



INTERNATIONAL CONFERENCE

NanotechITALY2014

Cross-Cutting KETs for Responsible Innovation

Venice, 26-28 November 2014

PROGRAM

- HEALTHCARE & WELLBEING
- RESOURCE EFFICIENCY AND RAW MATERIALS
- SMART MANUFACTURING
- BIO-BASED & BIO INSPIRED INDUSTRY
- SPACE RELATED APPLICATIONS



ORGANIZERS



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NanotechITALY2014

Cross-Cutting KETs for Responsible Innovation

CONFERENCE OVERVIEW

WEDNESDAY
26th November 2014

THURSDAY
27th November 2014

FRIDAY
28th November 2014

MORNING

9.30 HALL 3
Opening Remarks
Introductory Lectures

9.00 HALL 4
Smart Manufacturing

9.00 HALL 3
Space Related Applications

9.00 HALL 3
Pharma and Medical Devices (2)

9.00 HALL 4
Substitution of Critical Raw Materials

9.00 HALL 3
Cognitive Sciences

10.30 HALL 1-2
WORKSHOP
The Italian Trade Agency Strategy for Nanotechnologies.
Focus on Far East Asia

11.00 HALL 1-2
WORKSHOP
TRIPODE - Innovation in Organic Electronics

AFTERNOON

14.00 HALL 3
Pharma and Medical Devices (1)

14.00 HALL 4
Metrology for Industrial Application

13.30 HALL 4
Materials for Improved Performances and Use of Resources

14.00 HALL 4
Bio-Based, Bio-Inspired Industry

14.00 HALL 3
Active and Assisted Living (AAL)

13.30 HALL 1-2
WORKSHOP
Innovation Management and Access to Finance

14.15 HALL 1-2
WORKSHOP
Safe by Design in Nanotech-Based Products

15.45 HALL 1-2
WORKSHOP
Ceramics Future Through Nanomaterials

POSTERS SESSION

- Pharma and Medical Devices
- Active and Assisted Living
- Bio-Based, Bio-Inspired Industry
- Safety and Societal Impact

- Pharma and Medical Devices
- Active and Assisted Living
- Smart Manufacturing
- Metrology for Industrial Application
- Safety and Societal Impact

- Space Related Applications
- Substitution of Critical Raw Materials
- Materials for Improved Performances and Use of Resources
- Smart Manufacturing
- Metrology for Industrial Application
- Safety and Societal Impact

BUSINESS NETWORKING



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Hall 3

Wednesday 26th – Morning (09.30-12.30)

Conference Opening: Introductory Lectures

9.30	Welcome and introduction from authorities and organizers		
10.00	GAVINO MURGIA	Deputy Head of Unit, DG Enterprise and Industry, Key Enabling Technologies and Digital Economy, European Commission	European Policies for Key Enabling Technologies
10.40	MASSIMO INGUSCIO	President, National Institute of Metrological Research, INRIM	European Metrology Strategy for Research and Innovation
11.20	ALBERTO SANGIOVANNI VINCENTELLI	Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, USA	Enabling Technologies, US and EU approaches
12.00	NEST PRIZE 2013	Fabio Beltram, Director, Scuola Normale Superiore of Pisa will award the NEST PRIZE 2013	Presentation of the 2014 NEST PRIZE Edition
12.15	Lunch & Poster Session		

POSTER SESSION

Pharma and Medical Devices
Active and Assisted Living
Bio-Based, Bio-Inspired Industry
Safety and Societal Impact



Hall 3

Wednesday 26th – Afternoon (14.00-17.30)

Enabling Innovation in Pharma and Medical Devices (1)

KETs can bring innovative, sometimes disruptive solutions to the healthcare industry. Inspiring, exemplar innovation cases and key research and development trends in a variety of areas, of great relevance for health care and well being. The latest advancements in nanomedicine, robotics, diagnostic and medical devices and biomaterials will be illustrated.

