



# Participants Catalogue

# **Elevator Pitch**



# 12<sup>th</sup> of September – 5.30 PM - List of Pitches

## ISTEC-CNR (R&D Institution) – Anna Costa



Description: In this contribute we show the production of nanostructured microcapsule as powerful tool in green chemistry. Two spray-granulation techniques transformed fine powders into free-flowing, dustfree granules easy to encapsulate active phases and to be easily compressed, handled, stored or recovered The delivered particulate structures can be considered a safe by design solution because preserve "new" properties exhibited at nanoscale but decrease potential risks of an exposure to nanoobjects. Networking Profile: https://nanoinnovation2018.b2match.jo/participants/93

### Tiberlab Srl (SME) – Fabio Sacconi

**Description:** The product offered is TiberCAD, an integrated CAE software for the multi-scale design, analysis and optimization of innovative nanotechnology products for applications in Key Enabling Technologies (micro-nanoelectronics, photonics, advanced materials), such as quantum well and quantum **tiber**lah dot-based LEDs, nanometric FET devices, III-V semiconductors, photovoltaic cells for space applications, organic solar cells (OPV), Dye Solar Cells (DSC). Networking Profile: https://nanoinnovation2018.b2match.io/participants/22



### ASTER (Authority/Government) – Guida Domenico



Description: The final target of Nems4Bio demo case is to obtain a single chip able to perform a complete health check based on a tiny blood sample: Imagine a Si chip combining debris filtering, morphology-based cell sorting, individual droplet-based cell lysis, selective fluorescent sub-

cellular marking and quantitative detection, finally DNA sequencing. Si technology ultimately enables this but the challenge of integrating many functional modules on chip, bringing in the fluid sample or reagents and bringing out the data – i.e. connecting the Si chip fluidically, electrically and optically to the outside world – persists. And why not using the very same technology building blocks for analyzing the composition of fluid food Samp; beverage samples, biotech production, environmental water analysis and more. Networking Profile: https://nanoinnovation2018.b2match.io/participants/44

### Università di Perugia (University) – Antonella D'Alessandro

Description: The idea is the production of an innovative smart composite brick doped with nanofillers, with self-monitoring abilities. Such element would combine structural and sensing properties, producing diffuse multifunctional capabilities in structures and infrastructures. In particular, the topic of monitoring of structures under service conditions results of growing interest for the protection of the people who utilize them. The idea of a construction material which acts as a sensor could improve the structural safety by



self-detecting structural modifications, signs of fractures or possible incipient damages. Networking Profile: https://nanoinnovation2018.b2match.io/participants/90

### **CNR** (R&D Institution) – **Diego Liberati**



Description: Nanodrugs are one of the dreams of the near future: it would be nice to have a drug, embedded in a shield, traveling fast through the blood, dismissing the shield just at the very target, and heal! This seems true for example in the case of a molecule against cirrhosis, shielded of sugar, not interacting in blood, fast reaching just via diffusion and circulation the liver - eager of sugar, thus exposing the drug - and locally improving. But in general, it is not that easy. Two main points rest at least to be

solved. Networking Profile: https://nanoinnovation2018.b2match.io/participants/8

### LightFull (SME) - Teresa Tolin



Description: Lightfull aims at improving the 'habitat with bio-compatible facilitating saving resources provides flexible, practical and economical for the safety and comfort of people living in the new global economy: Safety and responsibility. They are the basis of projects increasingly advanced, reliable and value for stakeholder in this scenario Lightfull aims to customer defined governance, as preferred partner shared values of customer satisfaction, problem solving and sustainability.

### Università di Tor Vergata (University) – Fabrizio Quadrini

**Description:** Nano-coating fragmentation is a patented manufacturing technology for the production of polymeric matrix nanocomposites. It combines technologies of thin film coating and thermoplastic polymer processing. An example is coating thermoplastic pellets with metals by means of physical vapor deposition technique. These pellets can be used for the manufacture of plastic goods by injection molding. Networking Profile: https://nanoinnovation2018.b2match.io/participants/69



### ISTEC-CNR (R&D Institution) – Raimondo Mariarosa



Description: Design and production of industrial prototypes with amphiphobic (superhydrophobic plus oleophobic) surfaces (TRL=5). Discussion of relevant properties - self cleaning, friction and drag C istec reduction, anti-icing, anti-soiling, anti-fouling, anti-corrosion, improvement of heat exchange, etc. connected with the low wettable states of surfaces. The application of amphiphobic materials with self cleaning, friction and drag reduction ability, anti-icing, anti-spiling and anti-fouling, anti-corrosion, improvement of heat exchange, etc., is of great relevance for many industrial fields (aeronautic, naval and

maritime, energy and environment, mechanic and mechatronic, building, packaging, etc). Networking Profile: https://nanoinnovation2018.b2match.io/participants/20

#### Università di Bologna (University) – Francesco Romano

**Description:** Quantum dots are a new class of light emitting nanomaterials with applications spanning through: LED (e.g. QDLED-TV), light conversion, catalysis and bioimaging. Unfortunately they are made of elements that are often expensive, rare or toxic. Silicon nanocrystals (SiNCs) can be a good alternative, providing to overcome the poor absorption capability in the visible range. Within the ERC Proof of Concept Grant 2017 (SiNBioSys), we are addressing this problem by decorating with dyes their surfaces. Surface dyes absorb light and funnel excitation energy to the silicon core: this is the working principle of a



molecular light-harvesting antenna. The resulting system is extraordinary bright and, most importantly, the sensitised luminescence is long-lived (lifetime of hundreds of microseconds) and it is not sensitive to molecular oxygen. **Networking** Profile: https://nanoinnovation2018.b2match.io/participants/94

### Green Pupae (SME) - Irina Vetere

Green Pupae

Description: Green Pupae is an innovative start up that obtains from insects ingredients and actives for the production of food supplements and cosmetic products, active ingredients and organisms/derivatives for pharmaceutical and biotechnological applications. The production model involves the relocation of breeding modules managed by farmers interested in carrying out a business activity to supply

the raw material and open new market outlets within the primary sector. **Networking** Profile: https://nanoinnovation2018.b2match.io/participants/74



# H2020 Flash Presentation



13<sup>th</sup> of September – 9.00 AM

**H2020 Flash Presentation** is a simple presentation format where speakers talk showing **15 slides advancing automatically every 20 seconds.** With the aim to participate in the next Horizon 2020 call for proposals in *Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing (NMBP)* area, speakers will show their expertise and propose their organization for joining an existing consortium; or they will present proposal idea in order to find the missing and suitable international partner.

# H2020 Work Programme 2019 - Know more about NMBP funding opportunities!

The event will start with the **presentation of NMBP Work Programme for 2019** made by the APRE *National Contact Point* (NCP) for NMBP. During this first session topics, opportunities and other practical info will be presented. With more than **540 million & of budget**, the NMBP Work Programme 2019 is divided in 3 calls (Foundations for Tomorrow's Industry; Transforming European Industry; Industrial Sustainability) and 21 topics. Proposals submission deadlines, according to the specific topic, are on January and February 2019.

# List of selected speakers

# Università di Modena e Reggio Emilia (University) – Donata Franzi



 Presentation title:
 Dealing with a mission oriented research:
 UNIMDRE experience

 Networking Profile:
 https://nanoinnovation2018.b2match.io/participants/68

## Tiberlab Srl (SME) – Fabio Sacconi

**Selected topics:** *DT-NMBP-10-2019:* Adopting materials modelling to challenges in manufacturing processes (RIA); *DT-NMBP-18-2019:* Materials, manufacturing processes and devices for organic and large area electronics (IA); *LC-NMBP-32-2019:* Smart materials, systems and structures for energy harvesting (RIA). **Networking Profile:** <u>https://nanoinnovation2018.b2match.io/participants/22</u>



# Università di Bari (University) – Rosa Scotti



**Selected Topic:** *CE-BIDTEC-05-2019.* Microorganism communities for plastics bio-degradation (RIA). **Networking Profile:** https://nanoinnovation2018.b2match.io/participants/23

# CNR (R&D Institution) – Diego Liberati



Selected Topic: *DT-NMBP-12-2019*. Sustainable Nano-Fabrication (CSA). Networking Profile: <u>https://nanoinnovation2018.b2match.io/participants/8</u>

# Ro Technology (SME) – Gianluca Rossi

Selected Topics: *DT-NMBP-08-2019.* Real-time nano-characterisation technologies (RIA); *DT-NMBP-10-2019.* Adopting materials modelling to challenges in manufacturing processes (RIA); *DT-FOF-05-2019.* Open Innovation for collaborative production engineering (IA); *DT-FOF-06-2019.* Refurbishment and re-manufacturing of large industrial equipment (IA); *DT-FOF-08-2019.* Pilot lines for modular factories (IA 50%); *DT-SPIRE-06-2019.* Digital technologies for improved performance in cognitive production plants (IA). Networking Profile: https://nanoinnovation2018.b2match.io/participants/38

# Università Politecnica delle Marche (University) – Paolo Mengucci



Selected Topic: *DT-NMBP-19-2019*. Advanced materials for additive manufacturing (IA) Networking Profile: <u>https://nanoinnovation2018.b2match.io/participants/62</u>

### Politecnico di Torino (University) – Elisa Paola Ambrosio

**Selected Topics:** *DT-NMBP-03-2019:* Open Innovation Test Beds for nano-enabled surfaces and membranes (IA); *DT-NMBP-08-2019:* Real-time nano-characterisation technologies (RIA); *DT-NMBP-10-2019:* Adopting materials modelling to challenges in manufacturing processes (RIA); *DT-NMBP-12-2019:* Sustainable Nano-Fabrication (CSA); *NMBP-15-2019:* Safe by design, from science to regulation: metrics and main sectors (RIA);

Fabrication (CSA); *NMBP-15-2019:* Safe by design, from science to regulation: metrics and main sectors (RIA); *DT-FOF-06-2019:* Refurbishment and re-manufacturing of large industrial equipment (IA); *DT-FOF-08-2019:* Pilot lines for modular factories (IA 50%); *LC-NMBP-29-2019:* Materials for non-battery based energy storage (RIA). **Networking Profile:** https://nanoinnovation2018.b2match.io/participants/35

### Consulenza e Risorse Srl (SME) – Simona Romiti

**Selected Topics:** *DT-NMBP-08-2019:* Real-time nano-characterisation technologies (RIA); *DT-NMBP-10-2019:* Adopting materials modelling to challenges in manufacturing processes (RIA); *DT-FOF-12-2019:* Handling systems for flexible materials (RIA); *DT-NMBP-18-2019:* Materials,



manufacturing processes and devices for organic and large area electronics (IA); *DT-NMBP-19-2019:* Advanced materials for additive manufacturing (IA). **Networking Profile:** <u>https://nanoinnovation2018.b2match.io/participants/54</u>

Organisation	
Country	Italy
City	rome
Street	
Person	
Person	

Name

arch. phd

gaia turchetti

$\frown$	
Organisation	
organisation	
-	

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- Construction, Building & Restoration
- Energy & Environment

# " Sapienza " - University of Rome

#### Organisation

Country	Italy
City	Roma
Street	

#### Person

Name

Antonio Zuorro Ass. Prof.



#### Organisation

The laboratory iBeta (i $\beta$ ) carries out teaching and research activities in the field of industrial biochemical processes and applied chemistry to environmental protection technologies. The main research themes of the group are:- The recovery and the exploitation of waste materials and / or industrial residues for the production of high added value molecules, the production of energy, green synthesis of nanoparticles and the manufacture of environmentally friendly materials;- The treatment of liquid effluents and industrial sludge through chemical, biochemical, electrochemical, bioelectrochemical, advanced photo-oxidation and nanotechnology.

#### Areas of Activity

• Nano-Bio Related Products

#### Marketplace Opportunities

#### PROJECT COOPERATION

# Greener and cost-effective routes for the biogenic synthesis of metal nanoparticles from agro-industrial wastes

#### Descritpion

The goal of the project is the development of an environment-friendly method for the production of nanoparticles (NPs). Current protocols include the use of couples of costly and non-sustainable chemicals. Food wastes containing phenolic compounds have shown bioactive and anti-oxidant properties. In this contribution we investigate the feasibility of using commonly-found agro-industrial wastes as a flexible raw material in order to obtain NPs.

#### Innovative aspect and main advantages

The concept contributes significantly to the investigation of innovative nano-production of metal particles. It contributes to valorization of waste as bioactive resources being employed in green chemical reactions. According to NPs production, these new approaches are addressed at reducing environmental impact by giving safe products. Regarding the latter ones, the development of this technology seems to be highly suitable even for biomedicine and electronics engineering research. Market application

Green oriented research about NPs is suitable for many applications in biomedicine, electronics, catalysis and engineering research.

These new ways are cheaper (compared to traditional ones) and environmentally friendly.

#### PROJECT COOPERATION

# Green composites reinforced by agro-industrial wastes and nanocellulose fibers

#### Description

The goal of the project is the manufacturing of composite materials containing agro industrial wastes (i.e. spent coffee grounds, tomato pomace, blueberry peels...), natural fibers or nanocellulose. Food wastes are generated in great amounts from agro industry and they are commonly poured into the environment or burned in order to remove them, being these techniques highly disrespectful with

#### the environment.

Today, ecological concerns and issues such as recycling and environmental care are increasingly important. As a consequence there is an improving interest in the research on more environmentally friendly materials as it is the case of polymer composites reinforced with natural fibres (natural fibre reinforced plastics-NFRP and wood plastic composites-WPC).

Innovative aspect and main advantages

The novelty of this work is the use of agro industrial wastes as functional reinforcement in polypropylene for wood plastic composites (WPCs).

This research work offers an environmentally friendly alternative to upgrade the high waste volume generated contributing to improve overall properties of composites in terms of mechanical, thermal and water uptake properties.

Market application

Natural fillers are acquiring increasing importance as reinforcing materials in composites due to some advantages they provide such as low cost, low density, no toxicity, balanced mechanical properties and a clear lower environmental impact.

This could be a great innovation for composite polymers producers.

# ABzero

#### Organisation

Country	Italy
City	Pisa
Street	
Web	www.abzero.it



#### Person

Name

Giuseppe Tortora founder and CEO



#### Organisation

ABzero is a start-up developing innovative medical devices and offers a transport system of blood, hemoderivates and organs through drones

#### Areas of Activity

- Design / R&D / Engineering
- Health & Nanomedicine
- Transport, Space & Aeronautics

#### **Marketplace Opportunities**

#### SERVICE

### Robots and robotic module design

We provide mechanical and electronic design of robots, automatic devices, endoscopic caspule, microrobots through the collaboration with The BioRobotics Insitute of Scuola Superiore Sant'Anna, Pisa, Italy

#### PARTNERSHIP

#### Partnership with medical centers and hospitals

We would like to make partnership with hospital and medical center to explore the advantages of our solution in real applications

#### PROJECT COOPERATION

#### Our participation to different topics projects

We offer our participation to various Horizon 2020 projects thanks to the close collaboration with The BioRobotics Insitute of Scuola Superiore Sant'Anna, Pisa, Italy

#### EXPERTIZE

#### Our expertise

ABzero has wide experience acquired through different collaborations with The BioRobotics Insitute of

Scuola Superiore Sant'Anna, Pisa, Italy. People at Abzero worked in many different research project ranging from micro robotics to medical robotics applications, photonic, capsule endoscopy, automatic flying drones and other applications.

# Alfredo Fazio

Organisation	
Country	Italy
City	Roma
Street	Via Bradano 26
Person	
Name	Alfredo Fazio
	Engineer
Organisation	
Freelance	
Areas of Activity	

• Energy & Environment

# ASTER

Organisation		
Country	Italy	
City	Bologna	
Street		
Web	https://www.aster.it/	ASTER
		innovazione attiva

Person		
Name	Domenico Guida	
	Technical and scientific consultant	

#### Organisation

ASTER is the Consortium for innovation and technology transfer of Emilia-Romagna. Its partners are the Emilia-Romagna Regional Government, the six Universities and the National Research Centres located in the region (the National Research Council-CNR, the Italian National Agency for New Technologies, Energy and Sustainable Economic Development-ENEA, the National Institute for Nuclear Physics-INFN), the Regional Union of Chambers of Commerce, working in collaboration with regional Business Associations and Innovation Centres.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Service / Maintenance / Supply
- Electronics, Micro And Nanosystems
- Energy & Environment
- Food and Agriculture
- Innovative and Smart Textiles

- Nano-Bio Related Products
- Health & Nanomedicine
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Smart Manufacturing

Marketplace Opportunities

#### PRODUCT

### NeMs4Bio - Nano-enabled Microsystems for Bioanalysis

The Nano-enabled Microsystems for Bioanalysis (NeMs4Bio) demonstration case (part of the Vanguard Initiative on New Nano-enabled Products Pilot) addresses the heterogeneous integration challenge encountered when bringing a Si-based lab-on-chip into lab-on-chip module formats (e.g. chip carrier, cartridge). Besides the microfluidic integration challenges, it also covers aspects such as biofunctionalisation, nano-functionalisation, and heterogeneous multi-physics, cross-KET integration (Sion-X, Si-in-X). Special attention will be given to develop a platform approach for design, test and fabrication that allows easy re-use for various market needs.

Take a health check based on a tiny blood sample: Imagine a Si chip combining debris filtering, morphology-based cell sorting, individual droplet-based cell lysis, selective fluorescent sub-cellular marking and quantitative detection, finally DNA sequencing. Si technology ultimately enables this but the challenge of integrating many functional modules on chip, bringing in the fluid sample or reagents and bringing out the data – i.e. connecting the Si chip fluidically, electrically and optically to the outside world – persists.

#### PROJECT COOPERATION

## NeMs4Bio - Nano-enabled Microsystems for Bioanalysis

The Nano-enabled Microsystems for Bioanalysis (NeMs4Bio) demonstration case (part of the Vanguard Initiative on New Nano-enabled Products Pilot) addresses the heterogeneous integration challenge encountered when bringing a Si-based lab-on-chip into lab-on-chip module formats (e.g. chip carrier, cartridge). Besides the microfluidic integration challenges, it also covers aspects such as bio-functionalisation, nano-functionalisation, and heterogeneous multi-physics, cross-KET integration (Si-on-X, Si-in-X). Special attention will be given to develop a platform approach for design, test and fabrication that allows easy re-use for various market needs.

