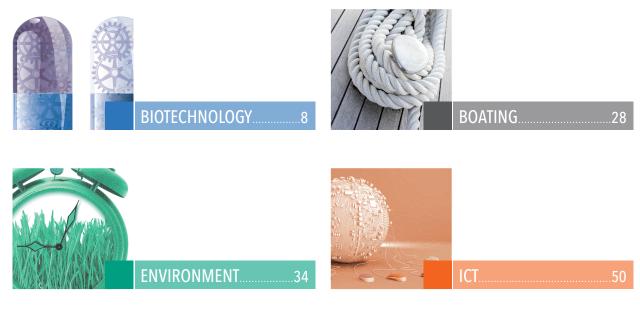


## **BIAT - INNOVATION AND HIGH TECHNOLOGY LAB**

## Contents





NANOTECHNOLOGY 88





ENEWABLE ENERGY....106



.....118



I am very pleased to welcome our international guests to Fiera del Levante - Bari which hosts the second edition of BIAT, the Innovation and High Technology Lab, featuring new international cooperation opportunities for innovative southern Italian enterprises.

BIAT is the latest addition to the Italian Trade Agency's Export Sud Plan, a comprehensive project that envisages an ambitious set of activities designed to benefit small and medium sized enterprises based in the four southern Italian Regions referred to as "Convergence Regions": Campania, Apulia, Calabria and Sicily.

BIAT 2016 focuses specifically on the development of international partnerships in the field of nano-biotechnology, ICT, environment, boating, renewable energy, new materials and smart city sectors. The appointment in Bari aims to promote: the placement of Italian companies and research groups on suitable foreign markets, the transfer of innovative products and services or high technology, intangible assets, and to be specific - patents - by matching commercial and technological supply with demand between startups, innovative SMEs, business networks, universities, technology parks and the hosted foreign counterparts.

The following pages contain company profiles of Italian business people, based in the "Convergence Regions", who will have the opportunity to share experiences and information and meet with prospective partners from some of the world's pacesetting markets.

**Riccardo Maria Monti** President ICE - Italian Trade Agency

www.ice.gov.it | www.italtrade.com



# **BIOTECHNOLOGY**

## Summary

BEFORPHARMA SRL	9
CNRB (CENTRO NAZIONALE PER LE RISORSE BIOLOGICHE) CONSORZIO	10
CONSORZIO C.A.R.S.O	11
CONSORZIO C.A.R.S.O	12
CONSORZIO PER VALUTAZIONI BIOLOGICHE E FARMACOLOGICHE (CVBF) TEDDY	.13
EGGPLANT SRL	.14
FE.DA.P. SRL	.15
-3D PROFESSIONAL	.16
NNOVAZIONE E TECNOLOGIE S.R.L	.17
SOPHARMA COSMETICS SRL	.18
TEL TELECOMUNICAZIONI	.19
COMPLEXIS SRL	.20
PHARMACEUTICAL RESEARCH MANAGEMENT (PHARM) SRL	.21
PIERRE SRL	.22
SALINE SRL	.23
JNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO	.24
JNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO	
JNIVERSITÀ DEL SALENTO	.26

### **BEFORPHARMA SRL**

Via San Francesco d'Assisi, 51 | 70056 Molfetta BA | Apulia

Contact: Roberto La Forgia | CEO T. +39 0803381540 | info@beforpharma.com | www.beforpharma.com

### Employees: FROM 3 TO 9 EMPLOYEES

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Startup

### Project Proposal INTERNATIONAL NETWORK AS A NEW MODEL FOR BIOTECHNOLOGICAL RADIOPHARMACEUTICALS INNOVATION PROMOTION

### Description of the innovation project:

In the last few years a growing clinical request of radiopharmaceuticals, among which the biotech ones, has been observed, with increase of investments in this field. The main difficulty is represented by the lack of specific technical competency and guidelines knowledge: BFP works in such field as highly qualified GxP services supplier. The innovation is represented by the modality of services supply: once Customer has reached the adequate quality standard through the services supplied by BFP, he will become partner of a network where scientific, technological and economic resources will be shared for the achievement of common R&D objectives. BFP will be the hub of the network.

### **IP Protection Level:**

Being a new model of business organization and connections within the market the idea is not object of patent. The results of the R&D activities developed within the network will be patented.

#### State of development:

Partnership being defined.

### Industrial application:

Radiopharmaceutical sector.

#### Market segment:

BFP addresses its services both to the international and national market. The international market is represented by biotech radiopharmaceutical multinationals and facilities; the national and local market is also represented by nuclear medicinal department of public and private hospital.

#### Advantage factor:

Being part of the network is a way to obtain an high quality standard and, at the same time, to benefit from the sharing of resources, self-supporting R&D activities. This represents an alternative model to the multinational one. Furthermore the partners can sell their competence within the network.

#### Commercial challenge:

To take part into the network is a competitive advantage for BFP and for the Partners. The sharing of resources can facilitate the achievment of R&D objective and the commercialization of new biotech radiopharmaceuticals; such objectives would be difficult to achieve for small companies that operate in this field or for emerging companies having not enough experience. The network is also an interesting container for multinational companies wishing to outsource R&D activities.

### **Publications and Customer References:**

Pubblication: Powell et al. (1996) "the network (of collaborating firms) as the locus of innovation". Customer References: King Hamad University Hospital, Razavi Hospital, PTTMED and Luminare Gulf.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Licensing, Distribution Agreement, Sub-contracting Agreement.

### CNRB (CENTRO NAZIONALE PER LE RISORSE BIOLOGICHE) CONSORZIO

🛠 CNRB

Centro Nazionale per le Risorse Biologiche

Via Trabucco, 180, (presso Ospedale Vincenzo Cervello) | 90146 Palermo PA | Sicily

Contact: Francesca Caristi | Researcher T. +39 3452498300 | Cnrb.caristi@gmail.com | http://rimedri.olodream.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 250.000 to 500.000 Euro Export: Less than 75.000 Euro Status: Research centers, Universities



### Project Proposal RIMEDRI -RETE REGIONALE INTEGRATA CLINICO-BIOLOGICA PER MEDICINARIGENERATIVA INTEGRATED CLINICAL-BIOLOGICAL BIOBANK NETWORK FOR REGENERATIVE MEDICINE (RIMEDRI)

### Description of the innovation project:

The RIMedRi project aimed at creating a regional network of certified and accredited biobanks for therapeutic and research purposes. The project fits in a scenario characterised by the fragmentation of research and the lack of common standards for biobanks, resulting in a duplication of similar projects and difficulty of developing a policy of long-term loans. In such a scenario RIMedRi has launched a process aimed at creating a regional network of biobanks operating in synergy, with high levels of quality and with the enormous potential of being able to enter as a regional hub in the context of a more extensive biobank networks at both national and European level.

**IP Protection Level:** no patent is expected.

**State of development:** Product.

**Industrial application:** Biobanks.

Market segment: Biobanks.

### Advantage factor:

RiMedRi is the first certified biobanks network in Italy. The information platform is finalized to fulfill the gap of the semantic diversity of annotation by installing common controlled vocabularies, a dynamic ontological model able to both integrate with relational databases managed by the network, and to be increased at any time with new terminology. The system is able to accommodate pre-established lists of terminologies on the web, to ensure the conditions for future additions to the platform with other qualified and internationally recognized aggregations. The system architecture is designed to prevent accidental access even to clinical data from unauthorized users.

### Commercial challenge:

The IT platform can be implemented either through the adhesion on new other biobanks within the Sicilyn region, and the expansion of the territorial context. Furthermore, the product itself is marketable to other biobank networks or individual biobanks that require an information system.

### **Publications and Customer References:**

No publication available.

### Proposal of cooperation agreement:

Know how transfer.

### CONSORZIO C.A.R.S.O.

Strada Provinciale Valenzano-Casamassima Km. 3.00 | 70010 Valenzano BA | Apulia

Contact: Prof. Francesco Paolo Schena | President T. +39 080 4602121 | carso@uniba.it | www.carso.uniba.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Research centers, Universities



### Project Proposal Combination of active ingredients for the treatment of acute kidney failure

### Description of the innovation project:

The project proposal relates to a new combination of active ingredients for the treatment of acute renal failure, the pharmaceutical compositions and the kits containing it and their use in therapy.

#### **IP Protection Level:**

Acute Renal Failure (ARF) is emerging as a major world health problem; it represents the most frequent complication in patients admitted to intensive care units and also has a high mortality rate. We obtained the international patent on a new combination of active ingredients for the treatment of acute renal failure.

### State of development:

Patent.

#### Industrial application:

The project proposal is to provide a new combination of substances capable of contributing to the repair and regeneration of renal tubular cells and its use in the treatment and/or in the prevention of renal damage, in particular in the treatment and/or in the prevention of acute renal failure. The project proposal is to provide pharmaceutical compositions and kits comprising said combination with pharmaceutically acceptable excipients and carriers.

#### Market segment:

The proposal for the development of diagnostic kit is addressed to the worldwide marketing. Given the increasing interest in the marketing in the development of new genetic tests and the lack of non-invasive diagnostic tools related, we believe that the invention can have a strong economic value.

#### Advantage factor:

The invention can be used by pharmaceutical companies for the realization of a new drug consisting in 4 regenerative factors with adjuvant action for renal regeneration after ARF.

#### Commercial challenge:

Given the trend of the pharmaceutical market in the research of new biological drugs and given the great economical efforts of the big pharmaceutical companies towards regenerative medicine the project proposal can have a big economic value and the acquisition of the patent could be of strong interest.

### **Publications and Customer References:**

- International patent PCT11566D53 - "COMBINATION OF ACTIVE INGREDIENTS FOR THE TREATMENT OF ACUTE KIDNEY INJURY". Inventors: Fabio Sallustio; Vincenzo Costantino; Francesco Paolo Schena. Assigned to: UNIVERSITY OF BARI - TLR2 plays a role in the activation of human resident renal stem/progenitor cells. Sallustio F,\* De Benedictis,\* Castellano G, Zaza G, Loverre A, Costantino V, Grandaliano G, Schena FP. FASEB J. 2010 Feb;24(2):514-25. - A bioartificial renal tubule device embedding human renal stem/progenitor cells. Sciancalepore AG, Sallustio F, Girardo S, Gioia Passione L, Camposeo A, Mele E, Di Lorenzo M, Costantino V, Schena FP, Pisignano D. PLoS One. 2014 Jan 30;9(1):e87496.

### Proposal of cooperation agreement:

Licensing.

### CONSORZIO C.A.R.S.O.

Strada Provinciale Valenzano-Casamassima Km. 3.00 | 70010 Valenzano BA | Apulia

Contact: Prof. Francesco Paolo Schena | President T. +39 080 4602121 | carso@uniba.it | www.carso.uniba.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Research centers, Universities

### Project Proposal Kit for the diagnosis of IgA Nephropathy

### Description of the innovation project:

The technology aim of this invention is a non-invasive blood test for the diagnosis of IgAN. This new test is based on the measurement of let-7b and miR-148b, two miRNAs that we found overexpressed in the disease. In particular, miR-148b and let-7b inhibit the glycosylation process of IgA1 that causes mesangial deposition of deglycosylated IgA1 and the inflammation of the glomeruli. The test can be carried out through real-time PCR.

### **IP Protection Level:**

IgA nephropathy (IgAN) is the most common form of glomerulonephritis (inflammation of the glomeruli of the kidney) worldwide. The disease is characterized by deposition of deglycosylated IgA1 and IgG antibodies in the glomeruli. The kidney biopsy is necessary for the diagnosis. Unfortunately, biopsy is a painful and invasive exam that greatly reduces patients' compliance. At the moment, a reliable blood test to aid in the diagnosis has not been developed, yet. An international patent was obtained on an non-invasive method for IgAN diagnosis.

### State of development:

Patent.

### Industrial application:

The invention can be used by biotechnology companies for the realization of a diagnostic test based on the two miRNAs (let-7b and miR-148b) as a biomarker. The technology required, based on Real-time PCR, is an established know-how since it has been widely used for other diagnostic tests currently in use in the diagnostic laboratories.

### Market segment:

The proposal for the development of diagnostic kit is addressed to the worldwide marketing. Given the increasing interest in the marketing in the development of new genetic tests and the lack of non-invasive diagnostic tools related IgAN, we believe that the invention can have a strong economic value.

### Advantage factor:

Currently, the invasive approach of the renal biopsy is required for an accurate diagnosis of IgAN, since no convenient biomarker is available. Unfortunately, many individuals with suspected disease refuse renal biopsy. On the basis of the potential pathogenic role of miR- let-7b and 148b in the process of the IgA1 deglycosylation in IgAN, a quantitative assay of these two serum miRNAs will be developed as a non-invasive diagnostic tool. The proposed kit may permit earlier, an accurate and non-invasive test for the diagnosis of IgAN without performing the renal biopsy.

### Commercial challenge:

Actually, it is not possible to evaluate the commercial value of the diagnostic kit. The company, that will acquire the invention, will provide to generate the kit in all of its parts including appropriate positive and negative controls.

### **Publications and Customer References:**

- International patent (n° PCT 11564D53) "Method and kit for the diagnosis of IgA nephropathy". Inventors: Sallustio F, Serino G, Schena FP. Applicant: University of Bari - Serino G, et al. Abnormal miR-148b expression promotes aberrant glycosylation of IgA1 in IgA nephropathy. J Am Soc Nephrol, 23(5):814-824, 2012. - Serino G, et al. Role of let-7b in the regulation of N-acetylgalactosaminyltransferase 2 in IgA Nephropathy. Nephrol Dial Transplant. 2015 Jul;30(7):1132-9. - Serino G, et al. Circulating miR-148b and let-7b in serum as markers for detecting primary IgA nephropathy: a retrospective international study. Accepted by Kidney International.

### Proposal of cooperation agreement:

Licensing.

### CONSORZIO PER VALUTAZIONI BIOLOGICHE E FARMACOLOGICHE (CVBF) TEDDY

Corso Alcide De Gasperi, 435 | 70125 Bari BA | Apulia

Contact: Lucia Ruggieri | Scientific Secretariat T. +39 080 864 1260 | teddynetwork@cvbf.net | www.cvbf.net; www.teddyoung.net

Employees: FROM 10 TO 19 EMPLOYEES

Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Research centres, Universities



### Project Proposal EPaediatric-RI (European Paediatric - Research Infrastructure)

### Description of the innovation project:

A Research Infrastructure (RI) refers to facilities, resources, services to conduct top level research. Among the numerous RIs established at national and EC level, none addresses paediatric medicines. This is due to the well recognised difficulties to developing paediatric medicines as children cannot be addressed with adult instruments in medical settings.

### **IP Protection Level:**

CVBF-Teddy developed a Research Infrastructure model based on: a) a large paediatric scientific networking with 382 research sites already identified; b) IT tools mainly devoted to implement process for studies coordination/ management and c) interoperability of different paediatric medicines databases able to exchange/transfer patients data. This model is intended to implement good practices and innovative methodologies to develop studies and research on medicinal products in children and represents the first step in the setting up of the European Paediatric Research Infrastructure (EPaediatric-RI). No patents have been foreseen yet for this model.

State of development:

Model.

### Industrial application:

Peadiatric Medicines.

### Market segment:

EPaediatric-RI addresses the market of the paediatric medicines with the aim to improve high quality clinical trials (CTs) delivery by well-equipped sites and the development of appropriate medicines. According to the EMA's Annual Report 2014 to EC, the number of CTs to develop new medicines for children is increased but still remains very low (US represents the most favourable site). The setting up of EPaediatric-RI will allow Pharmaceutical Industries to displace a more significant amount of paediatric research in Europe and in particular in Mediterranean Countries with an increasing of the paediatric market.

### Advantage factor:

EPaediatric-RI will enable researchers to manage paediatric clinical research and implement important research activities through the creation of innovative platforms (personalized medicine; advanced therapies; new production processes; data sharing). There will be many advantages: aggregation and growth of scientific structures in the field of innovation and life sciences; development of new medicines for children to promote and develop new business; development of industrial processes.

### Commercial challenge:

The implementation of EPaediatric-RI will lead to speedy completion of trials and other studies, giving an advantage to the companies operating in the Member States (MSs) participating to the IR. In addition, researchers, patients and Governmental Bodies will benefit in terms of the increased critical mass of expertise, and growth of workforce in the specific field.

### **Publications and Customer References:**

Ruggieri L, et all; on behalf of the GRiP Consortium. Successful private-public funding of paediatric medicines research. Eur J Pediatr. 2015; Giannuzzi V, et all Clinical Trial Application in Europe. Sci Eng Ethics. 2015; Baiardi P et all. Innovative study design for paediatric clinical trials. Eur J Clin Ph. 2011 May;67 Suppl 1:109-15; Sturkenboom MC et all. Drug use in children: cohort study in three EU countries. BMJ. 2008 Nov 24;337:a2245; Ceci A, et all Clinical Trials in Paediatrics – Regulatory and Methodological Aspects. ISBN: 978-953-51-2128-2.

### Proposal of cooperation agreement:

Know how transfer.

### EGGPLANT SRL

Via Don Minzoni, 27 | 70044 Polignano a Mare BA | Apulia

Contact: Domenico Centrone | CEO T. +39 339 6859703 | info@eggplant.it | www.eggplant.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup



### Project Proposal EggPlant

### Description of the innovation project:

Thanks to its proprietary technology EggPlant reuses agrifood wastewater as raw material to manufacture high performance PHA (polyhydroxyalkanoates) bioplastics and advanced bioplastic-based solutions. EggPlant faces and solves two big environmental and social problems, the wastewater disposal (e.g. olive mill wastewater, palm oil mill effluent, cheese whey, etc) and the pollution coming from traditional hydrocarbons based plastics. EggPlant is based on a 2-phase process: a filtering technology as first phase and a bacterial fermentation process as step 2. Besides the company has developed proprietary smart technology platforms based on its bioplastic: soft bio-composition, conductive bioplastics, high-tech electronic devices, active packaging, medical devices.

### **IP Protection Level:**

EggPlant counts on 2 patents pending and one more is in progress.

### State of development:

Prototype.

### Industrial application:

EggPlant bioplastic is suitable for different kind of applications and markets: Biomedical, Advanced Electronics, Consumer Industry, high-tech electronics, cosmetic, agriculture, packaging, waste.

### Market segment:

EggPlant faces the bioplastics and the waste disposal market. Both are big and growing markets. Bioplastics market value was 570,6M€ in 2008 and will reach 1,1B€ in 2015. Also organic waste disposal represents a huge global market. EggPlant revenue model is mainly based on two revenue streams. Direct revenues come from wastewater disposal service and bioplastic production and sales. A second indirect revenue stream come from the licensing of our technology platforms based on our bioplastic, i.e. soft bio-material and electrically conductive bioplastic, in high added value sectors such as healthcare and biomed and high-tech green electronics. EggPlant expected ROI after 3 years is 12.

### Advantage factor:

EggPlant offers a holistic valorization of waste through a 0waste process. EggPlant key competitive advantages are: cost effectiveness, scalability (geographical and technological thanks to the possibility to adopt different kind of agri-food organic waste all over the world), yield improvement in comparison to the state of the art and IP. Besides current bioplastics is produced starting from food related materials (eg corns, sugar canes, etc) and this implies an increase of food cost; EggPlant solution foresees the production of bioplastics starting from waste.

### Commercial challenge:

EggPlant PHA holds great promises since the potential design space for PHA is very large. This bioplastic is a "game-changer" material since it has great technical performance being both completely bio-based and biodegradable. PHA bioplastic is suitable for different kind of applications, markets and industries. For this reason EggPlant has already developed proprietary smart technology platforms based on its biopolymer. Current challenge is related to process tuning in order to set a completely scalable, efficient and effective technology. After having reached this stage of development EggPlant will be ready to reach the market.

### Proposal of cooperation agreement:

Venture capital financing, Know how transfer, Licensing.

### FE.DA.P. SRL

Via Carnia n.39 | 70125 Bari BA | Apulia



Contact: Armando Coppola | Project Manager T. +39 320 0754839 | energypatruno@libero.it | www.facebook.com/FEDAP-srl-884791421603270/timeline/?ref=profile

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro

### Project Proposal HEASY HOUSE

### Description of the innovation project:

The aim of the project is the development of a very innovative construction system based on an integrated dry module kit. The use of innovative materials and the high quality of prefabricated components allow to obtain the following main features: easy assembly, high thermo-mechanical performances, lightness and active/passive energy behavior. The kit contains a number of highly ergonomic components.

### IP Protection Level:

Patented system - PCT/IT2015/000203 - in advanced stages of developement. It has been realized a system prototype.

### State of development:

Patent - prototype.

### Industrial application:

Civil construction, tourism, public and industrial sectors. Easy House system satisfies a wide range of design solutions for building, making the structural factors easier; besides the complete building system for residential and not residential modules, it offers the possibility to realize in an "easy" way a wide range of sub-building systems.

### Market segment:

The construction industry appears heavily affected by the global economic crisis; just think that investments in construction declined by over 40% between 2008 and 2013. ANCE recorded a drop of 2.5% in construction investment during 2014, a slowdown if compared with previous years, despite the impact on investment by the extension of tax incentives for building renovations and energy efficiency and by the measures to revive the house loans market.

### Advantage factor:

• easy construction of greenhouses; • rapidity of execution; • use of recycled materials at 70%; • use of innovative nanostructured materials and PCM for the construction of buildings with an active and passive energy operation; • high energy efficiency and possibility of plant integration, solar and automation/domotic technology; • high value for money.

### Commercial challenge:

The Easy House system allows the production and sale of high quality houses both for energy efficiency and performance (Green Building - Class A, A+), earthquake-resistant and aesthetically very refined, for the following target markets:

- 1. Civil Residential With High Standards;
- 2. Houses For Tourist Resort;
- 3. Emergency (After Catastrophic Events) Or Military Houses;
- 4. Social Housing;
- 5. Supply System And Assembly On Behalf Of Companies Property Or Third Party Building. Our product, in each sector of sales, compared to the average commercial price, it is placed with a saving between 25% and 40% on the trade market, at the same performance and type.

### **Publications and Customer References:**

The project was in the regional call "Technology Clusters", classifying as "admitted not financed" at position n.56.

### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement, Sub-contracting Agreement.

### I-3D PROFESSIONAL

Via Cardinale Mimmi, 14 | 70100 Bari BA | Apulia

i-3D PROFESSIONAL

Contact: Gaetano Frascina | President T. +39 080 8642667 | i-3dprofessional@libero.it | www.i-3dprofessional.it

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs

### Project Proposal Individualized orthodontic brackets in zirconia

### Description of the innovation project:

The orthodontic brackets are classified as Dental Devices in the particle n. 872.5470 of cfr 21 and destined for the FDA to the orthodontic treatment thet moves the natural teeth. The production and commercialization need the FDA Certification 510K.

### **IP Protection Level:**

We are waiting for an international submission.

### State of development:

Concept.

#### **Industrial application:** CAD-CAM production of health biomaterials.

Market segment: dental and orthodontic products. retail price of about  $\in$  10.

### Advantage factor:

Individual therapy Biocompatibility Esthetics.

### Commercial challenge:

New prospectives for the dental offices.

### Publications and Customer References:

- Macchi A., Beretta M., Cirulli N. Ortodonzia ed estetica: una nuova ortodonzia linguale Ortho TRIBUNE Anno III n. 1 - Aprile 2009 p. 4-6 - F. Mangano, C. Mangano, A. Macchi La TAC volumetrica ed i software di ricostruzione tridimensionale: una piccola rivoluzione nello studio odontoiatrico Implant Tribune 2009; 1: 19-21 - Mangano F, Zecca P, Pozzi-Taubert S, Macchi A, Ricci M, Luongo G, Mangano C. Maxillary sinus augmentation using computer-aided design/computer-aided manufacturing (CAD/CAM) technology. Int J Med Robot. 2012 Sep 7. doi: 10.1002/rcs.1460. PubMed PMID: 22961733.

### Proposal of cooperation agreement:

Commercial representative, Distribution Agreement.

### INNOVAZIONE E TECNOLOGIE S.R.L.

Via Merine, 36 | 73100 Lecce LE | Apulia

Contact: Luigi Blasio | Business Opportunity, Head T. +39 329 4603814 | blasio@ietnet.net | www.ietgroup.it

Employees: FROM 50 TO 99 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

Project Proposal

### Internationalization and commercialization of products / services of Innovazione e Tecnologie S.r.I. (NeoCare and OneCare)

### Description of the innovation project:

- OneCare to satisfy all needs of hospital wards - NeoCare for neonatology wards (It. Min. of Health registered Medical Device) The two systems are based on a set of vertical solutions: - JSignal brings in medical records all the data from biomedical equipment, based on IEEE 11073; HL7 - HER: specialist Electronic Health Record; Therapy: drug therapy management - Followup: Outpatient Visits and Follow-up; HEDOX: Document Registry and Repository according to IHE XDS and HL7 CDA; Middleware: systems integration and message exchange

### **IP Protection Level:**

in progress.

### State of development:

Product.

### Industrial application:

Electronic Patient Record for Neonatology and Pediatrics Units, NICU and PICU. hospital and outpatients department.

### Market segment:

NeoCare: Units of Obstetrics, Neonatology and Paediatrics; JSignal: NICU (Neonatal Intensive Care Unit), PICU (Paediatric Intensive Care Unit), CCU (Cardiac Intensive Care Unit) and Intensive Care Units; OneCare: Hospitals (Drug Management and Delivery; Patient Treatment and Care; management of Corporate Structures including several Hospitals); GeBIOp (Management of Surgical and Anaesthesia Delivery Units); OneCare-EHR (Electronic Health Record for Hospitals, Communities and Regions).

### Advantage factor:

- Clinical Information System, expandable and integrable also with National/International clinical research networks - Paperless Medical Record, compliant with Regional/National/International standards and certification procedures - Improved usage of human/technical resources and clinical risk reduction in handling medications - Incremental automation, minimizing impacts, optimizing workload so to meet clinical and administrative requirements - Integrated clinical picture with automatic recording of life signals from bio-medical equipments into the patient's file - Electronic signature - Communication with relatives, care givers, general practitioner, family doctor, specialist, etc.

### Commercial challenge:

The partner should act as a commercial agent and consultancy services for the software and other products and, in the longer term, technical Cooperation could be also of interest for healthcare information systems, information systems for corporate communication, Web Applications (via Internet / Intranet), and EGovernment Solutions for Government Agencies.

### **Publications and Customer References:**

Research Projects: - APReBENE: Trento Autonomous Province - @MONITECH: PreCommercial Procurement with Apulia Region - iSpeak: PreCommercial Procurement with Apulia Region

Public Administrations: - Lombardy Region - Apulia Region - Trento Autonomous Province - Comunità Montana del Mugello & ASL Fl

Hospitals: - CERIGNOLA (FG) - MANFREDONIA (FG) - SAN SEVERO (FG) - LUCERA (FG) - LECCO - IRCCS MILAN Polyclinic - TREVISO - FERRARA University - BARI Di Venere - BARI Polyclinic - TRIESTE IRCCS - ACQUAVIVA DELLE FONTI (BA) - SAN GIOVANNI ROTONDO (FG) - IRCCS - BARI - La Madonnina - UNGHERIA Nyíregyháza -UNGHERIA Szolnok - UNGHERIA Fehérgyarmati.

### Proposal of cooperation agreement:

Commercial representative, Distribution Agreement



### **ISOPHARMA COSMETICS SRL**

Zona Industriale - Via braccianti arneo 2 | 73017 Sannicola LE | Apulia

# **1**sopharma

**Contact:** Roberto Marti | CEO T. +39 083 3233038 | info@isopharma.it | www.dermosistemi.com

### Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

### **Project Proposal** SKIN INFUSION

### Description of the innovation project:

Skin INFUSION is a highly evolved bioengineering system committed to the non-invasive and completely painless treatment of skin deficit of different nature. The system conveyes various active ingredients using revolutionary electrical pulses which allow the temporary opening of the "functional doors" localized in the thickness of the cell membrane.