14.00	CHAIRS: FURIO GRAMATICA, DON CARLO GNOCCHI FOUNDATION – FULVIO UGGERI, BRACCO IMAGING		
14.10	NEIL P. DESAI	AbraxisBioScience LLC, Los Angeles, USA	Nanomedicine – A Journey From Lab to Market
14.40	GERT STORM	Utrecht University, Dept. Pharmaceutics, Utrecht Institute for Pharmaceutical Sciences (UIPS), The Netherlands	Targeted Particulate Nanomedicines: Promises and Reality
15.05	PAUL GALVIN	Tyndall National Institute, University College Cork, Ireland	The ABC of Micro and Nano Enabled Smart Medical Devices
15.30	CLAUDIO GERMINARIO, ELISABETTA PAPA	Società Italiana Brevetti SpA	Nano-Drugs and Micro Robots Invention: a Double Challenge for the Patent Attorney
15.50	Questions & Answers		
15.55	Coffee Break & Poster Session		
16.25	EMANUELA COVA	IRCCS Policlinico San Matteo Pavia	Antibody-Engineered Gold Nanoparticles Targeted to Lung Mesenchymal Cells As Novel Treatment For Chronic Lung Allograft Dysfunction
16.40	CECILIA PEDERZOLLI	Fondazione Bruno Kessler	Smart Functional Biointerfaces for Cancer Biomarkers Detection in Extracellular Fluids
16.55	EDOARDO MACCHI	University of Pavia, Civil Engineering and Architecture Department	Optical Fiber Sensors for Monitoring of Thermal Ablation Procedure Applied to Interventional Cancer Care: Results and Future Prospects
17.10	ELISA SANTOVITO	National Research Council, Institute of Sciences of Food Production (ISPA-CNR)	A Multipurpose EIS Biochip for Pathogenic Bacteria Detection
17.25	MICHELE BIANCHI	Rizzoli Orthopaedic Institute	Smart Ceramic Thin Films for New Generation Bone Implants
17.40	Questions & Answers		
17.45	Closing & Poster Session		

POSTER SESSION

Pharma and Medical Devices
Active and Assisted Living
Bio-Based, Bio-Inspired Industry
Safety and Societal Impact



Hall 4

Wednesday 26th – Afternoon (14.00-18.00)

Bio-Based and Bio-Inspired Industry

The demand for sustainable growth has prompted the research for alternative, more environmental friendly, products and processes. Biotechnologies can provide an answer to this demand in a variety of sectors spanning from fuels to chemicals, agri-food, remediation. The conference will showcase results and trends of the R&D activities in this strategic sector in which Italy can boast a front edge position.

14.00	CHAIRS: GUIDO SARACCO, POLYTECHNIC OF TURIN, ELVIO MANTOVANI, ITALIAN ASSOCIATION FOR INDUSTRIAL RESEARCH		
14.10	MANFRED KIRCHER	KADIB-Kircher Advice in Bioeconomy, Germany	KETs – Driver and Basis of the Bioeconomy
14.35	MARZIA QUAGLIO	Istituto Italiano di Tecnologia	Microbial Fuel Cells for Smart Electrical Energy Production
14.55	SPEAKER IN DEFINITION	Department of Applied Science and Technology, Polytechnic of Turin	Renewable Energy: Biorefineries and Biomass Scenario
15.15	FEDERICA MENEGAZZO	DSMN Dept, Ca' Foscari University of Venice and INSTM Consortium	Highly Dispersed Gold Nanoparticles as Efficient Catalysts for a Bio-Based Industry
15.35	Questions & Answers		
15.40	Coffee Break & Poster Session		
16.10	VALENTINA PREDAZZI, SERGIO TOMMASINI	Società Italiana Brevetti SpA Sunchem Holding Srl	The World of Clean-Patents
16.30	BERNARD THONON	Laboratory for Innovation in New Energy Technologies and Nanomaterials (CEA-LITEN), France	Advanced Development Platform for Pre-Treatment and Thermochemical Conversion of Second Generation Biomass
16.50	RAFFAELLA DONETTI	Pirelli Tyre SpA	Rice Husk: a Sustainable Source for Nanostructured Silica
17.10	MASSIMILANO FRANCESCHI	Laboratory Archa Srl	A Novel and Efficient Method for the Production of Polyhydroxyalkanoate Polymer-Based Packaging from Olive Oil Waste Water
17.30	GIULIA PADOVANI	Institute of Ecosystem Study, National Research Council (CNR – ISE)	Conversion of Olive Mill Wastewater in Feedstocks Suitable for Feeding a Photofermentative Process for Biocarburant Production
17.50	Questions & Answers		
18.00	Closing & Poster Session		

POSTER SESSION

Pharma and Medical Devices
Active and Assisted Living
Bio-Based, Bio-Inspired Industry
Safety and Societal Impact



Hall 1-2

Wednesday 26th- Afternoon (13.30-15.15)

Innovation Management and Access to Finance

WORKSHOP

There is a great difference between innovation and research. Research does not imply a business and marketing oriented approach, while innovation, in order to be successful and to find a practical application, should act according to the concept of innovation management. The workshop aims at underlining the difference between innovation and research, the importance of marketing policies in the valorization of research and the value of a business plan in the access to finance. The valorization of the intangible assets in this context is fundamental for the purpose of finding investors and resources that can support the innovation projects. Should an innovation project take into account a monetary approach? How can my business idea be transformed into a real business?