Analysis of biological fluid samples has come a long way from a complex, manual work process operating a multitude of large lab-bench instruments. Polymer cartridges have offered a first level of integration of functionality and reduction of sample and reagent quantities. Relying on even more cross-KET Si microfluidic integration is the way forward for automated complex biological fluid sample analysis.

Take a health check based on a tiny blood sample: Imagine a Si chip combining debris filtering, morphology-based cell sorting, individual droplet-based cell lysis, selective fluorescent sub-cellular marking and quantitative detection, finally DNA sequencing. Si technology ultimately enables this but the challenge of integrating many functional modules on chip, bringing in the fluid sample or reagents and bringing out the data – i.e. connecting the Si chip fluidically, electrically and optically to the outside world – persists.

This demo-case is jointly working on developing a network of pilot production facilities across participating regions and will involve core platform teams and application-specific experts including system builders and end-users. The aim is to accelerate the work of the demonstration case through a cross-regional collaboration platform in view of the detailed scope. Core platform teams will work on aligning their design processes and their technology interfaces to arrive at smooth integration from idea to product prototype.

#### Proposed action for the platform

A cross-regional platform on NeMs4BIO will require active participation and validation from RTOs and industrial players in order to accelerate the proposed action.

In this regard, actors (technology partners) active in the area of nano-enabled micro-systems for bioanalysis will be approached with regards to their particular interest in collaborating through this platform. In particular, actors will be asked to contribute their views on the indicated process steps (Fabricate Si-Integrated microfluidics with sensors - Bio-functionalization - Encapsulation in Microfuilidic package - Sealing and preparation for storage - Aggind connectors (optical, electrical, microfluidic) and an indication of their expertise with respect to the proposed stages. In the spirit of the Vanguard Initiative, this demo cases aims at enabling the integration of individual technologies into a working pilot design & manufacturing chain, interested partners are kindly invited to propose competences and technology contributions that fit the idea of chip-module integration as proposed and are, individually considered, at least at TRL 4 (i.e. beyond a technology proof-of-concept, preferably higher). The demo case aims at module demonstration at TRL 6-7 (in connection with a specific market-driven use case) with major manufacturing issues already addressed.

# AV CONSULTING SRL

#### Organisation

Country	Italy
City	PESARO
Street	VIA SIROLO 24
Web	www.avconsulting.it



#### Person

#### Name

Gabriele Angelucci GABRIELE ANGELUCCI



#### Organisation

#### AV CONSULTING

Fondata nel 2007 da Gabriele Angelucci e Valter Valenti, AV Consulting nasce come società di design e progettazione, nel corso degli anni integra competenze specialistiche sia ingegneristiche sia di Marketing, evolvendosi in una struttura in grado di gestire in parziale o completo outsourcing lo sviluppo di progetti per conto di aziende in Italia e all'estero.

Grazie ad una propria metodologia collaudata e l'esperienza maturata in ambiti diversi, AV Consulting opera all'interno delle aziende incentivando la generazione di innovazione a vari livelli della catena del valore. Un DNA fatto di dinamicità e flessibilità la rendono particolarmente attraente sia nei confronti di grandi gruppi industriali, piccole e medie imprese, start-up.

Tre divisioni integrate, Design, Engineering, Production, permettono la gestione in outsourcing di progetti complessi e in diversi settori (industriali e consumer), dispositivi medici, veicoli industriali, automotive, elettrodomestico, macchinari, illuminazione, packaging.

Founded in 2007 by Gabriele Angelucci and Valter Valenti, AV Consulting is an italian based agency specialized in new product development. Today AV Consulting applies its "italian design approach" to drive innovation for international brands, sme, start-up.

With three integrated departments, Concept Design, Engineering, Prototyping & Production, it works across a wide array of sectors (industrial and consumer) as medical device, transportation, automotive, home applliances, machinery, lighting, packaging.

#### ITALIAN DESIGN DRIVEN INNOVATION

E' la metodologia di lavoro finalizzata a stimolare il problem solving e la creatività non solo a livello di Ricerca e Sviluppo ma coinvolge l'intera organizzazione e le strategie con l'obiettivo di ricercare soluzioni alternative per far evolvere il business aziendale.

In questo modo riusciamo a creare prodotti dal design italiano, far evolvere quelli esistenti, concettualizzare applicazioni nuove con un notevole impatto sul mercato.

It's our approach for creative problem solving that is not limited to product development but involves the brand identity, strategic services to discorver new alternatives for business and society. We make new product and applications that look good, adress the need of users and make a substantial impact on the market.

#### PRODUCTION MADE IN ITALY

Nel corso di venti anni di attività abbiamo costituito un gruppo di aziende di produzione integrando

differenti tecnologie: termoformatura, carbonio e compositi, carpenteria, stampaggio ad iniezione, poliuretano, tecniche di prototipazione rapida.

I nostri partner assicurano che i concept prendano forma e sostanza trasformandosi in prodotti di successo partendo da attente analisi di fattibilità tecnica ed economica attraverso un attento processo che dall'idea arriva alla fase di prototipazione e produzione di componenti e prodotti finiti. In twenty years AV Consulting has created a group of manufacturing partners integrating different technologies: thermoforming, composites, injection moulding, poliurethane, rapid prototyping. Our partners ensure that ideas take form and substance and are developed into successful products starting from feasibility analysis to technical and economic evaluation through to speedy prototyping and production.

#### Areas of Activity

- Business Development
- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Production
- Sales & Distribution
- Electronics, Micro And Nanosystems

#### Marketplace Opportunities

# SERVICE

Product design CAD 3D engineering Branding

#### SERVICE

# RAPID PROTOTYPING

RAPID PROTOTYPING

SERVICE

#### MANUFACTURER : MOULDS AND PRODUCTION

INJECTION MOULDING POLIURETHANE THERMOFORMING CARBON AND COMPOSITES

#### SERVICE

# CORPORATE IDENTITY

New corporate identity

PARTNERSHIP

#### HORIZON 2020

New project like SME instruments

SERVICE

Software + Elettronica Sensoristica

- Energy & Environment
- Food and Agriculture
- Innovative and Smart Textiles
- Smart Manufacturing
- Transport, Space & Aeronautics

Automazione

# SERVICE MECHANICAL DESIGN ENGINEERING

- components and equipment for lab testing
- industral machinery
- suppliers portfolio

# AV CONSULTING srl Design -Engineering - Production

#### Organisation

Country	Italy		
City	Pesaro		Your Industrial
Street	Via Sirolo 24	AV	Design Partner
Web	http://avconsultingitalia.com/	CONSULTING	

#### Person

Name

Michelle Valeri Marketing Manager



#### Organisation

Founded by Gabriele Angelucci and Valter Valenti, AV Consulting isan italian based industrial design and product development agency.

We are specialized in market research, product design, mechanical engineering, prototyping and production.

It works across a wide array of industries as diverse as medical device, automotive, home applliances, domotic, machinery, lighting to furniture and technology.

We make product that look good, adress the need of users and make a substantial impact on the market.

We have 3 departments:

Strategy & Design

Engineering & amp; product development

Prototyping & amp; Production

Our Partners (in Italy and Asia) have twenty years experience in manufacturing solutions: CAD 3D engineering, FEM analysis rapid prototyping, mould construction for vacuum forming, PUR-RIM, manufacturing, injection moulding, assembly with electronics.

First of all to be sure you always make the right choice because you can rely on our counseling during technical and economical evaluation of materials and production techniques. You have the possibility to produce at very competitive costs, because, based on our experience, we know to guide you and find a tailor made solution that fits your requests at one of our approved Asian and Italian production partners.

# Bello srl

Organisation	
Country	Italy
City	Rome
Street	
-	
Person	
Name	Vincenzo Marranghello
	CEO & Founder
Organisation	
Start up innovat	iva
Areas of Activity	

Components / MaterialsElectronics, Micro And Nanosystems

# CEA-Leti

#### Organisation

Country	France	
City	Grenoble	
Street	71 avenue des Martyrs	
Web	http://www.leti-cea.com/cea-tech/leti/english	

Person
Name Narciso Gambacorti
Program Manager

leti

Ceatech

#### Organisation

The Nanocharacterization platform at CEA-Leti in Grenoble is placed in the heart of MINATEC campus over an area of about 3000m2. The platform employs about 80 between researchers and technicians and is composed of eight different competence centres for physical and chemical characterization. The main missions of the nanocharacterization platform can be summarized in the following: development of new characterization methodologies, open access to advanced equipments via collaboration programs with industrial and academic partners, support to internal programs, publications and patents.

In more details, the nanocharacterization platform is composed by the following centres:

-Ion beam analysis (SIMS, ToF-SIMS, Atom Probe);

-X-ray analysis (XRD, XRF, XRR, HRXRD,...);

-Electron microscopy (SEM, HR-SEM, TEM, HR-TEM, UHR-TEM, STEM, electron holography, electron tomography, EELS, X-EDS,...);

-Scanning probe microscopy (AFM, UHV-AFM, electrical AFM,...);

-Surface analysis (XPS, UPS, PEEM, k-PEEM, LEED, RHEED, nanoAUGER,...);

-Optical characterization (RAMAN, micro-RAMAN, FTIR, Ellipsometry (VUV, VIS, NIR),

Spectrophotometry, CL, PL);

-Magnetic resonance (RMN, DNP,...);

-Sample preparation (DB-FIB, Tripod,...).

The synergy between all these complementary competence centres, the presence of the 300mm silicon technology platform, the proximity with the ESRF (European Synchrotron Radiation Facility) and with the ILL (Institut Laue-Langevin) are the key factors that allow to the nanocharacterization platform to achieve state-of-the-art level in the physical/chemical/structural characterization of materials and devices.

- Design / R&D / Engineering
- Electronics, Micro And Nanosystems

#### Nanoscale Characterization and Measurements

#### Marketplace Opportunities

#### EXPERTIZE

Nanoscale Characterization

Leti can bring its nanocharacterization platform with a wide expertise in materials and devices analysis and characterization.

# Cerea FCP

#### Organisation

Country	Italy
City	Bonavicina di San pietro di Morubio
Street	Via Farfusola,6
Web	www.fcpcerea.it



Person		
Name	Giuseppe Ciuffreda R&D and marketing	

#### Organisation

Production granular and liquid fertilizers. Bland and compounds fertilizers. Located in North Italy in PO river valley near city of Verona.

#### Areas of Activity

- Production
- Food and Agriculture

#### **Marketplace Opportunities**

#### PRODUCT

#### Nanofertilizer NaNo.T+Iron

Liquid fertilizer with iron and phosphorus. This is the first Nanofertilizer on the italian market produced by italian company. The formulation is a colloidal liquid. we suggest it for: Orchard (pear, apple, peach, kiwi, plum, citrus, oragne), vegetable in open field and in greenhouse system. The formulation is stable with long period of shelf life.

# CNR

Organisation	
Country	Italy
City	NAPOLI
Street	

#### Person

Name

assistant researcher



### Organisation

ENTE NAZIONALE DELLE RICERCHE

AGAEF

- Health & Nanomedicine
- Nano-Materials Based Innovation

# CNR

Organisation	
Country	Italy
City	NAPOLI
Street	

Person
--------

Name ORSOLINA PETILLO

assistant researcher

Organisation

Ente pubblico di ricerca

- Nano-Bio Related Products
- Health & Nanomedicine
- Nano-Materials Based Innovation

# **CNR-NANOTEC & ATOM CENTER**

#### Organisation

Country	Italy		
City	Rome	INSTITUTE OF NANOTECHNOL	
Street	CNR-NANOTEC Rome Unit c/o Dept. Physics, Sapienza University, Piazzale Aldo Moro 5		
Web	nanotec.cnr.it		

#### Person

Name

Researcher

Luca Leuzzi



#### Organisation

CNR-NANOTEC mission is the development and prototyping of innovative materials and devices obtained using bottom-up approaches (self-assembling, molecular engineering of polymers, biological and organic molecules) as well as top-down approaches (nanotechnology/last generation litographic techniques applied to semiconductor materials).

In particular, CNR-NANOTEC researchers design and synthesize new nanomaterials and prototype devices with performances at the state of the art or above it. Other core activities are the study and the manipulation of soft matter and biomaterials and the study of the basics of plasma chemistry and physics and the development of new plasma methodologies for application in many fields such as environment, energy and life sciences, aerospace and cultural heritage.

- Design / R&D / Engineering
- Testing & Analysis
- Innovative and Smart Textiles
- Nano-Bio Related Products

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

# consiglio nazionale delle ricerche

Organisation		
Country	Italy	
City	milano	
Street		
Person		
Name	diego liberati research director national	6

#### Organisation

The greatest public research body in Italy, covering all disciplines

research council of Italy

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Construction, Building & Restoration
- Electronics, Micro And Nanosystems
- Energy & Environment
- Food and Agriculture
- Innovative and Smart Textiles
- Nano-Bio Related Products

- Health & Nanomedicine
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Safety and Social Impacts
- Smart Manufacturing
- Transport, Space & Aeronautics

#### Marketplace Opportunities

#### PROJECT COOPERATION

### Nanodrugs: towards a "joystick" medicine

Nanodrugs are one of the dreams of the near future: it would be nice to have a drug, embedded in a shield, traveling fast through the blood, dismissing the shield just at the very target, and heal! This seems true for example in the case of a molecule against cirrhosis, shielded of sugar, not interacting in blood, fast reaching just via diffusion and circulation the liver - eager of sugar, thus exposing the drug - and locally improving. But in general, it is not that easy. One of the standards is a lipid mantle, like cells do, or so called crystal liquid nowadays: they can be engineered to resist until target, and then start dissolving and releasing. Results are not yet always comforting. Two main points rest at least to be solved. First of all, it should be cared how fast the nanoparticle can arrive to target: circulation and diffusion are good for the liver example above, but may not be enough for other targets. A first improvement should thus be to embed in the crystal liquid mantle not just the active chemical principle, but also for instance a magnetic component, whose function could be to be able to more easily be actively driven in place at the very target from outside the body, like when a joystick is used to drive a player on a playstation. In this way, faster arriving at target should be guaranteed, also in time not to let the dissolving constant of the lipid mantle already dissolve too much and release drug before target. That would already be quite a n improvement and could indeed be the first step of a

forecasted program. A second even further step, less physical and more chemical, would then also be to design the shield in such a way to be able to program at what time to dissolve and free the active molecule, ideally exactly when target is reached, like with the top firing button of the recalled joystick metaphor! How to do that sounds less evident, but chemistry improvements could make such further step one of the great improvements of the very next future in the field.

# Consiglio Nazionale delle Ricerche

Organisation	
Country	Italy
City	Bologna
Street	

Person Name

Francesco Mercuri Senior Researcher



#### Organisation

**ISMN-CNR** 

Marketplace Opportunities

#### PRODUCT

### Modelling of materials, processes and devices

Advanced modelling sw/hw infrastructure for the simulation of complex systems in application fields ranging from manufacturing to health and energy

#### SERVICE

### Modelling of materials, processes and devices

Advanced platform and modelling environment for the multi-scale simulation of complex systems in several application fields, including manufacturing, energy, healthcare, etc.

#### PARTNERSHIP

### Multi-scale modelling

Our expertise in the multi-scale simulation of complex systems, focusing on materials, processes and devices, enables the development of predictive models in several fields of both basic and applied research

#### PROJECT COOPERATION

## Multi-scale modelling of materials, processes and devices

We are always interested in possible new collaborations. We already take part in several collaborative projects, at the national and international level.

Our expertise in the multi-scale simulation of complex systems, focusing on materials, processes and devices, enables the development of predictive models in several fields of both basic and applied research.

#### EXPERTIZE

## Development of multi-scale modelling environments

Our competences focus on the development and application of advanced simulation environments for the predictive modelling of complex systems. In particular, we target multi-scale modelling concepts,

where the complexity of phenomena is tackled by the integration of different simulation techniques. This approach is particularly relevant in fields of application where the properties of a system at a smaller scale impact strongly on the behavior at a macro-scale, as for example in nanotechnology.

# Consorzio CETMA

#### Organisation

Country	Italy
City	Brindisi
Street	
Web	www.cetma.it



Person	
Name	Alessandro Marseglia
	EU Project developer

#### Organisation

R&D private centre with large skills in polymeric and composite materials, simulation and modelling, diagnostic.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Construction, Building & Restoration
- Innovative and Smart Textiles

#### **Marketplace Opportunities**

#### PROJECT COOPERATION

DT-NMBP-19-2019: Advanced materials for additive manufacturing

Reinforced polymers for molds manufacturing. Sector: aeronautics

#### PROJECT COOPERATION

DT-NMBP-10-2019: Adopting materials modelling to challenges in manufacturing processes

Materials modelling knowledge and expertise

- Smart Manufacturing
- Transport, Space & Aeronautics

# Consulenza e Risorse SRL

#### Organisation

Country	Italy
City	MILANO, PESCARA
Street	
Web	www.consulenzaerisorse.it



#### Person

Name

Simona ROMITI Partner of a for profit Company



#### Organisation

Consulenza e Risorse srl is a company operating on advanced services field, focusing the technological, financial and sociale sustainability of research and innovation processes as well products engaging the partner enterprises. We cover 8 different and vertical management services, each of them is stressed by very skilled resources, in a balance assessment between men and women.

- Business Development
- Investment/ Financing
- Electronics, Micro And Nanosystems
- Nano-Bio Related Products
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Smart Manufacturing

# Day One

Organisatio	n	
Country	Italy	
City	Roma	
Street		

#### Person

Name

Project Manager

Anna Joukova



#### Organisation

DAY ONE'S FOCUSES ON HIGH TECH EUROPEAN ACADEMIC START-UPS. OUR USER CENTERED INNOVATION PATH LEVERAGES ON A CONTINOUS FEEDBACK FROM INDUSTRIAL END-USERS, WHICH VALIDATE THE START-UPS' VALUE PROPOSITION AND HELP SHAPING THE PRODUCT ACCORDING TO THEIR REAL NEEDS.