### **IP Protection Level:**

In the process for patenting.

### State of development: Prototype.

### Industrial application:

Several are the fields of application, from the aesthetic to the medical one, for example for the local analgesic application of rheumatic diseases or in case of skin diseases such as acne.

### Market segment:

The devices are used for medical-aesthetic purposes, so it is necessary that the same are highly reliable and above all that do not adversely harm to the skin. The market positioning is in the medium-high end.

### Advantage factor:

- Absence of pain and invasiveness - Presence of the active ingredient in the desired areas in quantities that are higher than that obtainable by systemic way. - Possibility to use medicine without limiting systemic side effects -Direct application of the active ingredient - Reduction of the systemic absorption and toxicity - Lower amount of active ingredient required - Increased speed of action and then quick result.

### Commercial challenge:

The device is highly innovative. The business challenge is to make a substantial promotional campaign (field demonstrations, promotion in aesthetic and medical activities and specialized channels, etc.) that allow operators potentially interested to know and evaluate the product.

### **Publications and Customer References:**

AIDA - Associazione Italiana di Dermatologia Ambulatoriale.

### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing, Licensing, Distribution Agreement.

### ITEL TELECOMUNICAZIONI

Via A. Labriola, lotto 39 | 70037 Ruvo di Apulia BA | Apulia

Contact: Anna Tolomeo | T. +39 080 3611033 | itel@itelte.it | www.itelte.it/it



Employees: FROM 50 TO 99 EMPLOYEES Turnover: More than 7 million Euro Export: From 2.5 to 5 million Euro Status: Innovative SMEs

**Project Proposal** 

### Development of novel Radiotracer PET (Positron Emission Tomography) for Central Nervous System and Oncology: theranostic approach

### Description of the innovation project:

Among all new radiotracers under study, there is one for the clinical setting of human ovarian cancer. It has already been developed the synthetic strategy of target molecule and of its precursor to which the positron emitter should be added. The process to insert the radioisotope 18F has already been developed while it is undergoing its optimization and automation. In vivo studies of this new patented radiotracer, in a human ovarian cancer murine model, have shown its great absorption in tumor with respect to the healthy tissue.

### **IP Protection Level:**

The optimization of processes for the production of clinically tested radiotracers (neuroendocrine tumor) are under optimization and the development of new radiotracers already studied in "in vivo" human ovarian cancer animal model. These activities are conducted in collaboration with the Department of Pharmacy of the University of Bari (Prof. Scilimati) by using a theranostic approach.

### PATENT: WO 2014/115020 A1

PATENT: WO 2014/115020 A1

The optimization of processes for the production of clinically tested radiotracers (neuroendocrine tumor) are under optimization and the development of new radiotracers already studied in "in vivo" human ovarian cancer animal model. These activities are conducted in collaboration with the Department of Pharmacy of the University of Bari (Prof. Scilimati) by using a theranostic approach.

### PATENT: WO 2014/115020 A1

The optimization of processes for the production of clinically tested radiotracers (neuroendocrine tumor) are under optimization and the development of new radiotracers already studied in "in vivo" human ovarian cancer animal model. These activities are conducted in collaboration with the Department of Pharmacy of the University of Bari (Prof. Scilimati) by using a theranostic approach. PATENT: WO 2014/115020 A1.

\_ \_ \_ \_ \_ \_

### State of development:

Product.

### Industrial application:

Development, Automation and Commercialization of novel radiotracers (PET).

### Market segment:

HEALTH - Human Ovarian Cancer Diagnosis; Neuroinflammation Detection and Diagnosis.

### Advantage factor:

The novel radiotracers (PET) are more specific and have a remarkable uptake in the tumor vs normal tissue.

### Commercial challenge:

Replace FDG with the novel radiotracers.

### **Publications and Customer References:**

European Journal of Medicinal Chemistry 80 (2014) 562568; PET radiotracer [18F]P6 selectively targeting COX1 as a novel biomarker in ovarian cancer: Preliminary investigation. Patent WO 2014/115020.

### Proposal of cooperation agreement:

Know how transfer, Venture capital financing, Licensing, Distribution Agreement, Sub-contracting Agreement.



Contact: Vincenzo De Benedictis | CEO T. +39 349 4263425 | komplexissrl@arubapec.it | www.komplexis.com

### Employees: FROM 3 TO 9 EMPLOYEES

**Turnover:** Turnover not noticeable - Innovative start-up founded in the last year **Export:** Turnover not noticeable - Innovative start-up founded in the last year Status: Startup

### **Project Proposal** Innovative approaches for treatment nephropathies and electrolyte imbalance of metabolic disease

### Description of the innovation project:

The main problems after a dialysis treatment are the accumulation of water and ion imbalance. All available membranes on the market are designed only for efficient removal of urea and water but not for the selective removal of phosphorus, potassium and sodium. The main idea is to develop a biocompatible polymeric structure, functionalized with binding agents for the selective ions absorption and water removal. This polymeric biomaterial, based of insoluble dietary fibers, can be eaten.

### **IP Protection Level:**

Request Ref: P6655GB Filing Date: 20 April 2015 Patent application number: GB1506663.2 Title: In-vivo delivery of ion chelating ligands for therapy Applicant: Komplexis S.r.l.

### State of development:

Prototype.

### Industrial application:

Eatable membranes for dialysis, that within the intestinal tract are able to bind and retain water excess, remove and retain selectively ions excess and restore the electrolyte balance in the blood, and also to remove selectively specific ions in particular disorders due to drugs use or chronic diseases (hyperkaliemia, hyperphosphatemia, hypernatremia, hypersideremia). The product can be used also to develop selective filters to be used in hemodialysis peritoneal dialysis and in ions detectors and biosensor to be used either in vivo or for analytical instruments.

### Market segment:

About 50,000 people in Italy are in these conditions, for a total cost by the Italian national health service that goes from €1.800.000 to €2.500.000/year. Each dialysis patients cost at the national health service a minimum €40,000/year. Studies indicate that between 4 million and 20 million people in the US are affected by CKD, and approximately 560,000 of these patients require dialysis. For patients a single hemodialysis treatment typically costs up to \$500 or more or, about \$72,000 or more per year.

### Advantage factor:

The product can be adjuvant in dialysis treatments, prolonging the time between two subsequent treatments, allowing the patient to a significant improvement in quality of life. Production process is proprietary and patented, absolutely green, without organic solvents and catalysts used in every step of production. Starting raw material are low cost, are biocompatible and already widely used in food and biomedical applications.

### Commercial challenge:

Open and develop new business: there are not specific products on the market (or patented) which are able to perform a selective ions and water removal in physiological condition (i.e. in body). Hire and train highly gualified personnel: investing in human capital. Innovate and generate new ideas: investing in Research and Development. Valorization of intellectual property (IP) generated by the project: a careful analysis and a strong IP protection.

### **Publications and Customer References:**

Sannino et Al., Journal of applied polymer science, vol. 115, no. 3, pp. 1438-1444, 2010. Sannino et Al., Journal of applied polymer science, vol. 91, no. 6, pp. 3791-3796, 2004. Sannino et Al., Journal of Biomedical Materials Research Part Á, vol. 67, no. 3, pp. 1016-1024, 2003. Sannino et Al., Journal of Materials Science: Materials in Medicine, vol. 11, no. 4, pp. 247-253, 2000.

### Proposal of cooperation agreement:

Know how transfer, Venture capital financing, Licensing.

### PHARMACEUTICAL RESEARCH MANAGEMENT (PHARM) SRL

Via Putignani 178 | 70122 Bari BA | Apulia

Contact: Donato Bonifazi | Partner T. +39 328 7919866 | donatobonifazi@pharmsrl.com | www.pharmsrl.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Spin-off





### Project Proposal GAPP (GAbapentin in Paediatric Pain)

### Description of the innovation project:

The GAPP project intends to improve the therapeutic perspectives of children who suffer from chronic pain providing them with a drug (gabapentin), which seems to be effective and safe, as already demonstrated in adults, and which was included in the European priority list of off-patent paediatric medicines. PHARM is the Applicant of the PIP (EMEA-001310-PIP01-12) submitted to PDCO for the development of gabapentin in paediatric chronic pain with neuropathic component and will be the Sponsor of two clinical trials (GABA-1 and GABA-2), aimed to investigate appropriate dosages, efficacy and safety of gabapentin, for which the great therapeutic interest has been demonstrated in paediatrics.

### **IP Protection Level:**

No patent is expected. At the end of the project and on the basis of the study results, an application for a Paediatric Use Marketing Authorisation (PUMA) for the treatment of chronic pain in children both as monotherapy and as adjuvant therapy will be submitted.

**State of development:** Product.

### . . . . . .

**Industrial application:** Pharmaceutical and Biotechnologies.

### Market segment:

Pharmaceutical industries, private and public research institutes, hospitals.

### Advantage factor:

Age-appropriate formulation will be developed and 2 randomised, comparator-controlled clinical trials, and a bridging study will be conducted in order to investigate appropriate dosages, efficacy and safety of gabapentin in the paediatric population. A non-clinical study will be conducted to evaluate the neurotoxic potential of the drug and ensure its safety in very young children. At the end of GAPP, gabapentin can be proposed for treatment of chronic pain in children both as monotherapy and adjuvant therapy. All research activities will be conducted in line with the ethical requirements in the paediatric population, considering risk minimisation for patients and avoiding unnecessary studies.

### Commercial challenge:

GAPP will lead to a reduced use of off-label drugs and the development of age-appropriate formulation of gabapentin (notwithstanding its efficacy shown in a wide variety of pain syndromes, large scale CTs should be performed to confirm its efficacy and safety in children). It will increase the availability of medicines for children affected by chronic pain of neuropathic origin, enhancing their quality of life. Gabapentin appears to be also an important therapeutic tool to reduce chronic mixed pain in children for which morphine is often used as standard therapy. It could represent not only a valuable alternative to morphine but also a mean to reduce morphine requirement and addiction risk.

### **Publications and Customer References:**

No publications available yet.

### Proposal of cooperation agreement:

Commercial representative, Venture capital financing.

### PIERRE SRL

S.P. 362 Km 17,650 | 73013 Galatina LE | Apulia

Contact: Leonardo Rescio | President T. +39 083 6562308 | a.moschettini@lycopene.it | www.pierrechimica.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: From 75.000 to 250.000 Euro Status: Innovative SMEs

### **Project Proposal**

## Extraction of organic Lycopene with Supercritical Carbon Dioxide system for food supplements and cosmetic products

### Description of the innovation project:

Lycopene is the red colorant of the tomato and it has a strong antioxidant activity as well as anticancer properties. Pierre, in cooperation with CNR and University of Salento, has developed a new method of extracting lycopene from organic tomatoes with an innovative technology that makes use of supercritical CO2 instead of traditional chemical solvents, toxic and harmful. Organic lycopene is 100% natural, solvents-free and organic certified (Reg. CE 834/2007). Organic lycopene has a high natural bioavailability and it could be used as dietary supplement, without dilution with additives or preservatives.

### **IP Protection Level:**

Product patented and registered in over 35 countries. Title of patent "Food supplement based on biological lycopene and process to obtain biological Lycopene". (E.G. USA Patent n. US 8,263,156 B2 ; CHINA Patent n . ZL 2006 8 0055683.4 ; INDIA patent : n. 258731 ; CANADA Patent : n. CA 2714718 ; JAPAN patent : n. 4852151; ...and more).

### State of development:

### Patent.

### Industrial application:

Pharmaceutical, Food ans Cosmetic applications.

### Market segment:

The market segment of food supplements is growing rapidly and , globally, it is more than several hundred million €. Particularly, is growing demand for organic products. As regards the dietary supplements containing lycopene, only in China, there are about 200 different types of supplements based Lycopene. Obviously none of them is made with organic lycopene (Pierre).

### Advantage factor:

Organic lycopene is obtained with a environmentally-friendly process. The advantages of supercritical fluid extraction (compared with solvent extraction) are that it is relatively rapid because of the low viscosities and high diffusivities associated with supercritical fluids. The extraction can be selective to some extent by controlling the density of the medium and the extracted material is easily recovered by simply depressurizing, allowing the supercritical fluid to return to gas phase and evaporate leaving no or little solvent residues. The plants for supercritical fluid extraction are environmentally-friendly and the operators which are not exposed to chemical solvents.

### Commercial challenge:

Organic Lycopene has a higher bioavailability than the lycopene produced by process that uses chemical solvents (the bioavailability is the most important quality parameter for a food supplement). Organic Lycopene no contains residual of toxic and hazardous chemical solvents and it is manufactured by an eco-friendly production process.

### **Publications and Customer References:**

Innovative supercritical CO2 extraction of lycopene from tomato in the presence of vegetable oil as co-solvent. J.of Supercritical Fluids 29 (2004) 87-96. Giuseppe Vasapollo, Luigia Longo, Leonardo Rescio, Loredana Ciurlia -(a) Dipartimento di Ingegneria dell'Innovazione, Università di Lecce, Italy - (b) PIERRE CHIMICA srl., Galatina (LE), Italy. Supercritical carbon dioxide co-extraction of tomatoes (Lycopersicum esculentum L.) and hazelnuts (Corilus avellana L.). A new procedure in obtaining a source of natural lycopene. Journal of Supercritical Fluids 49 (2009)-338-344. Leonardo Rescio, Loredana Ciurlia, Mauro Bleve . PIERRE SRL , Galatina (LE) Italy

### Proposal of cooperation agreement:

Know how transfer, Venture capital financing, Distribution Agreement.

### SALINE SRL

Via delle Saline | 76016 Margherita di Savoia BT | Apulia

Contact: Antonio Lopizzo | CEO T. +39 088 3655338 | info@salineitalia.it | www.salineitalia.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

### Project Proposal Biosalt

Saline

**Description of the innovation project:** Wellness.

**IP Protection Level:** Patented.

**State of development:** Product.

**Industrial application:** Cosmetic treatment of cellulite by biocompatible products.

Market segment: Wellness for home treatments and spa.

Advantage factor: High knowledge of the raw material and difficulties in processing for any other operators.

**Commercial challenge:** Absolute novelty of the product in these applications.

**Publications and Customer References:** Theoretical and empirical study, on the use of salt by Dr. Di Terlizzi Project tablet presses-mixer , Engineer Vitrano.

**Proposal of cooperation agreement:** Venture capital financing, Distribution Agreement.

### UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO



Piazza Umberto I, 1 | 70121 Bari BA | Apulia

Contact: Gianluigi de Gennaro | Project Manager T. +39 080 5714200 | segreteria@rettorato.uniba.it | www.uniba.it

Employees: MORE THAN 499 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 75.000 to 250.000 Euro Status: Research centers, Universities

### Project Proposal Advanced integrated diagnostics tool for personalized medicine

### Description of the innovation project:

Genetic association and case-control studies performed analyzing nucleic acid variants are to date the most promising approaches to identify candidate genes predisposing to multifactorial diseases and to improve the efficacy of personalized therapeutic treatments. The discovery of these innovative "molecular biomarkers" leads to the individuation of the most appropriate drug and dosage, reducing or avoiding the risk of side effects or lack of effect. The identification of these mutational genetic profiles is able to provide new diagnostic, prognostic and therapeutic tools.Such diagnostic systems must be "customized" according to the molecular target and the specific observed pathology.

### IP Protection Level:

Not applicable.

### State of development:

Product.

### Industrial application:

The identification of new molecular biomarkers for diagnosis, prognosis, progression, response to therapy assessment, design and clinical validation of reproducible and reliable diagnostic systems, to suggest therapeutic protocols optimized for each individual patient and a rationalized use of medicines, may have a strong impact in the industrial field, arousing the interest of biotechnology companies employed in the production of diagnostic kits, pharmaceutical industries and ICT companies.

### Market segment:

- ▶ Hospitals, health structures and welfare
- ▶ Regional and national health services
- biomedical research and diagnostic laboratories

### Advantage factor:

The presence of an oncology clinical center related to a high technology pharmacogenetic translational research laboratory may allow an immediate clinical validation of innovative previously unidentified biomolecular markers.

### Commercial challenge:

The assessment of diagnostic and therapeutic strategies that could prevent the development of diseases, specifying the prognosis and optimizing the personalized medicine approach for neoplastic patients, offer a significant improvement in the quality of life of these subjects. It is therefore expected that these validated molecular diagnostic tools could be marketed worldwide.

### **Publications and Customer References:**

- A peculiar molecular profile of umbilical cord-mesenchymal stromal cells drives their inhibitory effects on multiple myeloma cell growth and tumor progression. Stem Cells Dev. 2015 Jun 15;24(12):1457-70
- Natural history of malignant bone disease in hepatocellular carcinoma: final results of a multicenter bone metastasis survey. PLoS One. 2014 Aug 29;9(8):e105268
- An imbalance between Beclin-1 and p62 expression promotes the proliferation of myeloma cells through autophagy regulation. Exp Hematol. 2014 Oct;42(10):897-908.e1
- New insights into the molecular pathogenesis of langerhans cell histiocytosis. Oncologist. 2014 Feb;19(2):151-63

### Proposal of cooperation agreement:

Foreign partnership.

### UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO



Piazza Umberto I, 1 | 70121 Bari BA | Apulia

Contact: Gianluigi de Gennaro | Project Manager T. +39 080 5714200 | segreteria@rettorato.uniba.it | www.uniba.it

Employees: MORE THAN 499 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 75.000 to 250.000 Euro Status: Research centers, Universities

### Project Proposal Breath test: the diagnosis is in the air

### Description of the innovation project:

The composition of exhaled breath can provide information about the health status, because it can be influenced by genetics, food, stress, diseases and exposure to polluted air. The research group aims to develop an experimental protocol for the monitoring of volatile organic compounds (VOCs) in human breath, containing criteria to be adopted in the selection of subjects, collection, preservation and analysis of samples, as well as the better statistical methods.

### **IP Protection Level:**

Metabolomics is one of the most recent "omic" sciences developed and it is focused on the study of patterns of VOCs present in human breath, as a possible new diagnostic technique. In Italy only few research groups are focused on this topic and there are few breath test standardized and used routinely for diagnostic purposes.

### State of development:

Product

### Industrial application:

The use of breath analysis as a routine diagnostic method is today limited by the absence of experimental protocols tested, validated and internationally accepted and consequently by the lack of dedicated devices. The researchers are currently able to transfer theirs know-how to the industrial companies in order to help them for the design and development of systems for the collection of samples, for the storage of the same and for monomultiparametric analysis of potential biomarkers, as well as for the development of appropriate databases and software for data processing.

### Market segment:

The marketing segment is potentially very large considering that this is a new technique proposed to be included as investigation of first level for diagnosis and screening broad spectrum having minimal invasiveness, simplicity of application and limited costs.

### Advantage factor:

The idea proposed in the present project is innovative in its kind because it aims to an important goal: the complete change of doing diagnosis in the world trying to overcome the limitations of conventional diagnostic techniques, but guaranteeing high levels of reliability with important socio-economic consequences.

### Commercial challenge:

Breath analysis has many advantages. If the experimental procedure will be standardized and possible biomarkers of individual diseases will be found, it will be possible in future develop disposable kits easy to use and sold in pharmacies or distributed in hospitals or non-formal public events or in schools, in order to spread the culture of preventive screening, resulting in a social and economic gain.

### **Publications and Customer References:**

The research team led by Dr. De Gennaro works in this context from some years collaborating with other national and international research groups (Polyclinic Hospital of Bari, Italy; Fondazione Salvatore Maugeri, Cassano Murge, Italy; Breath Research Institute of the Austrian Academy of Sciences, Innsbruck) and implementing experimental studies of high scientific sound. The research team received high approvation in various contexts (the awarding called "study of synergistic processes" within the ITWIIN Award 2012). The publication of important scientific results in impact factor - ranked journals (more than 8 Publications) has had a considerable impact in the national and international media, in particular for the possibility of using breath analysis for the diagnosis of colorectal cancer.

### Proposal of cooperation agreement:

Venture capital financing.

### UNIVERSITÀ DEL SALENTO

Piazza Tancredi n.7 | 73100 Lecce LE | Apulia

UNIVERSITÀ Del SALENTO

Contact: Francesca Gervaso | Research Fellow T. +39 083 2299200 | gabriella.gianfrate@unisalento.it | www.unisalento.it

Employees: MORE THAN 499 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Research centers, Universities

### Project Proposal BIOINROC

### Description of the innovation project:

The BIOINROC technology guarantee a biomimetic bioresorbable scaffold for regenerating osteochondral lesions through the employment of organic and inorganic materials within a custom-made 3D structure. The synthesis of the hybrid structure is obtained through proprietary multi-step procedure that ensures the cohesion between the two portions meant to regenerate bone and cartilage. The BIOINROC scaffold is an innovative device enabling its customization with respect to the patient and the pathology. BIOINROC would be among the very first technology in regenerative orthopedics for pets.

### **IP Protection Level:**

Patent No.: PCT/EP2014/060264, F. Gervaso, F.Scalera, A. Sannino, G. Peretti, G. Fraschini, C. Domeneghini, A. Di Giancamillo, D. Deponti, Composite scaffold for tissue repair, n. 61/824,706. Submitted as US provisional on May 17th 2013 and extended as PCT on May 19th 2014.

### State of development:

Prototype.

### Industrial application:

Regenerative orthopedic medicine and veterinary regenerative orthopedics.

### Market segment:

The BIOINROC technology will enable the production of medical devices for two types of final users: 1) adult human populations and athletes, since estimates of knee arthroplasties are 350,000 per year, with an expectation to increase owing to population growth, increased longevity and need of time effective therapies (potential market with a value of \$ 1.5 Bln); 2) pet and animals suitable to racing games, given the increasing interests in veterinary regenerative medicine, especially in racehorse, whose value is between 25K and 250K \$ but are exposed to a joint lesions and pathology with an occurrence of 23-26% leading to the exit from the games in the 81% of cases.

### Advantage factor:

The clinical interest of opinion leaders into BIOINROC technologies provides invaluable contribution in terms of expertise during product development and in vivo trials as they experiment daily current limitations of available techniques for regenerating osteochondral lesions. Most used scaffolds for osteochondral tissue regeneration fail to guarantee post implant integrity between the two components mimicking the cartilaginous and bone tissue. Finally, BIOINROC technologies will be among the first breakers into the still niche market of regenerative veterinary orthopedics, in which no noticeable competitors are known.

### Commercial challenge:

Development of a standardized procedure for the production of a medical device aiming to effectively regenerate osteochondral lesions and with guaranteed biomimicry and customization. Preliminary in vivo study on large animals sre extremely encouraging towards the fact that the device could represent aqn improvementof currently available methods for cells - free regeneration of bone and cartilage tissue in animals and humans.

### **Publications and Customer References:**

Deponti D., Di Giancamillo A., Gervaso F., Domenicucci M., Domeneghini C., Sannino A., Peretti G.M. Collagen scaffold for cartilage tissue engineering: the benefit of fibrin glue and the proper culture time in an infant cartilage model Tissue Eng Part A. 2014 Mar; 20 (5-6):1113-26.

### Proposal of cooperation agreement:

Venture capital financing, Licensing.



# BOATING

## Summary

AS DI VITO LABRUNA SAS	29
ENGINSOFT SPA	
EXPRIVIA SPA	31

### AS DI VITO LABRUNA SAS

SS 16 km 848 | 70043 Monopoli BA | Apulia

Contact: Massimo Labruna | CEO T. +39 080 777135 | aslabruna@aslabruna.it | www.aslabruna.it

Employees: FROM 10 TO 20 EMPLOYEES Turnover: From 2.5 to 6 million Euro Export: From 750.000 to 2.5 million Euro

### Project Proposal Hydropack

### Description of the innovation project:

Hydropack is an Integrated Naval Propulsion System that manages, with a hydrostatic transmission driven by diesel engines:

1. Vessel propulsion

2. Fishing gears and auxiliary installations

3. Electric energy production

The main components of Hydropack are: Diesel engine/s; Hydraulic pumps; Hydraulic motor/s; Oil tank and hydraulic accessories; HMCS (Hydropack Management and Command System).

The diesel engine is coupled to a variable displacement hydraulic pump that delivers high pressure oil to the hydraulic drive motor.

This is a fixed displacement motor which is coupled to the transmission type of the boat: > Propeller shaft; > Stern drive; > Sail drive; > Pod drive; > Water jet.

The Hydropack is a multi-configurable system.

**IP Protection Level:** 

Trade mark.

**State of development:** Production.

**Industrial application:** Boating.

Market segment: Marine professional and Marine Pleisure.

### Advantage factor:

▶ Optimal management of fuel injection; ▶ Less fuel consumption until 50% than the traditional system; ▶ Lower emissions of Particolate and NOX; ▶ Reduction of smoke levels (no white smoke at cold starting, less acceleration smoke, no black smoke); ▶ High decrease of sound and vibrational emissions; ▶ Minimum operational and maintenance costs; ▶ Maximum safety and long engine life; ▶ Built-in highly flexible oleodinamic joint to dampen torsional vibration and shock loads; ▶ Variable transmission ratio; ▶ Excellent resistance to forward – reverse rapid change of movement; ▶ Very flexible speed control available at low rpm; ▶ Diesel engines can be installed everywhere in the boat, according naval architect exigencies; ▶ also the little boat can be equipped with refrigerated space, can have accommodation and cooking facilities and can be seaworthy; ▶ The engine can be sited away from the steering position to give a quieter cruise; ▶ Small dimensions of propulsion axle; ▶ Best shaft angle with improvement of propulsion efficiency; ▶ The engine can be mounted on very low hardness silent block for high reduction of vibrations; ▶ Absence of front axle power take off with pulley; ▶ Reduction of dimensions of auxiliary installations.

### Commercial challenge:

More sales, more growing.

### **Publications and Customer References:**

Passengers boats of Porto Torres, Multipurpose vessel of Gruppo Barcaioli di Taranto, ecological boats, fishings boats.

### Proposal of cooperation agreement:

Commercial representative.

### **ENGINSOFT SPA**

Via A. Murri 2 | 72023 Mesagne BR | Apulia



Contact: MArco Perillo | Chief Technical Officer | m.perillo@enginsoft.it T. +39 0461 979340 | r.magri@enginsoft.it | www.enginsoft.it

Employees: FROM 100 TO 499 EMPLOYEES Turnover: From 15 to 25 million Euro Export: From 2.5 to 5 million Euro Status: N.A.

### Project Proposal Methods and numerical technologies for integrated design of complex structure in aeronautical field

### Description of the innovation project:

It is a numerical procedure aimed at the structure optimization through tools for the topological investigation, the definition of composite materials, the study and optimization of the whole system through the "Concurrent Design" approach, able to include aspects connected to the product development and the relative technological process.

### **IP Protection Level:**

This innovative technology completes numerical procedures already present in the market (ANSYS software) able to efficiently deal with design and optimization of complex structures in aeronautical field. The added value consists in the capacity to complete several phases of the numerical design in a unique procedure, from the definition of geometry optimized through topological simulation until the definition of the detailed model. At the moment no patent request has been presented.

### State of development:

Prototype.

### Industrial application:

aeronautical/aerospace.

### Market segment:

The potential customers are the technical offices whose activities are related to design, analysis and testing for the development of aeronautical structures.

### Advantage factor:

Capacity to coordinate the design activities through advanced numerical tools, chance to deal with problems relative to process and product in a complete way.

### Commercial challenge:

The competitive advantages are mainly useful to lead and facilitate the activities of structural design, with the possibility to integrate in the same multidisciplinary procedure other aspects relative to different aspects.

### **Publications and Customer References:**

No pubblication.

### Proposal of cooperation agreement:

Know how transfer.