13.30 **CHAIRS: SERGIO TREICHLER, FEDERCHIMICA – MARCO GORINI, VENETO INNOVAZIONE**

13.45	RUGGERO FREZZA	M31 Italia Srl	Innovation and Research: Two Similar Words, Two Different Worlds
14.05	FRANCESCO MAZZOCCO	Mediocredito Italiano – Intesa Sanpaolo Group	What a Bank Does Expect From a Successful Business Plan? What a Perfect Business Plan Should Focus On?
14.20	PIERMARIO DI PIETRO	European Investment Bank	European Investment Tools for Innovation – Innovfin: an Overview of the Available Financial Products and of the Requirements to Access them
14.35	ROBERTO SIAGRI	Eurotech SpA	The Transformation of a Business Idea into a Real Business: the Secrets of a Successful Company
14.55		Questions & Answers	
15.05		Conclusions	
15.15		Coffee Break & Poster Session	

PARTNERS

Eurosportello del Veneto
Federchimica
Veneto Innovazione
Veneto Nanotech

IN COLLABORATION WITH

Enterprise Europe Network

CONTACTS

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Hall 1-2

Wednesday 26th - Afternoon (15.45-17.45)

Ceramic Future through Nanomaterials

WORKSHOP The workshop's intent is to display the current use of ceramics – but not only – both on industrial and research side, with the goal of bringing into focus the future, with reference to the next 2015 calls, with an incisive glance at its background on one side and with the target of reinforcing the technology transfer from academic research to industrial application. Authoritative speakers of both sides (industrial and academic) will assert their view, trying to read the real intentions of the incoming calls and to push toward a common, strong involvement of enterprises and university research labs.

15.45	CHAIRS: ISELLA VICINI, WARRANT GROUP, ANDREA CANESCHI		Welcome and Introduction
16.00	TIZIANO MANFREDINI	University of Modena and Reggio Emilia and INSTM	The Building Materials of the 3 rd Millenium
16.15	ARTURO SALOMONI	Centro Ceramico Bologna	Nanotechnologies for Ceramics: Boundaries and Applications
16.30	ANDREA LAZZERI	University of Pisa and INSTM	Microwave Processing of Ceramic Matrix Composites
16.45	PAOLO FINO	Polytechnic University of Turin and INSTM	Advanced Sintering Systems for Nanostructured Ceramics Consolidation
17.00	PAOLO VAVASSORI	Petroceramics SpA	Non Oxide Ceramics for Balistic and Automotive Applications
17.15	MASSIMO RINALDI	Warrant Group Srl	Cross cutting KETS for Improvement of Existing Manufacturing Processes
17.30			Discussion and Conclusions
17.45			Coffee Break & Poster Session

PARTNERS

Warrant Group Srl
National Interuniversity Consortium of Materials Science and Technology (INSTM)

CONTACTS

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Hall 3

Thursday 27th – Morning (9.00-10.45)

Enabling Innovation in Pharma and Medical Devices (2)

KETs can bring innovative, sometimes disruptive solutions to the healthcare industry. Inspiring, exemplar innovation cases and key research and development trends in a variety of areas, of great relevance for health care and well being. The latest advancements in nanomedicine, robotics, diagnostic and medical devices and biomaterials will be illustrated.

9.00	CHAIRS: EDOARDO SINIBALDI, ISTITUTO ITALIANO DI TECNOLOGIA (IIT), CENTER FOR MICRO-BIOROBOTICS – FABRIZIO PIRRI, CENTER FOR SPACE HUMAN ROBOTICS OF IIT@POLITO		
9.10	GUANG-ZHONG YANG	Hamlyn Centre for Robotic Surgery, Imperial College, UK	From Whole Body Systems to Micro-Manipulators – Safer, Smaller and Smarter Medical Robots
9.35	PAUL BREEDVELD	Biomechanical Engineering, Delft University of Technology, The Netherlands	Bio-Inspired Medical Technology
10.00	MARCO MINUTILLO	Robot System Automation Srl	OPERA: Integration, Robotic and Automation on Surgery Processes
10.20	EUGENIO GUGLIEMELLI	Biomedical Robotics and Biomicrosystems Lab, University Campus Bio-Medico	Rehabilitation Robotics
10.40	Questions & Answers		
10.45	Coffee Break & Poster Session		

POSTER SESSION

Pharma and Medical Devices
Active and Assisted Living
Smart Manufacturing
Metrology for Industrial Application
Safety and Societal Impact



Hall 3

Thursday 27th -Morning (11.15-13.10)

Cognitive Sciences (*Diseases and Disorders*)

Cognitive disorders are on the rise also as a consequence of an ageing population. The session will explore the contribution of KETs, on a medium to long-term horizon, in addressing this problem and improving the life of people affected by this disabling condition. The areas considered include biosystems and biomaterials, monitoring and sensing devices, modelling and simulation to understand the brain, mimic its functioning, to help diagnose and the treatment of Neurodegenerative Disorders (NDDs).