THIS ENSURES THAT THE OUTCOME OF OUR PROCESS IS VALUABLE TO OUR INDUSTRIAL AND INVESTMENT PARTNERS.

WE TEAM UP WITH RESEARCHERS AND START-UPPERS TO HELP THEM DEVELOP THEIR BUSINESS AND ACQUIRE MORE CUSTOMERS AND FUNDING.

- Business Development
- Investment/ Financing

# Department of Biology, University of Pisa

#### Organisation

Country	Italy	Dipartimento di Biologia
City	Pisa	م <i>ا</i> ة قاد
Street	Via Ghini 13	
Web	https://www.biologia.unipi.it/en/	Università di Pisa

#### Person

Name

Monica Ruffini Castiglione Associate Professor



#### Organisation

The Department of Biology of the University of Pisa brings together a range of disciplines to understand life at all levels of biological organization in a wide variety of organisms, including viruses, bacteria, animals, plants and humans. Research plays a central role in the Department's mandate and focuses on the organization and functioning of cells, tissues, organs, individuals, populations and ecological communities in an evolutionary context. In addition to fundamental research, the mission of the Department of Biology is also to promote the applied aspects of the research, as for example with the research program in biotechnology.

#### Areas of Activity

- Testing & Analysis
- Service / Maintenance / Supply
- Food and Agriculture

Safety and Social Impacts

#### Marketplace Opportunities

#### EXPERTIZE

Integrated approaches to highlight biological responses of plants to metal nanoparticles

Our research group has long been studying the effects of metal nanoparticles on higher plants, in vivo and in vitro, with a multidisciplinary approach at cells, tissues, organ level. Higher plant phytotoxicology bioassays have been developed for the study of the effects of nanomaterials on living organisms.

#### SERVICE

# Experimental models to assess potential nanoparticles toxicity by means of higher plants

Our group has developed robust experimental protocols to assess potential toxicity (phytotoxicity,

cytotoxicity and genotoxicity tests) of nanoparticles both in liquid and solid matrices by means of plant model systems, very useful, versatile and of equal sensitivity, compared to animal systems.

#### PARTNERSHIP

# Nanoparticle applications and hazards: assessing of possible harmful effetcs of metal nanoparticles.

The nanotechnology revolution and its challenges has been going on for some time, accompanied however by a series of ethical implications related to the intentional or unintentional release into the environment of new nano-chemical compounds, which are not yet fully characterized for their behavior effects on the ecosystems and living organisms. It is priority and urgent to dispel these uncertainties, that nowadays remain, about the possible harmful effects of these nanomaterials, otherwise transferred in farming soils, for crop plants and for food chains. Our expertise can be useful to select environmentally friendly and biologically appropriate nanomaterials, with a reduced or absent toxicity for living organisms.

# Dept of Biomedical, Metabolic and Neural Sciences. Section of Public Health

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Country	Italy
City	MODENA
Street	Dept. address Via Campi 287
Web	www.neubiomet.unimore.it

#### Person

Name

Paola BORELLA University Professor



#### Organisation

Public University, our dep. is parteof the Faculty of Medicine

#### Areas of Activity

- Testing & Analysis
- Health & Nanomedicine

#### **Marketplace Opportunities**

#### EXPERTIZE

### prevention of nosocomial- associated infective diseases

Application of nanomaterials on the environmental surfaces at risck for microbe contamination

#### PRODUCT

#### nano materials for health environment s

to deliver new nano materials for the prevention of microbic contamination in the area surrounding persons at risck for severe infections

#### SERVICE

#### prevention of nosocomial- associated infective diseases

to offer new solutions for the prevention of infective diseases

#### PRODUCT

#### nano materials for health environment s

to build films of nano particles with metals such as Ag

PARTNERSHIP

# prevention of nosocomial- associated infective diseases

groups working in the construction of nano materials for the protection of environments in the hospitals and other health structures.

# Dept. of Biomedical, Metabolic and Neural Sciences. Section of Public Health

#### Organisation

Country	Italy
City	MODENA
Street	Dept. address Via Campi 287
Web	www.neubiomet.unimore.it



#### Person

Name

Paola Borella University Professor



#### Organisation

Public University - Faculty of Medicine

#### Areas of Activity

- Testing & Analysis
- Health & Nanomedicine

#### **Marketplace Opportunities**

#### EXPERTIZE

### nano materials for health environment

application of nanomaterials in critical areas of hospital for the prevention of infective disease.

#### PARTNERSHIP

### nano materials for health environment

partnership with private/public firms interested in producing nanomaterials for covering surfaces aimed to avoid microbial contamination
### Ecamricert

#### Organisation

Country	Italy
City	Monte di Malo
Street	Viale del Lavoro 6
Web	www.ecamricert.com



100% ANALYSIS+TESTING

Person		
Name	Davide Pedroni R&D Office	

#### Organisation

EcamRicert is an analysis, testing, research and advice lab, equipped with modern, specific instruments and technologies for the different sectors.

Our strength derives from the across-the-board approach based on the sustainability and peer respect for of our clients, to which we dedicate the efforts and growth of our business and our partners, who have the chance to better express themselves and live their daily activities with a deep sense of belonging.

#### Areas of Activity

- Testing & Analysis
- Nanoscale Characterization and Measurements

#### **Marketplace Opportunities**

#### SERVICE

#### **R&D** Activities

Ecamricert, thaks its technicians' competence, has developed experiences and abilities in strategic research and innovation sector during time. In this context it usually consucts R&D activities on a regional, national and European (Horizon 2020) level. Ecamricert helps through this growth its clients as well, planning research activities, selecting the best European and national entities, setting un funded educational paths, all of which is oriented to a constant improvement of both products and processes.

SERVICE

### TEM

Ecamricert is able to do analysis with a new TEM 200kV

PROJECT COOPERATION

#### NANoREG 2

Ecamricert is currently partner in NANoREG 2, an Horizon 2020 project focused on nanomaterials safety and regulation

### Egyptian petroleum research institute

#### Organisation

Country	Egypt	EP
City	nasr city	
Street	1 Ahmed El-Zomor Street - El Zohour Region - Nasr city - Cairo	لاعتيال
Web	www.epri.sci.eg	

#### Person

Name

Doctor

ELSAYED ZAKI



#### Organisation

EPRI is a leading research organization, over forty years of research and application researchers experts in compatable fields "Oil field chemicals, Petrochemicals, Polymers, Surfactants, Green & Biofuels, Refining, Processing and Development, Sedimentation, Petroleum exploration, Gheophysics, Catalysis and physical Separation, Pipeline transportation and storage of oil & gas, Reservoir engineering, Drilling Fluid, Enhanced Oil Recovery, Nanotechnology, Lubricant and Additives, Corrosion, Coating, Hazardous gas scavengers, Non- destructive tests".

#### Areas of Activity

• Energy & Environment

#### Marketplace Opportunities

PROJECT COOPERATION

Eco-friendly Ionic Liquid Chitosan as water treatment membrane

synthesis of membrane

### Embassy of Israel

Organisation		
Country	Italy	
City	Rome	
Street		
Person		
Name	Guenda Esposito	
	commercial assistant	
Organisation		
Embassy of Israel		
Areas of Activity		
<ul><li>Busines</li><li>Energy</li><li>Food an</li><li>Health</li></ul>	<ul> <li>Nano-Materials Based Innovation</li> <li>Environment</li> <li>Agriculture</li> <li>Nanomedicine</li> </ul>	
Marketplace Op	oportunities	
PARTNERSHIP		

#### Business relationship\ partnership

Export "Made in Israel" in Italy with the help of Italian players.

Create partnership with Italian firms, in order to cooperate and to create business opportunities for both the countries.

### ENEA

Organisation

Country	Italy	
City	Santa Maria di Galeria	ENEN
Street	Via Anguillarese 301, CR ENEA CAsaccia PO BOX 059	CALEE
Web	https://materiali.sostenibilita.enea.it/	and the second second second

Person		
Name	Giuseppe Barbieri President of CALEF P&P consortium/ HEAD of ENEA "Chemical and physical technologies" Laboratory	

#### Organisation

The Division Sustainable Material trough own laboratory and with the support of linked Pubblic Private Consortium like CALEF (www.consorziocalef.it) promote the development of new materials and technologies to improve productivity and sustainability in several industrial fields of application (Energy, Automotive, Aeronatics & aerospace, etc.)

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Energy & Environment
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Smart Manufacturing
- Transport, Space & Aeronautics

#### Marketplace Opportunities

#### EXPERTIZE

#### Industrial laser process development

Developing of laser and Hybrid welding processes to made lightweight components for transport. Re design, building and NDT, Micro and Macro characterizzation.

### ENEA

#### Organisation

Country	Italy
City	Rome
Street	Via Anguillarese 301
Web	http://www.enea.it

#### Person

Name Daniele Mirabile Gattia Researcher

#### Organisation

Italian National Agency for New Technologies, Energy and Sustainable Economic Development

#### Areas of Activity

Energy & Environment

### **Eurovertice Consultores**

Organisation		
Country	Spain	
City	Murcia	
Street		
Person		
reison		
Name	María García	
	Project assistant	



#### Organisation

The concept of EuroVértice emerged in 2000 when three of the founding partners met on an university course on Relations with the European Union. There they faced the unique challenges of what would later be their main occupation: European funding and projects that make real the objectives related to the needs of European institutions and citizens.

After a long career in private consulting in their fields of specialization and motivated by the firm conviction that the needs of their customers could be better served, they decided in 2006 to face the challenge of joining forces, leaving their jobs and rejecting international opportunities to start a business in their home region, Murcia.

The initial team consisted of two engineers, a lawyer and a English philologist. A heterogeneous group, but sharing professional and personal histories marked by a constant search for creating innovative synergies, which can be seen in career profiles that demonstrate genuine creative and adaptation to change skills.

EuroVértice continues to expand its sphere of activity from former European programmes to many other such as Interreg Europe, LIFE+, Horizon 2020, MED, ENI, Erasmus+, etc.

EuroVértice and its star began its journey, not without difficulties which, by the way, had strengthen it, by managing a single European project, then progressing until today, when the company manages more than 12 at a time, in very different community initiatives and still expanding horizons.

Along the way, EuroVértice has worked with numerous professionals, consolidating knowledge and experience. A permanent self-criticism of the work done has enabled a level of quality that guarantees the resolution of the issues associated with the adventure of international cooperation, in which experience, direct contact with the client and professionalism are paramount.

In its years of experience, EuroVértice has expanded its interdisciplinary skills with energy, environmental, communication and legal experts.

Adapting to change has been one of the keys to EuroVértice success, from the work as independent experts to the teamwork methodology, from telecommuting to the move of the headquarters into the Murcia Science Park. A meteoric rise for a company with 10 years of formal career and many more of experience as a team.

#### Areas of Activity

- Design / R&D / Engineering
- Energy & Environment

- Safety and Social Impacts
- Smart Manufacturing

• Food and Agriculture

• Transport, Space & Aeronautics

- Nano-Bio Related Products
- Health & Nanomedicine

### Evoelectronics

Organisation	
Country	Italy
City	Rome
Street	
Person	

Name

Mario LaManna Senior Scientist



#### Organisation

SME operating in radar, space and communication areas

Areas of Activity

- Electronics, Micro And Nanosystems
- Transport, Space & Aeronautics

### Ex Enel ed Acea

Organisation		
Country	Italy	
City	Roma	
Street		
Person		
Name	Ferdinando Milanetti	
	Ingegnere Civile Edile, Idraulico ed Elettrico	
Organisation		
Enel Produzione SpA, Acea Produzione SpA		
Areas of Activity		
Design / R&D / Engineering		

- Construction, Building & Restoration
- Energy & Environment

### ex General Manager Sirio Microelettronica Srl

#### Organisation

Country	Italy
City	Rome
Street	Via Camillo Spinedi 4

#### Person

Name Antonio Scatamacchia

personal interest

#### Organisation

Technical expert

#### Areas of Activity

- Business Development
- Electronics, Micro And Nanosystems

#### Marketplace Opportunities

#### PRODUCT

power amplifiers

Thermal distribution and absorbing

#### PARTNERSHIP

#### power amplifiers

University thecnical and product cooperation for utility reaserch and application

#### PROJECT COOPERATION

#### power amplifiers

applications

### Fondazione Bruno Kessler

#### Organisation

Country	Italy
City	Trento
Street	via sommarive 18
Web	https://cmm.fbk.eu/en/



#### Person

Name

Massimo Bersani

Program Manager/Researcher



#### Organisation

FBK is a top Research institute in Italy, ranked at the 1st place for scientific excellence within 3 different subject areas (ICT, History and Sociology) and for the economic and social impact according to the quality of research ANVUR evaluation for the period 2010-2014.

Fondazione Bruno Kessler is a research non-profit public interest entity.

Being the result of a history that is more than half a century old, through 2 scientific hubs, 7 research centers, 410 researchers, 2 specialized libraries, 7 laboratories, FBK aims to results of excellence in science and technology with particular emphasis on interdisciplinary approaches and to the applicative dimension.

We achieve this thanks to our constant attention to collaborations and exchange activities with research organizations, both institutional and corporate, national and international, which extend our innovation capability and involve the community and the local economy in the circulation of knowledge and technologies.

The Mission of Fondazione Bruno Kessler can be summarized in five main points:

- 1. Scientific research of excellence
- 2. Attracting talent and resources
- 3. Internationalization
- 4. Social and technical innovation
- 5. Impact on the local communities

#### Areas of Activity

- Business Development
- Investment/ Financing
- Design / R&D / Engineering
- Testing & Analysis

#### Marketplace Opportunities

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

### Chemical-physical analysis of materials and Interfaces

FBK-CMM support joint research and service activity area of micro and nano-characterization with a particular focus on chemical physic analyses. Several analytical techniques and a deep knowledge in material analysis are available. Possible applications are: Microelectronic materials; Surface coating and modification; Archeometry; carbon base materials; polymer; bio-material; volatile compound; ect. Examples of available techniques are: SIMS; XPS; AFM; XRF; XRD; SEM-EDX; ToF-SIMS; PTR-MS

#### SERVICE

#### Device microfabbrication

FBK-CMM offers the entire development cycle of advanced miniaturized devices based on over 20 years of experience. Microfabrication expertise is focused on radiation sensors and MEMS for silicon microdevices.

The microfabbrication facility focused on develop new prototype device as wells perform small production lots

Applications area are:

Radiation sensors and MEMS (Micro Electro Mechanical Systems) production of silicon microdevices in fields such as particle detection, transduction, RF, optics.

The Facility is composed by:

• 6" Microfabrication Area 700 m2 ISO 4-5, full CMOS pilot line, DRIE, wafer bonder, electroplating, bulk micromachining

• Testing Area 200 m2: manual, automatic electrical testing, optical testing, PV cells efficiency

• Integration and packaging area 60 m2: microassembly, screen printing, ball & wedge bonding, pull & shear test.

#### EXPERTIZE

#### Scientific expertise

the CMM research units present expertise in several technology areas. Mains topics are listed below: Microfluidics and Lab on chip **Electrochemical sensors** Tactile sensors MEMS **RF-MEMS Environmental sensors** Single-photon detectors (full-custom and standard CMOS tech.) Silicon Drift Detectors Custom Radiation detectors Multispectral Imaging Camera (Visible, IR and THz) Ultra-low power imagers for Wireless Camera Low-level light detectors for UV light Protective and functional coatings Materials for renewable energy **Biomedical materials** Integrated optical circuits Nanostructured materials Hydrogen production and Storage **Redox Flow Batteries** Concentrated solar power Micro - cogeneration Low carbon energy systems for Smart Buildings, Communities and Cities **Biological surface science** Molecular diagnostics

Molecular and cell biology Biophysical studies of biomolecules

### Fototherm Srl

#### Organisation

Country	Italy
City	Gonars
Street	Via Olmi 1
Web	www.fototherm.com

#### Person

Name Eros Miani CEO Fototherm Group



FOTOTHERM

#### Organisation

FOTOTHERM ® S.r.l. was founded in 2006 and has since become a S.p.A in March 2014 and Fototherm Group S.r.l. in January 2018;

the company has garnered the experience of its staff of engineers already working in the field of photovoltaics and cogeneration since 2000.

The Company is pioneer in the hybrid PVT co-generation, produces

and commercializes hybrid PVT modules with its own patented technology.

In terms of security and efficiency, the upgrade obtained through FOTOTHERM ® technology is guaranted by the quality of the products are used.

Nano-Bio Related Products

Safety and Social Impacts

Nano-Materials Based Innovation

#### The innovative system FOTOTHERM®

guarantees the perfect integration with the recent conditioning system (heating and cooling).

#### Areas of Activity

- Business Development
- Investment/ Financing
- Design / R&D / Engineering
- Production
- Service / Maintenance / Supply
- Energy & Environment

#### **Marketplace Opportunities**

#### REQUEST

#### Energy storage innovation with nano-materials

We are focused in seeking innovations to nano level that can improve energy storage technology.

#### REQUEST

#### Environmental nano-technology

We are seeking for nano technology that can have positive impact on environmental remedies .

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#### PARTNERSHIP ULTRACAPACITORS NANO LEVEL

We would like to develop new technologies for energy storage based on nano-scale capacitor technology

### Green Pupae

Italy

Piacenza

Irina Vetere

#### Organisation

Country City

Street

#### Person

Name

CEO

Green Pupae



#### Organisation

An innovative Italian startup focused on the development and use of alternative and eco-sustainable nutritional sources, represented by insects, able to enhance the biodiversity and to ensure the sustainability of land and water productions, for applications in nutraceuticals, cosmetics and pharmaceuticals.

