agency for the Promotion of European Research).

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www.nanotec2009.it

Supporters