11.15	CHAIRS : LUDOVICO CIFERRI, GRADUATE SCHOOL OF MANAGEMENT, INTERNATIONAL UNIVERSITY OF JAPAN – CARLO RICCIARDI, POLYTECHNIC OF TURIN		
11.25	FABIO BENFENATI	Neuroscience and Brain Technologies, Istituto Italiano di Tecnologia	Neuroscience Meets Nanotechnology: from Hybrid Neuro-Interfaces to Neural Prostheses
11.40	ALESSANDRO VERCELLI	Neuroscience Institute Cavalieri Ottolenghi, Neuroscience Institute of Turin	Microvesicles/Exosomes, Biological Nanosized Systems for the Pathogenesis and Therapy of Neurodegenerative Diseases
11.55	SANDRO CARRARA	EPFL-École Polytechnique Fédérale de Lausanne, Switzerland	New Frontiers in Human Telemetry
12.10	GEOFFREY W. BURR	IBM Almaden Research Center, USA	Non-Von Neumann Computation: Computing Systems Motivated by the Human Brain
12.25	TADASHI SHIMIZU	Corporate Planning Division, JINS CO. LTD, Japan	JINS MEME - Daily Eyewear used for Medical Applications with New Sensing Technology
12.40	PANEL DISCUSSION		
13.10	Lunch & Poster Session		

POSTER SESSION

Pharma and Medical Devices
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Hall 4

Thursday 27th - Morning (9.00-13.00)

Smart Manufacturing: Enabling Advanced Production Systems

Resources and materials saving, process efficiency, flexibility, customization, and rapid manufacturing, are key drivers to improve competitiveness in advanced production systems. Integration of nanotech, advanced materials and ICT play a fundamental role to achieve these goals. The session will highlight R&D activities in areas such as nanofabrication, nanostructured materials, additive manufacturing, monitoring, sensing and actuation, rapid prototyping, automation and mechatronics.

9.00	CHAIR: DARIO SCAPATICCI, INNOVATION CLUSTER FOR MECHATRONICS AND SYSTEMS FOR ADVANCED PRODUCTION OF PIEMONTE REGION - MASSIMO GENTILI, BRUNO KESSLER FOUNDATION		
9.10	PAOLO CALEFATI	EFFRA, Prima Industrie SpA	Factory of the Future, Enabling KETs. Advanced Manufacturing Systems as Transversal KET
9.35	ALESSANDRO FARANO	Novasis Innovation	In definition
9.55	ALESSANDRO CONSALVO	Renishaw Srl	Metals Additive Manufacturing - Design for Process
10.15	ANDREA LAMBERTI	Department of Applied Science and Technology, Polytechnic of Turin	Nanomaterial Integration and Micro-Fabrication Technology for Sensing, Energy Production and Energy Storage
10.35	SILVIA BRAZZINI	Società Italiana Brevetti SpA	Smart Materials - Smart Patents
10.55	Questions & Answers		
11.00	Coffee Break & Poster Session		
11.30	ROLAND STAUDINGER	EV Group (EVG), Austria	Medical or Biological Devices Based on Next Generation Nanomanufacturing Technology
11.50	SALVATORE CINÀ	Alternative Energies and Atomic Energy Commission, Technological Research Division (CEATECH), France	Silicon Photonics Devices Realised by Direct Bonding of III-V Semiconductors on Si
12.10	IVO RANGELOW	Institute of Micro - Nanoelectronics, Ilmenau University of Technology Germany	Scanning Probe Lithography at the 5nm Scale
12.30	PAOLO SCOPECE	Veneto Nanotech ScpA	Pyrolyzed Photoresist Carbon Electrodes As a New Tool for Electroanalytical Determinations
12.50	Questions & Answers		
13.00	Lunch & Poster Session		

POSTER SESSION

Pharma and Medical Devices
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Hall 3

Thursday 27th - Afternoon (14.15-18.00)

Active and Assisted Living

The launch in 2014 of the new EU Joint Program on Active Assisted Living is giving a renewed impulse to develop technological solutions toward societal inclusion and the vision of a society for all ages. Along the entire product value chain, KETs are enabler of new solutions for physical prevention, rehabilitation and assistance, including, amongst others, fixed and mobile (wearable) sensors, communication systems, home automation, robotics, human machine interfaces, human driven design systems.