Health & Nanomedicine

Safety and Social Impacts

#### Areas of Activity

- Business Development
- Production
- Sales & Distribution
- Food and Agriculture

#### Marketplace Opportunities

#### PRODUCT

#### Cosmetics

Antioxidant and anti-inflammatory peptides have protective effects against free radicals and can contribute to a significant reduction in the level of oxidative stress, as well as to the degenerative process associated with aging of the body and skin. Insects have high anti-free radical activity and ion chelation capacity and may inhibit lipoxygenase and cyclooxygenase-2 activity. Some of the products of Green Pupae are represented by cosmetic creams and oils that help to counteract the effects of aging by acting on the skin through the antioxidant and anti-inflammatory function of its ingredients with anti-ageing action.

#### PRODUCT

#### Nutraceuticals

Essential amino acids account for between 46 and 96% of the total amount of amino acids contained in insects. These, in addition to being essential for protein synthesis and the performance of functions fundamental for the proper functioning of our body, find further applications, not only therapeutic, but also for the construction and maintenance of muscle tissue and as sports supplements offered by Green Pupae.

In addition, several studies have confirmed the beneficial effects of n-6 and n-3 fatty acids for acute

and chronic diseases, such as regulation of lipid levels, action on cardiovascular and immune functions. Omegas 3 and 6 also play a key role in the prevention and management of type 2 diabetes and insulin resistance. So, it has been shown that daily supply with a source of MUFA or PUFA from Tenebrio can have beneficial effects on the cardiovascular system and reduce the risk of disease.

#### PRODUCT

#### Pharma and biotech

Several antimicrobial compounds have been identified among insect defensive peptides that have broad spectrum activity against gram-positive/negative bacteria and fungi. The therapeutic use of bioactive peptides as potential new drugs is challenged by their typically poor stability and a lack of oral bioavailability. Insect defensive peptides, on the other hand, have a unique structural topology involving the complex arrangement of three disulphide bonds. The presence of these bonds results in more compact structures, thus increasing stability and bioavailability for their pharmaceutical use. Insects can be used as a vehicle for their engineering and for the production of recombinant proteins and new molecules. The study of the immune response of the insect and as a vector organism for the production of antimicrobial substances and the engineering of DNA sequences encoding the detected proteins, together with the production of new modified sequences can lead to important developments in biotechnology.

#### PROJECT COOPERATION

#### Breeding network

One of the company's missions is to build a network of modules on the national and international territory for the production of high quality raw materials, spreading a new business model for social, economic and environmental sustainability.

In the first period of construction of the network, Green Pupae applied an open strategy to dialogue with future farmers and to create synergies between the parties, with the aim of maintaining its own value (insect) within the chain and at the same time allowing a high degree of network flexibility, through future shareholdings, joint ventures and atypical contracts, depending on business opportunities. The second period, represented by consolidation, aims to establish a single body that will act as an umbrella for the production units located in the territories which will constitute Green Pupae's subsidiaries focused on the development of its products; the farmers, through the breeding units, will continue breeding and will be able to start new business lines for the production of feed for small farms and other products derived from production waste as biofuels.

In addition to the production and sale of the raw material, each farmer will have the opportunity to work together with the company to identify new compounds of interest, depending on the species and nutrient substrate that can vary the chemical composition of the insect, thus entering new further markets and activing new projects of research.

#### EXPERTIZE

#### Dr. Antonio Zuorro

Antonio Zuorro, one of the partner of Green Pupae is graduated in Chemical Engineering at the University of Rome "La Sapienza", he obtained a PhD in Chemical Engineering at the same University. He has served as referees for scientific journals in the fields of chemical engineering and biotechnology. He is a permanent member of the editorial board of a number of international scientific journals, including the American Journal of Applied Sciences.

His research activity has been developed in various sectors, including enzymatic kinetics and the recovery of compounds with high added value, in particular phenolic antioxidants and natural antimicrobial agents, from agro-industrial processing waste. His research is also focused on the use of these bioactive compounds for the preparation of new functional foods.

He is the author of over 90 scientific publications and co-author of four patents for industrial inventions.

Within the startup, he is studying and developing new processes of extraction.

#### PARTNERSHIP

#### Insect-based supply chain

Green Pupae's main activity is the transformation of insects to obtain extracts of interest and the development of products for the cosmetics, nutraceuticals and pharmaceutical markets. The exploration of the natural product and the ability to identify biologically the active substances represents the most important research activity for the company which is supported by a study upstream of the scientific literature.

Once the elements of interest have been identified by technologies of screening and biological tests, the company invests in processes aimed at obtaining this material or individual molecules that are determined on the basis of protocols tested on a laboratory scale that can find industrial development. The company is located downstream of the supply chain, offering the final products, and for this reason is always looking for new partners for the development of the products and the creation of synergies within the entire chain, which consider not only the markets of interest and the distribution of the products but all the economic factors that characterize the competitive environment, from legislation, technology, up to communication.

### Haptica

#### Organisation

Country	Italy
City	Milan
Street	Via Podgora 15, 20122 Milano
Web	www.hapticasensing.com



#### Person

Name Giuseppe Tussiwand General Manager

#### Organisation

We provide high-quality, miniature semiconductor strain gauges and temperature sensors for a variety of application: micro-positioning for microscopy, micro-fluidics, embedded medical sensors, haptic devices, embedded force sensors, pressure sensors and temperature sensors, sensors for robotics. We support innovation and enable IoT product development: our gauges and sensors are ideal for passive RFID implementations.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Production
- Electronics, Micro And Nanosystems
- Energy & Environment

- Health & Nanomedicine
- Nanoscale Characterization and Measurements
- Smart Manufacturing
- Transport, Space & Aeronautics

#### **Marketplace Opportunities**

#### PRODUCT

#### Sensors for Nanopositioning; Sensors for small forces and torques

Haptica can provide a positioning sensor with nanometric resolution to interested parties. Haptica can also provide a sensor for measuring very small forces, in combination with a displacement sensor.

#### SERVICE

Application of high quality semiconductor sensor elements to your design, enabling nanopositioning, displacement and force measurement

We can sensorize your design to enable the same functions: fine position and force control

#### PARTNERSHIP

#### H2020 or EU Grant / Product development partnership

We are looking forward to finding partners for H2020 or other EU grants to develop products and applications in the field of Nano-engineering, Biomedical, Robotics and Micro-sensing, including wireless applications.

PRODUCT

#### Micro-Flow sensors

Haptica can provide temperature, pressure or drag flow sensors for micro-flow measurements

#### EXPERTIZE

#### High quality, miniature sensing based on semiconductor technology

We provide high-quality semiconductor sensing elements, enabling your product and application

### i-LAMP & Università Cattolica del Sacro Cuore

#### Organisation

Country	Italy
City	Brescia
Street	via dei Musei 41
Web	https://centridiricerca.unicatt.it/ilamp



#### Person

Name

Associate Professor

Luca Gavioli



#### Organisation

I-Lamp is the Interdisciplinary Laboratory for Advanced Materials Physics. It has been established in the year 2011 as a Research Center of the Science Faculty of the Catholic University. It is hosted in the Brescia Campus by the Department of Mathematics and Physics.

I-LAMP is focussed on the physics of strongly correlated systems, nanostructures and interfaces, complex systems and time resolved spectroscopies. The research activity is supported by a cluster of five labs targeted to the development of ultra-fast spectroscopies, to the synthesis and characterization of nanostructured systems and interfaces and to the computational modelling of complex systems. The labs have also the capability to develop instrumentation and diagnostic tools for the physics of materials.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Nano-Bio Related Products
- Health & Nanomedicine

#### **Marketplace Opportunities**

#### PRODUCT

#### Synthesys

Nanoparticle synthesis by gas phase. Great flexibility and mixing of elements

#### SERVICE

#### characterization

spectromicroscopy of nanostructures and thin films Optical techniques including ultra fast lasers

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

Mechanical characterization of nanostructures

PARTNERSHIP

#### applications of nanoparticles

Looking for a network to apply nanoparticles in the field of antibacterial coatings, catalysis, or subrtates for cell modification or differentiation

#### PROJECT COOPERATION

#### Nanogranular materials obtained by gas phase synthesis

We look for networks for application of nanogranular materials. Development of the synthesis and of selected applications through collaborative projects

## IIT-CLNS

#### Organisation

Country	Italy
City	Roma
Street	Viale regina elena 291
Web	https://www.iit.it/it/centers/clns-sapienza

#### Person

#### Name

Marco Leonetti Post Doc

#### Organisation

The IIT@Sapienza laboratory, born after a Research Project submitted in 2010, revolves around two topics of biomedical interest where technological innovation is key to reach the goals. The first regards neurodegenerative disorders, hereditary and sporadic conditions characterized by progressive nervous system dysfunction. The focus of the second will be brain tumours, the most life-threatening diseases of adulthood and childhood.

#### Areas of Activity

- Nano-Bio Related Products
- Health & Nanomedicine
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

### IMEM-CNR

#### Organisation

Country	Italy
City	Parma
Street	Parco Area delle Scienze 37/A



Person		
Name	Giovanni Bertoni	
	Researcher	1000

#### Organisation

The main activities of IMEM are aimed at the growth / synthesis, study and control of multi-functional properties of new generation materials, including: bulk materials, systems and magnetic devices, semiconductors and superconductors; semiconductor nanostructures at quantum dots (QDot); nanostructures on metal surfaces; molecular systems and organic / inorganic hybrid materials engineered to different length scales; nanostructures and functionalization processes and multi-functionalization for sensors, bioelectronics, energy and bio-medical.

#### Areas of Activity

- Testing & Analysis
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

#### **Marketplace Opportunities**

#### EXPERTIZE

#### TEM/STEM Imaging and EELS Spectroscopy on nanomaterials

Experience in TEM/STEM characterization and in electron energy loss spectroscopy (EELS) to exploit the structure and electronic properties of new materials, especially at nanoscale materials (nanoparticles, nanowires, colloids, etc..). For a list of publications see here: https://scholar.google.it/ citations?user=R4T17lwAAAAJ&hl=en

### ImpattoZero Srl

#### Organisation

Country	Italy
City	Cassino
Street	VIA CASILINA SUD, KM 141.700
Web	www.agricoltura2punto0.it/



#### Person

Name

Sara Iacobelli Project Manager



#### Organisation

ImpattoZero is an innovative startup that offers its innovation in the business model combining three elements never previously united: the aquaponics culture technique (IoT), the economic model of the franchise and the sale of agricultural products at the direct and personalized request of the consumer (farming on demand from the existing biodiversity-demand).

Our 4 pillars:

1.Reviving industrial areas

2.Allowing anyone to be a virtual farmer

3. Overtaking quality and quantity of current crops out of the ground

4. The need to feed a population that is becoming more and more numerous

#### Areas of Activity

- Production
- Sales & Distribution
- Food and Agriculture

#### Marketplace Opportunities

#### SERVICE

#### Franchisee - Basic Proposal - Pilotage Contract

The offer for the franchisee has many different aquaponics modules designed based on the needs of the aquaponics farmer:

1)Catalogue for vertical towers already made offers

2)Catalogue for NFT already made offers

3)Catalogue for Grow beds, already made offers

4)Example of indoor solution in climate chamber with controlled cima and photoperiod

5)Tailor made projects, based on customer needs & budget

The franchise agreement will be inclusive of the following services: the economic and financial definition of the agricultural model; the technical training on the system; technical training on selected crops; constant support telephone and online; support for managing relationships with customers;

assistance on the construction of the marketing plan; the search for funds and financing; the laying of the plant operates, the technical launch, consumables (seeds, plants, microorganisms, mycorrhizae, etc.) and finally apps and the web site for interaction with the consumer.

The franchisee will be required to comply with the supply chain certification protocol, where there is a commitment to developing, with the procedures to be established between the technicians of Agriculture 2.0 and the certification body.

## in quattro srl - two-phase cooling for high power electronics

#### Organisation

Country	Italy
City	Rome
Street	
Web	www.in-quattro.com

#### Person

Name

Giuseppe Zummo Researcher



Transport, Space & Aeronautics

#### Organisation

in quattro srl is a technological startup that realises two-phase cooling thermal management systems for power electronics: high performance pc and workstation, electric cars, avionics, space.

#### Areas of Activity

- Components / Materials
- Production
- Electronics, Micro And Nanosystems
- Energy & Environment

#### **Marketplace Opportunities**

#### PRODUCT

#### Two-Phase Cooling for High Power Electronics

At in quattro, we develop innovative thermal management solutions for high power electronics, game pc, and high performance workstation. Our products use flow boiling heat transfer for cooling electronics in a more efficient way. This new thermal control system is able to remove high power densities with low mass flow rate and maintaining the surface of the electronic component isothermal. The system has lower volume and mass compared to other cooling methods and requires less energy.

#### PARTNERSHIP

#### Custom thermal management for high power electronics

in quattro is a young Italian startup that is looking for a partnership with other companies to develop custom solutions for high power electronics cooling.

#### EXPERTIZE

### Custom Innovative Thermal Management Solutions for High Power Electronics

In gattro srl is a young startup specialized in development of custom solutions for cooling of high power electronics. The cooling solutions are based on the new concept of two-phase flow pumped loop that is able to remove high heat fluxes with less energy and more uniform temperatures. Typical applications include: electronics and batteries of electric vehicles, avionics, high performance computers, IGBT.

### Indivenire srl

#### Organisation

Country	Italy
City	Povo (Trento)
Street	via Alla Cascata 56/C
Web	http://www.indiveni.re



#### Person

Name

Laura Pasquardini CEO & Founder

#### Organisation

The company mission is to support biotechnology small medium enterprises (SME) in the development of new and innovative products by scientific knowledge and state of the art infrastructures in order to perform researches in short time with low costs.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Nano-Bio Related Products
- Health & Nanomedicine

#### Marketplace Opportunities

#### SERVICE R&D in outsourcing

Indivenire provides an efficient outsourced Biotech R & D department to companies that can not afford the costs of space, equipment and personnel

#### EXPERTIZE

#### R&D in outsourcing

Highly qualified staff with a solid scientific background, with access to sample preparation laboratories, micro-analysis and micro-processing facilities and the possibility to solve various problems.

 Nanoscale Characterization and Measurements

### ing. enrico santoni

#### Organisation

Country	Italy
City	roma
Street	via a. di giorgio 9

#### Person

Name

Enrico Santoni Innovation manager

#### Organisation

Consultant

#### Areas of Activity

- Business Development
- Investment/ Financing
- Design / R&D / Engineering
- Testing & Analysis
- Energy & Environment
- Health & Nanomedicine

- Nano-Materials Based Innovation
- Safety and Social Impacts
- Transport, Space & Aeronautics

### ingengnere

#### Organisation

Country	Italy
City	frosinone
Street	via anagni 19

#### Person

Name

maria grazia cestra planner



#### Organisation

planner in safety and enviromental and material

#### Areas of Activity

- Business Development
- Investment/ Financing
- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Production

- Sales & Distribution
- Service / Maintenance / Supply
- Energy & Environment
- Safety and Social Impacts

# Institute of Science and Technology for Ceramics - ISTEC CNR

#### Organisation

Italy
Faenza
via Granarolo, 64
www.istec.cnr.it



#### Person

Name

Mariarosa Raimondo Researcher, Group leader



#### Organisation

The Institute of Science and Technology for Ceramics (ISTEC CNR), based in Faenza, is a multidisciplinary research institute belonging to the National Research Council with internationally recognized skills of excellence in the field of research and development of advanced and smart ceramic materials for frontier applications in many different fields (aeronautic and aerospace, biomedical, energy, construction, naval, mechanic and mechatronic, etc). ISTEC has expertise in the development of materials with intelligent and "stimuli-responsive" bulk and surfaces and is able to cover all the activities ranging from design to prototyping. ISTEC has multiple collaborations in Europe, USA and Japan and is involved in international research and training programs, coordinating various European projects. The interaction and collaboration with the industrial sector are developed and supported by technology transfer projects through the creation of spin offs, and/or the license of patents linked to new processes and products development.

#### Areas of Activity

- Design / R&D / Engineering
- Components / Materials
- Production
- Nano-Materials Based Innovation

#### Smart Manufacturing

Transport, Space & Aeronautics

#### Marketplace Opportunities

#### PRODUCT

#### Superhydrophobic, oleophobic, amphiphobic materials

Design and production of superhydrophobic, oleophobic, amphiphobic smart materials for application in the naval and marine sector, aeronautic, mechanic, etc

### IOM-CNR and SISSA

#### Organisation

Country	Italy
City	Trieste
Street	

#### Person

#### Name

Post-Doc

Valentina Brosco



#### Organisation

Consiglio Nazionale delle Ricerche and International School for Advanced Studies - Research and Training Institutions

#### Areas of Activity

- Design / R&D / Engineering
- Electronics, Micro And Nanosystems
- Nano-Materials Based Innovation

#### **Marketplace Opportunities**

#### PROJECT COOPERATION

### Analysis and development of feasible oxides based quantum computing architectures

In the last decade the quest for engineering new materials for quantum computing and quantum information applications lead to the discovery of a new class of materials and systems with non-trivial topological properties and symmetries influencing a wide range of material properties. The field is now mature for the development of devices and the analysis of feasible integration schemes. I am looking for experimental and theoretical research partners to develop this exciting activity.

### Istituto Superiore di Sanità

#### Organisation

Italy
Rome
Viale Regina Margherita 299
https://www.iss.it/



Person		
Name	Nadia Felli Researcher	

#### Organisation

The Institute conducts scientific research in a wide variety of fields, from cutting-edge molecular and genetic research to populationbased

studies of risk factors for disease and disability. Research priorities are based on those set forth in the National Health Plan. The

Institute is also involved in several major clinical trials, which are frequently conducted in cooperation with the Scientific Institutes for

Research and Care (IRCCS) network and Hospitals.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Health & Nanomedicine

#### **Marketplace Opportunities**

#### REQUEST

#### Development of nanoparticles for therapeutic microRNA delivery

Delivery of microRNA by nanoparticles for treatment of metastatic melanoma

#### PROJECT COOPERATION

#### Development of nanoparticles for therapeutic microRNA delivery

We are looking for a cooperation partner that are interested in targeting cancer cells using polylacticco-glycolic acid (PLGA) nanoparticles or other types of nanoparticles modified with monoclonal antibody

### Istituto Superiore di Sanità

Organisation	
Country	Italy
City	Rome
Street	
Person	

patrizia pelosi researcher

#### Organisation

Name

Support to the Ministry of Health activities in Italy.