### **EXPRIVIA SPA**

via A. Olivetti, 11 | 70056 Molfetta BA | Apulia

# exprivia

Contact: Chiara Altomare | International Operations consultant T. +39 02 280141 | chiara.altomare@exprivia.it | www.exprivia.com

Employees: MORE THAN 499 EMPLOYEES Turnover: More than 25 million Euro Export: From 15 to 50 million Euro Status: Large companies

### Project Proposal ARGES (pAssengeRs and logistic information Exchange)

### Description of the innovation project:

Arges is a prototype for the National Maritime Single Window. This project premised on the need to facilitate and standardize the management of maritime formalities arising from the implementation of Directive 2010/65/ EU. Arges aims to create a system that collects and notifies all the input/output information related to ships in an harbour. Information release is harmonized and coordinated thanks to an inter-administrative unique interface (single window).

### IP Protection Level:

No patents and no certifications have been requested.

### State of development:

Prototype.

### Industrial application:

Transport, Utilities.

### Market segment:

Maritime Authorities, Ship Data Providers, Vessel owners.

### Advantage factor:

- Harbours' increased efficiency in ships' information management thanks to the single view - No redundant dataentry activities - De-materialization - Cooperation and management normalization of the Maritime Authorities.

### Commercial challenge:

The challenge that Arges aims to address is the implementation of Directive 2010/65/UE. Stakeholders/partners for the solution are Maritime Authorities willing to implement National Maritime Single Window, as well as logistic operators which exchange logistic/shipping information and can contribute to improve the solution allowing the implementation of new functional modules according to their needs.

### **Publications and Customer References:**

The prototype is in an experimental phase by APL (Autorità Portuale del Levante - Levanter Port Authority). The operational tests started on June 2015, as soon as the development phase was completed. Several Ship Data Providers tested a new type of approach for the electronic submission of ship arrival and departure notifications in the Italian ports of Ancona, Bari and Barletta.

### Proposal of cooperation agreement:

Commercial representative, Maritime stakeholders/partners.



# **ENVIRONMENT**

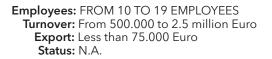
## Summary

CLE SRL	
DRONEDESIGN SRLS	
DRONYX SRL	
GEOM. CIRO FRISOLI & C. SAS	
LENVIROS SRL	
MACNIL - ZUCCHETTI GROUP	
PLANETEK ITALIA SRL	
S.M.&S. SRL	
STC SRL	
TECNOLOGIE PER L'AMBIENTE	
UNIVERSITÀ DEL SALENTO	
UNIVERSITÀ DEL SALENTO	
UPGRADING SERVICES S.P.A.	

### CLE SRL

Via Amendola 187/A | 70126 Bari BA | Apulia

Contact: Oronzo Berlen | MLV Business Unit Manager T. +39 080 5559730 | oronzo.berlen@clebari.com | www.clebari.com









Project Proposal MLV: IT PLATFORM TO MANAGE MARINE ANTI-POLLUTION ACTIVITIES

### Description of the innovation project:

MLV is an IT Web 2.0 platform to manage marine antipollution activities. It aggregates data come from specialized instruments, such as normal and infrared cameras, weather stations, marine traffic control services. The MLV platform is available either under a software license or as SaaS and can easily be integrated into more complex design solutions for shipping and port logistics purposes. It is already used in the harbor of Taranto by a private company running marine antipollution services. MLV can be used to monitor ordinary and emergency services. It manages information on: - Ordinary and Services (in progress, planned or already completed); - Operating vessels, equipment, materials, personnel; - Exchanges of authorizations and operations. - Generate and exchange IMO and EMSA standard reports describing the incident, including maps (GIS-generated); - Collect information of from specialized instruments; - Follow the evolution of the incident and the vessels involved in anti-pollution operations.

### IP Protection Level:

Registered trademark.

State of development:

### Product.

### Industrial application:

Marine antipollution and Oil Spill Protection.

### Market segment:

Private Sector Companies or Public Authorities running Marine antipollution prevention and emergency services, in the field of Oil Spill Protection for Oil and Gas Industry.

### Advantage factor:

MLV has a unique and innovative approach to Oils Spill protection, with a good market positioning on this specific product niche.

### Commercial challenge:

CLE proposal of MLV outside of Italy can push company internationalization process.

### **Publications and Customer References:**

Main press articles about MLV: - Management Platform for pollution prevention and emergency response -Scandinavian Oil Gas Magazine may/june 2015 - Super piattaforma hi-tech per combattere l'inquinamento in mare - Il Sole 24 ore 20.03.2015. - The innovative IT platform for managing antipollution operations in the port of Taranto presented at Interspill in Amsterdam - ISCO newsletter 06.04.2015. - The innovative IT platform for managing antipollution operations in the port of Taranto - Process Industry Match 21.04.2015. - New IT platform to manage emergencies arising from oil spills - ENERGY GLOBAL 07.04.2015. For a complete press release please see www.clebari.com/category/news-eng.

### Proposal of cooperation agreement:

Several options to be evalued, among which Commericl Representative, Licesing and Distribution Agreement.

### **DRONEDESIGN SRLS**

Viale Martiri d'Ungheris 158 | 74013 Ginosa TA | Apulia

Contact: Guido Parissenti | CEO T. +39 338 2294383 | info@dronedesign.it | www.dronedesign.it

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: From 75.000 to 250.000 Euro Status: Startup

### Project Proposal Agricopter

### Description of the innovation project:

Agricopter is an integrated system for crops monitoring, which includes a lightweight and agile drone (<2 kg), equipped with an in-house developed multispectral camera (6 sensors, 8 bands), and an software for tablet easy to use to plan the survey missions and to visualize the analysis results. The architecture is completed by a cloud server, which stores and analyzes the data collected by each user. The system is designed to make the mission planning, the flight management and the data elaboration as easy as possible, to cut costs and to allow the product to be used on any cultivation, even those less profitable.

### **IP Protection Level:**

Under patenting procedures.

State of development:

Prototype.

### Industrial application:

Precision agriculture, land management and quality control of cultivation.

### **Environmental Implications:**

Using our technologies allows a reduction of pollutant emissions and the use of fertilizers and fungicides. The knowledge about the health status of every single plant allows to "cure" only those which have needs (water or fertilizers) and just with the necessary amount. By reducing the treatment only to the plants which actually need, we can reduce the use of fertilizers and fungicides and, by consequence, the energy and raw materials necessary for their production. In addition, pollutant emissions generated by agricultural vehicles and the cost of man-hours are reduced.

### Market segment:

The product's market target is represented by every agricultural production, irrespective of dimension and profitability of the cultivation. In a start-up phase, we can assume a more restricted target, meaning the cultivation with a higher value and quality control (e.g. vineyards) and the presence of innovators in the agricultural market which can be estimated in the 3-5% of the overall market.

### Advantage factor:

With respect to competitors products the system is much less expensive. It has a high grade of automation: results are available few minutes after the flight, and the high number of sensors of the multispectral camera which we developed allows operations, like the automatic recognition of plant species, through simple single sensor cameras. In addition, the multispectral camera supports the add-on of a small thermal camera, which allows a precise indication of soil water content - in order to calculate the required irrigation - and the identification of animals in the crop or in the forest.

### Commercial challenge:

Given that the Italian civil aviation legislation (ENAC - Italian civil aviation authority) leaves no room for interpretations which allow the full development of the market, the companies which operate in the same sector in Italy and worldwide base their commercial proposals on expensive systems and components blocking a wide utilization. Our project faces the market with a totally opposed strategy, meaning that it is based on the simplification of components to reduce the overall system cost. This technological simplification means also, from our point of view, usage simplifications, to meet the requirements/competencies of any kind of user.

### Publications and Customer References:

Press release links:	
Assodigitale.it:	Smart&Start: oltre 200 start-up finanziate nel Sud
Smartstart.Invitalia.it:	Invitalia, oltre 200 start-up finanziate nel Sud
Firstonline.info:	Invitalia, finanziate al Sud più di 200 startup

http://goo.gl/4MmuO8 http://goo.gl/0xDXpz http://goo.gl/Sf6HRw

### Proposal of cooperation agreement:

Commercial representative, Know how transfer, IPR assignment, Venture capital financing, Licensing, Distribution Agreement, Sub-contracting Agreement, experts and manufacturer of agricultural goods.

## **DRONYX SRL**

Via Caduti del Monte Serra 24 | 73020 San Cassiano LE | Apulia

Contact: Rocco Galati | CEO T. +39 0836 992757 | info@dronyx.com | www.dronyx.com



Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### Project Proposal Solarino: Automated sandy ground cleaning machine

#### Description of the innovation project:

Solarino Robot is the first eco-friendly, remote-controlled beach cleaning machine able to move on wet and dry sandy terrain and able to remove rubbish and foreign bodies. It is designed for totally electric management, powered by full isolated GEL batteries and also by solar energy; it is silent, accurate and robust. Two 12V-200Ah sealed lead acid rechargeable batteries power the whole system up to 4800W. This solution is maintenance free and is leak-proof in order to provide a low impact environmental solution. A solar panel located on the working unit is able to provide enough energy to power the ECU and it has been designed to help the system recharge batteries.

#### **IP Protection Level:**

Patent of industrial invention LE2013A000002 for a Beach Cleaner Machine. This Patent has been extended to the European Union and the UAE. Design Patent LE2013O000001 protects the highly innovative shape of the Solarino body shell. This patent has been extended towards the European Union. The registered trademark Solarino LE2013C000001 has been mentioned by several articles on Italian Press and by different Italian Websites and Television Programmes.

#### State of development:

Product.

#### Industrial application:

Solarino is a multi-purpose industrial mobile robot designed for several application fields.

#### Market segment:

Reference markets are beach resorts and hotels which are able to appreciate the product for its features of respect for the environment. In Italy, there are about 12.000 beach resorts with an annual growth of 4,6% without taking into account foreign markets which in the last years are showing a interesting growth in the touristic sector. Some beach resorts chose to use Solarino because its innovative design and its low-environmental impact can improve their brand and their popularity rate. Since Solarino has been designed to be modular, it is possible to use it also in different markets: i.e. for agricultural or industrial applications.

#### Advantage factor:

Solarino consists of an independent mobile unit and a working unit characterized by a self-balancing system, a self-leveling cleaning system, an assisted steering system, a collecting tray and a self-emptying system. All these systems are managed and coordinated by a central process unit also depending on received data from different sensors. All job functions are managed by the joystick and this allows the user to work in comfort by reducing human efforts. Solarino uses a 10.000 N electric linear actuator to configure the working-depth parameter and another one with same features to execute rubbish unloading operations.

#### Commercial challenge:

Solarino is a very innovative product compared with all the other machines used for the same application and, in addition, it is eco-friendly. For these reasons, the company wants and can become a leader in the beach cleaning market.

#### **Publications and Customer References:**

Automation engineering thesis entitled Study of a robotic system for the sandy ground cleaning Award of Technological Innovation of 2011 at Ecomondo Fair in Rimini in 2011 Second place at award Best Practices for innovation Articles on Italian Newspapers and different Italian Website and Television Programs. Tom's Hardware Libero Tagpress.it The Digeon People E Tecnology La Gazzetta del Mezzogionrno II Tempo Quotidiano Di Apulia Tg3 Nazionale Rai Due.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing.

## GEOM. CIRO FRISOLI & C. SAS

Corso Garibaldi, 92 | 71121 Foggia FG | Apulia

Contact: Ciro Frisoli | Manager T. +39 088 1747931 | info@cirofrisoli.it | www.cirofrisoli.it



Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

## Project Proposal Containment structures and volume recovery in landfill

#### Description of the innovation project:

The "containment structure for landfills" has the aim to lengthen the life of the landfill by means of volumetric recovery. Is nearing completion of the basin of the landfill in order to continue to give waste has, so far, intervened creating a raising of the landfill building a dike perimeter ground, so as to generate new volume above the ground level. The embankment in the earth, having of course be stable, it must be built in carry-with a maximum inclination of 40° and, having to be equipped with a top track, a trapezoidal section This solution has obvious disadvantages. The technique "containment structure for landfills" of Frisoli Sas, to be applied for the purpose is realized by building along the perimeter of the basin out of a wall "containment structure for landfills" using as a building material the same rejection suitably worked and reinforced with rebar geotextile which allows to obtain an inclination of the outer face of approximately 70°. Of all evidence is the fact that such a technique, using as a material the same rejection, presents huge advantages with respect to traditional.

#### **IP Protection Level:**

The "containment structure for landfills" is an innovative technique, patented by the company Frisoli.

#### State of development:

Patent.

#### Industrial application:

The technique "containment structure for landfills" can be used in almost all landfills because of its flexibility and skills acguired by the staff of designers over the years mean that it can be applied and adapted to the conformation of all landfills.

#### Market segment:

The technique potentially can turn to a very large segment of the market. In developed countries, the technique can be used to extend the life of existing landfills and to implement them with a system of production of electricity from renewable sources. In countries developing the technique can be used for the safety and reclamation of areas used for landfill, allowing also to be able to lay the foundations for the creation of a sustainable waste cycle also for future generations.

#### Advantage factor:

With the patented technique of "containment structure for landfill", we not squander the entire volume occupied by the embankments. This means take advantage of the 100%, and not 50%, of the elevated volumetry. Furthermore, the technique "containment structure for landfills" allows you to secure the landfill, which through the construction of retaining walls with a smooth surface also allows the installation of photovoltaic systems. This will create an integrated system of waste management and electricity production from renewable sources.

#### Commercial challenge:

The company aims to raise awareness of their techniques and know-how to offer services across the country and abroad, in order to fulfill its mission which is to create a cycle of sustainable waste management for present and future generations.

#### **Publications and Customer References:**

Università degli Studi di Bari "Aldo Moro" Consiglio Nazionale delle Ricerche - Istituto di Ricerca sulle Acque - CNR IRSA Università degli Studi della Basilicata Laserinn Patent "STRUCTURE OF DUMPS CONTAINMENT (SCD)", Patent "PROCESS OF WASTE PROCESSES DESTINED TO THE SCD", Quality certification ISO 9001:2000 Registration to Environmental Managers - Section Apulia Certificate of qualification for public works n. 14681AL/11/00.

#### Proposal of cooperation agreement:

Licensing, Distribution Agreement.

## LENVIROS SRL

Via degli Antichi Pastifici, 8/B | 70056 Molfetta BA | Apulia



Contact: LUCREZIA DE GENNARO | Senior researcher T. +39 080 3971186 | info@lenviros.com | www.lenviros.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 250.000 to 500.000 Euro Export: Less than 75.000 Euro Status: Spin-off

#### Project Proposal CONTROLODOR & ODORTEL

#### Description of the innovation project:

The project CONTROLODOR has been conceived and designed to manage and control the nuisance of odors through the development of an integrated system that includes a "tool": ODORTEL®. It permits a computerized management of telephone signaling of the receptors ("sensitive sensors") in the territory. In fact, ODORTEL is based on the cooperation of citizens to report the presence of odorous nuisance events. The aim of CONTROLODOR&ODORTEL project is to monitor odor emissions produced during the activities of a production process in order to implement integrated policies for improving process management.

#### **IP Protection Level:**

The CONTROLODOR system and its "tool" ODORTEL®, are now tested to optimize the development of the whole system. CONTROLODOR&ODORTEL are trademarks recorded in 2013.

#### State of development:

Experimental stage.

#### Industrial application:

The project is intended for all industrial sectors that are at risk odors.

#### Market segment:

CONTROLODOR & ODORTEL are designed and manufactured to meet the needs of companies which with their activities lead to the emission of odorous substances and needing an integrated emission control but also to give the opportunity to citizens to become "active" in their role as sensitive sensors. The value of the whole system is about 300,000 €.

#### Advantage factor:

The Italian laboratories do not offer an integrated solution because they use conventional methodologies. The public regulations are converging toward the need to adopt integrated measurement systems that can evaluate all aspects of the problem. The proposal aims to fill this gap.

#### Commercial challenge:

The development of this technology was possible after reaching a high level of expertise in the field of environmental monitoring. The commercialization of the invention would bring significant benefits because it would allow the real-time recording of malodorous events and the alert to the companies of the need to immediately implement appropriate corrective action. Consequently, it would be a highly useful tool for the management of olfactory nuisance.

#### **Publications and Customer References:**

- Development of the CONTROLODOR system for monitoring sites osmogenic, L. DE GENNARO, et al.
- A direct line with the general public systems for the digitization of signals, L. DE GENNARO, et al.
- ▶ Integrated methodologies for the control of emissions of a landfill osmogenic, L. DE GENNARO, et al.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreem.

## MACNIL - ZUCCHETTI GROUP

Via G. Matteotti, 63 | 70024 Gravina in Apulia BA | Apulia

Contact: Mariarita Costanza | Chief Technical Officer - CTO T. +39 080 2464245 | info@macnil.it | www.macnil.it

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 75.000 to 250.000 Euro Status: Innovative SMEs





#### Project Proposal Remote angel: internet of things, telematics and fleet management

#### Description of the innovation project:

Remote Angel is the project of Remote Controlling anythings: could be a vehicles, a dog, a kid, a container, a box, an old woman, your home. It will allow you having a direct link to anyone or anything you wish through a device which will be fixed or carried in mobility. Besides an APP rather then a SAAS web application will help you in monitoring real time anything you wish. You vehicle fleet will have an important eye checking all the past movement and reporting all the information through a cloud based services.

#### IP Protection Level:

Part of the project is covered by the Italian Patent Certification: "Sistema di Telerilevamento di un Veicolo" N. 0001379121.

#### State of development:

Concept.

#### Industrial application:

All the vehicle fleet with even one vehicle non directly driven by the owner. Everything you wish to monitor remotely.

#### Market segment:

There are millions of commercial vehicles around the world. Millions of thing which are wishing to talk about themselves to owners or shareholders.

#### Advantage factor:

Nowadays we are assisting to an explosion of Internet of Things sector. Gartner analyzes consider the IoT sector as one of the most profitable business. MACNIL ZUCCHETTI is working at this area and has all the know how and the skills for providing standard information as well as tailored solutions.

#### Commercial challenge:

MACNIL ZUCCHETTI confirms its pioneering aspect on non-replaceable services. In fact REMOTE ANGEL is a unique SAAS platform which gives the possibility of monitoring everything you wish around the globe. There are many opportunities of market especially in world countries: China, Brasil, Europe, USA, Emirates, South Africa and Russia.

#### **Publications and Customer References:**

Berg Insight Analysis (specialistic researcher on IoT field) evaluates MACNIL ZUCCHETTI as one of the most important player in Internet Of Things, Telematics and Fleet Management Platform in Europe.

#### Proposal of cooperation agreement:

Commercial representative, Distribution Agreement.

## PLANETEK ITALIA SRL

Via Massaua, 12 | 70132 Bari BA | Apulia

Contact: Vincenzo Barbieri | Chief Marketing Officer & Head of Design Lab T. +39 080 9644200 | info@planetek.it | www.planetek.it

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 750.000 to 2.5 million Euro Status: Innovative SMEs

#### Project Proposal Infrastructures and ground stability monitoring service

lanetek

#### Description of the innovation project:

The service provides information on the instability monitoring infrastructure such as roads, railways, pipelines and other technological networks. Engineers can take advantage of an overview of risks that could threaten infrastructures integrity and safety. The service can be activated worldwide, with fast procedures. No ground equipment for surveys is needed, no request for permission should be asked to PA, thereby helping to contain costs. Based on an historic archive or a new collection of satellite data, the service allows long term monitoring of infrastructures and landscapes, evolution and correlation, even for vast areas and large infrastructures.

#### **IP Protection Level:**

The service has been developed, tested and validated in several research activities and is provided to several customers in the domestic market. At present it is offered as a commercial service and is identified and registered with a Trademark.

#### State of development:

Product.

#### Industrial application:

Engineering and monitoring of infrastructure (e.g. roads and railways, or pipelines and other technological networks); Environmental monitoring.

#### Market segment:

Public and private infrastructures engineering companies; ICT companies; Environmental consulting companies; Technological networks managing authorities and organizations. Commercial estimation is subject to case by case evaluation, based on technical parameters (area, shape, frequency).

#### Advantage factor:

The proposed solution innovates the way information on the instability monitoring over infrastructures is provided. It is provided as a service on the cloud and is activated as long term monitoring agreement (one year or more). Key advantages: Worldwide application, Fast activation, low cost, no ground equipment and surveys required, no need of request permits, long term and wide area monitoring, fast information and alerts, historical information and infrastructure-landscape correlation, easily integrated in end user and customers' information services.

#### Commercial challenge:

The third parties' benefits are in the opportunity to develop new product/services, which integrate own products and services, and are able to provide unmatched solution on their reference markets.

#### **Publications and Customer References:**

R&D references (projects):

- SLAM: http://www.planetek.it/eng/projects/slam\_hydrogeological\_risk\_monitoring
- MORFEO: http://www.planetek.it/eng/projects/morfeo

Fast4Map Customers who already bought the service:

- Aeroporti di Roma SpA
- Italferr SpA
- Ansaldo STS SpA

#### Proposal of cooperation agreement:

Distribution Agreement.

## S.M.&S. SRL

Headquarters | Via G.pascoli, 32 | 47853 Cerasolo Ausa Di Coriano (RN) Headquarters in Calabria | Piazza Vermicelli, Snc |Technest, University of Calabria | 87036 Rende CS| Calabria



Contact: NAZZARENO CAPPELLINI | Manager - NILO PACENZA| Project Manager T. +39 0541 755757 - 3488276105| info@smes.it - nilo.pacenza@smes.it | www.smes.it

Employees: FROM 20 TO 49 EMPLOYEES

Turnover: From 5 to 15 million Euro Export: turnover not noticeable Status: Innovative SMEs

#### Project Proposal Environmental technology for the treatment of stormwater runoff

#### Description of the innovation project:

Innovative technology for the treatment of stormwater runoff fitted with a filter cartridge able to retain pollutants such as hydrocarbons, dissolved metals and nutrients. it is a device compact and easy to install. Can be inspected and adapted to the dimensions of the wells in commerce. Consists of elements removed and replaced individually, it does not involve the use of electro-mechanical equipment and requires simple maintenance. The overall dimensions, together with the possibility of coupling several modules in series, make it versatile installation of the treatment device.

#### **IP Protection Level:**

The results achieved under the project PON01\_02543" service integrated and sustainable management of the water cycle-energy drainage systems Urban" have enabled the development of a technology for the treatment of stormwater runoff in form punctual or distributed within catch basin existing or newly built. The initial activity of research has led the design, implementation and testing of a prototype device for the treatment of stormwater runoff.

#### State of development:

Prototype.

#### Industrial application:

Development of a stormwater runoff treatment service in urban environment through the use of a device capable of improving the quality of water discharged into the network from different types of land use. The service aims to develop a compacted system which provides significant environmental benefits and it aims to identify the best solutions in terms of cost-benefit in a sustainable perspective.

#### Market segment:

The traditional treatment systems, the cost of which is anything but small, are a viable solution in the market, but the definition of new design practices it becomes essential to pursue new goals of quality through integrated and sustainable management of water.

#### Advantage factor:

The project will define the industrial development system across all possible technological improvements, favoring the use and testing of material economic, ecological and processes nanotechnological easily reproducible on an industrial scale.

#### Commercial challenge:

The ability to use and experiment with alternative systems, capable of ensuring equal depurative performance and at the same time lower costs of use and management, strengthens the peculiarities of the proposed project. It's proven the attitude of the device for purifying very important parameters such as total hydrocarbons and total suspended solids. The indicated solution is adopted also with the aim of obtaining a reduction of the costs of installation and maintenance compared to traditional treatment systems.

#### **Publications and Customer References:**

- ▶ PON01\_02543; Scient. Coordinator Prof.ssa Patrizia Piro University of Calabria 87036 Rende (CS), Italy;
- Actions distributed networks of urban drainage IDRA14, Polytechnic of Bari;
- ▶ Treatment performance of a stormwater catch basin 15th Scientific geoconferences & expo sgem2015;
- Book entitled "Actions sustainable urban hydraulics water-energy cycle: research, design, installation" by Prof.ssa Piro.

#### Proposal of cooperation agreement:

Know how transfer, Distribution Agreement. The company is looking for partners interested in the actual marketing of the product and tighten relationships with business partners, universities and other national and international institutions.

## STC SRL

Via Roma 5 | 87064 Corigliano Calabro BR | Calabria



Contact: Giorgio La Sala | CEO T. +39 0831 738018 | info@stcnet.it | www.stcitaly.com

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: average (last 4 years) 350.000 Euro Status: Innovative SMEs

#### Project Proposal Lead-acid battery recycling

#### Description of the innovation project:

STC has developed a new process that will completely transform current acid lead battery recycling systems. This process will contribute to considerably reducing emissions, to being able to work at lower temperatures obtaining lead oxides, which may directly be employed in the construction of new batteries as final products.

#### **IP Protection Level:**

The STC process is protected by patent n° EP1728764A1. The STC process patented is entitled "Process for the production of lead hydrate or monoxide of high purity, from materials and/or residues containing lead in the form of sulphates, monoxides and/or other compounds".

#### State of development:

Industrial scale technology - Patent protected

#### Industrial application:

Recycling and recovery of materials

#### Market segment:

Exhausted lead acid battery recycling and production of new batteries

#### Advantage factor:

The process developed by STC realizes the separation of the various components of a battery through innovative mechanical, chemical and physical processes, which are far more efficient from the point of view of energy consumption and of environmental impact than the processes currently on the market. The STC process enables to select the various materials and to recover them separately through elementary chemical and physical operations. Moreover, it considerably reduces dangerous emissions. The recovered materials may therefore be recycled as raw material in the production of new batteries.

#### Commercial challenge:

STC is already a consolidated operator on the international market. Its inclination towards innovation allows to be constantly among the top companies in the field of recycling processes and production of new batteries. Nevertheless, thanks to its small dimensions, it preserved its special attention towards each customer and is able to offer services that are definitely very competitive if compared to those offered by the larger competitors.

#### **Publications and Customer References:**

- ▶ "Past, present and future of lead battery recycling" (R. Guerriero, G. La Sala)
- "Pb/PbO mixture production: new stc process for direct lead battery paste recycling" (G. Fusillo, F. Scura, G. La Sala, R. Guerriero)
- "Procedimento per la produzione di idrato od ossido di piombo ad elevata purezza da materiali e/o residui contenenti composti di piombo". (STC S.r.l.)

#### Proposal of cooperation agreement:

New job opportunities

## **TECNOLOGIE PER L'AMBIENTE**

S.S. Appia N.33 | 74016 Massafra TA | Apulia

Contact: ANTONIO FUGGIANO | CEO T. +39 099 8854302 | info@tecambiente.it | www.tecambiente.it

#### Employees: UP TO 2 EMPLOYEES

Turnover: Less than 250.000 Euro

**Export:** turnover not noticeable - Innovative start-up founded in the last year **Status:** Startup

#### Project Proposal IWT - Integration Water Treatment

#### Description of the innovation project:

Industrial process that, through the study of the water cycle in an industrial site or in a community, arrives to minimize discharges enhancing a primary resource as water.

#### IP Protection Level:

To be patented.

#### State of development:

Model.

#### Industrial application:

All factories of production using water in their work cycle.

#### Market segment:

Engineering, construction, maintenance, revamping; Commercial value <€ / year 5,000,000.00; Economic return 36 months after the original investment.

#### Advantage factor:

Do not for sale solution but a new way to manage the raw materials, the concept is the waste become a resource.

#### Commercial challenge:

The ownership of exploitation rights of the service proposed would bring to the company a market positioning as absolute leader in the Green Economy and Green Engineering.

#### **Publications and Customer References:**

Helios Technology Project lwt Saita Recovery of Process Water in the Production of Solar Cells.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing.



## UNIVERSITÀ DEL SALENTO

Piazza Tancredi 7 | 73100 Lecce LE | Apulia



Contact: Trifone Schettino | Full professor of Physiology T. +39 0832 299200 | gabriella.gianfrate@unisalento.it | www.unisalento.it

Employees: MORE THAN 499 EMPLOYEES Turnover: From 5 to 15 million Euro Export: From 75.000 to 250.000 Euro Status: Research centers, Universities

#### **Project Proposal**

#### Analytical method to determine toxicity of environmental samples due to metal and non metallic pollutants

#### Description of the innovation project:

The invention consists in an innovative method for the measurement of the degree of toxicity of environmental samples due to organic and inorganic chemical pollutants in a quick, simple, low cost and without the use of living organisms. The innovative idea at the basis of this method consists in measuring in vitro the degree of inhibition of the enzyme carbonic anhydrase as a means of detection 1) of general toxicity of environmental samples, namely the toxicity due to the simultaneous presence in the sample of most chemical pollutants bioavailable , 2) the share of overall toxicity due to non- metallic compounds.