14.15	CHAIRS: PIETRO SICILIANO, INSTITUTE FOR MICROELECTRONICS AND MICROSYSTEMS AND PRESIDENT OF THE ITALIAN ASSOCIATION ON AMBIENT ASSISTED LIVING (AITAAL)–ELISABETTA BORSSELLA, ITALIAN ASSOCIATION FOR INDUSTRIAL RESEARCH (AIRI)		
14.25	FILIPPO CAVALLO	The BioRobotics Institute, Scuola Superiore Sant'Anna	Companion Robots for Active Living
14.50	SERGIO GALBIATI	LFoundry Srl	Silicon Foundry as Enabler to Develop Ambient Assisted Living Solutions
15.15	STEVEN RAHMAN	MPP, Harvard University, Samsung Research America, USA	Living Made Easier through Augmented and Virtual Reality
15.35	AD VAN BERLO	Smart Homes, The Netherlands	Technological and Business Perspectives of AAL
15.55	Questions & Answers		
16.00	Coffee Break & Poster Session		
16.30	AMEDEO CESTA	National Research Council, Institute of Cognitive Sciences and Technologies (CNR-ISTC)	New e-Health Environments Integrating Ambient Assisted Living and Robotics
16.50	EDOARDO CALIA	Istituto Superiore Mario Boella	Engineering of AAL Applications through IoT and Cloud Computing Architectures
17.10	FABIO DI FRANCESCO	Chemistry and Industrial Chemistry, University of Pisa	Nanocomposite-Based Wearable Temperature Sensors
17.30	VEIKKO IKONEN	VTT Technical Research Centre, Finland	Industry View to the Responsible Research and Innovation (RRI) in the AAL Domain
17.50	Questions & Answers		
18.00	Closing & Poster Session		

POSTER SESSION

Pharma and Medical Devices
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Hall 4

Thursday 27th -Afternoon (14.00-17.15)

Metrology for Industrial Application

Pursuing cooperation in metrology and characterization amongst research and technology players, industry in particular, is the focus of the recent European Metrology Research Programme (EMRP). The session will show the central role of metrology in industrial manufacturing processes to take full advantage of KETs, considering topics such as advanced techniques for analysis, traceability and characterization of structures and surfaces.

14.00 CHAIRS: LUCA BOARINO, NATIONAL INSTITUTE OF METROLOGICAL RESEARCH (INRIM) – MARCO PELOI, SINCROTRONE TRIESTE

14.10	WILFRIED VANDERVORST	Materials and Components Analysis, IMEC, Belgium	Innovations in Metrology: Meeting the Lab/Fab Challenges
14.35	IAN GILMORE	National Physical Laboratory (NPL), UK	Advanced Metrology for Nanoscale Surface Chemical Analysis
14.55	BURKHARD BECKHOFF	Physikalisch-Technische Bundesanstalt (PTB - National Metrology Institute), Germany	Characterization of Nanoscaled Materials by X-Ray Spectrometry
15.15	MARIE-CHRISTINE LÉPY	Laboratoire National Henri Becquerel, CEA-LIST, France	Traceability and References: from the "Convention du Mètre" to Nanotechnology
15.35		Questions & Answers	
15.40		Coffee Break & Poster Session	
16.10	MARIA LUISA RASTELLO	National Institute of Metrological Research (INRIM)	Highlights of the European Metrology Research Programme (EMRP)
16.30	CLAUDIO GERMINARIO	Società Italiana Brevetti SpA	Metrology and its Calibre in IPR Protection
16.50	GABRIELLA BORIONETTI	MEMC Electronic Materials SpA, SunEdison Semiconductor	"Nano" Metrology in a Manufacturing Environment of a Material Supplier for Microelectronic Industry
17.10	RUBEN BARTALI	Fondazione Bruno Kessler	Hardness and Elastic Modulus of Neodymium-doped TiO ₂ Films
17.30		Questions & Answers	
17.35		Closing & Poster Session	

POSTER SESSION

Pharma and Medical Devices
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Hall 1-2

Thursday 27th - Morning (11.00-13.20)

TRIPODE: Research Technologies for Integration of Polymers into Electronic Devices

WORKSHOP

The workshop will present the main objectives and results of the TRIPODE project, funded by the National Operative Programme Research & Competitiveness 2007-2013 (PON R&C) for Convergence Regions. The aim of the TRIPODE laboratory is to develop technologies of low-cost integration of new semiconductor materials, especially polymers, in devices and electronic circuits and sensors. The public-private laboratory wants to establish an integrated plan that allows to develop technologies for flexible and environmentally materials; they allow to print the materials at a low temperature; if it is needed, they can be easily integrated in stand-alone products – as applicable to materials of all kinds of thin and flexible media. The final aim is to bring the research results and the procedures into participating SMEs. Themes of the workshop are related to OLED devices and smart RFID, in-vitro diagnostic analysis, environmental monitoring and vegetable systems' stress, recycling and disposal methodologies, roll-to-roll technologies.