Areas of Activity

- Testing & Analysis
- Food and Agriculture

#### Marketplace Opportunities

PRODUCT

0

pesticides
# Istituto Superiore di Sanità

#### Organisation

Country	Italy
City	Rome
Street	Viale Regina Elena 299
Web	http://www.iss.it/



Person		
Name	LUIGI VITELLI Researcher	

#### Organisation

The Institute conducts scientific research in a wide variety of fields, from cutting-edge molecular and genetic research to population-based studies of risk factors for disease and disability. Research priorities are based on those set forth in the National Health Plan. The Institute is also involved in several major clinical trials, which are frequently conducted in cooperation with the Scientific Institutes for Research and Care (IRCCS) network and Hospitals.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Health & Nanomedicine

#### Marketplace Opportunities

#### PROJECT COOPERATION

### Development of nanoparticles for therapeutic microRNA delivery

We are looking for a cooperation partner that are interested in targeting cancer cells using polylacticco-glycolic acid (PLGA) nanoparticles surface modified with monoclonal antibody

#### REQUEST

#### Development of nanoparticles for therapeutic microRNA delivery

Delivery of microRNA by PLGA nanoplexes for the anticancer treatment of metastatic melanoma

# italianews

Organisation	
Country	Italy
City	roma
Street	
Person	
Name	CLAUDIO DI SALVO
	press
Organisation	
press	
Areas of Activity	/
<ul><li>Service</li><li>Safety</li></ul>	/ Maintenance / Supply and Social Impacts
Marketplace Op	oportunities
PRODUCT	
press	
information	
PRODUCT	
press	
articles	
PRODUCT	
press	
information	
PRODUCT	

press

italianews notices

SERVICE

press

italianes articles

SERVICE

press

pree

# Keysight Technologies Italy S.r.l.

Organisation	
Country	Italy
City	Milano
Street	
Web	https://www.keysight.com

#### Person

Name Davide Di Marzio Technical-Sales Engineer



#### Organisation

Keysight Technologies, Inc. (NYSE: KEYS), a leading technology company that helps enterprises, service providers, research centers and governments accelerate innovation to connect and secure the world. Keysight is the world's leading electronic measurement company, transforming today's measurement experience through innovations in wireless, modular, and software solutions. With its Hewlett-Packard and Agilent legacy, Keysight delivers solutions in wireless communications, aerospace and defense and semiconductor markets with world-class platforms, software and consistent measurement science. The company's nearly 12,600 employees serve customers in more than 100 countries.

#### Areas of Activity

- Business Development
- Testing & Analysis
- Sales & Distribution
- Electronics, Micro And Nanosystems
- Nanoscale Characterization and Measurements
- Transport, Space & Aeronautics

#### Marketplace Opportunities

#### EXPERTIZE

# Challenges & Solutions for Material Science/Engineering Testing Applications

Keysight Technologies provides a wide range of solutions for precise and accurate material evaluation such as metallic materials, semiconductors, organic materials (such as polymers), compound semiconductors, oxide semiconductors, carbon nano-tubes (CNT) and graphene. In addition, Keysight has the expertise to help ensure that your test equipment provides accurate measurement results.

Types of Measurements we can perform with metrology grade:

- Voltage/Current
- I/V curves
- Resistance
- Conductance

- Capacitance
- Time Response
- Pulse Stimulus
- DC power
- Impedance
- S-parameters
- Dielectric characteristics
- Frequency Response

#### PRODUCT

### Parametric Analyzer, Source/Measure Unit, Network Analyzer, Impedance /Material Analyzer, Oscilloscope, Digital Multimeter, Power Supply

Keysight Technologies provides a wide range of solutions for precise and accurate material evaluation such as metallic materials, semiconductors, organic materials (such as polymers), compound semiconductors, oxide semiconductors, carbon nano-tubes (CNT) and graphene. In addition, Keysight has the expertise to help ensure that your test equipment provides accurate measurement results. Types of Measurements we can perform with metrology grade: - Voltage/Current - I/V curves -Resistance - Conductance - Capacitance - Time Response - Pulse Stimulus - DC power - Impedance -S-parameters - Dielectric characteristics - Frequency Response

#### PRODUCT

### Photovoltaic Array Simulator Solutions, up to 1,500 V

Keysight's photovoltaic (PV) array simulation solution consists of the N8900APV Series Photovoltaic Array Simulators and SAS Control software. The solution enables PV inverter designers to quickly and easily develop, verify and maximize the performance of their inverter's maximum power point tracking (MPPT) algorithms, as well as test to the European Standard EN50530 with as little as one click. The Keysight N8937APV and N8957APV photovoltaic array simulators are capable of testing PV inverters up to 1,500 V, enabling designers to participate in the recent industry shift to the higher voltage. They can quickly simulate I-V curve characteristics under different environmental conditions (temperature, irradiance, age, cell technology and more), enabling the user to quickly and comprehensively test their solar inverters.

The SAS Control App is a no-cost addition to the solution that allows full control of the N8900APV's output as well as easily create, visualize, and download solar / photovoltaic I-V curves to the instrument using the Curve Workspace. Once a curve has been downloaded to an N8900APV, the user can enable the output and watch as their PV inverter searches for the maximum power point, gaining insight into their MPPT algorithm. The software is also capable of automated static and dynamic EN50530 MPPT test. Simply input the test parameters, such as Pmp, Vmp, etc., click "Start Test" and the SAS Control App does the rest. Once the test is complete, the software creates a report formatted to the EN50530 standard as well as a log file with all of the measurements from the test. This feature is free to use for 30-days. After the 30-day free trial, a license for automated EN50530 test (model number DG8901A) is required.

In addition to being PV array simulators, the N8937APV and N8957APV instruments are autoranging, programmable DC power sources that can be used for applications beyond PV array simulation when used in "Power Supply" mode.

# La Sapienza

### Organisation

Country	Italy
City	Roma
Street	
Web	www.uniroma1.it

#### Person

Name	Moreno Curatelo
	Student

#### Organisation

Università La Sapienza di Roma

#### Areas of Activity

• Transport, Space & Aeronautics

# Laboratory for Industrial Processes Innovation

#### Organisation

Country	Italy
City	Colleferro (Roma)
Street	Via degli Esplosivi 15



#### Person

Name

Fabrizio Quadrini Scientific Coordinator



Nano-Materials Based Innovation

#### Organisation

The Laboratory of the Industrial Processes Innovation (LIPI) belongs to the Department of Industrial Engineering of the University of Rome Tor Vergata thanks to the collaboration with "Spazio Attivo Lazio Innova" of Colleferro. It is located in the municipality of Colleferro. LIPI activities are focused mainly on Green Engineering. LIPI works as a support for new business ideas, providing evaluation scenarios up to process prototyping. Many national and European projects have been, and are currently developed in the Laboratory such as SMART (on tyre recycling) and GREENPACK (on PET recycling). LIPI is one of the laboratories of the Research Unit on Manufacturing Systems which also manages directly the Manufacturing Technology Lab, the Materials Processing Lab, and the Advanced Materials Laboratory for Aerospace (AMALA in the Italian Space Agency). This cluster of Laboratories work on the innovation of materials and processes for many industrial partners and is in turn strictly linked with the other laboratories of the Department (Physics, Metallurgy, Chemistry). More recently, LIPI is moving toward new materials and technologies such as shape memory polymers and composites for Aerospace, and anti-bacterial plastics and surfaces for biomedical and sanitary applications.

#### Areas of Activity

- Components / Materials
- Production
- Health & Nanomedicine

### Marketplace Opportunities

#### PROJECT COOPERATION

### Smart organic surfaces for healthcare and biomedical application

The idea is producing plastic parts for healthcare and biomedical uses with improved surface properties. The main goal is defining proper manufacturing processes for large scale production such as extrusion and injection molding. Surface properties can be tailored as a function of requirements, from anti-bacterial behavior to cell diversification. The innovative approach comes from the combination of two different strategies: surface morphology and additive formulation. Hierarchical

surfaces are obtained by injection molding of traditional plastics (PP, PS) by using proper patterns. For example, a small mold for Petri dishes has been manufactured with the project HierOS (Hierarchical organic surfaces for biomedical application) so as to directly study the effect of the hierarchical morphology on cell growth and diversification. In order to provide additional functions, nano-fillers can be added to bulk polymers. Dealing with nano-surface structures, nano-fillers have to be used. A new technology under patenting allows the insertion of small amounts of active nano-additive in common plastics skipping the nano-particle production and management. In this technology (namely nanocoating fragmentation) plastic pellets are coated with nanometric films of additive. During processing by extrusion or injection moulding, nano-particles are produced because of breaking the nano-film by shear stresses. As an example, less than 0.1wt% of silver has been added in polypropylene to improve significantly its anti-bacterial behavior.

#### PROJECT COOPERATION

### Nano-coating fragmentation

Nano-coating fragmentation is a patented manufacturing technology for the production of polymeric matrix nanocomposites. It combines technologies of thin film coating and thermoplastic polymer processing. An example is coating thermoplastic pellets with metals by means of physical vapor deposition technique. These pellets can be used for the manufacture of plastic goods by injection molding. Due to shear stresses in the plasticization screw, the nano-film is fragmented in particles with at least one nanometric size corresponding to the initial film thickness. Subsequently, nano-particles are homogeneously distributed in the molded part during injection. In alternative, pellets of soluble or thermolabile polymer pellets can be evacuated and nanoparticles collected.

# NANOFABER srl

#### Organisation

Country	Italy
City	roma
Street	via anguillarese 301
Web	www.nanofaber.com



#### Person

Name

antonio rinaldi Director



#### Organisation

SME organization focused on nanobiotech , with a focus on health . Products include cell culturing systems, slow release microcarriers for drug delivery, eumelanin production, SERS plasmonic nanoparticles, wound healing.

Contract manufacturing (B2B e B2C) for nanoindentation characterization Late addition: radon remediation and materials for energy

#### Areas of Activity

- Business Development
- Investment/ Financing
- Construction, Building & Restoration
- Energy & Environment
- Innovative and Smart Textiles
- Nano-Bio Related Products

- Health & Nanomedicine
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Transport, Space & Aeronautics

#### Marketplace Opportunities

#### PRODUCT

### Safe spongy microcarriers for drug delivery (patented)

We have developed a safe nanoporous micro-particles (1-10 um) made of several polymers tha is suitable for drug loading and delivery. Tests warrant safety and very long residency time in the site of delivery.

#### REQUEST

### Seeking licensees and/or private investors

We are looking to license globally our patented technology on microsponges (granted in Italy, extended in Japan, EPO) and/or to incorporate a suitable investors in the company.

### H2020 projects

NANOFABER is interested in participating in H2020 projects

# Nanotecnica

#### Organisation

Country	Italy
City	Madone
Street	Via Papa Giovanni XXIII 104



#### Person

Name

Paolo Landi FOUNDER & CEO



#### Organisation

Applicazioni nanotecnologiche in tutti i settori

Areas of Activity

• Construction, Building & Restoration

#### Marketplace Opportunities

#### PRODUCT

#### Nanomood

Protettivo nanotecnologico per la prevenzione dell'umidità da risalita e della formazione di muffe

#### SERVICE

### Nanotechind

Applicazione di nanomood tramite iniezioni a carotaggio all'interno delle strutture murali

#### EXPERTIZE

#### Nanotecnica

Applicazioni nanotecnologiche su qualsiasi tipo di materiale, squadre di pronto intervento

# Narrando srl

#### Organisation

Country	Italy
City	Fisciano (SA)
Street	Via Giovanni Paolo II, 132
Web	www.narrandosrl.it



#### Person

Name

Paolo Ciambelli CEO



#### Organisation

Narrando is innovative startup, born as spin off of the University of Salerno, with major know-how in the development, production and commercialization of nanomaterials and nanomaterials-based devices for application in the field of energy, environment, health, food, transportation, electronics, biotechnology.

Main products developed are single, double, and multi wall carbon nanotubes, single and few layer graphene, graphene oxide, reduced graphene oxide, hybride organic-inorganic molybdenum disulphide nanosheet, supported and/or functionalized metal and metal oxide nanoparticles (Au, Ag, Ru, Ni, NiO, TiO2, ZnO, Pt/PtO2, RuS2, WS2). Main fields of application are lubrication, energy storage, water treatment, enzyme catalysis, conductive adhesion.

NARRANDO has developed a nano dosimeter prototype for real time measurement of radiation, based on graphene- or carbon nanotube modified electrode of a miniaturized ionization chamber. Main field of application is radiotherapeutics and radiodiagnostics.

NARRANDO is SME partner of the Consortium of "Graphene 3D" Horizon 2020 RISE project (2017 - 2020) "Multifunctional Graphene-based Nanocomposites with Robust Electromagnetic and Thermal Properties for 3D-printing Application", providing graphene-like and carbon nanotubes fillers for 3D printable polymer nanocomposites to the Consortium members (http://graphene3d.imbm.bas.bg)

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Production
- Electronics, Micro And Nanosystems
- Energy & Environment

- Nano-Bio Related Products
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Smart Manufacturing

# NARRANDO Srl

#### Organisation

Country	Italy
City	Fisciano
Street	Via Giovanni Paolo II, 132
Web	www.narrandosrl.it

#### Person

Name

CEO

Paolo Ciambelli



NAno caRbon RAdiation Dosimeter

#### Organisation

NARRANDO is innovative startup, born as spin off of the University of Salerno, with major know-how in the development, production and commercialization of nanomaterials and nanomaterials-based devices for application in the field of energy, environment, health, food, transportation, electronics, biotechnology.

Main products developed are graphene and carbon nanotubes, hybrid organic-inorganic molybdenum or tungsten disulphide nanosheet, supported and/or functionalized metal and metal oxide and magnetic nanoparticles (Au, Ag, Ru, Ni, NiO, TiO2, ZnO, Pt/PtO2, RuS2, WS2). Main fields of application are lubrication, energy storage, selective catalysis, water treatment, enzyme catalysis, conductive adhesion. NARRANDO provides, at request, small scale amounts of such materials.

NARRANDO offers cooperation/consultance for developing novel nano materials and devices for the above subjects.

NARRANDO has developed a nano dosimeter for real time, in vivo measurement of radiation, based on graphene- or carbon nanotube modified electrode of a miniaturized ionization chamber. Main fields of application are radiotherapeutics and radiodiagnostics.

NARRANDO is SME partner of the Consortium of "Graphene 3D" Horizon 2020 RISE project (2017 - 2020) "Multifunctional Graphene-based Nanocomposites with Robust Electromagnetic and Thermal Properties for 3D-printing Application", providing graphene-like and carbon nanotubes fillers for 3D printable polymer nanocomposites to the Consortium members (http://graphene3d.imbm.bas.bg)

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Production
- Electronics, Micro And Nanosystems
- Energy & Environment

#### **Marketplace Opportunities**

PRODUCT

- Health & Nanomedicine
- Nano-Materials Based Innovation
- Transport, Space & Aeronautics

### Nano carbon materials

CVD synthesis and supply on request of different aspect ratio (length, diameter, thickness) carbon nantubes (CNT), CNT paper, supported CNT forest. CVD synthesis and supply on request of single and few layer graphene. Graphene nanoplatlets, graphene oxide, reduced graphene oxide, exfoliated graphite. Functionalized CNT and graphene-like materials. Ferrite nanoparticles supported few layer graphene

Accurate synthesis process control. In order to minimize the environmetal impact of the preparation, our approach is to reduce or eliminate toxic reagent during the process and looking for alternative raw materials.

Electronics, composite materials, 3D printing, packaging, energy storage, lubrication

#### SERVICE

#### NanoInnovation

We offer consultance to developing novel nanomaterials for electrodes of supercapacitors, for additives in liquid and grease lubricants, for magnetic catalysts, for conducting adhesives.

#### PARTNERSHIP

#### NanoInnovation

We look for partnership to develop and commercialize novel nanomaterials for electrodes of supercapacitors, for additives in liquid and grease lubricants, for magnetic catalysts, for conducting adhesives.

#### EXPERTIZE

#### NANOFUTURE

NARRANDO offers a consolidated chemical engineering based competence and expertise of part of their founders, grown through a very great number of research projects and performed through a multidisciplinary approach. Project management expertise is also offered.

#### PARTNERSHIP

#### 2D materials

#### 2D materials

Synthesis and supply on request of hybrid organin-inorganic MoS2 and WS2 nanosheets. Synthesis and supply on request of MoS2 and WS2 nanoparticles.

Wet chemistry strategy to the synthesis of hybrid 2D nanomaterials. Easy and simple process by onepot synthesis.

Electronics, energy storage, solar cells, lubrication.

#### PARTNERSHIP

#### Radioprotection

We have developed a prototype of nanodosimeter for measurement of radiation dose for radiodiagnostic, radiotherapy. It is based on a miniaturised ionization chamber having a nanocarbon modified electrode.

Nano size. Real time, in vivo, safe measurement of radiation dose. First prize award of Life science session of National Prize Innovation 2012.

Radiodiagnostic, radiotherapy, national health organization. Financial support.

# National Institute of Nuclear Physics -Frascati National Labs - NEXT

#### Organisation

Country	Italy
City	Frascati
Street	via Enrico Fermi, 40
Web	http://w3.lnf.infn.it/laboratori/next/



#### Person

Name

Odoardo M. Calamai

Associate Researcher INFN - LNF

#### Organisation

It's the nanoscience laboratory of LNF. Since the beginning of the years 2000 the researchers of the NEXT Group have acquired a solid and recognized experience in the synthesis and engineering of carbon nanostructured materials such as carbon nanotubes, nanoplacchette of graphene and in the realization of " Sheets of braided nanotubes "called buckypapers. These materials are used in many fields: cable data transmission, bio-medical devices, the aerospace sector and the automobile industry.