#### **IP Protection Level:**

Patent PCT/IT2013/000205.

**State of development:** Prototype.

#### Industrial application:

Agricultural and industrial sectors.

#### Market segment:

The invention may be of interest to Agrifood farms engaged in the quality certification of their products, to industrial Companies for the autocontrol of waste waters coming from productive processes, to Companies engaged in environmental monitoring.

#### Advantage factor:

Quick , simple, low cost method and without the use of living organisms highly reccomended by EU. Ability to run "in situ" and without specialized staff.

#### Commercial challenge:

The main advantages of this invention, by an application point of view, are represented by its specificity toxicological, speed and low costs, features that make it suitable for routine applications. This method responds to the continuing demand for screening methodologies reliable, sensitive, easy to use and low cost for environmental monitoring.

#### **Publications and Customer References:**

Lionetto M. G., Caricato R., Erroi E., Giordano M.e., Schettino T. (2005). Carbonic anhydrase based environmental bioassay.

International journal of environmental analytical chemistry, Vol. 85, p. 895-903, ISSN: 0306-7319 LIONETTO M.G., Caricato R, Erroi E, Giordano M.e, Schettino T (2006).

Potential application of carbonic anhydrase activity in bioassay and biomarker studies. Chemistry in ecology, vol. 22, p. S119-S125, ISSN: 0275-7540.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing, Licensing, Distribution Agreement, Subcontracting Agreement.

## UNIVERSITÀ DEL SALENTO

Piazza Tancredi, n7 | 73100 Lecce LE | Apulia

**Contact:** Gabriella Gianfrate | Senior researcher



#### Employees: MORE THAN 499 EMPLOYEES

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Research centers, Universities

#### Project Proposal NITREAT

#### Description of the innovation project:

The inadequate management of nitrate fertilizers in agriculture has led to an excess of nitrate (NO3-) in the soils, and has also caused contamination of groundwater. The purpose of NITREAT is to develop an innovative approach to denitrified soils, combining the ion exchange technology with the design of hydrophilic polymers, able to absorb, retain and create an interface liquid for the ion exchange process. A functionalized polymer substrate will be designed in order to absorb and retain water in the soil, while selectively will retain and will remove NO3-through the ion exchange with alternative and more safe ions fertilizers.

#### **IP Protection Level:**

Early stage in research. In the future the technology will be protected for one or more applications (composition of matter and applications).

#### State of development:

Concept.

#### Industrial application:

Agriculture and environment.

#### Market segment:

Agriculture and crop protection in Europe (€50 Billion).

#### Advantage factor:

The purpose of this project is to develop a specific device in combination with a correct strategy management of soil, in order to improve the nitrate removal and enhance the productive capacity of agricultural and contaminated lands.

#### Commercial challenge:

Even if the prototype will be not put on the market, this could represent a useful platform for future developments and to stimulate discussions. The goal will be to find a company with the financial capacity to invest in this task as part of an agreement on the use of intellectual property (IP) generated by the project. A careful analysis of the IP, with a strong protection of IP is a key challenge for the entire project.

#### **Publications and Customer References:**

Ryu, A., et al. (2011) Applied Catalysis B: Environmental. 105, 128-135. Bae, S., et al. (2013) Chemical Engineering Journal. 232, 327-337. Hasnat, et al. (2014) Journal of Molecular Catalysis A: Chemical. 383-384, 243-248 014) Water Research. 50, 278-286.

#### Proposal of cooperation agreement:

Know how transfer, Venture capital financing.



## UPGRADING SERVICES S.P.A.

Via Aulisio n. 45 | 70124 Bari BA | Apulia



Contact: Gilda Binetti | Manager

T. +39 080 9755080 | upgradingservices@gigapec.it | www.upgradingservices.it

Employees: FROM 50 TO 99 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Large companies

#### Project Proposal PCM-based cold storage as peak shaving for air conditioning units

#### Description of the innovation project:

ColdPeak is a solution for improving the energy efficiency of Air Conditioning Systems for domestic use. The technology consists in a storage system based on Phase Change Materials (PCM). Innovation lies in the particular heat exchange system between the chiller primary fluid and the PCM. This system, developed and implemented by Upgrading Services SpA, is able to dramatically reduce the time of charging and discharging of the tank, thus ensuring greater charge/discharge power.

#### **IP Protection Level:**

Patent application has been submitted on September 4, 2014 at the UIBM (Ufficio Itaiano Brevetti e Marchi). The patent number is RM 2014A000500. The research report has been received on 5 June, 2015: 5 competitive patents are emerged, but only one has been considered relevant. However, 10 of the 15 claims presented are considered "new" and 6 claims are also inventive. Following the excellent results obtained, Upgrading Services has submitted on 5 September 2015 an international patent application (PCT/IT2015/000209).

#### State of development:

Patent.

#### Industrial application:

Air conditions for civil applications (residential and not residential).

#### Market segment:

The HVAC industry is valued at about 100 billion USD with the number of units sold 128 million. Italy is the largest European market, with a value of 1.35 billion USD and a projected growth for the period 2014 to 2017 by 2%. Other major European markets are Germany, UK, Spain, Greece and Portugal, with an expected growth of 2% -6%.

#### Advantage factor:

CTES (Cold Thermal Energy Storage) technologies are commonly considered the best solution to improve the air conditioning and refrigeration efficiency, to reduce the peak demand and to reduce the energy bills for users. Specifically, PCMs are considered the best solution in terms of volume, cost, durability and reliability. The direct competitors of ColdPeak are:

- ▶ Ice and ice-on-coil storage system;
- ▶ PCM encapsulation.

#### Commercial challenge:

Upgrading Services SpA will have two business channels derived from the commercialization of the cold storage unit:

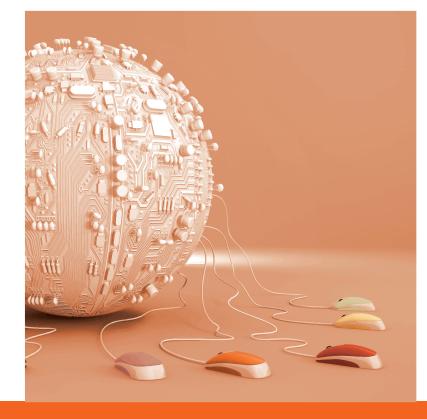
- production and installation in the Italian market;
- ▶ production and units sale to European certified installers. From a preliminary analysis, Upgrading ervices will increase its turnover of 5.2 M€ by the third year after the commercialization.

#### **Publications and Customer References:**

https://ec.europa.eu/easme/en/sme/5168/pcm-based-cold-storage-peak-shaving-air-conditioning-units www. coldpeak.biz M. De Falco, G. Dose, A. Zaccagnini, "PCM-Cold Storage System: an Innovative Technology for Air Conditioning Energy Saving", Chemical Engineering Transactions 43 (2015), pp. 1981-1986.

#### Proposal of cooperation agreement:

Venture capital financing.



# ICT Summary

ALTANET	51
ALTILIA SRL	52
BEMINT SRL	53
BEWONS COMPANY SRL	54
BPMSOFT SRL	55
BPMSOFT SRL	56
BPMSOFT SRL	57
C.D.B. SRL	58
CEDAT 85 SRL	59
DAS HUMANKAPITAL SRL	
DHITECH S.C.A.R.L. DISTRETTO TECNOLOGICO HIGH TECH - SOCIETÀ CONSORTILE A RESPONSABILITÀ LIMITATA.	61
EUSOFT SRL	
EXPRIVIA HEALTHCARE IT SRL	63
FLAZIO SRL	64
GIPSTECH SRL	65
GRIFO MULTIMEDIA SRL	66
GRUNTA SRL	67
ICAM SRL	68
IDEON SRLS	69
ITEM OXYGEN SRL	70
LOGARITMICA SRL	71
LORAN SRL	72
MINDESK SRLS	73
MTM PROJECT	74
MUREX CS SRL	75
MUUM LAB SRL	76
NATURAL INTELLIGENT TECHNOLOGIES SRL	77
QUAVLIVE SRL	78
SADAS SRL	79
SEELIGHT SRL	
SMS ENGINEERING SRL	81
SOFTWARE EVOLUTION SRL	
STUDIO AMICA	83
TOP SYSTEM SCARL	84
WIB SRL	85
ХАМА	86

## ALTANET

Via Selva 101 | 70022 Altamura BA | Apulia



Contact: Nicola Plantamura Plantamura | Sole director T. +39 080 3142083 | nicola.plantamura@altanet.it | www.altanet.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro

# Project Proposal EAM an ICT Solution

#### Description of the innovation project:

EAM (Enterprise Asset Management) - ICT Solutions for the management of physical assets of an organization distributed through innovative implementations of components of the Internet of Things (IoT). EAM is based on standad technology and is a software for maintenance management at the corporate level by the characteristics highly configurable, this improves the management of key assets in order to increase reliability, improve predictive maintenance , ensure regulatory compliance, reduce energy consumption and support sustainability initiatives.

**IP Protection Level:** NA.

**State of development:** Prototype.

#### Industrial application:

Some possible applications are: Manufacturing - Improve the performance of plants and equipment by eliminating the downtime for unplanned, acting directly on energy waste and improving regulatory compliance. Hospitality / restaurant - The EAM solution helps traceability, reporting, and repair of all physical deficiencies before they ruin the experience of a guest, helping at the same time to face new challenges such as compliance with Energy Star. Public administration - using the EAM solution can provide services more responsive to citizens, effectively managing the preventive maintenance and the maintenance of water systems, sewage and municipal transport and all plants and machinery.

#### Market segment:

Niche ICT market with significant growth rates. We are not able to estimate the economic value.

Advantage factor:

NA.

#### Commercial challenge:

With EAM a company gain many benefits, including these likely returns on your investment, for example: 20% improvement in labor productivity 30% reduction in inventory levels 20% reduction in inventory carrying costs 5% reduction in new equipment costs 10% increase in fleet availability 50% increase in warranty cost recovery 10% reduction in materials costs 50% reduction in purchasing process costs.

#### **Publications and Customer References:**

http://www.altanet.it/index.php/prodotti/eam

Proposal of cooperation agreement:

ICT systems integrator.

## **ALTILIA SRL**

via A. Volta | 87036 Rende CS | Calabria

Contact: Emelinda Oro | CSO T. +39 098 4494277 | info@altiliagroup.com | www.altiliagroup.com



Employees: FROM 10 TO 19 EMPLOYEES Turnover: Less than 1.000.000 Euro Export: Less than 250.000 Euro Status: Startup

**Project Proposal** 

#### MANTRA Smart Data Management<sup>™</sup> for Forex Customer, Market and Risk Intelligence in the Financial Services Industry

#### Description of the innovation project:

Altilia builds and sells MANTRA Smart Data Platform<sup>™</sup> that combines semantic technologies, big data and cloud for the development of advanced and innovative enterprise solutions in different industries and application areas. Altilia [altiliagroup.com] turns Big Data into Smart Data by MANTRA Smart Data Platform<sup>™</sup>. Altilia allows companies to make sense of enterprise and web semi/un/structured Big Data to get faster and deeper insights, better drive business processes and to make more informed decisions. MANTRA Smart Data Platform<sup>™</sup> transforms big data flow into relevant, richer, and usable Smart Data by a workflow-based semantic easy-to-use approach.

#### **IP Protection Level:**

E. Oro and M. Ruffolo: "Object extraction from presentation-oriented documents using a semantic and spatial approach", 2014, US Patent App. 13/774,289. http://www.google.com/patents/US20140245122. Other patents are in definition phase.

#### State of development:

Product.

#### Industrial application:

MANTRA approach enables the development of advanced and powerful vertical applications for different industries and application areas. Altilia already has customers belonging to different markets (Online Retail, Financial services, Telco, Public Institutions) and in different application areas: Market / Competitive / Price Intelligence, Customer Operations and Intelligence, Fraud Detection, Risk Profiling, Cyber Security, OSINT, CRM, Data / Application Integration and Virtualization. In BIAT event we present how MANTRA approach and platform can be applied in the Financial industry, for different applications like: Forex Customer, Market Intelligence and Risk Intelligence.

#### Market segment:

Companies of all industries search for effective Big Data technologies capable to provide contextual, personalized, actionable information for faster, better and timely discover, reasoning, learning, sense-making and insight. Big Data technologies are very important in the financial market. Global investment in fintech ventures tripled to \$12.21 billion in 2014. Of the \$12.21 billion invested in 2014, the US makes up the lion's share, but Europe experienced the highest level of growth, with an increase of 215% (year-on-year).

#### Advantage factor:

MANTRA is an holistic platform that enables to model, acquire, normalize, transform, analyze and visualize results. Other solutions need partnerships (more complicated and expensive) to bolt together their platform stacks. MANTRA is built on open source Hadoop/Spark for data wrangling and harmonization and uses machine intelligence with Language Rules Modeling to learn, reason, and predict. It is more than just Hadoop: MANTRA enables smart data acquisition and harmonization with contextual workflow and smart interaction, analysis and visualization.

#### Commercial challenge:

Altilia is well positioned to execute its exciting vision and mission. There is no company that has created an open, integrated platform comparable to MANTRA. New players lack the extensible platform. By executing the technology roadmap Altilia will gain a strong competitive advantage also on new machine intelligence/cognitive computing players. MANTRA is a single integrated platform that provides superior features that only partially are available by combining a lot of other technologies. MANTRA provides superior capabilities over competitors in areas such as web scraping, data capture, semantic data analysis and querying, data visualization that are based on core Altilia IP.

#### **Publications and Customer References:**

Oro,Ruffolo.Towards a Language for Representing and Managing the Semantics of Big Data. Oro,Ruffolo,Saccà. Ontology-Based Information Extraction from PDF Documents with Xonto. Flesca,Furche,Oro.Reasoning and Ontologies in Data Extraction. Flesca,Furche,Oro.Reasoning and Ontologies in Data Extraction. Oro, Ruffolo,Staab. SXPath Extending XPath towards Spatial Querying on Web Documents. Oro,Ruffolo.SILA:a spatial instance learning approach for deep webpages. http://www.altiliagroup.com

#### Proposal of cooperation agreement:

Venture capital financing, Distribution Agreement, Sub-contracting Agreement.

52

## **BEMINT SRL**

via Salvatore Trinchese, 61 | 73100 Lecce LE | Apulia

Contact: Giulia Antonucci | President T. +39 320 8623192 | info@bemint.it | www.bemint.it

Employees: SINGLE USER

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Startup

#### Project Proposal JoinUp

#### Description of the innovation project:

JoinUp JoinUp Event is realized by beMINT, an innovative start-up with a strong focus about open service innovation, smart cities projects and new sustainability models. JoinUp is an innovative digital solution addressed to event organizers of events, fairs and exhibitions.

The tool is an internet-based solution able to support the activities of events organizers/partecipants during the organization/enjoynment of an event.

JoinUp is composed by:

- 1. A web application as organizers support allowing them to more easily monitor and manage both the contents of the event and all the activities and information useful for guests and partecipants.
- 2. A Mobile Application that gives the participants all the tools needed to maximize the enjoyment of the events while facilitating networking activities.

#### **IP Protection Level:**

no.

#### State of development:

Product.

#### Industrial application:

JoinUP is a technological solution that aims to enhance face-to-face meetings and networking. As the President of MPI Italy said, "every dollar invested in a meeting face-to-face it produces \$ 12.50 in economic growth. When people meet each other, they make grow a business, motivate employees to give the best of themselves. JoinUp is also easly scalable by region and sector.

#### Market segment:

The MICE market this year will reach the value of 157 billion euro in the first five European markets. In Italy will increase by 2.8% to 25.5 billion Euros. During a recent survey carried out by EMI, one out of three of event organizers said it was scheduled programming of new events in order to revitalize its activities; 62% said they are looking for new solutions for events for the organization and logistics.

#### Advantage factor:

beMINT is a company that does not sell pre-defined solutions, adopting the living lab methodology to create suitable solutions for specific needs, targets and markets. JoinUp concept is based on a systematic user cocreation approach, integrating research and innovation processes. The innovation of JoinUp consist of changing paradigm of communication between event organizer and participants transforming a customer-supplier relationship into a collaborative relationship.

#### Commercial challenge:

The business model of Join Up has a modular approach: increasing number of features requested by the organizer, increases the sale price. Join Up consists of 3 types of products with different prices: Base\_450€/ per event; Medium\_1,200€/per event; Pro\_3,000 €/per event. Revenue expected: first year of implementation: 70,000€. Second year: 150,000 €. Third year: 500,000.

The above expected revenues take into account the company's own resources only, without considering the opportunity of third-party investment to expand the sales force.

#### Publications and Customer References:

From the technology and safety point of view, the project is supported by the Apulian Technological District DHITECH Scarl. Chest Competition Award call 1 with "MyEvent" project, 2014.

#### Proposal of cooperation agreement:

beMINT Srl launched different collaborations with several companies operating in the MICE market, interested in the cocreation process and the use of JoinUp application in their organizations.



## **BEWONS COMPANY SRL**

Via Leonardo Lorusso 16 | 70022 Altamura BA | Apulia

Contact: Francesco Ceglie | CEO T. +39 080 3102389 | info@bewons.com | www.bewons.com



Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal bewons.com

#### Description of the innovation project:

Bewons is the social network for artists. A community where talented people can express their potential, meet others and be inspired. Bewons allows performers of every artistic discipline (singing, music, dancing...) to find job opportunities. Thanks to Bewons, it is easier to find talented performers for their shows or artistic productions.

#### **IP Protection Level:**

The website is already online and it has no need for patents or licenses.

#### State of development:

online website.

#### Industrial application:

showbiz, entertainement, cinema, TV, dance academy, Theatre.

#### Market segment:

The target is composed of persons and organizations from the entertainment world. Especially by artists, actors, writers, dancers, singers, celebrities, choreographers, DJs, teachers, models, musicians, event organizers, producers, directors, showman, academies, associations / organizations, companies, groups / companies, massmedia, schools, websites, theaters. All these types of users can potentially become members of the website: the prediction is that in the next three years of activity of Bewons the website's members can grow to about 975,000 and that could generate revenues of  $\notin$  9,643,339.

#### Advantage factor:

What Bewons introduced into the instrument \_ Video Auditions constitutes a unique element and is difficult to repeat: this is a system of automatic suggestion of profiles deserving of visibility. It is an algorithm that, during the selection, highlights those users who have artistic qualities more remarkable than the other candidates and that are worth mentioning for different reasons: popularity on the site, the quantity and quality of material loaded. the response that gives this algorithm, then, will consist of a result that includes artists who can ensure high artistic competence and success at the mass audience.

#### Commercial challenge:

The real competitive advantage lies in the fact that all of these useful services to the entertainment industry are inserted into a website that has all the features of a social network: this means faster interaction between supply and demand. The greater the number of users, the greater the benefits for those who are looking for performers.

#### Publications and Customer References:

In April of 2014 Bewons received the award as one of the 100 most innovative companies in Europe in the "Red Herring Award" Amsterdam. For more than a year, Bewons was included in the prestigious Microsoft program "BizSpark Plus" which offers technological and economic advantages, in recognition of the high level of innovation achieved.

#### Proposal of cooperation agreement:

Venture capital financing.

## **BPMSOFT SRL**

Via O. Parlangeli, 22 | 73051 Novoli LE | Apulia

Contact: Stefano Perrino | Amministratore Delegato T. +39 083 21815281 | info@bpmsoft.it | www.bpmsoft.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs

## Project Proposal

#### Description of the innovation project:

GISO - Integrated Management of Operating rooms (IMOR) The operating room is one of the most delicate environment in a hospital setting. All the activities performed in the operating room are linked to the patient care and safety and to the efficiency of the medical team. BPMsoft, together with other health facilities, has developed the software GISO. The aim of this software is to computerise the activities performed in the operating room, starting from the management of waiting lists and the planning of operating lists to the filing of the operating room records and to enable at the same time the monitoring of the operating room time and of the material usage. The most immediate result in relation to patient safety is mainly represented by the possibility of keeping track of the material used during the operation with the consequent certainty of removing any undesired material from the inside of the patient. The surgeons will have access to this IT tool managed only by authorised personnel. This process will guarantee safety and efficiency in the operating room. The "Administrative" tool of the application enables the actual determination of the surgery and the consumption materials and their tracking, the management of the sterilisation procedures and of the inventory/warehouse, the automatic reordering of the shelvings and the collection of all the statistics on time and modalities of the operation, in compliance with the Italian ministerial classification system (ICD9-CM).

**IP Protection Level:** 

No patent.

**State of development:** Product.

#### Industrial application:

Public and private healthcare facilities.

#### market segment:

Software for public administration and for private enterprises.

#### Advantage factor:

ADVANTAGES ABOUT THE EQUIPE OF SURGERY ROOM The software, GISO, allows to equipe to:

check of use of operators tools. this to avoid the risk to leave unwanted items into the patient;

- ▶ to manage the the sterilization of operators tools in automatic mode;
- ▶ to know the stock in the warehouse in real time;
- to perform clinics statistics with the connection by medical equipment. HOSPITAL MANAGMENT ADVANTAGES
- ▶ to monitoring of manage's costs of surgery procedures;
- to determine the different between the standard costs and actual costs;
- ▶ to determine the recovery cost for each patients;
- clear manage of the waiting lists;

scheduling the surgery procedures on the long time;

#### Commercial challenge:

To computerise the healthcare system by reducing paper consumption.

## Publications and Customer References: None.

#### Proposal of cooperation agreement:

Commercial representative.

## **BPMSOFT SRL**

Via O Parlangeli 22 | 73051 Novoli LE | Apulia

Contact: Stefano Perrino | Amministratore Delegato T. +39 083 21815281 | info@bpmsoft.it | www.bpmsoft.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro

Status: N.A.

#### Project Proposal PHARMACOTHERAPY

#### Description of the innovation project:

INTRODUCTION The errors happen in the process of drug therapy are the major cause of medical errors in hospital. New technologies are a great tool to support clinical risk management and cut down the costs of the operating. Technology can reduce the most critical and error probability on an important process like the clinical management of drug. It is divided into three main phases:

• the prescription: period that coincides with the start of the process and it's the provision of therapy;

▶ the sommistration to the patient: it's the end of process;

• inventory management and warehouse, which is a parallel flow of supply of drugs needed to be effective.

The delicacy of this phase of the process of the drug supply, is also related to the need to treat the same active ingredients but different brand names, different doses, different drugs with similar names and in some cases these issues are further complicated. Technology can support operators to incorporate the different information obtainable through the informatization of the entire process. The optics in this case is not only that of the reduction of inventory and waste, but also to avoid the emergency management (such as the placeing of urgent orders daily to overcome the lack of a medicine prescribed for a new therapy) and the rationalization of resources for inventories and continuous checks. Thanks to the introduction of a system of inventory management it will be possible not only to determine the stocks in real time, to obtain an analysis of the real consumption of the department (total, by type of drug, patient, etc.), but also to perform an ongoing check of all drugs and medical devices, controlling their use and their handling and distribution.

#### **IP Protection Level:**

No patent application was currently filed.

State of development:

Prototype.

Industrial application:

Distribution and marketing.

#### Market segment:

Public and private healthcare facilities > € 500.000,00 (For single user).

#### Advantage factor:

Reduction of clinical risk; better quality of prescription (completeness) thereby eliminating transcription errors / interpretation (readability); real opportunity to carry out assessments of appropriateness having immediate availability of the patient's clinical situation including history prescriptive / drug history; possibility of sharing information; availability of electronic media at the point of prescription: drugs data base available on the market, even with contraindications, interactions, dose control, compatibility solvent / solute, possibility to insert allergies. This provides the tool for a prescription more complete and with possible reduction of errors. Full traceability of the path of drug taking it up to the administration to the patient; Reduces the error rate distribution; Drastic reduction of stocks of department (70-75% less); It contributes dramatically reducing medication error.

#### Commercial challenge:

Making in the first year € 2.000.000,00.

**Publications and Customer References:** None.

Proposal of cooperation agreement:

Commercial representative.

# 

## **BPMSOFT SRL**

Via O. Parlangeli, 22 | 73051 Novoli LE | Apulia



Contact: Stefano Perrino | Amministratore Delegato T. +39 083 21815281 | info@bpmsoft.it | www.bpmsoft.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs



#### Description of the innovation project:

FAST is the web-based application of BPMsoft designed for healthcare facilities which aims at the computerisation of the medical case history basing on the representation and interoperability standards fixed by the Italian TSE (Table of Electronic Health) and in compliance with the international panorama (HL7). FAST interoperability allows health data exchange and use between all the authorised caregivers. The application can be integrated into existing systems used for the management of the medicine warehouse or ward storeroom, of the operating rooms, of the regional demographic registry, of RIS (Radiology Information System), PACS (Picture archiving and communication system) and so on. FAST IS: Flexible, simple and safe. FAST reduces the time of the ward and of the outpatient clinic activities. FAST permits a simplified drafting of the discharge report by acquiring the information directly from the medical case history reducing by 80% the time for accomplishing the process. It is confirmed that FAST reduces the waiting times of patients, frees up internal resources used during the hospital admittance and during the hospitalization, optimises the doctor's activity, and enhances ward efficiency.

#### **IP Protection Level:**

No patent application was currently filed.

#### State of development:

Product.

#### Industrial application:

Public and private healthcare facilities.

#### Market segment:

Software for public administration and for private enterprises.

#### Advantage factor:

Elimination of human error causated from: communication errors, miswriting or misinterpretation. The software, FAST, reduces the execution of departiment activities or clinic activities. From a case study we have exstrapolated a medium time of 30 minutes about the compiling of patient's. Hospital records in the phase of hospital discharge; FAST reduces the patient's waiting time; FAST optimizes the job of doctors; FAST improves the Departiment performance.

#### Commercial challenge:

To computerise the healthcare system by reducing paper consumption.

#### Publications and Customer References:

None.

#### Proposal of cooperation agreement:

Commercial representative.

## C.D.B. SRL

Loc. Taverna Annibale | 83040 Frigento AV | Campania

Contact: RENATO CIAMPA | CEO T. +39 082 5784221 | info@cdbaronia.it | www.cdbaronia.it



Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### Project Proposal Recognition of emotion from speech signal processing

#### Description of the innovation project:

The primary objective of software system about of the recognition of emotions from speech signal processing is to provide, starting from sound of the voice emitted from a talker, a classification of the emotional state of a generic subject. The classes of emotion considered are those defined by Paul Ekman's studies: anger, disgust, sadness, happiness, fear, surprise and neutral. A very important development for the future is certainly to provide for the integration of this application with others who manage the recognition of facial emotions domain, in order to a multimodal recognition of emotion.

#### **IP Protection Level:**

No patent application was currently filed. The deposit will be required after the creation of the prototype.

State of development:

Model.

#### Industrial application:

This technology can be applied to various fields, such as:

- Medicine: optimizing time of diagnosis, bipolar disorder, Parkinson's disease, Alzheimer's disease, neurological diseases.
- Marketing: tracing the profile of the consumer, linked to age and gender, when for example sees a digital wall in a store. So, it would be possible to propose some products which are considered more appropriate to a market specific target or simply to verify the satisfaction of marketing campaigns, products and stores.
- Safety: in order to identify potentially dangerous individuals in all social contexts where capture images, video and audio can captured.

#### Market segment:

The service via web has different types of users including: 1) Service Provider (security, marketing, health),professionals (eg medical experts and private investigators), public bodies (such as local health authorities) and private companies 2) user, interested in a preliminary assessment, even if scientifically founded, that could access the service directly to the web or through third parties (eg, pharmacies).