CHAIR: CRISTINA D'ALESSANDRO, FORMIT

11.00	CARLA MINARINI	ENEA	TRIPODE's Activities and the Research Context
11.15	MARIA GRAZIA MAGLIONE	ENEA	OLED Devices
11.30	GIUSEPPE SANTORIELLO	BTP Tecno	A System for the In-Vitro Diagnostic Analysis
11.45	LUIGI QUERCIA	ENEA	Smart RFID
12.00	LUIGI D'AQUINO	ENEA	Stress of Plant Systems
12.15	GIOVANNI GIANNOTTA	FOS Group	Environmental Monitoring System and Wireless Network
12.30	CESARE FREDA	ENEA	Recycling and Disposal Methodologies
12.45	PAOLO TASSINI	ENEA	Roll-to-Roll Technologies
13.00	CRISTINA D'ALESSANDRO	Fondazione FORMIT	TRIPODE towards H2020
13.15			Questions & Answers
13.20			Closing
13.25			Lunch & Poster Session

PARTNERS:

ENEA, Italian National Agency for New Technologies, Energy and Sustainable Economic Development
BPT Tecno srl
FORMIT, Fondazione per la Ricerca sulla Migrazione e sulla Integrazione delle Tecnologie
University of Salerno
FOS (Field Organization System) Srl
SESMAT
AET (Apparati Elettromeccanici e Telecomunicazioni) Srl

CONTACTS

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Hall 1-2

Thursday 27th -Afternoon (14.15-16.15)

Safe by Design in Nanotech-Based Products: the Nanosilver Case

WORKSHOP

The user committee workshop brings together players along the value chain of nanotech-based products and includes researchers, technology developer, manufacturers, retailers, end-users (both professional users and CSOs representing end-users), regulators, consumer, to investigate and discuss safe by design approaches for the development of antibacterial and cleaning products based on nanosilver.

The workshop is organized by the European FP7 NanoDiode project, in cooperation with the national project "*Nanotox: Evaluate Safety of Commercial Nanosilver Particles*"

CHAIR: ELVIO MANTOVANI, ITALIAN ASSOCIATION FOR INDUSTRIAL RESEARCH (AIRI)

SETTING THE SCENE: NANOMATERIALS AND NANOSILVER

14.15 WELCOME AND INTRODUCTION

14.25	MARIA LETIZIA POLCI	Ministry of Health	Key Needs and Perspective for Safe by Design of Nanomaterials
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14.40	FABIO BOCCUNI	Italian Workers Compensation Authority, Central Research Department	Policy Options and Best Practices for Occupational Health and Safety of Nanomaterials
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14.50	ANDREA PORCARI	Italian Association for Industrial Research, Committee on Nanotechnologies and KETs (AIRI/Nanotec IT)	Commercial Application of Nanosilver
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15.00	AGOSTINO MACRI'	Unione Nazionale Consumatori	The Consumers Point of View
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15.10	Questions & Answers		
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CASE STUDIES ALONG THE VALUE CHAIN: EXPERIENCE, ISSUES AND PROPOSALS IN THE APPLICATION OF NANOSILVER

15.20	GIOVANNI BALDI	Colorobbia	Challenges and Opportunities for Commercialization of Nanosilver Products
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15.30	ANNA FACIBENI	Center of Excellence for Nanoengineered Materials and Surfaces (NEMAS)	Silver Nano Style: Opportunities and Challenges for Industrial Application
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15.40	LAURA MANODORI	Veneto Nanotech ScpA	Nanosilver: from Lab to the Market
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15.50 TALK IN DEFINITION

16.00	CRISTINA LENARDI	Interdisciplinary Centre for Nanostructured Materials and Interfaces (CIMaINa)	Best Practices in the Risk Assessment of Nanosilver, the NanotoxProject Experience
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16.10	ISABELLA DE ANGELIS	Istituto Superiore di Sanità	Testing Strategies for the Safety of Nanomaterials: a Case Study on Nanosilver
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16.20	Questions & Answers		
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16.30	Coffee Break & Poster Session		
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PARTNERS:

NanoDiode Project, Italian Association for Industrial Research (AIRI)