# National Physical Laboratory

#### Organisation

Country	United Kingdom
City	Teddington
Street	
Web	http://www.npl.co.uk/



#### Person

Name	Caterina Minelli
	Senior Research Scientist

#### Organisation

The National Physical Laboratory (NPL) is the UK's National Measurement Institute, providing the measurement capability that underpins the UK's prosperity and quality of life. From new antibiotics to tackle resistance and more effective cancer treatments, to unhackable quantum communications and superfast 5G, technological advances must be built on a foundation of reliable measurement to succeed. Building on over a century's worth of expertise, our science, engineering and technology provides this foundation and helps to make the impossible possible. We save lives, protect the environment and enable citizens to feel safe and secure, as well as support international trade and commercial innovation. As a national laboratory, our advice is always impartial and independent, meaning consumers, investors, policymakers and entrepreneurs can always rely on the work we do.

Based in Teddington, south-west London, NPL employs over 500 scientists and is home to 388 of the world's most extensive and sophisticated laboratories. NPL also has regional bases across the UK, including at the University of Surrey, the University of Strathclyde, the University of Cambridge and the University of Huddersfield's 3M Buckley Innovation Centre.

#### Areas of Activity

- Business Development
- Testing & Analysis
- Nano-Bio Related Products
- Health & Nanomedicine

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

# National Technical University of Athens, School of Chemical Engineering, R-NANO Lab

#### Organisation

Country	Greece	
City	Athens	R-NANO
Street		
Web	http://nanolab.chemeng.ntua.gr/	K TO THE

#### Person

Name

Tatjana KOSANOVIC MILICKOVIC Senior researcher / Project

Manager



#### Organisation

The "Research Unit of Advanced, Composite, Nano Materials & Nanotechnology", R-NanoLab is situated at the School of Chemical Engineering (Department of Materials Science and Engineering) of National Technical University of Athens (NTUA). It is established since 2007; its research group has extensive experience in Designing, Production and Characterization of Advanced-, Composite- and Nano- Materials.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Production
- Energy & Environment
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Smart Manufacturing
- Transport, Space & Aeronautics

#### **Marketplace Opportunities**

#### PROJECT COOPERATION

### partnership in a new H2020 proposals

Interdisciplinary research combining nanotechnology, advanced materials (nanomaterials synthesis, nanocomposites, smart materials, CFRPs), environment, materials characterisation, additive manufacturing, modelling and manufacturing, to share ideas and discuss on 2019 calls.

#### EXPERTIZE

### Advanced, Composite, Nano Materials & Nanotechnology

Carbon based micro(nano)structures (CNTs, CNFs, CFs, graphene etc) Core and Core/Shell nanoparticles Polymer matrices (epoxy, PDMS, etc) Metal matrix nanocomposites Synthesis and characterization of novel composite materials Materials modeling (atomistic, mesoscopic, macroscopic) Innovative measurement techniques in the field of materials science Composite materials for the construction industry Biomaterials

# NCMM-European Molecular Biology Laboratory

#### Organisation

Country	Norway
City	Oslo
Street	Biotechnology Centre of Oslo, European Molecular Biology Laboratory

#### Person

Name

DEEPAK BALAJI THIMIRI GOVINDA RAJ Postdoc



#### Organisation

Nanobiotechnology, Systems Biology and Synthetic Biology

#### Areas of Activity

- Business Development
- Nano-Bio Related Products
- Health & Nanomedicine

Nano-Materials Based Innovation

# NETSUS

#### Organisation

Country	Italy
City	CAMPI BISENZIO
Street	via Michelangelo Buonarroti, 24
Web	www.netsus.it



#### Person

Name Antonino Prizzi President of NETSUS - Network for Sustainability



#### Organisation

NETSUS network aps ha competenze nella pianificazione del paesaggio, nella gestione innovativa e sostenibile delle risorse turistiche e culturali tramite la progettazione, il fundraising e la creazione di partenariati anche internazionali; nell'innovazione di processo e di prodotto tramite il transfer tecnologico fra ricerca e PMI. Opera per la creazione di economia e lavoro per il sociale.

#### Areas of Activity

- Service / Maintenance / Supply
- Energy & Environment

# NUST MISIS

Organisation			
Country	Russia		
City	Moscow		
Street			

#### Person

Name

Senior researcher, PhD

**Dmitry Muratov** 



#### Organisation

National University of Science and Technology located in Moscow, Russia. The strongest Russian centre of materials science and technology.

#### Areas of Activity

- Design / R&D / Engineering
- Electronics, Micro And Nanosystems
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

#### Marketplace Opportunities

#### EXPERTIZE

# Synthesis and characterization of 2D materials using CVD or CVT techniques

We are focused on the research of layered and two-dimensional materials for electronics and photovoltaics. Mostly we study such materials as graphene, graphene oxide and transition metal chalcogenides.

Smart Manufacturing

# Politecnico di Torino

#### Organisation

Country	Italy
City	Turin
Street	Corso Duca degli Abruzzi 24
Web	https://www.polito.it/
City Street Web	Turin Corso Duca degli Abruzzi 24 https://www.polito.it/



Person		
Name	Elisa Ambrosio Research programme officer - Materials, Nanotechnologies & Advanced Manufacturing	

#### Organisation

Politecnico di Torino was founded in 1906 and has its roots in the Technical School for Engineers created in 1859.

It is internationally ranked among the most important universities in Europe for engineering and architecture studies, with 33,000 students (out of which 15% are international students coming from over 100 different countries).

Politecnico is a center of excellence for education and research in engineering, architecture, design and planning and it works in close cooperation with the socio-economic system. It is a comprehensive Research University where education and research complement each other and create synergies in order to address the needs of the economic system, of the local community and, above all, of its students.

Politecnico is committed to a strong internationalization process of its teaching, research and technology transfer activities: not only does it work in cooperation with the best universities and research centers in world, but it has also been signing agreements and contracts with important international corporations, as well as local businesses, meaning to be for the latter a focal point for innovation.

The participation to many international projects allows Politecnico to count on a great experience: in the FP7 Politecnico has more than 230 approved projects with a total EU contribution of 66 million Euro, ranking among the top 200 entities participating in Framework Program. In H2020 Politecnico has already 144 approved projects with a total EU contribution of 50 million Euro. It has a strong experience in project coordination too: the Research Support Department has been involved in the management of EU RTD projects since 1995.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

- Electronics, Micro And Nanosystems
- Smart Manufacturing

• Nano-Bio Related Products

#### Marketplace Opportunities

#### EXPERTIZE

### AUGMENTED REALITY for assembly, repair and maintenance

Results expected: it is expected to design and implement AR-based applications able to efficiently support maintenance, assembly and repair tasks.

The research group GRAINS (http://grains.polito.it/ ) of the Department of Control and Computer Engineering has a proven level of expertise in distributed systems, virtual and augmented reality systems, computer graphics, human-machine interaction, and mobile device technologies

#### EXPERTIZE

## Analysis of environmental and economic sustainability of production systems

Analysis of sustainability of production processes. Analytical and empirical models as well as specific indicators/metrics were proposed. In addition, methodological approaches were developed in order to compare energy intensity, resource consumption, and pollutant emissions of machining, forming and additive manufacturing processes

#### EXPERTIZE

### Analysis and optimization of machinability of advanced materials

classified as 'difficult-to-cut, for aerospace and automotive applications. In this context, research activities have been carried out within the framework of several European or Regional projects (i.e., ProTiAl, NanoToolGA, Great 2020-EcoProLab, and LavoEco). The acquired knowledge has been documented in numerous international publications concerning material removal processes (milling , turning , drilling and non-conventional machining;

#### EXPERTIZE

### Machine learning to speed up atomistic simulations

iMapD<sup>\*</sup> is a recent algorithm available at Politecnico di Torino (elaborated in collaboration with Princeton University, Max Planck and Yale University) which may provide impressive speed up during the sampling of atomistic configurations

#### EXPERTIZE

#### Multi-scale modelling of nanocomposite materials

Multi-scale modelling to explore the relation between degrees of freedom of nanocomposite materials (geometry, chemistry, physical conditions) and their effective response (thermal, electrical, mechanical properties)

#### EXPERTIZE

### Synthesis of inorganic micro & nanoparticles

In particolar metal oxides (ZnO, TiO2, SiO2 and mesoporous silica)

#### EXPERTIZE

#### Materials characterization at the nanoscale:

Electron Microscopy (Scanning and Transmission) Fluorescence wide-field and confocal microscopies X-Ray diffractio InfraRed, UV-Vis, fluorescence spectroscopie Dynamic Light scattering and Z-Potential Electron Paramagnetic Resonance spectroscopy (EPR or ESR): ideal for the identification and qauntification of free radicals, ROS and unpaired electrons in general (fields of aplication: Polymer science, Food and Health, Biology) Biological lab facilities for cells culturing and related assays

Ultrasound and cavitation expertises related to nanomaterials

#### EXPERTIZE

### Solid polymer electrolytes for energy storage devices

Solid polymers: ceramics, composites, cross-linked polymers, single ion conductors Energy storage devices: Li&Na batteries for automotive and non automotive

# RMP srl

#### Organisation

Country	Italy
City	Roma
Street	viale E. Ortolani, 194
Web	www.rmpsrl.it



Person		
Name	Marco Alessandroni	the second se
	Technical and Sales Manager	a granden and and a second

#### Organisation

RMP srl, established in 1986, designs and manufactures mechanical equipments for Scientific Researches.

In the 2009 RMP upgraded to EN ISO 9001:2008 is Quality Management System.

Most part of the activities of RMP has been devoted in satisfying

research laboratories needs.

RMP collaborates with industry R&D department designing and

manufacturing prototipes and custom applications.

Major areas can be distinctly identified:

- design and realization of High precision movement stage;
- design and realization of Ultra High Vacuum technologies
- design and realization of Geophysics technologies;
- -design and realization of Space technologies;

-design and realization of Neutron technologies;

-design and realization of Art and cultural heritage technologies;

-design and realization of Industry technologies.

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Production
- Sales & Distribution
- Service / Maintenance / Supply
- Construction, Building & Restoration
- Nano-Bio Related Products
- Nanoscale Characterization and Measurements
- Smart Manufacturing
- Transport, Space & Aeronautics

Marketplace Opportunities

### SERVICE Custom design

R&D department designing and manufacturing prototipes and custom applications

# Ro Technology

#### Organisation

Country	Italy
City	Rome
Street	Via dei Mille 41A
Web	www.rotechnology.it

# plechnology

#### Person

Name

Gianluca Rossi National & EU grant manager



#### Organisation

RoTechnology is an innovative SME founded in January 2011 by a group of professionals with broad experience in design of embedded systems, GIS systems, Web application and cryptography. The company is organized in three main fucional areas:

- Services
- Projects
- Research and Development

RO Technology participates in several national and european Research and Innovation projects in collaboration with Universities, Research Centres and prestigeous industrial partners in Italy and Europe.

We are looking for new collaborations for participating in R&I project proposals (H2020 and other EU and national initiatives).

#### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Service / Maintenance / Supply
- Electronics, Micro And Nanosystems
- Energy & Environment
- Food and Agriculture

- Health & Nanomedicine
- Safety and Social Impacts
- Smart Manufacturing
- Transport, Space & Aeronautics

#### **Marketplace Opportunities**

#### PRODUCT

### Security lightweight library

Security lightweight library for the TAKS encryption that provide cryptography functions such as encryption, decryption, digital signature for "resource constrained" devices.

#### SERVICE

### Research & Innovation projects

Ro Technology can be a technical partner in National and EU R&I projects (H2020) but also having a

role in the management/exploitation and dissemination activities (giving a contribution in the writing/ presentation phase).

### PROJECT COOPERATION

### Safety and security analysis

We are looking for cooperation in R&I project proposals in particular in the next H2020 NMBP, ICT and Secure calls.

#### EXPERTIZE

### Security/Cryptography - Embedded systems - Web applications/GIS

- Security/Cryptography

Hybrid Cryptography systems and innovative authentication schemes based on topology, dedicated to WSNs with resource-constrained Knots

Elliptic Curve Cryptography and symmetric cryptography AES.

WSNs based on IEEE 802.15.4.

Wireless Sensor Networks (WSN) in security (authentication and intrusion detection) and Sensing/Data Acquisition.

- Embedded systems

Development of embedded software for soft/hard real time, with or without operative system.

Design of FPGA and digital HW in ICT areas.

- Web applications/GIS

Geolocation and Georeferencing platforms design and development.

Development of platforms for OGC services (WFS, WMS, WPS, etc.).

# Ruđer Bošković Institute

#### Organisation

Country	Croatia
City	Zagreb
Street	Bijenička cesta 54
Web	https://www.irb.hr/eng/People/Suzana-Segota

#### Person

Name

Suzana Šegota senior research associate



#### Organisation

Today, over 300 senior scientists and researchers and over 250 young scientists in more than 80 Laboratories pursuing research in theoretical and experimental physics, physics and materials chemistry, electronics, physical chemistry, organic chemistry and biochemistry, molecular biology and medicine, the sea and the environment, informational and computer sciences, laser and nuclear research and development.

Over 550 scientists and researchers in 11 Departments and more than 80 Laboratories pursuing research in theoretical and experimental physics, physics and materials chemistry, electronics, physical chemistry, organic chemistry and biochemistry, molecular biology and medicine, the sea and the environment, informational and computer sciences, laser and nuclear research and development.

#### Areas of Activity

- Design / R&D / Engineering
- Nano-Bio Related Products
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

#### Marketplace Opportunities

#### PARTNERSHIP

# Biocompatible nanoparticles with enhanced therapeutic efficacy of flavonoids in food

The new product is a functional prototype of biodegradable NP having built-in flavonoids as an original solution up to date not present on the market. Such NPs would have a capacity of flavonoid integration and the ability of controllable release in order to protect food, especially oils and oil-based food from oxidation. They are also expected to be a solution to the problem of chemical instability of flavonoids and their low solubility in water.

PROJECT COOPERATION

# Biocompatible nanoparticles with enhanced therapeutic efficacy of flavonoids in food

The new product is a functional prototype of biodegradable NP having built-in flavonoids as an original solution up to date not present on the market. Such NPs would have a capacity of flavonoid integration and the ability of controllable release. in order to protect food, especially oils and oil-based food from oxidation. They are also expected to be a solution to the problem of chemical instability of flavonoids and their low solubility in water.

#### EXPERTIZE

Design of effective delivery systems for drugs with an aim to improve human health or to increase the shelf life of pharmaceutical/food products.

Research is based on physico-chemical characterization of model bio(colloids) and interactions on various surfaces and interfaces. The main research goal is the design and preparation of novel, functional materials with improved physico-chemical properties, with the aimed use in biotechnology and biomedicine.

# Ruđer Bošković Institute

#### Organisation

Country	Croatia
City	Zagreb
Street	Bijenička cesta 54
Web	https://www.irb.hr/eng/People/Suzana-Segota

# Person Name Suzana Šegota senior research associate



Today, over 300 senior scientists and researchers and over 250 young scientists in more than 80 Laboratories pursuing research in theoretical and experimental physics, physics and materials chemistry, electronics, physical chemistry, organic chemistry and biochemistry, molecular biology and medicine, the sea and the environment, informational and computer sciences, laser and nuclear research and development.

#### Areas of Activity

- Investment/ Financing
- Design / R&D / Engineering
- Food and Agriculture
- Nano-Bio Related Products
- Health & Nanomedicine

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

# Russian Venture Company (RVC)

#### Organisation

Country	Russia
City	Moscow
Street	
Web	www.rvc.ru

#### Person

Name

Yuliya Onishchuk Managing director



• Health & Nanomedicine

Transport, Space & Aeronautics

#### Organisation

Venture fund

#### Areas of Activity

- Business Development
- Investment/ Financing
- Testing & Analysis
- Electronics, Micro And Nanosystems
- Energy & Environment

#### Marketplace Opportunities

#### PARTNERSHIP

### New venture funds with global investment strategy

RVC is the only fund of funds in the Russian Federation, given the total volume of VC investments in Russia, the current RVC market share is more than 15% funds established by RVC to implement the best VC practices on the market, and improve quality of fund management and portfolio selection of companies.

We are interested to discuss collaboration with foreign investors in terms of new technological VC fund creation and selection of innovative companies (target companies)

# sapienza università di roma

Organisation		
Country	Italy	
City	Rome	
Street		
Person		
Name	michele ortolani	
	researcher	



university

#### Areas of Activity

- Design / R&D / Engineering
- Nano-Materials Based Innovation

#### **Marketplace Opportunities**

#### EXPERTIZE

#### infrared nanospectroscopy

infrared spectroscopy (like FTIR) with resolution down to nanoscale, using near-field techniques, tuneable quantum cascade lasers and atomic force microscopy

#### SERVICE

### terahertz spectroscopy, microscopy and imaging

design, development and test of customised terahertz spectroscopy, microscopy and imaging systems for non-destructive testing

# Sapienza, University of Rome

Organisation	
Country	Italy
City	Rome
Street	
Person	
Name	Laura Caramazza
	Master graduate student
Organisation	
Sapienza is the f	irst University of Rome. I got my Master's degree in Nanotechnology Engineering last

July.

Areas of Activity

- Design / R&D / Engineering
- Electronics, Micro And Nanosystems
- Nano-Bio Related Products

• Health & Nanomedicine

# Sekat srl

#### Organisation

Country	Italy
City	LATINA
Street	Gran Sasso d'Italia, 4
Web	www.sekat.it



#### Person

#### Name

Bruno Fergnani Chief Technical Officer



#### Organisation

SEKAT is a reliable and experiencedtechnology partner, developing hardware and firmware solutions tailored in synergy with the customer. Thanks to its internal resources, the group is able to offer complete support, from design to production and after sales.

#### Areas of Activity

- Business Development
- Electronics, Micro And Nanosystems
- Health & Nanomedicine

#### Marketplace Opportunities

#### SERVICE

### REFURBISHMENT OF MEDICAL DEVICES

sekat does the refurbishment of medical devices that comes at the end of their service life and often extremely worn out. Basically we transform them into new machines, in terms of operation and aesthetics, capable of many more years of usage

#### PRODUCT CUSTOMIZED PRODUCTS

SEKAT has a flexible production line that meets different client needs on a case by case basis.