#### Advantage factor:

This kind of Integrations and applications can be useful in many contexts, for example: during the staff recruitment, but also in contexts such as the assessment of the risk of stress due to work or the assessment of the MCI (Mild Cognitive Impairment ) and prodromal stages of Alzheimer's disease. Considering the potential of this framework, it can be even added in an intelligent home automation system capable of understanding the mood improving the house livability.

#### Commercial challenge:

The economic impact of the project beyond the research stage is to be identified in the industrialization and the commercial phase.

#### Publications and Customer References:

This project has been a source of knowhow for further development of software applications in ICT sector informatics including university projects.

#### Proposal of cooperation agreement:

Commercial representative.

## CEDAT 85 SRL

Piazza Carducci, 27/28 | 72019 San Vito dei Normanni BR | Apulia



Contact: Enrico Giannotti | Vice President T. +39 083 1952257 | cedat85@cedat85.com | www.cedat85.com

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### **Project Proposal**

#### System for monitoring, research, review, integrate and edit audio / video / text based on the transcript of the speech content in multimedia sequences through systems of speech recognition and indexing of speech to text.

#### Description of the innovation project:

Through the proposed technology can be monitored in real time the contents of any channel Radio and TV although transmitted exclusively via the web. The system is an innovative web-based service, designed by Cedat 85 of real-time monitoring with full decoding of speech to text and full text indexing for research purposes within the video. The system is based on a powerful platform of Automatic speech recognition (speaker independent). It allows you to search for topics of interest to compare the results, do statistics, as well as create their own schedules.

#### **IP Protection Level:**

For Technology was released, from UIBM - Italian Patent and Trademark Office, a certificate of patent for industrial invention n. 0001400352 filed on 03.06.2010.

#### State of development:

Product.

#### Industrial application:

The technology is primarily intended for companies, offices and Marketing Communications, Press Offices, Society of Public Relations, Company Analysis of statistics and studies, national and international institutions.

#### Market segment:

This technology, given the innovative nature, could be applied not only in the Italian market even in international settings, thanks to the ease of integration of the same with different foreign languages.

#### Advantage factor:

It is the only solution that enables today to track and retrieve information of immediate self-interest in the vast world of broadcasting content. The result of this application is to generate virtuous savings of time and resources, particularly where the amount of contents audiovideo to be treated is extensive and articulated. With full-text indexing, it allows to probe and move in broadcasting content, with the benefit of digital content point to point. The platform is powered by real-time content based on information (TGnews, broadcasts in-depth, TG satirical, etc.) Obtained from major national television stations, regional radio channels and web 7 ON 7 DAYS AND 24 HOURS A DAY.

#### Commercial challenge:

Bearing in mind the possible applications of the solution: media, public institutions and companies is easy to predict that a right marketing can lead to significant results in terms of economic returns.

#### **Publications and Customer References:**

The technology described in support of the utility of the solution, is in use at the European Parliament and the Chamber of Deputies which uses it for the "monitoring of audiovisual media coverage made by the Italian radio and television stations." Among other users of the technology: Ipsos Ltd, Volocom Ltd., National Social Security Fund and Forensic Assistance, Airc, SEC Societas Europaea For Communicationes Ltd., DMTC Ltd., ADN Kronos SpA, IPress Ltd., Institute for Sports Credit, Stato Maggiore dell'Esercito italiano.

#### Proposal of cooperation agreement:

Know how transfer, Licensing, Distribution Agreement.

## DAS HUMANKAPITAL SRL

Via degli Antichi Pastifici, 17 | 70056 Molfetta BA | Apulia

**Contact:** Pasquale Davide de Palma | CEO

T. +39 3298 863490 | davide@dashumankapital.com | www.dashumankapital.com

#### Employees: SINGLE USER

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Innovative SMEs

#### Project Proposal People Perfomance Plan 3.0

#### Description of the innovation project:

The People Perfoman Plan 3.0 is a platform capable of managing human capital moving out of 5 strategic levers: 1. internal communication; 2. identification and recognition of the gatekeeper, mapping skills constantly updated; 3. development of social collaboration; 4. analysis of big data company; 5. construction and administration of online questionnaires. The platform is realized in PHP and is in mode Cloud. It is inherent in the platform a management method very innovative that respects the principle of democratization of information and decisions and at the same time opens a new managerial approach not only digital but also social.

#### **IP Protection Level:**

The Das HumanKapital srl has deposited brands in Italy: No. 302015000018991 DAS HUMANKPAITAL LOVEYOURWORK on 28.05.2015; No. 302015000019514 PEOPLE PERFORMANCE PLAN on 29/05/2015. We're going to settle the rights of authorship of the project People Performance Plan 3.0 to SIAE.

#### State of development:

Product.

#### Industrial application:

The product is placed in all types of companies that adopt a system of managerial "bottom up". The technology and the HR function can create a new approach to human capital management with increased efficiency and the creation of new forms of business.

#### Market segment:

The People Performance Plan 3.0 is aimed at SMEs with a market value of 7.50 Euro employee per month. Upon reaching 20,000 users to reach the break even with about 40 companies and 5 Account.

#### Advantage factor:

The product comes complete with all the aspects described above: wall, user profile, management skills, group management, building and sending questionnaires to all employees or work groups, reports on human capital indexes, system analysis of the words. Currently, we are working on the introduction of the new Mobility Management, this tools allow you to manage employee mobility and to record consumption rates and CO2.

#### Commercial challenge:

The People Performance Plan 3.0 is a scalable product and repeatable in all interested companies. The commercialization of the People Performance Plan 3.0 guarantees the spread of a new management model capable of detailed analysis on the business climate. In addition, for the reading of statistics is required a specific training on human capital management that can be conveyed through partnerships with schools of management training.

#### **Publications and Customer References:**

In the book, Why Human Capital is important for Organizations: People come First, published by Palgrave MacMillan, Amelia Manuti and Pasquale Davide de Palma there is the chapter entitled "People Performance Plan" the theoretical approach of the product produced. The book is in reference the first certification HR world produced by BSI Business Standards Institute. In January 2015 Das HumanKapital is entered the world rankings Excellence Leadership 500 Awards HR.com, ranking sixth in the category International Leadership Partner and Provider.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement.



## DHITECH S.C.A.R.L. DISTRETTO TECNOLOGICO HIGH TECH SOCIETÀCONSORTILE A RESPONSABILITÀ LIMITATA DISTRETTO TECNOLOGICO HIGH TECH

Via S. Trinchese, 61 | 73100 Lecce LE | Apulia

Contact: Vittorio Boscia | Associate Professor T. +39 083 21975000 | info@dhitech.it | www.dhitech.it

Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Cluster

#### Project Proposal KHIRA (Knowledge Holistic Integrated Research Approach)

#### Description of the innovation project:

The innovative approach developed in the project has been the research and development of a solution that allows to manage information associated with the product throughout its life cycle, enabling a continuous exchange of knowledge and feedbacks between the different actors in the value network, from the perspective of concurrent and collaborative engineering. The aim is to provide to all members of a company a clearer view of the information they need to decide and achieve optimal results, reducing errors during the design of the product and the process. The project led to the development of an set of innovative methodologies and technologies to support the process of new product development in the field of complex systems in collaborative contexts.

#### **IP Protection Level:**

The results of the project are protected by the agreements among the partners.

#### State of development:

Prototype.

#### Industrial application:

All the industry involved in the realization of complex product (such as Aerospace and Naval) can applied the project results.

#### Market segment:

The ICT industry segment, related to services for manufacturing industry.

#### Advantage factor:

- 1. A significant reduction of conception's time, design and product development;
- 2. increased capitalization of knowledge and continuous processes improvement, resulting in improved quality of solutions, reduced response times to the market and therefore greater competitiveness;
- 3. a renewed ability to act as prime contractor in the context of extreme complexity through the ability to manage multi-disciplinary solutions.

#### Commercial challenge:

The ICT segment for product design innovation, with a focus on technologies and services related to product lifecycle management, constitute an area of opportunities on a global scale. It falls in the context of value added technologies and services, which is highly growing in OECD markets, and it represents an instrument for the growth of European manufacturing. In many manufacturing contexts, characterized by a weak production specialization and where the impact of ICT on productivity is generally low, investments in Product Lifecycle Management area allow to occupy the space of opportunities associated with the new global trends.

#### **Publications and Customer References:**

- Corallo, A., Lazoi, M., De Marco, G., Greco, N. C., Manna, M., & Pascarelli, C. (2014). A foresight strategy proposal for ICT scenarios definitions: An application for PLM tools and systems. In Engineering, Technology and Innovation (ICE), 2014 International ICE Conference on (pp. 1-10). IEEE;
- 2. Bernabei, G., Corallo, A., Lombardo, R., Maci, S., Galli, V., Cannoletta, D., & Notaro, A. (2015). Development of a Framework to Support Virtual Review Within Complex-Product Lifecycle Management. In Augmented and Virtual Reality (pp. 449-457). Springer International Publishing.
- 3 KHIRA website: www.khira.it

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, R&D Agreement.

## EUSOFT SRL

Via Marco Partipilo 38 | 70124 Bari BA | Apulia

Contact: Stefano D'Ascoli | CEO T. +39 080 5426799 | info@eusoft.it | www.eusoft.com

Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### Project Proposal LIMS Eusoft.Lab in Saas

#### Description of the innovation project:

Eusoft.Lab is a L.I.M.S.- Laboratory Information Management System – able to computerize the entire cycle of testing laboratories, as required by the accreditation bodies. Eusoft.Lab is one of the few "SaaS Ready" LIMS in the world. Eusot.Lab LIMS is a web-based LIMS solution that end-users can access through the Internet. The LIMS as Saas allows huge advantages in terms of cost savings, flexibility, simplicity and scalability. Eusoft.Lab in Saas is based on a logic of simplicity and flexibility. Eusoft.Lab is designed specifically for organizations who need to use a simple LIMS system, easy to implement and effective in responding to the changing needs of the organization. Eusoft.Lab is available also from tablets and smartphones by APP. The data can be inserted as it is generated. The laboratory can perform operations, such as result entry, handle the products in stock, display response plans on the equipment, extract and display indicators of performance of the laboratory directly from mobile tools to save time in all laboratory's processes.

#### **IP Protection Level:**

Eusoft.Lab L.I.M.S. is a Laboratory Information Management System in Saas, a software owned, produced and commercialized by Eusoft. Its brand and the description of its features are registered.

#### State of development:

Product.

#### Industrial application:

Food&Beverage, Contract Labs, Oil&Gas, Pharma, Utilities.

#### Market segment:

Eusoft.Lab LIMS is addressed to testing laboratories that perform chemical / microbiological / physical tests on materials, environment control, food, non-food samples (chemicals, petroleum, energy, pharmaceuticals).The market has high levels of growth and profitability.

#### Advantage factor:

Eusoft.Lab 10 is natively designed for use in cloud, it enables the company to access the LIMS directly by the web, paying a monthly fee to use the service based on the number of users. This means not having to bear the costs for the initial purchase of the license, or for the purchase and maintenance of hardware, without having to worry directly back-ups and system updates so the company can concentrate only on their business. Eusoft.Lab LIMS in Saas also allows the laboratory rapid system implementation.

#### Commercial challenge:

Eusoft.Lab LIMS has a highly differentiated value proposition that fits the expectations of the various market segments (small contractors or big sized industries). It contains bundles of products and services at different prices in order to minimize the total cost of ownership (TCO) and allows a wide penetration in the market.

#### **Publications and Customer References:**

Gartner, a leading ICT advisor, quoted Eusoft in 2013, 2014 and in 2015 among global vendors of Cloud LIMS solution in several "Hype Cycle" reports. The Cloud LIMS is placed in ""Innovation Trigger", which is the phase in which a potentially revolutionary technology changes the rules of the game.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing.



## **EXPRIVIA HEALTHCARE IT SRL**

Via A. Olivetti, 11 | 70056 Molfetta BA | Apulia

Contact: Chiara Altomare | International Operations consultant T. +39 02 280141 | chiara.altomare@exprivia.it | www.exprivia.it

Employees: FROM 100 TO 499 EMPLOYEES Turnover: From 15 to 25 million Euro Export: From 250.000 to 750.000 Euro Status: Large companies

#### Project Proposal Clinical-diagnostic healthcare

#### Description of the innovation project:

"e4cure" is an integrated suite of software systems composed by a complex group of applicative modules supporting diagnosis and care processes in public and private medical centers: - Documents, Images & Waveforms Repository - Electronic Medical Record (EMR - Ambulatories, Specialties, Wards) - RIS/PACS Project objectives: - make the e4cure suite available on international markets, through technical and commercial partnerships with complementary software vendors in the area of HIS, LIS, Genetic LIS, Operating Theatre and ICU software systems.

#### **IP Protection Level:**

No patents have been requested.

State of development:

Product.

#### Industrial application:

Healthcare IT for public and private Healthcare insititutions.

#### Market segment:

Clinical components of e4cure, especially the Electronic Medical Record (EMR), today reach less than 10% of the potential market. A significant market increase is expected over the next five years in clinical processes automation.

#### Advantage factor:

Application of the most innovative ICT technologies.

#### Commercial challenge:

The e4cure solution matches the key needs for both rationalization and innovation of diagnosis and care processes in public and private medical centers. Exprivia Healthcare IT is looking for partners for a synergic market development in Italy and abroad, through the combination of the e4cure EMR offering with complementary modules, such as Hospital Information Systems, LIS, Genetic LIS, Operating Theatre and Intensive Care Unit systems. A mutually beneficial cooperation can be envisaged, where different modules will be combined in a complete solution.

#### **Publications and Customer References:**

The e4cure EMR modules are employed in Italian and foreign hospitals to support the entire healthcare processes in ambulatories, wards and emergency depts., supporting a number of specialization areas, such as Radiology, Cardiology, Endoscopy, Pediatrics, Obstetrics & Gynecology, Mammography & Senology, and others. More than 200 hospitals in Italy and around 40 in Spain and Latin America: Certifications: UNI EN ISO 9001:2008, UNI EN ISO 13485:2004, Council Directive 93/42/EEC on Medical Devices, compliance with main reference standards (DICOM, IHE, HL7, etc.).

#### Proposal of cooperation agreement:

Synergic Healthcare Information Technology partners.

exprivia

## **FLAZIO SRL**

Via Mazzini 2 | 95037 San Giovanni La Punta CT | Sicily



Contact: Antonella Fisichella | Account Manager T. +39 095 497775 | a.fisichella@flazio.com | www.flazio.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro

#### Project Proposal Flazio.com: a free and easy solution to create your website

#### Description of the innovation project:

Flazio is the free and easiest solution to create a website. Everyone can use it to create an amazing free website, just dragging and dropping picture, texts and any other item on the web pages. No web coding skills are required.

**IP Protection Level:** Not to patent.

State of development: sale.

#### Industrial application:

Nowadays there is no sector, business activity and, as consequence, market which don't need to be online. Every project require a CRM software, a user-friendly website and a performing web presence. Flazio.com is suitable for any market sector.

#### Market segment:

Since 2011 the usage of CMS for website has increased and 3% of websites are created using do-it-yourself platforms like Flazio.com. The DIY market is divided into two main categories: B2C for SME, professional and everyone who wants to create its own website and B2B for hosting provider, web agencies and international player who want to resell the product directly to the clients.

#### Advantage factor:

Reactive design, HTML5, performing technology, use of the most advanced ICT ,daily automatically back-up, compatible with any platform with a web browser and internet connection, hundreds of templates like Facebook app which allows everybody to export his feed or private Facebook pages right into the web.

#### Commercial challenge:

The product is already commercialized and there are 160000 website realized by using Flazio.com. Our challenge is to export Flazio in the international market.

#### **Publications and Customer References:**

TechCrunch: Flazio, An Italian Web-Design Engine, Lets You Build A Site Through Your Facebook Page Website creation software is a dime-a-dozen. You press a button, type in some jazz, and come up with a one page website for you and yours. But what if I said there was something that could make it even easier.

#### Proposal of cooperation agreement:

Distribution Agreement.

## **GIPSTECH SRL**

C/o Incubatore Technest Università della Calabria | P.zza Vermicelli 1 87036 Arcavacata di Rende (CS) | Calabria



Contact: Gaetano D'Aquila | CEO T. +39 0984 1806665 | info@gipstech.com | www.gipstech.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

### Project Proposal

#### GiPStech - indoor localization precise, inexpensive, reliable

#### Description of the innovation project:

GiPStech has developed and is bringing to market an innovative indoor localization technology (like GPS but inside buildings where GPS does not work) based on the exploitation of the geomagnetic signal as guiding signal along with other known technologies. We are among the few in the world to offer a technology for indoor localization that is infrastructure free (nothing to install and maintain) and accurate to the meter. We are the only ones in the world that offer it off-line: the smartphone or other device can locate even without data connectivity.

#### IP Protection Level:

Filed for 3 patents, all under PCT examination Filing 3 more patents in next few months.

**State of development:** Product.

#### Industrial application:

GiPStech's indoor localization solutions can be applied to numerous industries: wherever it is valuable to tracking indoor. Our primary field of application is in retail, to analyze customers' behavior in shops and build intelligence at level of e-commerce. Interest has come to us also from museums/fairs/public buildings, healthcare, security, IoT, logistics and industry. Our solutions range from passive user tracking, to proximity services, to advanced navigation services - all indoor with outdoor integration.

#### Market segment:

With the broad industrial application defined above, it is extremely difficult to define specific market segments. What we have found in practice is that our best target, at least in this phase of introduction of an innovative technology are rms that are already substantially oriented to innovation or have substantial IT applications. Our business model can be adapted to the specific application settings and the specific solutions required. It is typically built on number and size of locations covered and solutions implemented.

#### Advantage factor:

There are many firms proposing indoor localization to market. GiPStech is the only one i the world that offers the following combination: - no infrastructure required to be installed and maintained (as in Wi-Fi or iBeacons approach) - precision on average of 1 meter (10-15 meters for wifi solutions, 3-5 meters for iBeacons solutions - best case) - off-line (works reliably independently from connectivity issues).

#### Commercial challenge:

Regarding licensing, GiPStech technology can be applied not only to smartphones but to any hardware that is moved together with people (such as handheld devices, forklifts, etc.) or together with objects. The algorithm can easily fit in limited computational power. Creating "dongles" or similar devices to be attached to persons or objects is possible. With such devices, the owner will be able to track position of persons or object within an enclosed space.

#### **Publications and Customer References:**

Many international scientific publications were made over the years on indoor localization and geomagnetic one in particular. We find useful to cite only the following articles intended for the general public:

- The Economist: http://www.economist.com/news/technology-quarterly/21567197-navigation-technology-usingsatellites-determine-your-position-only-works
- Don Dodge: http://dondodge.typepad.com/the\_next\_big\_thing/2013/04/why-indoor-location-will-be-bigger-than-gps-or-maps.html

#### Proposal of cooperation agreement:

Licensing.

## **GRIFO MULTIMEDIA SRL**

Via Bruno Zaccaro 17/19 | 70126 Bari BA | Apulia

Contact: ANTONIO ULLOA SEVERINO | CEO T. +39 080 4602093 | grifomultimedia@legalmail.it | www.grifomultimedia.it **orifo**multimedia

Employees: FROM 10 TO 19 EMPLOYEES

Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### **Project Proposal** Game for skill (G4S)

#### Description of the innovation project:

G4S defines a technological framework suitable for several learning contexts. In companies, it can be used to teach specific abilities; in the healthcare context, for patients' empowerment; and in a marketing context, to promote brand loyalty. The main idea behind the project is to produce a new learning environment where the user experience is closer to a game experience than to a learning experience. The main novelty of G4S is the "sensor network" component, which is a software component able to (1) connect different types of sensors, (2) collect data coming from them, (3) manage sensors' data in the gamification process.

#### **IP Protection Level:**

Gamification tries to alter and change the behaviour of the player/consumer on a long-term basis, increasing product loyalty and confidence, enhancing the success of a product or brand. The ease of use, and the intuitiveness of the game mechanics, the presence of increasing levels of difficulty, social aspects, and the option of receiving feedbacks, make gamification particularly attractive also for people who consider digital technologies too awkward to be used.

#### State of development:

Product.

#### Industrial application:

G4S technology can be used by industries producing sensors or products for fitness and wellness, which desire to iG4S technology can be used by industries producing sensors or products for fitness and wellness, desiring to integrate a gamification service in their products; but also by pharmaceutical industries willing to produce an ecosystem around their products (this is often useful in the chronic diseases context) to provide doctors, healthcare professionals, and, therefore, all the hospital's staff involved in the therapeutic management, with a tool to control and track patients' progresses and status, even at home, on holiday, and in every other real-life situation. In this way, patients can feel safe, engaged, and encouraged to follow their treatments.

#### Market segment:

Studies show that the market is booming, and it will be even more upswinging in the next years. The gamification market for enterprises should increase from an estimated turnover of \$1708 billion in 2015, to \$5500 billion in 2018. The market segment is diversified by customer type: companies (to train staff and employees), Hospitals & Healthcare professionals (to have a better view on patients' health and therapies). Pharmaceutics Industries (to increase customers' loyalty and trust). In the reference market, Grifo can bill, also thanks to the G4S project, at least €5 mln in 3 years.

#### Advantage factor:

The main innovative aspects of G4S are: 1) Integration of adaptive contents: all contents accessible on the platform are able to interface themselves with the tracked data of the player's activities 2) Applicability to different educational contexts,3) EUD interface: allows overcoming the visual complexity of gamification, in particular for adult users. 4) Extensibility of the system: the use of plug-in architecture allows administrators to add new functionalities, without a significant impact on the system. 5) Integration of data from third parties: data coming from sensors of different types can be integrated in the definition of gamification activities.

#### Commercial challenge:

The main challenge is to offer an extremely innovative gamification platform at competitive prices in many application contexts, with the result of increasing the company's revenue in this area. Currently gamification is highly desired by companies because of its obvious advantages, but often, due to budget restrictions, it is not uncommon that companies have to give up the project. Reducing the cost of this type of approach would help its spread, making it even accessible to small-size organizations.

**Publications and Customer References:** Deterding, Sebastian, et al. "From game design elements to gamefulness: defining gamification." Proceedings of the 15th Int. Academic MindTrek Conference: Envisioning Future Media Environments. ACM, 2011. Deterding, Sebastian, et al. "Gamification. using game-design elements in non-gaming contexts." CHI'11 Extended Abstracts on Human Factors in Computing Systems. ACM, 2011. The 2012-2017 Worldwide Game-based Learning and Simulation-based Markets (http://www.ambientinsight.com/Resources/Documents/AmbientInsight\_ SeriousPlay2013\_WW\_GameBasedLearning\_Market.pdf)

Gamification Survey Results, survey by TalentLMS (http://www.talentlms.com/blog/gamification-survey-results/).

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement.

66

## **GRUNTA SRL**

Via Verdi | 87036 Rende CS | Calabria

Contact: Arturo Jorio | CEO T. +39 339 8479966 | info@illcare.it | www.illcare.it

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal illCare

🥣 illCare

#### Description of the innovation project:

illCare is the first app pharmaceutical multilingual (Italian and English for now) accessible to anyone with a smartphone, so you can have easy access to the world of self-medication. It's clear what to take, how and when. The remedies range from counter medicines to cosmetic and herbal remidies. We cater to companies in the pharmaceutical, cosmetic and nutraceutical offering direct advice to its customers on their Mobiles. We offer the chance to find with great ease their outlets and shops and the ability to inform about new products or/and special offers. Try it, it's free iOS and Android.

#### **IP Protection Level:**

illCare is a pharmaceutical app in less than 11 mounths It has 13.000+ downloads in italy without marketing, and has a contract with Takeda italia for D-active product. we are studing fot the upgrade illCare 2.0.

#### State of development:

Product.

#### Industrial application:

Pharmaceutical, cosmetic,food supplements and medical devices, orthopedic braces and complementary rehabilitative products.

#### Market segment:

In Italy the pharmaceutical value (2014) is € 6.100.000.000,00 It's direct to the companies that want a direct contact with clients. The companies can inform the clients about new offer or launch of new products and more in general every things that the companies want.

#### Advantage factor:

- We have for now 13.000+ daowloads in italy.
- Introduction of scientific terms in common use also slang dialect;
- Graphical presentation of the products;
- ▶ The average selling price (IT)
- > Side effects and contraindications expressed in a simple and clear way (essential information);
- Geo-location user to enable the availability of the chosen remedy
- archiving remedies purchased Pop-ups for commercial communications and health language configuration automatically

#### Commercial challenge:

We are studying illCare 2.0 the evolution of the first version, we give the possibility to open in Russian, China and Middle East. IllCare 2.0 will give the possibility to buy directly in mobile, and other function to give a better style life to our users.

#### **Publications and Customer References:**

https://goo.gl/poGIAA http://goo.gl/GYk4nK

#### Proposal of cooperation agreement:

Commercial representative.

## **ICAM SRL**

S.P. 237 delle Grotte C.P.129 | 70017 Putignano BA | Apulia



**Contact:** Roberto Bianco | Business Opportunity, Head T. +39 080 4911377 | direzione@icamonline.eu | www.icamonline.eu

Employees: FROM 50 TO 99 EMPLOYEES Turnover: From 5 to 15 million Euro **Export:** From 750.000 to 2.5 million Euro **Status:** Innovative SMEs



#### Description of the innovation project:

ICAM has been a pioneer in the design and implementation of distributed automation solutions for the storage and handling of pallets (intralogistics), based on the use of intelligent vehicles within multi-level stores built tailor made. These mobile vehicles (shuttles) are controlled and governed wirelessly and are able to move independently along two orthogonal rails carrying the load units (UDC) to store / withdraw, giving the advantage to improve / optimize the use of space. and the advantage of being able to adapt the automation to actual needs.

#### **IP Protection Level:**

Shuttle for automated warehouse equipped with a group of steering Italian patent - No. Patent 139589 group wheel of a shuttle for automated warehouse, and shuttle equipped of this group wheel European patent - No. Patent EP2308777 Patents be for shuttle ASRV G2.1 second generation Italian application N ° TO2013A000452 of 03.06.2013 "shuttle automated warehouse" and International Application PCT / IB2014 / 061918 of 03.06.2014

## State of development:

Product.

#### Industrial application:

System integration applications for intra-logistics and in general smart factory.

#### Market segment:

The current demand of the world market of automated solutions for the storage and handling of palletized goods is around 7.5 billion euro, with an expected annual GROWTH 12% until it reaches about 12 billion € in 2020. This growth will be driven primarily by solutions fully automatic and automatic guided vehicles. Source: ReportsnReports.

#### Advantage factor:

The Smoov system, based on the concept of distributed automation, allows to split the operations of a number of vehicles robot that can move independently on the shelf unit rather than centralize them in one big automation (Stacker). This concept thus allows the creation of automated warehouses in the most demanding situations with limitations, layout and / or sizes that are not normally considered to be compatible with existing technology current (stacker).

#### **Commercial challenge:**

Licensing agreements with manufacturing center of excellence in the provision of integrated solutions for intralogistics in the key target markets.

#### Publications and Customer References:

http://www.automazioneindustriale.com/la-tecnologia-smoov-asrv-scelta-da-pro-metal-trading-per-modernizzare-i-processi/ http://www.ilsole24ore.com/art/tecnologie/2012-06-08/magazzini-automatici-robot-distribuiti-155247. shtml?uuid=AbvMuKpF&refresh\_ce=1 "Automatizzare il magazzino" di Andrea Payaro

#### Proposal of cooperation agreement:

Know how transfer, IPR assignment, Licensing.

## **IDEON SRLS**

Via T. Picazio | 81100 Caserta CE | Campania

Contact: Marco Piombino | Business Opportunity, Head T. +39 082 3351737 | ideon@legalmail.it | www.ideon.it

#### Employees: SINGLE USER

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Startup

#### Project Proposal "NANNARELLA" a support device for baby's comfort

#### Description of the innovation project:

Nannarella is a lightweight and portable device, placeable in strollers, shuttles, cribs and strollers, and able to reproducs, for the benefit of the baby, a sensory environment and condition close to the natural physical contact with the mother. Nannarella is an innovative device reproducing the natural values of heartbeats, body temperature, voice and breath of the mother, u sing a patented software of acquisition and replication, in order to reproduce the multisensory condition the baby usually benefit when he is in the arms of his Mom.