Nanotox Project, CIMAINA, University of Milano

CONTACTS: ANDREA PORCARI, ITALIAN ASSOCIATION FOR INDUSTRIAL RESEARCH, COMMITTEE ON NANOTECHNOLOGIES AND KEY ENABLING TECHNOLOGIES (AIRI/NANOTEC IT) - info@nanotec.it



Hall 3

Friday 28th -Morning (9.00-12.45)

Space Related Applications

The space sector, one of the pillars of Horizon 2020, is strategic for testing the devices and solutions realized with KETs in the most demanding and harshest conditions. Innovation in conventional products will benefit as fall-out of this research. The session will focus on micro - nano materials and systems, detectors, energy harvesting systems (solar & other), communications (RF-devices, MEMS, microantenne), robotics, miniaturized satellites.

9.00	CHAIRS: PIERLUIGI BELLUTTI, BRUNO KESSLER FOUNDATION - ANGELO VALLERANI, CGS SPA		
9.10	ROBERTO BATTISTON	Agenzia Spaziale Italiana (ASI)	Small is Beautiful: Nanotechnologies Versus Space Challenges
9.35	FRANCO ONGARO	ESTEC - European Space Research and Technology Centre, European Space Agency	Cross-Cutting KETs for Responsible Innovation, the Space Perspective
10.00	PIERO MESSIDORO	Thales Alenia Space	Innovation in Thales Alenia Space: Overall Strategy and the Role of the Nanotechnologies
10.25	Questions & Answers		
10.30	Coffee Break & Poster Session		
11.00	VALERIO STRIANO	CGS Space SpA	Holographic Optical Elements for Aerospace Applications
11.20	MARIGLEN ANGJELLARI	Nanoshare Srl and University of Roma Tor Vergata	Cold Cathodes for Aerospace Applications: a Settled and Reliable Technology Based on Field Emission From Carbon Nanostructures
11.40	CIRO BORRIELLO	Aviospace Srl	Inkjetted Functional Heater for Aerospace Applications
12.00	MARCO SCATTO	Alta Srl and Veneto Nanotech ScpA	Synergies in the Development of Advanced Materials for Space Applications
12.20	MARCELLO ONOFRI	Aerospace Research Center of Sapienza (CRAS)	Micro-propulsion Activities at Sapienza University of Rome
12.40	Questions & Answers		
12.45	Lunch & Poster Session		

POSTER SESSION

Space Related Applications
Substitution of Critical Raw Materials
Improved Performances and Use of Resources
Smart Manufacturing
Metrology for Industrial Application
Safety and Societal Impact



Hall 4

Friday 28th -Morning (9.00-12.40)

Substitution of Critical Raw Materials

Considering the excellence of the EU manufacturing industry, and the dependence on external raw materials supply, the substitution of critical raw materials is one of the options to secure the production of high-value goods in Europe. As underpinned by the European Innovation Partnership on Raw Materials, breakthrough technologies such as nanomaterials and advanced materials can contribute to find solutions to substitute critical raw materials along the supply chain, in particular in areas such as energy, transportation and ICT.

9.00	CHAIRS : DARIO DELLA SALA, ITALIAN NATIONAL AGENCY FOR NEW TECHNOLOGIES, ENERGY AND SUSTAINABLE ECONOMIC DEVELOPMENT, ENEA		
9.10	DERK BOL	Materials innovation institute M2i, Partner of ERA-MIN (ERA-NET on Industrial Handling of Raw Materials, The Netherlands	Challenges and Strategies for Substitution of Critical Material
9.35	GUIDO FAGLIA	University of Brescia	Substitution of Indium in Transparent Conductive Layers – the DRAMA Project Experience
9.55	ALBERTO BOLLERO	IMDEA Nanociencia, Spain	Back to the Future: Revisiting Ferrites with Nowadays Nano-Tools as Alternative to Rare-Earth Permanent Magnet
10.15	FRANCO BONOLLO	University of Padova	Secondary Aluminium Alloys: Potential and Limits
10.35	Questions & Answers		
10.40	Coffee Break & Poster Session		
11.10	CSABA BALÁZSI	Bay Zoltan Nonprofit Ltd for Applied Research Institute for Materials Science and Technology, Hungary	Utilization of Wood Waste Containing Preservatives
11.30	MICHELE IANNONE	Alenia Aermacchi, Finmeccanica	Materials for Aeronautical Structures: Reason and Rules for Material Change
11.50	DONATO ZANGANI	D'Appolonia SpA	Strategic Roadmapping on Lightweight Multifunctional Materials and Composites For Transportation – the VALUE4NANO Experience
12.10	CLAUDIO GERMINARIO	Società Italiana Brevetti SpA	Raw Materials – Fine Patentable Inventions
12.30	Questions & Answers		
12.40	Lunch & Poster Session		

POSTER SESSION

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Hall 4

Friday 28th - Afternoon (13.30-16.30)

Materials for Improved Performances and Use of Resources

Nowadays, the combination of improved performance and efficient use of resources in processes and products is paramount for competing on a global market. The industrial renaissance of Europe should target as well the main objectives of "Resource Efficient Europe", as outlined by the EU commission. Functional and structural advanced materials and nanomaterials, thin films, are the option of choice for characteristics/performances driven innovation.