#### PARTNERSHIP

### PARTNERSHIP

Abbott Gmbh, Welcome Italia, Techna Italia, Industrie Orsini per la Sicurezza, Panaque srl

### PROJECT COOPERATION

### MZS ANTARTIC STATION

Sviluppo e realizzazione di sistemi elettronici di gestione delle vasche di acquacoltura e degli stabulari con gestione di sensori parametrici di qualità dell'acqua.

# Skolkovo Institute of Science and Technology

#### Organisation

Country	Russia	Skoltech
City	Moscow	
Street	Nobelya Ulitsa 3	Skolkovo Institute of Science and Technology
Web	https://www.skoltech.ru/en/about/contacts/	

#### Person

Name

Stanislav Evlashin Senior Research Scientist



#### Organisation

The Skolkovo Institute of Science and Technology (Skoltech) is a private graduate research institute in Moscow, Russia. Established in 2011 in collaboration with MIT, Skoltech cultivates a new generation of researchers and entrepreneurs, promotes advanced scientific knowledge and fosters innovative technology to address critical issues facing Russia and the world. Skoltech applies the best Russian and international research and educational practices, with particular emphasis on entrepreneurship and innovation. Skoltech's model leverages on the integration of basic and applied research and education. The Institute's close link with the industrial and business ecosystem fosters frontier research and generates a flow of innovative solutions for the benefit of the Russian economy.

#### Areas of Activity

- Design / R&D / Engineering
- Production
- Electronics, Micro And Nanosystems
- Nano-Bio Related Products

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

# STUDIO GB

#### Organisation

Country	Italy
City	GENZANO DI ROMA
Street	VIA A. GRANDI, 18
Web	www.linkedin.com/in/mauro-bassotti-9936222

#### Person

Name

Mauro Bassotti Engineer



#### Organisation

Senior mining Engineer with high level of expertise in European structural and investment funds (ESIF). Technical director in mining, residential as well as big infrastructures (dams, drilling operations) companies in Italy, North African and South America from 1994 to 2008.

As ESIF consultant I can help the organizations to maximize their fundraising by providing funds & amp; partners scouting, promoting meeting between partners, participating to the strategic events, capturing latest news about particular fund. Moreover, my advisory extends to the early, middle and final stage of the project to be financed

To follows the large customer network with my consultancy firm STUDIO GB (founded in Rome - Italy in 2003) I collaborate with a team of skilled partners and specialists. The Studio initially focused on management consulting for private company, non profit organizations as well as public bodies, in 2012 evolved and focused its activities in advising proposal development and management of proposal for European structural and investment funds (ESIF) for public as well as private organizations. The STUDIO GB activity is focused in turnkey assistance and support of our customers in all phases of the project to be funded.

To develop this activity at STUDIO GB we stay updated by hotspotting news about ETSI, participating relevant forums, webinars national and international events. In order to coordinate and monitorate such a complex process at STUDIO GB we created a proprietary ICT MULTIPROJECT PLATFORM based on open source software, which is today between the most developed of its kind

#### Areas of Activity

- Business Development
- Investment/ Financing
- Design / R&D / Engineering
- Production
- Construction, Building & Restoration
- Energy & Environment
- Food and Agriculture

- Nano-Bio Related Products
- Nano-Materials Based Innovation
- Safety and Social Impacts
- Smart Manufacturing
- Transport, Space & Aeronautics
## Superelectric

### Organisation

Country	Italy
City	roma
Street	via G. Peroni 104
Web	http://www.superelectric.it



#### Person

Name

Sandro Cecchi Marketing manager



### Organisation

La divisione Remote Sensing di Superelectric offre servizi "chiavi in mano" di monitoraggio mediante l'impiego di piattaforme UAV (Droni) integrati con i minispettrometri SystemOne M12T, M8T e M4T. La famiglia di minispettrometri SystemOne consente di realizzare attività di monitoraggio georeferenziato nel settore agricolo, dell'inquinamento ambientale e delle utilities grazie al range esteso di frequenza che va dai 280nm ai 2500 nm.

Di seguito vengono presentati alcune applicazioni in ambito civile:

Sicurezza territoriale;

Monitoraggio siti Archeologici;

Monitoraggio centrali termoelettriche e impianti industriali;

Telerilevamento;

Aerofotogrammetria e rilievo dell'architettura;

Monitoraggio ambientale e calamità naturali;

Biodiversità e monitoraggio fauna;

Operazioni di ricerca e soccorso.

REMOTE SENSING, divisione di SUPERELECTRIC s.r.l. è specializzata nello sviluppo di sistemi, strumenti e servizi per il monitoraggio del territorio tramite attività di REMOTE SENSING e PROXIMAL SENSING. Sin dal 1995 REMOTE SENSING ha iniziato lo sviluppo dei suoi SISTEMI DI RIPRESA GIROSTABILIZZATI MULTISPETTRALI e IPERSPETTRALI della classe SystemOne.

Nel 2001 l'ANPA ha finanziato REMOTE SENSING per la realizzazione di una una campagna di individuazione di discariche abusive utilizzando lo spettrometro POLIFEMO M6.

Nel 2003 l'ESA (Agenzia Spaziale Europea) ha realizzato il rilievo multispettrale del fiume CECINA utilizzando lo spettrometro Polifemo M12.

Nel 2009 il CNR ha selezionato il sistema POLIFEMO M12 per montarli a bordo della propria flotta di velivoli SKY ARROW del sistema ERA.

Nel 2014 REMOTE SENSING ha completato lo sviluppo degli spettrometri per DRONI modello M8. Superelectric REMOTE SENSING sviluppa piattaforme dinamiche di simulazione a 4 DOF

(specificatamente progettate per l'addestramento dei piloti di RPAS).

REMOTE SENSING è rivenditore autorizzato di Google Earth e di Google Maps.

- Design / R&D / Engineering
- Production
- Sales & Distribution
- Electronics, Micro And Nanosystems
- Energy & Environment

### **Marketplace Opportunities**

### PRODUCT

### SystemOne

Lightweight Hyperspettral Sensor for UAV and General Aviation Platform

### SERVICE

## Thin film deposition plants custom retrofit

Superlelectric provide custom retrofit solutions based on National Instrument hardware and software products as well turn keys service activities for thin film deposition plant.

Food and Agriculture

Health & Nanomedicine

### PARTNERSHIP

### New generation nanohyperspectral sensors

Collaboration in the development of new generation of nano hyperspectral sensors.

### PROJECT COOPERATION

### New generation nanohyperspectral sensors

Cooperation in the development of New generation nanohyperspectral sensors

## **Textile Research Institute (AITEX)**

#### Organisation

Country	Spain
City	Alcoy
Street	Plaza Emilio Sala nº1
Web	http://www.aitex.es/?lang=en



#### Person

Name

josue ferri Project Manager



### Organisation

AITEX has experience wide experience in Smart Textiles to control physiological parameters; breath, heart rate, etc., due to its participation in previous European and National Projects. In addition, AITEX has the necessary infrastructure, facilities and equipment to work in this current research line to carry out the project objectives, such as: prototype experimental plant, screen and stencil printing plant, embroidery plant, weaving plant, printing electronics, etc.

Our RTD personnel are structured in 6 research groups: 1-Nanotechnology and Technical fibers, 2-Materials and sustainability, 3-Biotechnology, 4-Technical finishes, Health and Environment, 5-Innovation in Fashion and Design and 6- Smart Textiles and ICT solutions.

AITEX is a private non-profit association established in 1985 that encompasses textile and related companies. Its ultimate aim is to make this sector more competitive. To achieve this, the Institute promotes modernization and the introduction of new and emerging technologies and, in general, any initiatives that will contribute to the industrial progress of the sector. The work carried out by the Institute is closely linked to the sector's industries, either through the advanced technical services offered by the Institute (consultancy, market, certification, quality control, training, etc.), the confidential research projects developed at the request of different companies or the projects financed by public funding, in which case the results benefit the sector as a whole. Some current figures are that AITEX has around 1.100 associated companies, more than 3.000 clients, 250 staff and 9 delegations around the world (North and South America, China, Pakistan, Lithuania and India) apart from the headquarters in Spain.

- Design / R&D / Engineering
- Testing & Analysis
- Electronics, Micro And Nanosystems
- Energy & Environment
- Innovative and Smart Textiles

- Health & Nanomedicine
- Nano-Materials Based Innovation
- Smart Manufacturing

## **Textile Research Institute (AITEX)**

#### Organisation

Country	Spain
City	Alcoy
Street	Plaza Emilio Sala nº1
Web	http://www.aitex.es/?lang=en



#### Person

Name

Josue Ferri Project Manager



### Organisation

AITEX has experience wide experience in Smart Textiles to control physiological parameters; breath, heart rate, etc., due to its participation in previous European and National Projects. In addition, AITEX has the necessary infrastructure, facilities and equipment to work in this current research line to carry out the project objectives, such as: prototype experimental plant, screen and stencil printing plant, embroidery plant, weaving plant, printing electronics, etc.

Our RTD personnel are structured in 6 research groups: 1-Nanotechnology and Technical fibers, 2-Materials and sustainability, 3-Biotechnology, 4-Technical finishes, Health and Environment, 5-Innovation in Fashion and Design and 6- Smart Textiles and ICT solutions.

AITEX is a private non-profit association established in 1985 that encompasses textile and related companies. Its ultimate aim is to make this sector more competitive. To achieve this, the Institute promotes modernization and the introduction of new and emerging technologies and, in general, any initiatives that will contribute to the industrial progress of the sector. The work carried out by the Institute is closely linked to the sector's industries, either through the advanced technical services offered by the Institute (consultancy, market, certification, quality control, training, etc.), the confidential research projects developed at the request of different companies or the projects financed by public funding, in which case the results benefit the sector as a whole. Some current figures are that AITEX has around 1.100 associated companies, more than 3.000 clients, 250 staff and 9 delegations around the world (North and South America, China, Pakistan, Lithuania and India) apart from the headquarters in Spain.

### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Electronics, Micro And Nanosystems
- Energy & Environment
- Innovative and Smart Textiles

### **Marketplace Opportunities**

PRODUCT

- Nano-Materials Based Innovation
- Smart Manufacturing

## Wearable Textile 2D Touchpad Sensor Based on Screen-Printing Technology

A textile touchpad based on a diamond pattern design using screen printing technology has been developed.

### EXPERTIZE

## Printed electronics and electronics integration into textile or wearable products

As a Textile Research Center we have expertise to develop and integrate small sensors and electornics into textiles.

### PARTNERSHIP

## Advanced materials

We are looking for partners that can develop special materials to be printed into flexible substrates or knitted to give them new functionalities. Also we are looking for patners that can do depositions of special materials on flexible substrates. Sectors: automotive, aeronautics, health,...

## The Institute of Science and Technology for Ceramics (ISTEC-CNR)

Organisation		
Country	Italy	C National Research Council of Italy
City	Faenza	istec Institute of Science and Technology for Ceramics
Street	Via Granarolo, 64	
Web	www.istec.cnr.it/	

Name

Anna Costa Researcher



### Organisation

The National Research Council (CNR) is the largest public research institution in Italy, with about 8000 researchers. CNR is distributed all over Italy through a network of Institutes aiming at promoting a wide diffusion of its competences throughout the national territory and at facilitating contacts and cooperation with local firms and organizations.

ISTEC is an interdisciplinary research institute specifically addressed to the global study of ceramic materials and in particular of advanced ceramics.

### Areas of Activity

- Design / R&D / Engineering
- Energy & Environment
- Innovative and Smart Textiles
- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Safety and Social Impacts

### Marketplace Opportunities

### PRODUCT

## Easy scalable and sustainable route to antibacterial surfaces

This technology refers to a surprisingly green and versatile patented synthesis of an innovative antibacterial hydrogel, based on AgNPs capped with hydroxycellulose (Ag-HEC) and performed at room temperature. The outstanding potentialities of this method stem from its combined characteristics of low toxicity and environmental impact without the need of any kind of heating treatment so satisfying the typical industrial scale-up requirements. The method is ready to be upscaled on large industrial plants

### PRODUCT

## Electrochemistry and Photocatalysis for Water Depuration

This activity mainly employs nanosized TiO2 as the active phase in the photocatalytic oxidation process. TiO2 is functionalized and then deposited onto large-area metallic and textile substrates.

Micrometer- to millimeter-sized TiO2 granulates are also produced and utilized, both in suspensions or in fixed or fluid bed systems. In order to make this technology an industrially relevant one, scaling-up of depuration plants has been pursued, starting from a 500 mL laboratory scale plants, proceeding to 6 L and 10 L semi-pilot plants based on different geometries, to end up with a 100 L pilot plant.

### PRODUCT

## Safe-by-Design approach for winning the nanorisk challenge

The unique properties of nanomaterials (NMs) arise from their nanoscale. Unfortunately, such peculiarity is also the main source of their potential toxicity when they come in contact with biological systems. Safe-by-Design (SbyD) strategies are very promising solutions for the preventive risk management of nanoparticles and nano-related products.

### PRODUCT

## Micro-engineered capsules: a powerful tool in green chemistry

The particle enlargement by agglomeration technique (granulation), that transforms fine powders into free-flowing, dust-free granules easy to encapsulate active phases and to be easily compressed, handled, stored or recovered, is a key step of many multi-length state processes. In order to succeed in passing from a liquid state, in which nanoparticles together with molecular additives are dispersed (colloidal state) to solid micro-granules, the spray methods (spray-drying, spray-freeze-drying) are the best candidates.

# Tiberlab Srl

#### Organisation

Country	Italy
City	Rome
Street	
Web	www.tiberlab.com



### Person

Name

Fabio Sacconi CEO



### Organisation

tiberlab is a spin-off of University of Rome "Tor Vergata". Our mission is to develop innovative software solutions aimed to the design and simulation of electronic and optoelectronic devices, focusing in particular on nanostructured devices. Modern nanostructure devices pose new challenges due to the wide range of length and time scale involved. We provide tools for multiscale simulation able to perform analysis and optimization at all the relevant length scales, through state of the art physical models ranging from continuous to atomistic level. tiberlab offers consulting services and end-user software.

### Areas of Activity

- Design / R&D / Engineering
- Electronics, Micro And Nanosystems
- Nano-Materials Based Innovation

### **Marketplace Opportunities**

### PRODUCT

## Multiscale software for design and simulation of nanostructures and electronic devices

Our core product is TiberCAD, a software for modeling and design of innovative nanostructured devices: LEDs based on quantum wells and quantum dots, nanowire FETs, III/V heterostructures, photovoltaic cells such as organic solar cells (OPVs) and Dye Solar Cells (DSCs), piezoelectric nanogenerators. TiberCAD is a multiscale tool, since it allows the simultaneous solution of physical models on different length scales, ranging from the continuous level of macroscopic device to the atomistic structure of the active region at the nanoscale. The multiscale approach can be employed in several fields such as particle transport, heat dissipation and mechanical deformation. In this way, quantum and classical descriptions can be used in different regions of a device/nanostructure within the same simulation, possibly including self-consistent coupling of different models, such as quantum, thermal and drift-diffusion ones.

## TRAMES onlus

#### Organisation

Country	Italy
City	Firenze
Street	
Web	www.italytrames.eu

### Person

Name

ANNA Italy Project Manager





### Organisation

TRAMES onlus is a non commercial and non profit organisation dedicated to the European community programs. TRAMES organisation which has as its statutory and institutional aim the promotion of intercultural dialogue, the reciprocal exchange between European and non European cultures and the reciprocal knowledge of the culture and history of European populations and activities. TRAMES participates in community programs in cooperation and exchange with other European countries, for contributing to the promotion of a common cultural space for European populations. Through the International projects the Association promoted the participation of young people and carried out the collaboration with other Public Institutions. The staff members supports the European initiative for to develop the network project for the Schools and supports projects of inter-regional cooperation for the inter-municipal European networks: meeting place for all participants, share experiences and compare projects for the water protection project, social, cultural, eco-tourism and environmental valorization of Sea and Rivers.

TRAMES aims at improving the quality of protection and enhancement of natural resources and heritage as well as raising awareness about the importance of preserving environment and cultural heritage.

### Areas of Activity

- Business Development
- Investment/ Financing
- Service / Maintenance / Supply
- Energy & Environment
- Food and Agriculture

### Marketplace Opportunities

### SERVICE

### Consulting

Experiences and our responsibilities relevant are:

- Ideas and concept of the issues;
- Planning and project management

- Health & Nanomedicine
- Safety and Social Impacts

- Selection and management of the flows of the participants
- Planning and implementation of the preparation activities (before the departure)
- Management of administrative procedures and all technical and organizational aspects
- Cooperation and relationship with applicant and all partners participants
- Monitoring and evaluation activities
- Implementation of the follow up projects and activities

### PROJECT COOPERATION

### Project Management and Dissemination/Communication activities

Experiences and our responsibilities relevant are:

- Planning and project management
- Selection and management of the flows of the participants
- Planning and implementation of the preparation activities (before the departure)
- Management of administrative procedures and all technical and organizational aspects
- Cooperation and relationship with applicant and all partners participants
- Communication plan
- Dissemination activities and networking
- Monitoring and evaluation activities
- Implementation of the follow up projects and activities

### EXPERTIZE

### **River Basin Management**

Experiences and our responsibilities relevant are:

- Ideas and concept of the issues;
- Planning and project management
- Selection and management of the flows of the participants
- Planning and implementation of the preparation activities (before the departure)
- Management of administrative procedures and all technical and organizational aspects
- Cooperation and relationship with applicant and all partners participants
- Monitoring and evaluation activities
- Implementation of the follow up projects and activities

### EXPERTIZE

### Health measurements

Experiences and our responsibilities relevant are:

- Ideas and concept of the issues;
- Cooperation and relationship with applicant and all partners participants
- Monitoring and evaluation activities
- Implementation of the follow up projects and activities

## Trustech srl

### Organisation

aly
Chivasso
oc. baraggino snc area campus
vww.trustech.it



### Person

Name

Niccolò Ciprianetti Business development



### Organisation

Trustech is an R&D andtechnology transfer company specialized in Micro and Nanotechnologies. A private lab (400 m2 cleanrooms class 1000 and 100) where engineers, physicists, chemists and biologists are able to design, realize and industrialize micro / nanotechnologies. Trustech works also within a wide network of international research centers and in close relationship with the main industrial companies in Italy.