#### **IP Protection Level:**

Ministero dello Sviluppo Economico Ufficio Italiano Brevetti e Marchi Domanda numero 102011901915570 (TO2011A000119) Tipologia Invenzioni N. Brevetto 0001404058 Data Brevetto 08 novembre 2013 Support device for baby's comfort WIPO 2012107809 A1 PCT/IB2011/054840 Support device for baby's comfort; EPO EP2673062 - support device for baby's comfort.

#### State of development:

Patent.

#### Industrial application:

Devices for baby's comfort; professional medical devices for baby's during intensive care in infant incubator.

#### Market segment:

Consumer market as support device for baby's comfort; professional medical market s support device for baby's comfort during intensive care in infant incubator.

#### Advantage factor:

Nannarella is an innovative device reproducing the natural values of heartbeats, body temperature, voice and breath of the mother, using a patented software of acquisition and replication, in order to reproduce the multisensory condition the baby usually benefit when he is in the arms of his Mom.

#### Commercial challenge:

The commercial challenge is to produce and distribute a unique product and innovative protected by international patents that currently doesn't exist and that meet a real need in a world market. The other challenge is to introduce the same product, that also has a social function in the medical infant baby care. The success of both of these challenges will give an international dimension to the company and to their stakeholders.

#### publications and Customer References:

No studies or publication going concern about using the device in question, there is ample literature report on physical between mother and child on which the baby builds its development process.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, IPR assignment, Venture capital financing, Licensing, Distribution Agreement, Sub-contracting Agreement.



## **ITEM OXYGEN SRL**

**item**oxygen<sup>®</sup>

Via Le Fogge 11 | 70022 Altamura BA | Apulia

Contact: Giovanni Piccininno | R&D International Business Development Manager T. +39 080 3143647 | g.piccininno@itemoxygen.com | www.itemoxygen.com

Employees: FROM 20 TO 49 EMPLOYEES

Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### Project Proposal H@H Smartmews

#### Description of the innovation project:

The H@H smartmews system is an innovative clinical decision support system for the early detection of the degeneration of the clinical condition of a patient hospitalized in "no critical" wards.. The system allows for the implementation, automatically and interactively, of important clinical protocols of intensive care units to all other wards in the hospital. The H@H smartmews system implements simultaneous and automatic clinical scores: • Modified Early Warning Scores • SEPSIS Screening Tool • Pulmonary Embolism Severity Index (PESI) • Shock Index The system is composed by a central unit, server, control station, portable devices connected to the server by web.

#### **IP Protection Level:**

no, the system is not protected by a patent.

State of development:

Product.

#### Industrial application:

The system fulfill perfectly needs coming from public and private health, especially in the following hospital wards: - Postoperative ICU - Short Stay Observation and Short recovery Units and A&E Department - Neurologic Rehabilitation - Wards at medium and intensive care - Specialized ICU - Clinics dedicated to particular therapies (oncohematology) Radiotherapy wards.

#### Market segment:

One patient in "post-operative ICU" costs about 350 Euro per day (in Italy) and often the number of bed available is limited. Often it is incongruous hospitalizations for excessive prudence (defensive medicine) and the risk of cross-infection by multiresistant bacteria (Acinetobacter baumannii, Klebsiella pneumoniae, Pseudomonas aerouginosa etc.) to use the same personnel who work in the Intensive Care is increasing. Some studies bring to the conclusion that the implementation of the H@H smartmews system will reduce the average cost for patient of about \$9.346 with a linked reduction of hospital average costs of 39.2%.

#### Advantage factor:

- Reducing unforseen cardiac arrests in the ward (M.E.W.S.): For respiratory failure, acute cardiac arrhythmia, haemorrhagic shock, pulmonary embolism, etc - Early detection of patients that undergo Sepsi, acute Sespi or septic Shock (Sepsis Screening tool) - A marker that can be used to forecast the gravity of a hypovolaemic and/or emorragic shock (Shock Index) - Suitable patients monitoring at risk of developing a massive pulmonary embolism (P.E.S.I. e sP.E.S.I.)\* In addition to this, the system will allow to have better outcomes, to realize sub-intensive therapies outreach, Economic benefits: - Insurance premiums; - Patient management costs; - Nurse Cost; - More beds in ICU.

#### Commercial challenge:

The H@H smartmews clinical decision support the outcomes in terms of mortality, morbidity, length of stay in the ICU and/or hospital. It also provides an overall improvement in the quality of care; allowing you to create the ideal conditions to reduce clinical risks, hence a reduction in the insurance premiums paid for the professionals and the hospital, and a considerable saving of resources. Early detection of the degeneration of the patient's clinical condition allows you to massively reducing the healthcare costs.

#### **Publications and Customer References:**

- Report on "modified Early warning system (MEWS)" from Stony Brook university Medical Center - Validation of a Screening Tool for the Early Identification of Sepsis (Laura J. Moore, MD, Stephen L. Jones, MD, Laura A. Kreiner, MD, Bruce McKinley, PhD, Joseph F. Sucher) • "Surviving Sepsis Campaign: International Guidelines for management of severe sepsis and septic shock:2012" • Zhan C, et al., "Excess Lenght of stay, charges&mortality Attributable to Medical Injuries During Hospitalization", JAMA, 2003, 290:1868-1874 • Rivers, EP, et al., Early goal-directed therapy in severe sepsis and septic shock: a contemporary review of the literature. Current Opinion in Anestesiology, 2008. 128-140.

#### Proposal of cooperation agreement:

Commercial representative, Distribution Agreement, Sub-contracting Agreement.

## LOGARITMICA SRL

Viale Volga c/o Fiera del Levante pad. 129 | 70132 Bari BA | Apulia

Contact: 3384636771 Tesolin | CEO T. +39 338 4636771 | giuseppe.tesolin@promobay.it | www.promobay.it

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### Project Proposal Promobay Digital Suite

#### Description of the innovation project:

Promobay is a digital suite for smartphone, with many features, that gives the chance to every user to geolocalize partners and retailers, receive "PUSH" notification, pay through a contact less technology, collect fidelity points. All this in a SINGLE TOOL. There will be no need anymore to print out coupons or discounts, to pay in cash or by credit/debit card, to book by telephone or collect fidelity points within many different cards made of plastic.

#### **IP Protection Level:**

All the Promobay<sup>®</sup> trademarks have been registered in the European Community. We have already asked for patent registration, for the Digital Suite Promobay, with number BO2014A000405. Our project introduces a process innovation in terms of unification of all the different steps of the purchasing chain. We introduce a unique tool for smartphone with the following functions: geolocalization, booking manager, mobile payment, fidelity points collection.

#### State of development:

Product.

#### Industrial application:

ICT, Mobile and Consumer Internet. In particular we intend to focus on Geolocalization and Mobile Payment.

#### Market segment:

Target customer: people in the age of 25-50, that own a smartphone and that buy online discounts and promotions. There are more than 10 milions of potential users with this profile, considering the Italian market only. By considering this number and the pricing that we are going to set for our Digital Suite, the potential market value is almost up to 1 billion of Euros.

#### Advantage factor:

The introduced technology is completely new for the Italian market. It manages contact less mobile payment, through the smartphone, by sharing a QR code between to different devices: the first one up to the digital suite user (B2C) and the second one up to the partner (B2B). The entire project is based on a web service technology that sends and shares data with 4 different APPs (Smartphone and Tablet, IOS and Android). They are close to be finally delivered, a beta test release is anyway already available.

#### Commercial challenge:

Promobay introduces a different positioning on the market, by comparing it with the following well known competitors: Groupon, Groupalia, Poinx, etc. In fact we do not charge any commission to the partner (B2B). We only charge money to the users of our digital suite (B2C). So the business model is completely new. We ask to the partners a FREE entrance in our community, we also ask them to recognize promotions to our users, but we do not charge them any commission. On the other hand every user could enter our community by downloading our suite and they have to pay for that.

#### **Publications and Customer References:**

Last May we have completed the selection process of Polihub, the Accelerator of the Politecnico of Milan. We have then been rewarded by INVITALIA (national agency for public investments) with a financial aid of 200.000€, that enables us to complete part of required investments.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing.

## LORAN SRL

Zona Industriale - Via delle Ginestre | 70026 Modugno BA | Apulia

LORAN

Contact: Nicola Lorusso | Project Manager T. +39 080 5427032 | gare@loransrl.net | www.loransrl.net

Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: From 750.000 to 2.5 million Euro Status: Innovative SMEs

#### Project Proposal LORAN SUPPLY CHAIN SYSTEM

#### Description of the innovation project:

LORAN SUPPLY CHAIN SYSTEM is a software platform developed in its first version in 2004 and now in version 2.0 (cloud computing and web interfaces). With more than 40 years experience in hospital supplies, the innovative software is employed in integrated logistics especially for operating theatres. Surgical ward management software assesses the operating theatre's activity, the materials used for each patient, number and types of operation, supplier's turnover. It also manages operating rooms products flow, such as drugs, medical devices, disposables etc. LORAN's software monitors the consumption flow of materials through a digital surgery report completed by healthcare professionals, accessible through a secure login, ensuring a correct and punctual supply for the surgical ward. By use of the digital surgery report, every operation is virtualised and recorded with precise codes. The software can therefore pre-order the correct supplies for number and type of scheduled operations in order to deliver these directly to the operating theatre, together with the relevant transport documents for invoicing. As stock levels deplete, the software arranges an automatic replenishment of supplies. By use of the assisted surgery checklist report (mandatory by law, pre/intra/post operation), it guarantees precision and safety to its users and patients. Furthermore it can easily generate medical and administrative statistical reports while an assistance service covers urgent deliveries or system malfunctions. Latest add-ons allow for the removal of a product in the surgical ward through a barcode reader, while the App version allows the completion of the operating room checklist through mobile devices, also in offline mode, followed by a sync with a web platform.

#### **IP Protection Level:**

In use in Operating Rooms of many Hospitals in the South-Central Italy.

#### State of development:

Product.

#### Industrial application:

Currently the platform operates several service in 5 Regions of South-Central Italy (67% of hospitals in Sicily), 22 cities, 28 Hospitals, 110 Operating Rooms. In Bari it has been used for over 10 years in the Consortium University Hospital, one of the biggest medical centers in Southern Italy.

#### Market segment:

e-Health; Public and private hospitals.

#### Advantage factor:

The platform is able to be the only access door to the suppliers hospital, and to interface with the management systems of each supplier, in order to exchange information of an economic nature and quantity in real time.

#### Commercial challenge:

Simplification of the procedures and organization of the departments of changes in deliveries.

#### Publications and Customer References:

News on 'Impresa Sanità' september 2015 (paper and website);

News on ESanit@ www.esanitanews.it/?p=41; News on Quotidiano Puglia, September 11th, 2010 Youtube video: https://www.youtube.com/watch?v=eoqx\_tU73Ro

Sanità - September 2015 News on ESanit@ (e-Health - focusedmagazine), July 27th, 2015

(link: www.esanitanews.it/?p=4148) News on Impresa Sanità, 1st July, 2015

(link: www.impresasanita.it/contents/news/it/20150701/tntweb2\_0\_per\_la\_gestione\_d el\_materiale\_in\_tessuto\_non\_tessuto)

#### Proposal of cooperation agreement:

Know how transfer; Distribution Agreement.

## MINDESK SRLS

Via Giustino Fortunato 9 | 70125 Bari BA | Apulia

Contact: Gabriele Sorrento | CEO T. +39 393 6244721 | gabriele@mindeskvr.com | www.mindeskvr.com



Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### Project Proposal Mindesk

#### Description of the innovation project:

Mindsk is an integrated platform (software + hardware + cloud service) that allows to model 3D CAD objects in Virtual Reality. We realize a new imput device that looks like a stylus which creative and engineers uses instead of mouse and keyboard as CAD input. We also provide software interface for most spread CAD (e.g. Rhinoceros 5) and a cloud service for real time collaboration.

#### **IP Protection Level:**

- #1 Italian patent pending - Software code and algorhitms internally developed (industrial secret).

#### State of development:

Prototype.

#### Industrial application:

- Manifacture - Architecture - Building engineering - Mechanical engineering - Design - Entertainment industry.

#### Market segment:

The target is whoever extensively uses CAD software (~25m users, \$8Bn in 2014); the typical user is a professional (architects, engineers, designers), working alone or for a studio or SME. 8% of those CAD users already uses VR tools and this percentage will only go up. This segment is worth \$700m (source: Jon Peddie Research) and it has a double figure YoY growth.

#### Advantage factor:

Mindesk features a new 3D input device that is directly interfaced with the CAD software. The interface also enable a direct link between the CAD software and the head mounted display (e.g. Oculus Rift). Today, model export and processing in Unity framework is needed in order to navigare a CAD model in VR. Mindesk avoid this time wasting procedure. Also, the cloud collaborative service helps cutting development costs related with co-operation, meetings an decision making.

#### Commercial challenge:

Mindesk features a new 3D input device that is directly interfaced with the CAD software. The interface also enable a direct link between the CAD software and the head mounted display (e.g. Oculus Rift). At the moment, model export and processing in Unity framework is needed in order to navigate a CAD model in VR. Mindesk avoids this time wasting procedure. Moreover, the cloud collaborative service helps cutting development costs related with cooperation, meetings an decision making.

#### **Publications and Customer References:**

www.mindeskvr.com

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement.

# MTM PROJECT

Via Ludovico Ariosto 25 | 70043 Monopoli BA | Apulia

Contact: Giuseppe Modugno | Sole Director T. +39 080 8978493 | modugno@mtmproject.com | www.mtmproject.com

Employees: FROM 10 TO 23 EMPLOYEES Turnover: From 250.000 to 700.000€ Euro

Export: Less than 75.000 Euro Status: N.A.

#### **Project Proposal**

### Software for Maintenance and Training Management through Virtual Reality

#### Description of the innovation project:

Software SIP and HIL are easy to use for the management of all maintenance and technical Training trough Interactive Virtual Reality Video, such as scheduled and unscheduled maintenance, assembling, testing, operators training, calibration, software instructions, checklists or any other typology trough the Virtual Reality. They can be integrated inside the on-board equipment or installed on PC or tablet.

#### IP Protection Level:

No patent.

**State of development:** Product.

#### Industrial application:

Aeronautic, Aerospace, Automotive,

#### Market segment:

Both SIP and HIL are applicable in all areas of the market where are required an high-technology level and technical operational procedures; this one allows the applicability of both in all technical areas.

#### Advantage factor:

Advantages:

- Maintenance interventions and Technical Training time and costs reduction;
- Shared and always available Know How in the company;
- Speeding-up of operating instruction and cost reduction;
- Interactivity typical of Virtual Reality 3D CAD;
- Rise in intervention safety.

#### Commercial challenge:

Achieve a revenues due to the sale of SIP and HIL about 30% of company annual turnover.

#### **Publications and Customer References:**

SIP: Avio Aero (Gruppo GE, ex Aviogroup) HIL: Magneti Marelli.

#### Proposal of cooperation agreement:

Distribution Agreement.



### MUREX CS SRL

via Putignani 178 Via Rosario Livatino 94 | 70123 Bari BA | Apulia



Contact: Filippo De Santis | Senior researcher T. +39 080 2045560 | desantis@murexcs.it | www.murexcs.it

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs

### Project Proposal The Health Net

#### Description of the innovation project:

HealthNet (HN) is a social network that helps patients to find a solution for her health condition. The core component of HN is a recommender system that suggests to the user patients similar to her and generates suggestions about doctors and hospitals that best match her patient profile. Currently HN is in alpha version and only for Italian users, but in the future we want to extend the platform to other languages and countries. We organized three focus groups with patients, practitioners, and health organizations in order to obtain comments and suggestions. All of hem proved to be very enthusiastic by using the prototype version of HN.

#### **IP Protection Level:**

A prototype version of the platform that implements the proposed idea is currently available.

State of development:

### Prototype.

#### Industrial application:

Smart Health and Smart Cities.

#### Market segment:

Target market: People between 18 and 70 years old. The main revenue will come from the analysis of the (anonymous) data users left on the platform by exploiting strategies for big data analytics.

#### Advantage factor:

The main innovation of the social network is represented by the recommender system that suggests to the user patients similar to her and generates suggestions about doctors and hospitals that best match her patient profile.

#### Commercial challenge:

The main advantage consists in the possibility to expand the platform to other countries. In this way the platform will become the landmark for the online health consulting.

#### **Publications and Customer References:**

Fedelucio Narducci, Cataldo Musto, Marco Polignano, Marco de Gemmis, Pasquale Lops, Giovanni Semeraro: A Recommender System for Connecting Patients to the Right Doctors in the HealthNet Social Network. WWW (Companion Volume) 2015: 81-82 Fedelucio Narducci, Cataldo Musto, Marco Polignano, Marco De Gemmis, Pasquale Lops and Giovanni Semeraro: Towards a patient-centered medicine: the HealthNet Social Network. 5th International Conference on Digital Health (Florence, Italy, 18th - 20th May 2015).

#### Proposal of cooperation agreement:

Venture capital financing.

## MUUM LAB SRL

Via Patrioti Molfett. del Risorgimento 8 | 70056 Molfetta BA | Apulia



Contact: Maurizio Maraglino Misciagna | General Manager T. +39 339 8600703 | maurizio.maraglino@muumlab.com | www.muumlab.com

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### **Project Proposal**

### Muum Lab Financial Farmers for your Ideas - Equity Crowdfunding & Startup Investing

#### Description of the innovation project:

Muum Lab is a website, but also a system app for iOS and Android, which allows anyone to invest in innovative companies, in a simple, fast and transparent. Innovative companies, you will find in our website, they chose to open up to the European capital market, allowing anyone to support their growth through a contribution of money in exchange for shares.

#### **IP Protection Level:**

We are waiting for patenting. We filed the copyright on our company logo.

**State of development:** Patent.

**Industrial application:** FinTech.

#### Market segment:

Today in Italy there are no such projects. Only case in Europe is represented by a portal which started its activities only in 2011 in Great Britain (www.crowdcube.com). There are, however, both in Italy and in other countries, Crowdfunding portals that are based on the principle of "barter" (eg. Financing for the construction of a concert by obtaining in exchange for admission tickets).

#### Advantage factor:

Muum Lab carries out public offers of sale (OPV) of financial instruments that are perfected only when you reach the collection target agreed with the offeree company (we speak in this case of Equity Crowdfunding's all or nothing). This means that within 90 days you have to collect 100% of the capital required by the issuing company. It is also necessary that at least 5% was subscribed by institutional investors (banks, stockbrokers, funds, incubators Certificates or other person qualified as professional investor).

#### Commercial challenge:

Muum Lab is the only platform currently present in Europe to make use of the app both in IOS Android which lets you publish projects directly from a smartphone or tablet, invest and learn about the various projects uploaded to the platform.

#### **Publications and Customer References:**

Crowdfunding is now a highly disciplined and Italy is one of the few countries in the world to have drawn up a separate law in matria equity crowdfunding.

#### Proposal of cooperation agreement:

Venture capital financing, Sub-contracting Agreement.

### NATURAL INTELLIGENT TECHNOLOGIES SRL

Via Giovanni Paolo II | 84084 Fisciano SA | Campania

Contact: Adolfo Santoro | CEO T. +39 089 964177 | info@nitesrl.com | www.nitesrl.com

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### Project Proposal Natural Intelligent Technologies s.r.l.

#### Description of the innovation project:

The products are based on innovative technology, unique on the market, which allows to analyze, search and recognize cursive handwriting. The technology does not use predefined templates of characters or words, but finds common ink strokes between unknown words and those belonging to a knowledge base, for which it is entered the transcript. Such technology, unlike those currently existing on the market, allows to automatically read also words that the system has not previously learned and therefore does not require to build a lexicon of reference words.

#### **IP Protection Level:**

The core technology from which our software products arise has granted the Italian Patent at UIBM under patent number N ° RM2013A000022 and we extended the patent in USA, Europe and Israel by the PCT procedure.

#### State of development:

Product.

#### Industrial application:

The first product we are commercializing is a software for forensic document analysis and examination that helps handwriting experts and Technological Area of Police Departments to perform handwriting analysis and produce better reports. Moreover the core technology can be applied for searching and reading handwritten documents in huge digital archives of private companies, libraries and public organizations that need to manage their digital heritage.

#### Market segment:

The target market is Document Data Capture Software market that, according a market research of Harvey Spencer Associates of 2013, has a yearly turnover of 2.7 Billions of Dollars and shows a CAGR of about 10% for the next four years. In particular the addressable market is about 70% and is composed of offline images acquired by devices such as scanners, PDA, fax and so on. Our main target customers are private companies and public organizations, which have already digitized their digital heritage and need to manage it; moreover also banks and insurance companies need to perform data capture from their digital documents.

#### Advantage factor:

The competitive advantage is represented by the novelty of the proposed technology respect to already existing in the market because it allows to "read" even handwritten traces that have not previously been provided to the system during the learning phase, overcoming the limit of recognizing only words belonging to a predefined lexicon. Moreover, the learning phase of the system requires a number of samples lesser than to competitors, with positive effects in terms of cost and time of development of vertically oriented products.

#### Commercial challenge:

The proposed technology differs from competitors because it is able to work also on handwritten images acquired by scanner (using the off-line format) by reconstructing a possible dynamics of writing produced by the writer, thus making possible both the static and the dynamic analysis of the morphological features. Our solution can be tailored not only for companies which have a huge digital archive but also for SMEs which deal with a small number of handwritten digital documents.

#### **Publications and Customer References:**

The research group that founded the company has published several publications in the field of Pattern Recognition and Artificial Intelligence area; from a customer perspective an automatic reading system that is able to manage any type of digital document allows to obtain high savings for companies. Indeed, according to the AIIM (Association for Information and Image Management), an American non-profit organization that provides independent research in the field of digital documents, shows that a percentage of 55% of the data extracted from documents is manually entered by a keyword and only 6% of the data is processed using a system of automatic system.

#### Proposal of cooperation agreement:

Licensing, Distribution Agreement.

Natural Intelligent Technologies sri . e.

## **QUAVLIVE SRL**

c/o Dipartimento di Ingegneria Elettrica e dell'Informazione del Politecnico di Bari Via Orabona 4 | 70125 Bari BA | Apulia



Contact: Saverio Mascolo | R&D Manager T. +39 080 5963851 | info@quavlive.com | http://quavlive.com

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro

Status: Startup

#### Project Proposal QuavStreams

#### Description of the innovation project:

QuavStreams is a platform for multimedia distribution of live and on-demand contents over the Internet. QuavStreams supports the streaming standard Dynamic Adaptive Streaming over HTTP (DASH), which automatically selects the best possible video quality avoiding buffering phases. It can be used for the following applications: WebTV, Video-on-Demand (VoD) and large scale high-quality film distribution.

#### **IP Protection Level:**

Quavlive has 4 US granted patents: - Actuator for implementing rate-based packet sending over packet switching networks, US Patent nr. 7916637; - Rate based congestion control for packet networks, US Patent nr. 7593335; - End-to-end bandwidth estimation for congestion control in packet switching networks, US Patent nr. 7130268 - Method and apparatus for TCP with faster recovery, US Patent nr. 7299280.

#### State of development:

Product

#### Industrial application:

Medium and large scale video on demand and live video streaming distribution.

#### Market segment:

Home users (video podcast and entertainment), education (university remote lessions), industry (for deploying adhoc streaming architectures).

#### Advantage factor:

A complete solution for video streaming acquisition, encoding and streaming with full customizability.

#### Commercial challenge:

The competitive advantages will be: - creation of local jobs - knowledge based economy - reduction of vendor lock-in.

#### **Publications and Customer References:**

Our main client is the Technical University of Bari (http://webtv.poliba.it) and Apulia Film Commission "Progetto Memoria" channel (http://quavstreams.quavlive.com/user/apuliafilmcommission/). Moreover at this address (http://c3lab.poliba.it/index.php?title=Adaptive\_Live\_Video\_Streaming) we describe the academic research aspects of our solution.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement.

## SADAS SRL

Via Napoli 125 | 80013 Casalnuovo di Napoli NA | Campania

sadas

Contact: Roberto Goglia | Corporate Business Development T. +39 081 8427112 | info@sadasdb.com | www.sadasdb.com

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: N.A.

### Project Proposal

### "STORE, JOIN, ANALYZE AND VISUALIZE YOUR DATA ALL IN ONE PLACE" -Looking for partners

#### Description of the innovation project:

Sadas has a suite of software solutions that allow to create powerful applications, letting users manage and analyze any business data. Sadas Suite includes both a front-end and a back-end. Users have everything they need to access, join and consolidate data sources of any size. The Suite includes a columnar DBMS for data warehousing, BI software manager and web interface for building dashboards and visualizing your data. This trio of fully integrated complementary products is ideal for the comprehensive management of a company's data, from extraction and analysis to documentation and reporting - Sadas Suite handles it all.

#### **IP Protection Level:**

n/a.

### State of development:

Product.

#### Industrial application:

The solution is ideal for Software Developing Companies dedicated to building applications for Data Analytics, Data Warehouse, Business Intelligence, Dashboards etc.

#### Market segment:

The market segment interested in SADAS proposal is that of application development companies working with customers that use large amounts of business data for analyzing, planning and decision-making. These companies will benefit from the short implementation time, the low total cost of ownership and the reduced effort in tuning. This will strongly reduce the cost of the application for the customer, and maximize profit margins for the application development company. The size of this market is huge, estimated by analysts in billions of \$, so the penetration in even some of the twelve countries will contribute significantly to the ROI of the solution.

#### Advantage factor:

The SADAS Suite is the only commercial solution based on a truly columnar DBMS, completely designed and engineered by SADAS. Its unique features guarantee a more rapid development, lower TCO and higher margins compared to standard market solutions.

#### Commercial challenge:

SADAS already has a good position in the Italian market and it has a very large number of users in big enterprises. The development of an international market through a network of partners, who are experts in their local market and capable of exploiting the value of the technology among their customers, will contribute to the development of SADAS. This will result in higher-value solutions that will reach more users and will be more and more implemented, thus allowing SADAS to have a larger number of employees dedicated to further R&D and international customer service.

#### Publications and Customer References:

Albano, De Rosa, Goglia, Minei, Dumitrescu. Another example of a Data Warehouse System Based on Trasposed Files - Proceedings of the international Conference on Extending Database Technology, Munich, D, 2006; Albano, De Rosa, Goglia, Minei, Dumitrescu.. Star Query Plans in SADAS: A Data Warehouse system based on trasposed files - Proceedings of the Fourteenth Italian Symposium on Advanced Database Systems, I, 2006 A. Albano An innovative Column-Oriented DBMS for Business Intelligence Applications, Univ. of Pisa, I, 2007 References in Italy: Gr. B. Pop. MI, Gr. BPER, Gr. B. ICCREA, BNP/Paribas-IFITALIA, Banca UBAE, RAI, SEC Servizi, Alba Leasing, Gruppo B.pop. SO, Gruppo Raiffeisen, CartaSI.

#### Proposal of cooperation agreement:

Partnership.

## SEELIGHT SRL

Via Fra Nicolo da Lequile, 1 | 73100 Lecce LE | Apulia



Contact: Mirco Manciulli | CEO T. +39 392 2224463 | mirco.manciulli@seelight.it | www.seelight.it

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs

### Project Proposal SDR - Surgical Data Recorder

#### Description of the innovation project:

Realization and marketing of innovative services based on the CWIC concept (See What I See) applied to Medicine: the Surgery Data Recorder supplies a safe recording service with legal value of the surgical and medical activities. The service is addressed to hospital institutions, insurance companies and professionals in order to provide tools which can be used in and out of court and destined to prevent and reduce law suits, limit medical malpractice and make patient doctor relations clearer.