13.30 CHAIRS: JOSE KENNY, UNIVERSITY OF PERUGIA – GIOVANNI BALDI, COLOROBBA

13.40	KARSTEN WEGNER	Swiss Federal Institute of Technology, ETH Zurich, Particle Technology Lab. and Wegner Consulting, Switzerland	Advanced Nanoparticles Manufactured by Flame Synthesis
14.05	FABRIZIO CAVANI	University of Bologna, Industrial Chemistry and INSTM	The Role of Nano-Sized Catalysts in the Transformation of Renewable Raw Materials into Chemicals
14.25	SANDRA TOCHON	Alternative Energies and Atomic Energy Commission, lab. for Innovation in New Energy Technologies and Nanomaterials (CEATECH-LITEN), France	Innovative Manufacturing of Complex Shape Components by Powder Metallurgy
14.45	GIOVANNI PIEROPEPE	National Research Council, SPIN Institute (CNR SPIN) and Department of Physics, University of Naples "Federico II"	Flexible Thermoelectrical Modules Based on Bi-Te Nanocomposites
15.05	MICHELE MANCA	Fondazione Istituto Italiano di Tecnologia	Dual-Functional Photoelectrochemical Power Sources for Energy Efficient Glass Facades
15.25	MANILA CHIERUZZI	University of Perugia	Use of Nanoparticles for Enhancing the Heat Capacity of Nanofluids Based on Molten Salts as Phase Change Materials for Thermal Energy Storage
15.45	MARZIA PENTIMALLI	Italian National Agency for New Technologies, Energy and Sustainable Economic Development, ENEA	An Innovative Metal Hydride Cooling System Based on Hydrogen Adsorption/Desorption on Solid Beds. Progress in Materials & Thermal Cycle Engineering.
16.05	CARLOS MANUEL PEREIRA	CTCP, Footwear Technological Institute. Portugal	Footwear Materials with Enhanced Comfort Properties Based on Functional Nanoparticles
16.25		Questions & Answers	
16.30		Closing & Poster Session	

POSTER SESSION

Space Related Applications
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Hall 1-2

Friday 28th –Morning (10.30-12.40)

The Italian Trade Agency Strategy for Nanotechnologies. Focus on Far East Asia

WORKSHOP The Italian Trade Agency will illustrate the new strategy for promoting the industrial and technological cooperation worldwide for Italian nanotechnology industry, with a specific focus on 3 key markets in Far East Asia region: Japan, South Korea and Taiwan. Qualified experts will provide an insight on each of the 3 focus countries, based on market surveys realized by Italian Trade Agency offices.

CHAIR: FRANCESCO PENSABENE, HEAD OF INDUSTRIAL COOPERATION AND INTERNATIONAL ORGANISATIONS OFFICE, ITALIAN TRADE AGENCY

10.30	INTRODUCTION REMARKS ELVIO MANTOVANI, COORDINATOR, AIRI-NANOTECIT DIEGO BASSET, SCIENTIFIC DIRECTOR, VENETO NANOTECH		
11.00	RISHIKESH RAMACHANDRAN	IBI Research & Consulting Group Ltd	The Status of Nanotechnology Industry in South Korea. Overview, Perspectives, Opportunities for Collaboration between Italian and Korean Player. Presentation of Market Survey Realised by Italian Trade Agency on Korean Nanotechnology Industry
11.30	TADASHI SHIMIZU	Leader, Corporate Planning, JIN CO., Ltd	Market Focus - Japan
11.40	YOSHIHITO IMAI	Manager, Marketing & Sales Division, Toray Advanced Film Co., Ltd	Market Focus - Japan
11.50	EISHI MOMOSAKI	Research Professor, Faculty of Agriculture, Shinshu University	Market Focus - Japan
12.00	CHII DONG CHEN	Research Fellow, Institute of Physics, Quantum Electronics Laboratory, Academia Sinica	Market Focus - Taiwan
12.20	Questions & Answers		
12.30	Closing Remarks		

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