- Business Development
- Design / R&D / Engineering
- Electronics, Micro And Nanosystems
- Food and Agriculture

- Nano-Bio Related Products
- Health & Nanomedicine

## Uganda network of young people living with HIV AND AIDS

#### Organisation

Country	Uganda
City	Kampala
Street	P.o.box 4226 kampala
Web	www.unypa.org

#### Person

Name

Paddy Mugenyi Volunteer



### Organisation

UNYPA advocates improving the quality of life of young people living with HIV in Uganda and as a network. UNYPA is driven by the needs of young people living with HIV and implements an evidence informed national programme and advocacy for YPLHIV to lead healthy and productive lives. The elements of UNYPA's national programme and advocacy include promoting universal access to HIV prevention, treatment, care, and support; fighting stigma and discrimination against young people living with HIV; and, promoting the greater involvement of young people living with HIV in the national HIV response. UNYPA has a total of 12 full time staff and over 50 Young Positive Living Ambassadors as volunteers in charge of districts. UNYPA is mandated to have three forums of Young Positives one of 10 – 18,19- 24 and 25-30 due to their different challenges in life though emphasis is being given to the 10-24. It was likely that Uganda's hailed good systems; practices and successes in combating HIV/AIDS epidemic were likely to be compromised by the escalating numbers of young positives with out support to positive living. This could also lead to irresponsible sexual behavior and contributes to a significant proportion HIV infection as well as other sexually transmitted infections.

- Innovative and Smart Textiles
- Health & Nanomedicine
- Safety and Social Impacts

## UNIMORE

#### Organisation

Country Italy City Modena Street





Person	
Name	Marcello Berto
	Post Doc
Organisation	

Study of the fundamental aspects of organic materials, nanostructures, and devices interacting with biological systems;

the development of technology and applications of organic electronics devices in biology and nanomedicine.

- Design / R&D / Engineering
- Electronics, Micro And Nanosystems
- Nano-Bio Related Products
- Health & Nanomedicine

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements

## Univ. of Modena and Reggio Emilia

Organisation			
Country	Italy	AUDIORUM MUTURE	
City	Modena	T RECIPE	UNIVERSITÀ DEGLI STUDI DI MODENA E REGGIO EMILIA
Street		477 H75 ST	
Person			
Name	barbara rebecchi		
	project manager		

### Organisation

Founded in 1176, the University of Modena and Reggio Emilia (UNIMORE) is the third oldest University in the world, and has been ranked among the first Italian universities for quality of teaching and research since 2007. UNIMORE (www.unimore.it) is a networked campus located in the towns of Modena and Reggio Emilia. It counts about 25000 students, including 3500 postgraduates. It has over 600 international exchange agreements and cooperation programs to encourage students and researcher to actively interact in a globalized world. Currently UNIMORE project portfolio comprises 56 funded projects under Horizon 2020, JTI and PPP included, 20 running FP7 projects, plus several projects financed by the European Programme for the Environment LIFE, the National Institute of Health (USA).

UNIMORE is part of the High Technology Regional Cluster, involving all the Universities in the Emilia-Romagna Region, and offers cutting-edge facilities for technology transfer (so-called Technopoles) in the sectors of regenerative medicine, advanced materials, mechanical engineering, mechatronics, ICT in business applications.

- Business Development
- Investment/ Financing
- Food and Agriculture
- Nano-Bio Related Products
- Health & Nanomedicine

- Nano-Materials Based Innovation
- Smart Manufacturing
- Transport, Space & Aeronautics

## Univ. of Modena and Reggio Emilia

#### Organisation

Italy

Modena

Country City Street

UNIVERSITÀ DEGLI STUDI DI MODENA E REGGIO EMILIA

Person		
Name	donata franzi project manager	

### Organisation

Founded in 1176, the University of Modena and Reggio Emilia (UNIMORE) is the third oldest University in the world, and has been ranked among the first Italian universities for quality of teaching and research since 2007. UNIMORE is a networked campus located in the towns of Modena and Reggio Emilia. It counts about 25000 students, including 3500 postgraduates. It has over 600 international exchange agreements and cooperation programs to encourage students and researcher to actively interact in a globalized world. Currently UNIMORE project portfolio comprises 56 funded projects under Horizon 2020, JTI and PPP included, 20 running FP7 projects, plus several projects financed by the European Programme for the Environment LIFE, the National Institute of Health (USA).

- Business Development
- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Electronics, Micro And Nanosystems
- Energy & Environment

- Food and Agriculture
- Health & Nanomedicine
- Nano-Materials Based Innovation
- Safety and Social Impacts

## Università degli Studi "Roma Tre"

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	,			

Country	Italy
City	Rome
Street	Via Della Vasca Navale, 86
Web	https://www.scienze.uniroma3.it/

#### Person

Name

Enrico Petritoli Engineer



### Organisation

The Department of Sciences is engaged in basic and applied research, both experimental and theoretical, in the fields of Biology, Chemistry, Physics of Matter and Earth Sciences. The evolution of knowledge is less and less attributable to single-subject disciplinary areas and increasingly to areas with complex multidisciplinary facets. The problems of health and life, the development of new drugs and diagnostic techniques, the study of complex biological systems, the rapid loss of biodiversity, global warming, the transformation of environments, the energy problem, the natural risks and the science of materials represent complex research fields, which require contributions from different cultures and scientific and technological knowledge. The scientific project of the department is based on the belief that the interaction of a body of teachers who are experts in different scientific fields who share the same methodological approaches to scientific research and related education, is an instrument for the promotion of scientific research in strongly projected towards the concrete needs of today's society. This type of research is also developed through the consolidated collaboration with national research institutions as well as with public and private companies.

- Business Development
- Design / R&D / Engineering
- Testing & Analysis
- Energy & Environment

- Food and Agriculture
- Transport, Space & Aeronautics

## Università degli studi di Firenze

Organisation		
Country	Italy	
City	Florence	
Street		
Person		
Name	Emilia Benassai	
	Student	
Organisation		
It is one of the lo	argest and most productive public research systems in Italy.	
Areas of Activity		

- Testing & Analysis
- Production
- Energy & Environment
- Nano-Bio Related Products

• Health & Nanomedicine

## Università di Bologna

#### Organisation

Country	Italy
City	Vicenza
Street	strada Polegge, 151

### Person

Name Francesco Romano Researcher

### Organisation

Department of Chemistry G. Ciamician

Areas of Activity

- Design / R&D / Engineering
- Nano-Bio Related Products
- Health & Nanomedicine

### Marketplace Opportunities

### PRODUCT

## SiNBioSys

Optical imaging is a powerful tool for light-guided surgery and for the study of biological functions via dynamic visualization of processes in tissues and cells. Most of optical imaging techniques utilise fluorescent probes that can suffer from low contrast, due to scattering of the excitation light, and low tissue penetration. Silicon nanocrystals (SiNCs), developed within the ERC PhotoSi project, are a very promising alternative for this purpose: silicon is essentially non-toxic, easily available, and it can be covalently linked with dyes. The result is a highly-robust and biocompatible hybrid material, which exhibits colour tunability across the visible and near-infrared region. On top of that, the extraordinary brightness of the material coupled to a long-lived luminescence (lifetime of the hundreds of microseconds) enables time-gated detection. Therefore, SiNBioSys technology greatly improves the contrast of the obtained images with a low-cost equipment and with a material based on abundant and biocompatible elements (Si, C, O, H): it will enable innovative imaging tools for early diagnosis of diseases, particularly in the field of cancer and neuroscience.

Nano-Materials Based Innovation

## Università Politecnica delle Marche

#### Organisation

Country	Italy
City	Ancona
Street	Via Brecce Bianche 12
Web	http://www.univpm.it



Person		
Name	Paolo Mengucci Professor	

### Organisation

Faculty of Engineering. Centre for electron microscopy (CISMIN). Materials characterization by electron microscopy and X-ray based techniques (XRD, GID, XRR). Metals, cemamics, composites, light alloys, thin films, multilayers, biomaterials, materials for energy, materials for additive manufacturing.

### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Components / Materials
- Energy & Environment
- Nano-Bio Related Products
- Health & Nanomedicine

### Marketplace Opportunities

### EXPERTIZE

## Additive manufacturing

Advanced characterization of raw materials and parts produced by Additive Manufacturing (AM). Currently involved in the EU H-2020 project "Driving up Reliability and Efficiency of Additive Manufacturing (DREAM)" (www.dream-euproject.eu). Member of the consortium RAM (Research on Additive Manufacturing) stimulating collaborations between university and industry in the field of AM applications.

### EXPERTIZE

## Structural characterization of bulk materials, thin films and multilayers

Structure characterization by electron microscopy techniques (SEM, TEM, STEM), EDX microanalysis, X-ray diffraction techniques (XRD, GID), X-ray reflectivity (XRR).

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Smart Manufacturing
- Transport, Space & Aeronautics

### SERVICE

## Powder and material characterization

Material characterization by electron microscopy techniques (SEM, TEM, STEM), EDX microanalysis, Xray diffraction techniques (XRD, GID), X-ray reflectivity (XRR). Optical microscopy (3D measuring, surface inspection). Powder characterization (flowability, particle size, contamination). Hardness and roughness measurements. Mechanical characterization (tensile, compressive, flexural and dynamic tests). Fatigue tests (low and high frequency).

## University of Bari

### Organisation

Country	Italy
City	Taranto
Street	Via Leonida, 31
Web	www.linkedin.com/in/rosa-scotti-04965213/

#### Person

Name

Rosa Scotti Environmental Scientist



### Organisation

I work in the field of Environmental Sciences and spefically in the fields of marine productions by fishery and aquaculture and of coastal protection. My expertise deals with the ecological ways of coastal use:

1. sustainable technologies of production for marine aquaculture;

2. eco-friendly methods for coastal protection against the climate changes;

3. studies about the problem of marine litter on the Mediterranean coasts.

I think that climate changes with coastal use obligate us to take some urgent solutions both for preserving the future of the Blue Economy in The Mediterranean Sea and for protecting the coastal ecosystems.

Safety and Social Impacts

### Areas of Activity

- Design / R&D / Engineering
- Testing & Analysis
- Energy & Environment
- Food and Agriculture

### **Marketplace Opportunities**

### EXPERTIZE

## Study of biology of molluskan species and sustainable methods of production

Know-how about some sustainable methods of production of molluskan species, for many applications.

### REQUEST

Geomorphological and sedimentological implications of coastal protection.

Geomorphological and sedimentological aspects of using a sustainable method of coastal protection.

### PARTNERSHIP

## Partnerships for multidisciplinary studies.

Public Bodies in the local waste management; public or private research centre on biotechnology; information offices for environmental monitoring.

### REQUEST

Biotechnology applications for bioremediation.

Biotechnological methods for plastic degradation.

### EXPERTIZE

Marine pollution by marine litter.

Education about the marine litter problem and methods for monitoring marine litter on the coasts.

### EXPERTIZE

Monitoring of sea bathing water, surficial water bodies and toxic algal populations.

Analysis and database magement.

## University of Isfahan

#### Organisation

Country	Iran, Islamic Republic Of
City	Isfahan
Street	Department of Nanotechnology Engineering, Faculty of Advanced Sciences and Technologies, University of Isfahan, Isfahan, 81746-73441, Iran.
Web	www.ui.ac.ir



Person		
Name	behrooz movahedi Associate Professor	600

### Organisation

Department of Nanotechnology Engineering, Faculty of Advanced Sciences and Technologies, University of Isfahan.

Dr. Behrooz Movahedi obtained his Ph.D degree in Materials Engineering at Isfahan University of Technology (IUT) in Iran in 2010. During this period, while on a sabbatical leave he visited the School of Materials Science and Engineering in Nanyang Technological University (NTU) in Singapore. After that he joined the Department of Nanotechnology Engineering in the University of Isfahan (UI) as anAssociate Professor. Recently, he is the head of the Nanotechnology Engineering Department in Faculty of Advanced Sciences and Technologies. Dr. Behrooz Movahedi has over 10 years of experience in the nanotechnology, amorphous materials, optical ceramics and advanced thermal spray coatings for environmental and industrial applications. He was invited as a reviewer in some potential ISI journals such as Materials & Design, Journal of Alloys and Compounds, Surface and coatings Technology, Applied Surface Science, Materials Science & Engineering B, Ceramics International, Journal of Materials Engineering and Performance.

### Areas of Activity

- Nano-Materials Based Innovation
- Nanoscale Characterization and Measurements
- Smart Manufacturing

### **Marketplace Opportunities**

### REQUEST

Hydrophobic and oleophobic thin films as a protective layer on building structures

I am seeking for nano technology that can have positive impact on protective layer on building

facades. also I look for networks for application of nanoSILICA particles as a feedstock nanomaterials for transparent protective layer.

### EXPERTIZE

## Nanoceramics Synthesis and Applications

Nanoceramics as an optical bulk materials and protective layers

### PROJECT COOPERATION

## Hydrophobic and oleophobic nanoparticles or nanocomposite

We would like to develop new technologies for improve Building facades, part of a building which faces the street.

### PARTNERSHIP

## Hydrophobic, oleophobic and environmentally friendly permanent waterproof nanocoating

Based on a revolutionary ceramic platform chemistry, Nanocoatings have a hydrophobic and oleophobic surface. Companies, municipalities, and industries have invested heavily in important capital assets. Nano silica as a composite protective coatings is a hydrophobic, oleophobic and environmentally friendly permanent waterproof nanocoating designed to protect various surfaces against water, oil, chemical corrosion and abrasion.

## University of Naples Federico II, Department of Biology

Organisation	
Country	Italy
City	Naples
Street	
Web	http://www.dipartimentodibiologia.unina.it

Name	Martina Aulitto
	Postdoctoral researcher

### Organisation

Person

The Department of Biology is a main Life Science research center of the University of Naples Federico II and is active in a variety of biological areas, including biochemistry, microbiology, cytology and histology, physiology, pathology, molecular biology, genetics, plant biology, ecology and zoology.

### Areas of Activity

• Design / R&D / Engineering

Nano-Materials Based Innovation

- Energy & Environment
- Nano-Bio Related Products

### **Marketplace Opportunities**

### PARTNERSHIP

## TheViriozymes (Thermostable Virion-linked Enzymes)

We are looking for a cooperation partner that are interested in thermophilic VPs as ideal platforms for the immobilization and recirculation of enzymes used in bio-based industrial processes. Please, visit: https://www.researchgate.net/project/TheViriozymes-Thermostable-Virion-linked-Enzymes-robust-virus-particles-as-tailorable-scaffolds-for-the-immobilization-of-enzymes.

## University of Perugia - Department of Civil and Environmental Engineering -

#### Organisation

Country	Italy
City	Perugia
Street	Via G. Duranti, 93
Web	http://www.ing1.unipg.it/



#### Person

Name

Antonella D'Alessandro Postdoctoral researcher



### Organisation

Research, teaching and experimental activity about topics of civil and environmental engineering: structural materials, sustainable materials, new strategies for structures and infrastructures, monitoring, restoration, fire restistance, technology for seismic protection.

Safety and Social Impacts

### Areas of Activity

- Design / R&D / Engineering
- Components / Materials
- Construction, Building & Restoration
- Nano-Materials Based Innovation

### **Marketplace Opportunities**

### EXPERTIZE

## Smart structural materials for sensors in structural health monitoring

Production of smart structural materials with multifunctional properties in the field of civil engineering for structures and infrastructures

### PROJECT COOPERATION

## Elettronic device for Smart bricks

Our research is about a new type of sensor made of struttural clay brick doped with nano and microfillers. The next step of the research'll be the development of the electronic part of the sensor. So, the sensor needs a specific electrical device for the collection and the transfer of the data. We are looking for expertize for the development of data acquisition system and Wi-Fi device for such smart sensors.

## University of Roma 3

Organisation		
Country	Italy	
City	Rome	
Street		
Person		
Name	Riccardo Zucchetti	
	Student	
Organisation		
University of Roma 3		
Areas of Activity		
<ul><li>Design</li><li>Testing</li></ul>	/ R&D / Engineering • Transport, Space & Aeronautics	

• Components / Materials

## Warrant Group Srl

#### Organisation

Country	Italy
City	Correggio
Street	Corso Mazzini 11
Web	www.warrantgroup.it

#### Person

Name

paolo neri Liaison Officer



WarrantGroup GRUPPO TECNOINVESTIMENTI

### Organisation

Warrant Group S.r.l. – Tecnoinvestimenti Group is a privately held consultancy services company that provides full-spectrum consulting in business finance. Warrant Group has been active since 1995, growing over the years to become a leader in its sector today. WG Business Units work in synergy with its Innovation Lab to give their clients the best support tools for the success of their business initiatives and to assist them in the preparation and management of strategic projects: business projects, research projects, training and technology transfer activities, under National and International support frameworks.

The European Funding Division (EFD) team provides consultancy, training and support on European Funding opportunities, and in the preparation, negotiation and management of European Proposals, particularly on H2020 calls. EFD offers also support for communication and dissemination activities, and periodically participates into and organizes sectional seminars and networking events with/for industrial associations, SMEs, policy makers, etc. thus having the opportunity to disseminate the project results to relevant audiences. EFD also collaborates with the Innovation Lab of Warrant Group, that has a long experience in market surveys and studies, technological audits and scouting, IP management, market penetration studies (especially for new materials and processes).

### Areas of Activity

- Business Development
- Investment/ Financing
- Design / R&D / Engineering

### **Marketplace Opportunities**

### SERVICE

## **Project Management & Dissemination**

We are specialist in Horizon 2020 projects. We offer support for proposal design, project management and dissemination activities

### REQUEST

## Looking for partnership in NMBP proposal

We are available to evaluate our participation in NMBP proposal