#### IP Protection Level:

Ongoing developments will be subject to specific patent applications.

**State of development:** Prototype.

#### Industrial application:

Hospital transparency. The certainty of the conduct by means of the subjective videos of the entire team. Legally valid and safe recordings: objective documentation of clinical and surgical activity.

#### Market segment:

Hospital institutions, Insurance companies, Surgeons.

#### Advantage factor:

Technological factors: Wearable ergonomic and mini invasive devices for video recording acquisition Service characteristics: The service is supplied by the hospital institutions and allows recording of what happens during a surgical operation or other hospital activity from the subjective perspective of the team involved. Such service is based of a recording system model with forensic validity which allows obtaining and recording in a safe manner audio/video source. Therefore, in case of legal suits or for insurance purposes, it will be possible to retrieve all specific data requested, as objective, safe and unequivocal documentation for third parties.

#### Commercial challenge:

Hospital institutions, Insurance companies and skilled Surgeons want a tool able to proof what has happened during a surgery, so to protect them against specious and exorbitant claims of damages. The challenge is to give them, in case of legal suits or for insurance purposes, safe and unequivocal legal documentation for third parties.

#### **Publications and Customer References:**

SIGECI-CARDIOMIS Project (Bando Unico R&S 2012 POR CREO Regione Toscana) Our Scientific and Technological Partners: - Scuola Superiore di Studi Universitari e Perfezionamento Sant'Anna - D'Appolonia SpA - Namirial SpA (Certification Authority) - T.I.M.E. Srl - LUDEC a.s.d. - Scientific Consultancy in the MEDICAL field: Mattia Glauber, MD.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Distribution Agreement.

# SMS ENGINEERING SRL

Via Fienile, 1 - Complesso Salice | 80013 Napoli NA | Campania

Contact: Massimiliano Canestro | Vice President T. +39 081 0155611 | m.canestro@smsengineering.it | www.smsengineering.it



Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### Project Proposal myWMS JIS

#### Description of the innovation project:

MyWMS JIS is the Warehouse Management System solution that manages in an efficient and integrated way the flow of goods, supported by portable devices, barcode and RF and RFID systems. The JIS feature, guarantees the full synchronization of material flows between the internal production and the warehouses in subservience to the production, having full traceability. It allows a continuous improvement and ensures that processes inward and outward are performed in the correct order, with the right materials at the right time.

#### **IP Protection Level:**

MyWMS JIS is an advanced model of warehouse and goods handling. It is the set of solutions designed and developed for the computerized management of warehouse logistics and its resources (goods, space, time, manpower, equipment). myWMS JIS is a product without patent.

#### State of development:

Product.

#### Industrial application:

manufacturing, distribution and logistics companies.

#### Market segment:

myWMS has been developed for companies of all sizes that require optimal saturation of all areas and the discouragement of wastes in the different stages of production / logistics process. It allows to achieve an increase in productivity and high quality standards.

#### Advantage factor:

Key Innovations: - Identification systems through the management of the barcode: each object (merchandise, leasing, asset, ...) is uniquely identified by a barcode - Data collection through the use of wireless devices: Realtime monitoring of goods handled Control of all warehouse activities Full traceability of products - Using the most advanced technologies Mobile Wireless - Independence from mobile devices: RF module used by the warehouse operators is a web oriented application - Optimal management of spaces, thanks to the warehouse mapping. - Automatic tasks generation and distribution based on rules and priority levels. - "paperless" system: all the operations do not require paper.

#### Commercial challenge:

Operating in a critic economic context, it is crucial be culturally and technologically different. The business challenge is to fulfill the requirements and meet the expectations of customers by providing high-level experts in the industry.

#### **Publications and Customer References:**

Main customer references: Plant OMG - Grugliasco (TO) Plant SATA - Melfi (PZ) myWMS JIS it is also currently used in the following companies our customers: Saimar Srl A.BA.CO. Hollen Marangoni Multilog Fema Logistica.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing, Distribution Agreement, Sub-contracting Agreement.

# SOFTWARE EVOLUTION SRL

via Virgilio III traversa nr 4 | 80078 Napoli NA | Campania

softwarevolution

Contact: Marco Finizio | CEO T. +39 081 2133091 | info@softwareevolution.it | www.softwareevolution.it

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal VIKI Technology

#### Description of the innovation project:

VIKI Technology enables Machines to understand humans. A semantic analysis engine that mixes natural language processing with knowledge manipulation. The engine is ontology based, and can enrich its knowledge-base at runtime. It is being used for text mining and analysis, for creating smart virtual assistants, for analyzing social media data, for intelligence, and more.

**IP Protection Level:** nd.

**State of development:** Product.

**Industrial application:** ICT.

#### Market segment:

The technology is horizontal through ICT sector. It can be integrated into mobile apps, wearable devices, IoT environments, etc.

#### Advantage factor:

VIKI Technology enables the manipulation of knowledge on-the-fly. This means that you can for example create self-learning automata.

#### Commercial challenge:

Actually, we sell the technology worldwide with different license models: SaaS (Software as a Service), on-premises installation, mobile installation.

#### Publications and Customer References:

Wor(I)d Global Network is using VIKI Technology to power Alice, its virtual assistant that is embedded into their smart glasses: https://www.worldgn.com/lumina-glasses/

#### Proposal of cooperation agreement:

Commercial representative.

# **STUDIO AMICA**

via Giordano, 56 | 72025 San Donaci BR | Apulia

Contact: Davide Lolli | App T. +39 083 1635005 | davide.lolli@studioamica.it | www.studioamica.it

### Employees: FROM 3 TO 9 EMPLOYEES

Turnover: From 250.000 to 500.000 Euro Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Innovative SMEs

### Project Proposal DiaRio

#### Description of the innovation project:

Diary operates in the private and public health, with greater accuracy in the field of telemedicine. It 'a product aimed at all diabetic patients and all medical specialists and family doctors a computer application available from PC, smartphone and apple watch. The application allows the diabetic patient to discharge all its physiological data of the disease and make them available in an immediate medical attention that it has itself designated; so your doctor may change during construction patient care or warn of behavior not in line with its condition. The system of reporting is very punctual with the ability to customize graphs and tables.

#### **IP Protection Level:**

The product is finished, editable and can be integrated with other systems; also it is universal with every glucometer. We not have been deposited patents of any kind

#### State of development:

Product

#### Industrial application:

The indication of the industrial product is definitely that of telemedicine; in particular glucose meters and plasterstattoo that detect through contact with the skin all physiological data of the patient

#### Market segment:

- Pharmaceutical industry
- Industries of medical devices
- Patients associations
- Specialized doctor
- Family doctor

#### Advantage factor:

in the field of diabetes product could revolutionary the relationship between doctor and patient, doing live better the condition of the disease not to mention the fact that doctors and patients are constantly connected.

#### Commercial challenge:

the application can be sold exclusively to individual companies, or more companies under license. if the product was purchased by the health ministry you could ask for a yearly fee of entry to all the doctors who use it. the economic benefits are many, unfortunately the sector is really difficult.

#### **Publications and Customer References:**

Actually I relied on my curiosity and previous work experience in the field of medical devices for diabetics. Market surveys have pertato I think that products like this for now there are no commercially.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing, Licensing, Distribution Agreement.

# TOP SYSTEM SCARL

Via Empedocle | 93017 San Cataldo CL | Italy

Contact: Angelo Maurizio Amico | CEO T. +39 0934 569288 | sales@easyschoolsrl.com | www.easyschoolsrl.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: From 250.000 to 750.000 Euro Status: Innovative SMEs

### Project Proposal Easy School

#### Description of the innovation project:

Top System developped a software able to change informatic laboratories into a strong Professional Language laboratory, using standard PC. Easy School Net is a strong educational software able to replace a very expensive Hardware Language Laboratories that actually Companies used to sell. Easy School has a lot of additional application and features, such as Exam Module with multimedial testg, DVR module as multimedial language recorder to compare pronumciation and AV modules to send external sources to different groups into a class or whole School.

#### **IP Protection Level:**

Brand and Logo registered. Marchio e Logo registrati.Patent in the registration phase.

#### State of development:

Product.

#### Industrial application:

Multimedial Educational Net, Language Laboratories for Schools and Public and Private training institutions.

#### Market segment:

Government Agencies , Schools of all levels , public or private universities, training institutions. The sales margin is very high for distributors and agents do not need any advance money.

#### Publications and Customer References:

Since 1998 we have attended the main Exhibitions in the World of IT and educational area such as:

- ▶ SMAU Milan
- ▶ CEBIT: Hannover
- ▶ Germany BETT
- ▶ London WordDidac
- Basel Switzerland WordDidac
- ASIA Bangkok Thailand GESS
- Dubai Vinited Arab Emirates GESS
- Mexico WordDidac
- Astana Kazakistan
- ▶ Feria de Educacio: CHILE EDU
- ▶ Trendy: Warsaw Poland INADIDAC
- Jakarta Indonesia Interdidac
- ▶ LISBONA Portugal GEFF
- ► AMMAN Jordan BETT
- ▶ Meddel East ABU DABI
- United Arab Emirates SUPOERCOMM
- ► Chicago

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing, Distribution Agreement.

### WIB SRL

viale delle Scienze, Ed. 16 | 90128 Palermo PA | Sicily

Contact: Nino Lo Iacono | CEO T. +39 091 6615644 | info@wibmachines.com | www.wibmachines.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 500.000 Euro Export: 200.000 Euro Status: Startup

# Project Proposal WIB MACHINE

#### Description of the innovation project:

WIB represents a new and unique channel of sales for retailers and brands, that combines the e-commerce benefits with the convenience of brick&mortar stores. The solution is based on the integration between a cloud platform and a network of smart, patented, automated stores capable to handle hundreds of goods in any retail segment (Food&Beverage, Tech, Cosmetics & Pharma, Toys, Luxury...). Consumers can buy onsite through the touch screen interface as well as online through the web and mobile e-commerce platform, picking up their purchases conveniently 24/7 at the selected store. WIB enables retailers to increase their physical touch point density, reaching high traffic locations with low investments and operating costs, driving sales across every channel and creating new value from the incredible amount of customers data gathered.

#### Ip Protection Level:

Patents (Inventors : A . Lo Iacono , FM Montagnino , F. Paredes)

N ° VI2013A000214 , " AUTOMATED STORE ", N° VI2013A000210, " MODULES OF MODULAR VENDING MACHINE AND MODULAR VENDING MACHINE ", N° WO2015019377A1 "MODULAR VENDING MACHINE" , N° WO2015019378 "AUTOMATIC WAREHOUSE"

#### State of development:

Product to market. The U.S. market has shown a deep interest for WIB and several units are already installed. GNC, the largest US supplement nutrition chain, is going to test 20 WIB units to sell their products inside gyms and healt clubs. COOP The leading Italian grocery chain, is using WIB stores to satisfy fast moving customers within industrial plants, train stations and exhibition center.

#### Industrial application:

WIB, enables a new channel of sales for the entire Retail industry;

#### Market segments:

The patented handling technology allows the use of this smart automated store, in a wide range of retail market segments such as: food&beverage, tech goods, cosmetics, pharma, toys & baby, apparel accessories and many more. According to INTEL, the Automated Retail is a greenfield market forecasted to grow up to \$40B at 20% CAGR just for the US (a similar trend is expected for the EU). Cisco "Digital Mall" report also estimates a \$7 billion revenue opportunity from unconventional commercial venues that could be exploited through automated retail.

#### Advantage factor:

The WIB solution includes the following key innovations and advantage factors:

- 1. Fully web based and mobile ready with direct advantages for customers and for retailers.
- 2. Basket delivery instead of 1 piece per time, increasing the average receipt and enabling all the marketing strategies;
- 3. Retailers can leverage data gathered by WIB omnichannel stores to improve their offer and boost their sales.
- 4. WIB Italian design, digital signage monitor and smart wi-fi boost brand awareness and customer experience;

#### Commercial challenge:

The channel of sales offered by WIB can be fully exploited within developed markets characterized by a high e-commerce penetration rate and hi-tech consumers.

#### **Publications and Customer References:**

How An Italian Entrepreneur Reinvented His Homeland's Signature Export: The Vending Machine. http://www.forbes.com/sites/alisoncoleman/2014/10/09/how-an-italian-entrepreneur-reinvented-his-homelandssignatureexport-the-vending-machine/ Perspective on Retail Innovation. http://www.cisco.com/web/about/ac79/docs/retail/DigitalMall Deck.pdf

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement, Sub-contracting Agreement.



## XAMA

Via C.Battisti 298 | 70010 Capurso BA | Apulia

Contact: Giovanni Carbonara | CEO T. +39 080 6801006 | info@xama.it | www.xama.it

Employees: MORE THAN 499 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 75.000 to 250.000 Euro Status: Innovative SMEs



eBusiness eXtenders www.xama.it

#### Project Proposal Expocket

#### Description of the innovation project:

Expocket allows you to quickly create and publish content related to an Exhibition, Fair or Event enabling push interaction between visitors and exhibitors with the possibility to exactly locate POI inside the exhibition spaces with geo dynamics maps as well as the exchange of information. There are many useful features: Generic Offers are launched to any visitor; Profiled Offers are directed to specific user profiles or driven by the presence at the Fair or in a specific pavilion; Visitors Check in with QR-Code or NCF (rfid) or iBeacons; Interaction with the surrounding environment using the QR-Code- NCF - iBeacon recognition.

#### **IP Protection Level:**

Not yet achieved.

### State of development:

Product.

#### Industrial application:

- Expositions & Exhibitions
- ▶ Museums
- Stores & Commercial activies

#### Market segment:

Marketing Segment goes from PIM to Big Enterprise, local and central institution.Smart Cities.

#### Advantage factor:

- Indoor localization
- Proximity marketing
- ▶ Pro Active marketing
- Very low costs

#### Commercial challenge:

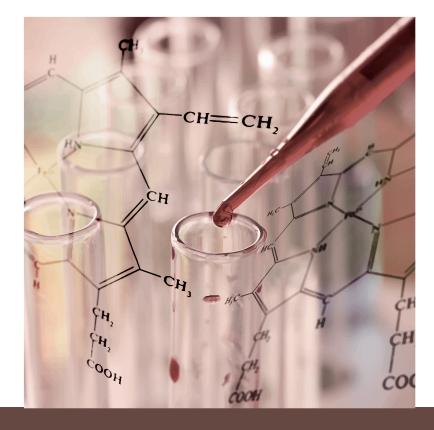
It could help Smart Cities project, Internet of Things project and Marketing activities.

#### **Publications and Customer References:**

http://arxiv.org/abs/1502.05321 http://deepblue.lib.umich.edu/handle/2027.42/111727 http://arxiv.org/abs/1503.07628

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Licensing, Distribution Agreement.



# NANOTECNOLOGY Summary

MEKATRONIKA SRL	89
PLASMAPPS SRL	90
PLASMAPPS SRL	91
TCT SRL	92
JNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO	93

## **MEKATRONIKA SRL**

Via M. Cifarelli, 28/A | 70124 Bari BA | Apulia

Contact: Alessio Lorusso | CEO T. +39 339 3366565 | a.lorusso@roboze.com | roboze.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 250.000 to 500.000 Euro Export: Less than 75.000 Euro Status: N.A.



#### Project Proposal Roboze One

#### Description of the innovation project:

Additive manufacturing is gradually putting in a multitude of industries as a viable alternative to prototype or even micro-production, with the undoubted advantage of reducing the time gap between the idea and its realization, while also allowing SMEs to access Skills and services until now reserved for large multinational companies. Here comes the Roboze idea, innovative apulian startup, which launched on the market, last 17th on March, a new line of professional 3D printers. First model is Roboze One.

#### IP Protection Level:

Professional 3D printer with revolutionary patented mechatronic movement (n. RM2015A000111).

State of development:

Patent.

#### Industrial application:

Additive manufactoring; rapid prototyping.

#### Market segment:

SMEs and professionials.

#### Advantage factor:

One of the problems that users encounter in 3D print is on the dimensional quality and on the printed objects repeatability. Roboze team has found the cause in the movement system of the printers currently on the market that is typically indirect, as entrusted to rubber belts, which by their nature, they can never guarantee positioning accuracy constant and safe over time because subject to expansions and contractions. In Roboze One the mechatronic system of axes is assigned to a pair of helical racks with pinions in direct contact, that said transmission ratio and working tolerance in 50 microns. This ratio not changes over time and ensures precision in the prototyping.

#### Commercial challenge:

Currently there are on the market two types of 3D printers: professional and desktop. Roboze wants to position itself in the middle with an entire new technology that meets, in terms of quality, service and price, SMEs and professionals. Having regard to the current high prices of professional 3D printers, users who need a prototype are forced to avail of the service from third parties, which implies relatively long waiting times and high investments. Roboze One is created to respond to the growing need for professionals, companies, research centers, universities, who need a professional product but with an accessible target price.

#### **Publications and Customer References:**

http://blog.startupitalia.eu/roboze-one-lorusso-bari/;

http://3druck.com/drucker-und-produkte/roboze-one-neuer-fff-3d-drucker-aus-italien-mit-direkter-achsensteuerung-3136861/; https://www.3printr.com/roboze-one-new-italian-fff-3d-printer-without-belts-1630333/;

http://www.tomshw.it/news/roboze-one-e-una-stampante-3d-frutto-del-genio-italiano-65389

http://www.macchineutensilinews.it/2015/04/07/5957/;

http://www.techfromthenet.it/201504091250/Tech-hardware/roboze-one-la-stampante-3d-con-movimentazione-meccatronica.html; http://www.impresoras3d.com/la-compania-italiana-roboze-presenta-su-impresora-3d-roboze-one/; http://3dprint.com/47651/roboze-one-3d-printer/

#### Proposal of cooperation agreement:

Distribution Agreement.

## PLASMAPPS SRL

Via Vigili del Fuoco CS | 70026 Modugno BA | Apulia



Contact: Giovanni Ventola | R&D Manager T. +39 3299394449 | segreteria@plasmapps.com | www.plasmapps.com

Employees: FROM 10 TO 19 EMPLOYEES

Turnover: From 250.000 to 500.000 Euro Export: From 75.000 to 250.000 Euro Status: N.A.

# Project Proposal Application of Cold Plasma Technology for Life Science

#### Description of the innovation project:

Plasmapps offers customized plasma solutions for many biomedical products such as biochips, biosensors, cell culture platforms, medical textiles, bandages, membranes, powders, o-rings, filters, tubes, prostheses, contact lenses etc. Plasmapps provides different plasma treatments for: hemocompatible surfaces, non-fouling surfaces, tissue engineering and cell culture, sterilization, biosensors barrier coating, haemorepellent and stopping bacteria penetration textiles. Plasmapps have developed new strategies for realizing cell based assays, that can combine fouling and unfouling domains for driving the adhesion of cells, proteins, nucleic acids, etc.

#### **IP Protection Level:**

Plasmapps has decided for its industrial strategy to not patent the plasmochemical processes.

#### State of development:

Prototype.

#### Industrial application:

Biomedical Industry and Life Science.

#### Market segment:

This project aims to offer to biomedical industry new methods for surface modification. Thanks to its high eco-sustainability and reduced costs process, the use of this technology makes possible the increase of the competitiveness.

#### Advantage factor:

The Cold Plasma Technology for surface modification of materials offers to the biomedical Industry the possibilities to synthesize new functional surfaces starting form common materials, making them biocompatible, sterilized, antibacterial, etc. The Cold Plasma technology offers a valid alternative to conventional chemistry in the process of surface finishing of materials, with many benefits due to its high eco-sustainability. Plasma chemistry is a "dry and green" chemistry working without solvents and with minimal use of reagents.

#### Commercial challenge:

Plasmapps estimates to increase own turnover offering to the biomedical industry a green processes in compliances with new environmental guidelines.

#### **Publications and Customer References:**

"Advanced Plasma Technology" Edited byRiccardo d'Agostino, Pietro Favia, Yoshinobu Kawai, Hideo Ikegami, Noriyoshi Sato, and Farzaneh Arefi-Khonsari. Wiley-VCH- 2005; "Plasma Processes and Polymers", Edited by Riccardo d'Agostino, P. Favia, C. Oehr and M. R. Wertheimer.

#### Proposal of cooperation agreement:

commercial contract, joint venture.

# PLASMAPPS SRL

Via Vigili del Fuoco CS | 70026 Modugno BA | Apulia



**Contact:** Giovanni Ventola | R&D Manager **T.** +39 329 9394449 | segreteria@plasmapps.com | www.plasmapps.com

Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 250.000 to 500.000 Euro Export: From 75.000 to 250.000 Euro Status: N.A.

#### Project Proposal Application of Cold Plasma Technology for surface modification of Rubber

#### Description of the innovation project:

Plasmapps has developed several successful processes on rubber such as MODULATION OF FRICTION COEFFICIENT (process able to adjust friction coefficient of the rubber with high accuracy); ANTISTICKING (this treatment makes easier the handling of rubber gaskets subject to sticking); ANTI-LIMESTONE (process able to prevent the adhesion of limestone, organic and inorganic substances on the surface of rubber); CORROSION PROTECTION (plasmapps has successfully developed a plasma process for protecting rubber gaskets from corrosive substances attacks); SURFACE ACTIVATION (plasma process for activating rubber items for improving their adhesion to varnish, glue, poliurethanes, etc).

#### **IP Protection Level:**

Plasmapps has decided for its industrial strategy to not patent the plasmochemical processes.

State of development:

Prototype.

#### Industrial application:

Automotive, Biomedical, Mechanics, Hydraulic Industry.

#### Market segment:

This project aims to offer to rubber industry new methods for surface modification. Thanks to its high ecosustainability and reduced costs process, the use of this technology makes possible the increase of the competitiveness.

#### Advantage factor:

The Cold Plasma Technology for surface modification of Rubber offers to the automotive, aerospace, biomedical and hydraulic Industry the possibilities to synthesize new functional surfaces starting form common materials, then it becomes possible to impart to them new surface properties and better performances. The Cold Plasma technology offers a valid alternative to conventional chemistry in the process of surface finishing of materials, with many benefits due to its high eco-sustainability. Plasma chemistry is a "dry and green" chemistry working without solvents and with minimal use of reagents.

#### Commercial challenge:

Plasmapps estimates to increase own turnover offering to the rubber industry a green processes in compliances with new environmental guidelines.

#### **Publications and Customer References:**

"Advanced Plasma Technology" Edited byRiccardo d'Agostino, Pietro Favia, Yoshinobu Kawai, Hideo Ikegami, Noriyoshi Sato, and Farzaneh Arefi-Khonsari. Wiley-VCH- 2005; "Plasma Processes and Polymers", Edited by Riccardo d'Agostino, P. Favia, C. Oehr and M. R. Wertheimer.

#### Proposal of cooperation agreement:

Commercial Contract, Joint venture.

## TCT SRL

Via per Pandi 3 | 72100 Brindisi BR | Apulia



Contact: Francesco Micali | R&D Manager T. +39 083 1574272 | nanotech@tctsrsl.it | www.nanotech.tctsrl.it

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: From 250.000 to 750.000 Euro Status: N.A.

#### Project Proposal Nanomaterials for Energy

#### Description of the innovation project:

The Nanofluid developed and formulated by TCT is characterized by high heat transfer capability and suspension stability. It is made of a suspension of Water or Glycol and nanoparticles with optimized Morphology, Chrystal phase, Size and volume concentration. Furthermore TCT develop and produces nanoparticles like nanoparticles of Alumina alfa, Zinc Oxide, Titanium Oxide Anatasium, Cerium Oxide, CuO in order to increase anticorrosive, biocide, thermo conductive, photo catalytic and thermo catalytic properties of the reference materials.

#### **IP Protection Level:**

TCT developed and patented 3 inventions. The patent WO2013061343 relates to the innovative process of metal oxide nanoparticles. The patents WO2014178087 and WO2014178086 relate to the formulation of the nanofluid for thermal plant energy efficiency and for engine cooling aiming to the energy savings.

#### State of development:

Product.

#### Industrial application:

Applications of the our product Heat Transfer Nanonfluid are : thermal systems , heat exchangers, Cooling system, industrial and Civil Heating System. Our solution can be retrofitted in existed thermal system thanks to our solution HTF COMPACT that is a concentrate additive to be fed into the running system or it can be used to reduce heat exchanger size keeping high the transferred thermal power. Nanoparticles of Alumina alfa , Zinc Oxide, Titanium Oxide Anatasium, Cerium Oxide, CuO in order to increase anticorrosive, biocide, thermo conductive, photo catalytic and thermo catalytic properties of the reference materials.

#### Market segment:

The Heat Transfer Nanofluid is an innovative products to be used for Energy Efficiency of thermal power plant. In particular the estimated energy savings related to the use of the nanofluid is about 10%. Furthermore the nanoparticles are useful n development of innovative nanomaterials and can be used in Green Buildings engineering, coatings, glass technology, Ceramics and Insulation of electrical cables.

#### Advantage factor:

The nanofluid developed and produced by TCT is made of nanoparticles of metal oxide. its nanoparticles concentration increase the thermal conductivity coefficient of the fluid. Nanoparticles are stable in the fluid in fact it is formulated to keep the suspension stable over the time. It is retrofitting solution due to the super-concentrated suspension that then is diluted in the thermal fluid that is required to increase the heat transfer capability. The formulation of the nanofluid is able to generate a fluid with higher heat transfer capacity than traditional thermal fluids so it is very convenient to increase the thermal plant efficiency.

#### Commercial challenge:

TCT aims to distribute the Heat Transfer nanofluid and the particles in USA, EU market. The scope of that project is to established a business relationship with companies in USA and EU interested in innovative products for Energy Efficiency. Successful commercial activities would lead TCT to invest in Brindisi (Italy), 4.5 Milions of US Dollars to build a suitable production plant to satisfy the already established sales agreement. Furthermore in the next future other researchers will be employed to proceed with the investigations and product development of innovative nanomaterials.

#### **Publications and Customer References:**

Technical-scientific Poster describing tests and results on technology in terms of applications of heat transfer nanofluid for thermal plant was presented at the Tech Connect World Conference on Nanotechnology for Energy Savings in Washington DC on June 2015.

#### Proposal of cooperation agreement:

Commercial representative.

### UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO



Piazza Umberto I, 1 | 70121 Bari BA | Apulia

Contact: Gianluigi de Gennaro | Delegato T. +39 080 5714200 | segreteria@rettorato.uniba.it | www.uniba.it

Employees: MORE THAN 499 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 75.000 to 250.000 Euro Status: Research centers, Universities

### Project Proposal "Athlon Hunters": first Roguelike Online Battle Arena (R.O.B.A) videogame with Virtual Reality (VR)

#### Description of the innovation project:

The project aim is to develop the first R.O.B.A videogame which adds support to VR for competitive purposes. The idea is to merge the strong points of the main competitors's games in order to create something that can become the next-gen competitive videogame on the scene due to the use of the new virtual reality technology. The business model is the "free-to-play" one: the game is actually free to download, install and play, but users can buy particular skins/costumes for their characters, boosts for their accounts and so on using a virtual currency which can be recharged online with real currency.

#### **IP Protection Level:**

The project and all its assets are protected by the industrial secret.

#### State of development:

Prototype.

#### Industrial application:

Digital entertainment B2C, e-sports. The nature of the game is stricly competitive, and this means that it is a perfect candidate for the e-sports world.

#### Market segment:

PC/MMO Games (about 880 Millions player in early 2015, source here). Considering the competitors and how this market is divided among them, we estimate that a successfull project may catch about 36 Millions of player in the first 2 years, with a 144Millions / Year revenue.

#### Advantage factor:

Use of virtual reality in a competitive videogaming scenario. This has never happened before.

#### Commercial challenge:

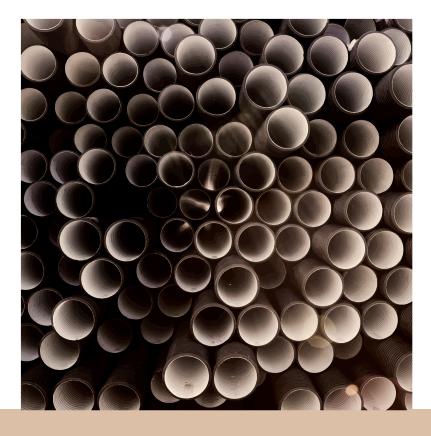
The main competitive advantages are given by the use of optional VR and by the genre, which differs from the mainstream videogames genres in this market. Also, the fact that users can be rewarded for submitting assets that others would probably buy allows for fast evolution of the game itself.

#### **Publications and Customer References:**

The project has been developed with the help of the University of Bari and has been funded by Microsoft's Bizspark Program. It also received an award by DPixel in the "Startup Revolutionary Road" Techgarage competition at Giffoni Film Festival (July 2015) and won the 2nd award in Bari's Startup Weekend (November 2015).

#### Proposal of cooperation agreement:

Venture capital financing.



# **NEW MATERIALS** Summary

GAETANO LIBRACE	
	00
NOVOTECH SRL	

## FARMALABOR SRL

via Oberdan 52 | 76012 Canosa di Apulia BT | Apulia

Farmacisti Associati

Contact: Flavia la Forgia | R&D Manager T. +39 088 3611301 | media@farmalabor.it | www.farmalabor.it

Employees: FROM 50 TO 99 EMPLOYEES Turnover: From 5 to 15 million Euro Export: From 250.000 to 750.000 Euro Status: Innovative SMEs

#### Project Proposal Aloplus

#### Description of the innovation project:

Aloplus<sup>®</sup> is a mixture consisting of hydroxypropyl beta - cyclodextrin (HP -  $\beta$  - CD) and sodium alginate. By using Aloplus<sup>®</sup>, it is possible to produce completely aqueous formulations of Minoxidil, which is an effective vasodilator primarily used for the hair loss (androgenic alopecia) treatment. These new formulations (liquid solutions, fluids or gels) have a comfortable texture and a suitable pH for the scalp. The effectiveness of Aloplus<sup>®</sup> comes from cyclodextrins, which are simple sugar molecules with high solubilizing power. The result is an effective, high-tolerance and easy-to-prepare hair loss product.

#### **IP Protection Level:**

Aloplus®' status is "patent pending". The patent request nr MI2014A001770 has been filed on October 9 2014.

**State of development:** Product.

#### Industrial application:

The product can be used by compounding pharmacists or pharmaceutical companies for producing completely aqueous Minoxidil formulations (lotions, gels, foams etc.) for hair loss treatment. It allows them to avoid the side effects of hair loss products currently on sale.

#### Market segment:

The compounding sector is a niche market experiencing a significant international growth, because it allows pharmacists to produce customized drugs in terms of form and dosage, alongside traditional drugs. In particular, according to Google Trends, the volume of international online research of "Minoxidil" is constantly growing: from 71/100 on June 2014 to 97/100 on August 2015, with a huge concentration in Latin America. Another useful element for quantifying market dimension is the incidence of androgenic alopecia, affecting more than 50 % of adult men (according to SITRI, Italian Society of Thricology).

#### Advantage factor:

Because of the low water solubility of Minoxidil, current formulations contain high percentages of solvents (such as ethanol) and co-solvents (such as propylene glycol). There are several disadvantages of using these formulations: 1) serious side effects (irritation, redness, itching, allergic contact dermatitis); 2) residues on the scalp (due to the presence of propylene glycol); 3) incomplete solubilization of the active ingredient (which can precipitate, forming crystals) and reduction of its bioavailability. The innovative system Aloplus® fix them all: it could be the base for hair loss products that are comfortable in terms of texture but, above all, able to preserve skin structure.

#### Commercial challenge:

The main goals related to the launch of Aloplus<sup>®</sup> are reinforcing its presence in the European markets with highest per capita income and, most of all, in Brazilian, Arab and U.S. markets.

#### **Publications and Customer References:**

The University of Bari is undertaking research projects on Aloplus<sup>®</sup> effectiveness. In particular, current studies show that it is possible to produce Minoxidil foams without surfactants, ethanol nor propylene glycol, ensuring high stability and pleasantness. Furthermore, our laboratories have shown that Aloplus<sup>®</sup> performance is not affected by using hormones with a synergistic effects (such as 17 alpha estradiol 0.06%, hydrocortisone butyrate 0.1% and melatonin 0.2%).

#### Proposal of cooperation agreement:

Commercial representative, Distribution Agreement, Direct purchasing to pharmaceutical companies.

# GAETANO LIBRACE

Via XXI Luglio, 33 | 81037 Sessa Aurunca CE | Campania



na XXI Euglio, 55 | 01057 Sessa Autorica CE | Campania

Contact: Dott. Gaetano Librace | President T. +39 082 31840234 | multipointstore@gmail.com | www.lecartucce.com

#### Employees: SINGLE USER

Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal Dindon

#### Description of the innovation project:

Solar powered baby carriage thermal blanket. The thermal blanket system is based on electrical resistors, a series of strips of soft solar panels, an electrical/electronic circuit for thermoregulation ad charging, and energy accumulators, as supercapacitors. The benefit of using a supercapacitor is that it charges with very little power and takes a long time to discharge. All specifications are available in the utility model.

#### **IP Protection Level:**

Utility model 7/2013 (CE2013000007).

### State of development:

Patent.

#### Industrial application:

Equipment and linens for children and disabled people.

#### Market segment:

Sector: equipment and linens for children and disabled people. Commercial value: to be estimated with potential partners Economic return: several millions of euros.

#### Advantage factor:

The blanket has a number of advantages. Mainly: 1) Portability: It's possible to use outdoors and indoors. 2) Versatile use: can be used both on a wheelchair for people with disabilities, and children (baby carriages, strollers, baby carrier, etc.). 3) Versatility in charge: it's rechargeable by solar cells in an open environment and indoors as houses and cars. 4) Production on a large scale, using construction materials easily available on the market of components.

#### Commercial challenge:

The product is arising interest, especially in relation to climate change that we are experiencing and the ability to give to those who use a product that makes it independent of certain atmospheric conditions. With careful construction and marketing, the company added value could be substantial.

#### **Publications and Customer References:**

Publications do not already have been done, for reasons of confidentiality before the development of the prototype. Surveys have been made to potential customers interested in buying the finished product, but informally, given the unavailability of the prototype.

#### Proposal of cooperation agreement:

Know how transfer or licensing.

# **GEMANCODESIGN SRL**

Via delle dalie, 1 | 70026 Modugno BA | Apulia

Contact: Nicola Rubino | Manager T. +39 080 5315701 | info@gemancodesign.it | www.gemancodesign.it

#### Employees: FROM 3 TO 9 EMPLOYEES

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Startup

#### Project Proposal Wall Experience Technology

#### Description of the innovation project:

Our tiles are decorated with the inkjet technique according to specific patterns requested by the customers. We give the opportunity to turn decorative fire-resistant resin tiles into scented tiles, heat up tiles, photovoltaic tiles and thermochromatic tiles. Basically on the normal fire-resistant tile we are going to apply polymer layers. This polymer allows the production of tiles which can heat up and which can be use for the coating of bathrooms, swimming pools and bath tubs between others. The photovoltaic tiles will allow to power small electronic components or LED. The realization of thermochromatic tiles will allow to vary the color of the tile to the touch thanks to the use of Arduino's devices.

#### **IP Protection Level:**

Our company is testing the fusion between two different technologies: fire-resistant scented resin tiles together with polymers changing color when exposed to light. In particular photovoltaic polymers and resistive polymers. The prototype has just been completed, the patent will be deposited by the beginning of 2016.

#### State of development:

Prototype.

#### Industrial application:

The industry practice is ICT and new materials.

#### Market segment:

The product will be sold as decorative material for homes, offices, hotels, restaurants, swimming pools, undergrounds. Currently the tiles are sold from 100 to 200 Euros per square meter, depending on the shape. The introduction of photovoltaic technology will increase the price per square meter of the 50% while the thermochromic technology will mean a price increase of the 20%, resistive technology of the 25%. The actual return is 30%, and promises to maintain the same economic performances.

#### Advantage factor:

Thanks to their lightness, resin-made mosaics can be shipped internationally by air and delivered in three days. This is a major innovation. Moreover the introduction of photovoltaics both indoors and outdoors, would be very exclusive and would lower the cost of existing silicon photovoltaic cells, with a plus: the introduction of decoration. Thermochromic tiles, will allow to change the wall color through a mobile app, personalizing environments according to moods and events. This could be, for example, also a supportive treatment for the rehabilitation of patients with Alzheimer disease. Resistive tiles would guarantee low heat consumption in bathrooms and swimmingpools.

#### Commercial challenge:

This product is unique in the world. The tiles would be sold around the world without competitors.

#### **Publications and Customer References:**

The company has signed a technological development agreement with the Technical University of Milan and IIT (Italian Institute of Technology). The studies are being conducted by a team from the IIT of Milan and are protected by a confidentiality agreement for a period of one year.

#### Proposal of cooperation agreement:

Commercial representative, Licensing, Distribution Agreement, Sub-contracting Agreement.



## **IMAST SCARL**

Piazza Bovio 22 | 80133 Napoli NA | Campania

**Contact:** Evelina Milella | President **T.** +39 081 5519586 | segreteria@imast.it | www.imast.biz

Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro

### **Project Proposal**

# Polymeric composite laminates with improved vibro-acoustic and impact resistance properties

#### Description of the innovation project:

Vibro-acoustic performance and damping properties of composite panels are very important issues of aeronautics and transportation sectors, where use of polymeric materials have to meet the safety requirements and to ensure the comfort of the passenger. In this proposal, the multifunctional composite are realized by laminating fiber reinforced polymer and viscoelastic layer (for example elastomeric polymers) co-cured together with the other layers. The viscoelastic layer is able to absorb and dissipate the vibroacoustic and impact energies, thus improving the performance of the composite systems in terms of vibration and impact resistance.

#### **IP Protection Level:**

The research activities on composite laminates, with viscoelastic layer and improved vibroacustic and impact resistance, produced a patent (MI2009A001537 - 04/09/2009). The noise and vibration reduction in structural elements, is carried out by means of structural design (structural modifications or applying sound-absorbing materials) and active techniques, such as the destructive interference with a secondary acoustic field. Furthermore, passive systems are also used to improve the impact resistance of composite panels. The proposed solution allows to obtain a multifunctional composite element with structural, vibroacustic and impact resistance performances.

#### State of development:

Prototype.

#### Industrial application:

Aeronautic, automotive, railway.

#### Market segment:

The main markets are the aerospace, automotive and railway, where multi-functional composite panels with improved vibroacustic and impact performances, can be applied to carbody and interiors. In particular, in the automotive market this solution could be applied to millions of cars.

#### Advantage factor:

The research activities on composite laminates, with viscoelastic layer and improved vibroacustic and impact resistance, produced a patent (MI2009A001537 - 04/09/2009) and granted the Special Prize Alenia Innovation 2010 for the high level of cooperation between enterprises, universities and research institutes.

#### Commercial challenge:

The multi-functional structures with increased damping properties would avoid the use of additional components to the structural panels. In this way it's possible to reduce the final weight of the components. This goal it's very important for the transport sector, in order to reduce fuel consumption and pollutants emissions reducing.

#### **Publications and Customer References:**

- Impact behaviour of damped composite, C. Toscano, F. Lenzi, 7th Euromech Solid Mechanics Conference, 2009, Lisbon, Portugal
- Design and testing of an Active Constrained Layer Damping demonstrator for aircraft's cabin noise reduction, A. Vigliotti, A. Sorrentino, Internoise 2009, 2009, Ottawa, Canada.

#### Proposal of cooperation agreement:

Know how transfer.

# **IMAST SCARL**

Piazza Bovio 22 | 80133 Napoli NA | Campania

Contact: Evelina Milella | President T. +39 081 5519586 | segreteria@imast.it | www.imast.biz

Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro

#### **Project Proposal**

# Innovative fire reaction test to investigate the fire behaviours of materials under fire conditions

#### Description of the innovation project:

The matrices of composites are potentially flammable and can be damaged in case of fire. Fire resistance tests in small/medium scale and thermo-mechanical modelling activities allow identifying the materials performances in fire scenario. IMAST is able to offer an integrated experimental approach (flammability, flame propagation, analysis of the smokes density and toxicity). Predictive modelling, of the structures in fire scenario, allows identifying the solutions to increase the fire resistance of materials. IMAST fire laboratory has numerous and versatile equipments and the activities are focused on the design of new testing procedures and to meet new regulatory criteria.

#### **IP Protection Level:**

No patent application has been filed, but the numerous and versatile equipments, of IMAST laboratory, are capable to perform tests specially designed by customer requests.

#### State of development:

Prototype.

#### Industrial application:

Aerospace, aeronautic, shipbuilding, automotive, railway, electrical, construction, textile.

#### Market segment:

In the industrial sectors, the area of application is referred both to materials and structures for indoor and outdoor.

#### Advantage factor:

IMAST, through the activities of the fire laboratory, has participated in research and development research projects both nationally (DL297, PON) and internationally (JTI - Clean Sky).

#### Commercial challenge:

New testing procedures may support the materials qualification in different industrial sector. Moreover, the know-how in development of new composites materials with increased fire resistance can be transferred to those companies (eg SMEs) that realize polymeric components.

#### **Publications and Customer References:**

- ▶ P. Vollaro, E. Milella, M. Martone, G. Camino, A. Fina "Intumescent Coatings For Protection Of Composites For Aircraft Application" ECCM16, Seville, Spain, 22-26 June 2014
- P. Vollaro, M. Modica, A. G. Gibson "Thermal Diffusivity Measurements On Fibre Reinforced Polymer Through The Step Change Technique" ECCM16, Seville, Spain, 22-26 June 2014
- ▶ P. Vollaro, E. Milella, G. Camino "Comprehensive Methodology to assess the flammability of composites to be used for railcar applications" ECCM15, Lido di Venezia, 26 Giugno 2012
- P. Vollaro, E. Milella, M. Martone, G. Camino, "Flammability assessment for novel composite materials for use in Future Aircraft", ECCM15, Lido di Venezia, 26 Giugno 2012

#### Proposal of cooperation agreement:

Know how transfer.



# **NOVOTECH SRL**

Via Costanzi 3 | 74024 Manduria TA | Apulia

Contact: Leonardo Lecce | President T. +39 081 2392156 | laura.lecce@novotech.it | www.novotech.it

Employees: FROM 10 TO 19 EMPLOYEES

Turnover: From 500.000 to 2.5 million Euro Export: From 250.000 to 750.000 Euro Status: N.A.

### Project Proposal Design and manufacturing of composite materials

NOVOTECH

ADVANCED AFROSPACE TECHNOLOGY

#### Description of the innovation project:

> Production of a standard sandwich-structured composite with AFP procedure

- ► OOA Acceptance with AFP machine
- Productivity Test Lamination of flat panels
- Productivity Test Lamination of stringers for fuselage
- Productivity Test Lamination of windows frame

#### **IP Protection Level:**

There is still no patent or patent filing activities. Novotech srl investigate and characterize innovative configuration and processing of CFRP multi-layer materials, necessary to perform experimental activities to manufacture components with automated technology.

#### State of development:

Prototype.

#### Industrial application:

Industrial engineering and aerospace.

#### Market segment:

In the light of the multiplicity of potential applications, the composite materials performing the technical point of view and aesthetically appealing make the end product particularly attractive for the industrial world in general.

#### Advantage factor:

Today, metallic structures are being replaced by composites for vehicle weight reduction and resultant fuel savings. The costs of composite components have to be reduced down to the level known from conventional metal structures. This can only be achieved through changes in materials and manufacturing processes.

#### Commercial challenge:

Novotech LTDIt aims to become a reference point on the Italian territory, at the level of SMEs, for developing and implementing advanced technology and efficient systems within the automated production of composite components. From this cell fiber placement robot already available at the facility Apulia is a great start to overcome what are currently the main needs not only in the aerospace industry, namely:- Reduce waste materials <4%; - Use low-cost materials and low environmental impact; - Complex shapes and variable thickness; - Optimize the strategy of fiber deposition by application requirements; - High production rates.

#### Publications and Customer References:

IAPD.(2010) Thermoplastic Composites for Aerospace. The IAPD Magazine . S.Beland, High Perfomance Thermoplastic Resins and their composites: Noyes Data Corp., 1990. K.E.Tessnow, J.G.Hutchins, D.G.Carlson, and M.J.Pasanen, "Low Cost Thermoplastic Elicopter tailboom development" 1994.

#### Proposal of cooperation agreement:

Venture capital financing.

## UNIVERSITÀ DEGLI STUDI DI BARI ALDO MORO



Piazza Umberto I, 1 | 70121 BARI BA | Apulia

Contact: Gianluigi de Gennaro | Project Manager T. +39 080 5714200 | segreteria@rettorato.uniba.it | www.uniba.it

Employees: MORE THAN 499 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 75.000 to 250.000 Euro Status: Research centers, Universities

### **Project Proposal**

### **Evaluation of Volatile Organic Compounds (VOCs)** emissions from materials and consumer products

#### Description of the innovation project:

The project proposal aims to investigate VOCs emission from materials and consumer products through the development of innovative methodological approaches. The achievement of the project's objectives will allow to develop a database regarding the materials'/products' composition, with a focus on pattern of emitted pollutants and the associated risk with the inhalation exposure.

#### **IP Protection Level:**

Characterization of VOCs emission from both materials and consumer products and the evaluation of the potential impact on human health will be performed applying a methodological approach developed on the basis of established European standards. The methodology applied by the research group is not patented but is proposed as a useful service for public and private companies of the territory interested in the innovation of processes and products.

#### State of development:

Service.

#### Industrial application:

The aim is the identification of indicators and quality criteria for the certification of materials in terms of eco compatibility and low emission of VOCs. The know-how gained during the project could be enhanced and transferred to private companies through targeted consulting services aimed at promoting the development of materials and products with low VOCs emission, safer for both human health and environment.

#### Market segment:

The marketing segment is the industrial sector involved in the production of building materials and, more generally, of consumer products. European regulations on the subject of classification and valorisation of materials and systems for sustainable construction may become a reference for manufacturers to fulfill requirements for certification and distribution of high value materials and products on national and international market.

#### Advantage factor:

Research group coordinated by Dr. de Gennaro established, over the past years, profitable collaborations with national and international research groups involved in the research field of indoor air quality and emissions from materials and consumer products. More specifically: National Institute of Health (Rome); National Research Centre for the Working Environment (Copenhagen, Denmark).

#### Commercial challenge:

Collaborations with private companies involved in the production of materials will allow technological innovation resulting in materials and products with an added value, in terms of safer chemical composition and reduced adverse effects on human health and environment. The identification of quality criteria will stimulate manufacturers to diversify and enhance their product through labelling and certification allowing consumers to be guided in the selection of the products.

#### **Publications and Customer References:**

- G. de Gennaro, A. Demarinis Loiotile, R. Fracchiolla, J. Palmisani, M. R. Saracino, M. Tutino - Temporal variation of VOC emission from solvent and water based wood stains. Atmospheric Environment, 2015. DOI: 10.1016/j. atmosenv.2015.04.021 - M. Brattoli, E. Cisternino, G. de Gennaro, P. Giungato, A. Mazzone, J. Palmisani, M. Tutino Gas Chromatography Analysis with Olfactometric Detection (GC-O): an Innovative Approach for Chemical Characterization of Odor Active Volatile Organic Compounds (VOCs) emitted from a Consumer Product. Chemical Engineering Transactions, Special Issue 40: 121-126, 2014. ISSN: 2283-9216. - G. de Gennaro, P. R. Dambruoso, A. Demarinis Loiotile, A. Di Gilio, P. Giungato, M. Tutino, A. Marzocca, A. Mazzone, J. Palmisani, F. Porcelli - Indoor air quality in schools (Review). Environmental Chemistry Letters, 12 (4): 467-482, 2014. ISSN: 1610-3653. - J. Palmisani, M. Brattoli, G. de Gennaro, P. Giungato, F. Massari, A. Mazzone, M. Tutino - Valutazione della emissione di Composti Organici Volatili (COV) e odori da un prodotto di consumo. GREEN ECONOMY: RICERCA, INNOVAZIONE E AZIONI NEL MEDITERRANEO pp. 497-503, MAGGIOLI EDITORE, 2014. ISBN: 9788891608505. - P. R. Dambruoso, G. de Gennaro, A. Demarinis Loiotile, A. Di Gilio, P. Giungato, A. Marzocca, A. Mazzone, J. Palmisani, F. Porcelli, M. Tutino - School Air Quality: Pollutants, Monitoring and Toxicity. Pollutant Diseases, Remediation and Recycling. Environmental Chemistry for a Sustainable World Volume 4, pp 1-44, 2013. DOI 10.1007/978-3-319-02387-8\_1.

#### Proposal of cooperation agreement:

International collaboration.



# **RENEWABLE ENERGY** Summary

ASEPA ENERGY SRL	107
ASEPA ENERGY SRL	108
C.D.B. SRL	109
GECO (GLOBAL ENGINEERING CONSTRUCTIONS) SRL	110
TENERE SRLS	
RENOVATIO	
BSKIN. SMART BUILDING SKIN SRL	
ELFORM NEW GENERATION SRL	114
ERA SRL	115
OPVIEW SRL START UP INNOVATIVA	116

# ASEPA ENERGY SRL

Viale Degli Ulivi S.n. | 74020 Montemesola TA | Apulia

Contact: Sergio Strazzella | CEO T. +39 348 8118421 | s.strazzella@asepaenergy.it | www.asepaenergy.it



Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: From 75.000 to 250.000 Euro

**Status:** Innovative SMEs

### Project Proposal Solar fertigation System

#### Description of the innovation project:

The system allows to fertilize and irrigate farmland in the absence of connection to the electrical grid. It is composed by: containers, drawers of dosing auger for powder fertilizer, container for the solution, hydraulic system with electric pump, collectors and solenoid valves controlled electrically, photovoltaic system with solar panels positioned on the roof, storage batteries, electrical panel with charge controller, inverter and plc automation, control systems able to record the input data received from the sensors, to elaborate and to implement the fertigation with the correct dosing the fertilizer and open the solenoid of the line corresponding to the area that need to be irrigated.

#### **IP Protection Level:**

In March 2015 the company has submitted an application for obtaining the National Patent related to an industrial invention (n. 102015000011824) for the protection of an integrated system; to date the above application has passed the stage of assessment of the National Office IPTO and it is under evaluation for achieve the search report.

#### State of development:

Prototype.

#### Industrial application:

The target sectors are essentially three: Agriculture sector focusing in particular on innovative field, with a focus on reduction of water and fertilizer consumption; the sector of the beautification of public entities for the enhancement and beautification of the streets and public parks; the sector of beautification of private companies related to the tourism and accommodation, resort and luxury hotel and the sports and leisure activities such as golf courses.

#### Market segment:

Consumption of primary food and energy will increase exponentially over the years, the interest in this market is especially for innovative farms who intend to diversify and enrich their crops. The estimated costs for the modular system proposed it's up to 15-20k € for 5-10 hectares against costs of 7-12k € to buy a traditional fertigation systems to which should be added the costs of grid connection around of 1-5k € and the annual energy costs or the cost of a photovoltaic system for about 7-10k € for 3kWp. Traditional solutions do not consider the integration of systems and require development for any application that would greatly increase the costs of installation and management.

#### Advantage factor:

Today the systems present on the market are divided into two: electrical generation and fertigation system. It follows a series of irrigation and fertilization programs that do not consider promptly the actual environmental conditions; the system that is proposed, instead, integrates into a single process the generation of energy and the fertigation system, optimizing both phases. At the present the first prototypes have been built and are undergoing testing and validation.

#### Commercial challenge:

The system is designed to be controlled remotely by internet and it is under development to test and develop a database that on the basis of the type of soil, crop and growth stage optimizes the daily consumption of water and fertilizer, in environmental conditions detected by sensors and basing on the simple principle: + sun + water = -waste. The system could be an added value in the territories where they are available vast areas of land currently unused such as some emerging market as, B.R.I.C.S, Turkey and the Middle East but also developed countries with vast territories such as US, Canada and Australia.

#### **Publications and Customer References:**

The company has obtained funding for a Marketing planning for the commercial expansion in the UNITED ARAB EMIRATES. The project won "MIMPRENDO Italy 2015". The study focused on the innovative design of the system and evaluate opportunities for market penetration in countries known as B.R.I.C.S.T. The project won also "Young Innovators inside Company", for the development of a digital platform of system.

#### Proposal of cooperation agreement:

Venture capital financing.

# ASEPA ENERGY SRL

Viale Degli Ulivi S.N. | 74020 Montemesola TA | Apulia

Contact: Sergio Strazzella | CEO T. +39 348 8118421 | s.strazzella@asepaenergy.it | www.asepaenergy.it



Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: From 75.000 to 250.000 Euro Status: Innovative SMEs

### Project Proposal Inovative biogas organic waste system

#### Description of the innovation project:

The innovative application of the proposed plant refers to the recovery of urban organic waste. The system combines an integrated cycle composed of several steps: from the phase of arrival, in which will be carried out the opening of the sack, sorting, shredding, dilution, homogenisation and pumping, until the next stage of the anaerobic fermentation in innovative digester with production of biogas to be used for energy purposes; the system will incorporate the following phases of aerobic composting by the innovative solar composter, stabilization and final screening, to get to the end of its organic amender under the EC Regulation of 2003.

#### **IP Protection Level:**

The study of system begins with a project for Technology transfer ended in November 2014, co-funded by several European Funds. The company has filed two innovation Patents: a single digester with innovative dual-stage concentric ring for double-stage fermentation (Patent application n.102015000013115), an innovative system which uses solar heating (Patent application n.102015000020445).

# State of development: Model.

#### Industrial application:

The reference sector is defined by the Directive 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL that has established in at least 50% by 2020 and to 70% in 2030, by weight, the Urban waste to be recycled. With a quantity of Municipal waste produced in Europe of 250 million (Eurostat sources) of which between 35% and 40% organic fraction (between 90 and 100 million tons) the plants required to realize should be several thousand.

#### Market segment:

The plant is targeted to public or private managers that are in charge of waste collection and disposal services. The proposed plant will be of small size in order to address at catchment areas in a range of action of 30 km. It will also be proposed to the managers of existing plants for improving competitiveness for waste treatment (traditional composting, landfills). The investment for a plant by 10,000 tons will be around  $\notin$  3,000,000.00. The estimated time of return of investment will be around 6 years.

#### Advantage factor:

The innovation of the system will be the integration of the treatment process of Urban organic waste. The phases of pre-selection, anaerobic and aerobic fermentation, maturation and final screening will be integrated and harmonized. Other innovative aspects are the application of the cycle to installations with reduced treatment capacity per year of waste (with 10,000 - 30,000 Tons for a catchment areas of 60000-200000 inhabitants) for limited area of harvesting. Technical innovative aspects are the widespread use of an automated management process (manageable from 3 to 12 units) and two patents: the innovative digester and the Solar compost tank.

#### Commercial challenge:

Through this project, the company intends to propose small and medium-sized industrial plants, for the waste sector booming, presenting itself as a system integrator, integrating design, construction of the civil parties, hydraulic systems, metallic carpentry and mechanical parts.

#### Publications and Customer References:

Final report to the regional authority for public innovation of Technology transfer project (co-funded by European contribution on PO Apulia Region 2007-2013 ERDF Convergence Objective AXIS I - Intervention 1.1 - Action 1.1.2.). Presentation of the project at the first edition of BIAT in Naples 10-12 December 2014 and in a conference for local investors. The company has applied for n. 2 Italian patents: - Patent application n. 102015000013115 del 04.24.2015), innovative single digester with dual-stage concentric ring for double-stage fermentation; - Patent application n. 102015000020445 del 06.04.2015 innovative system which uses solar heating.

#### Proposal of cooperation agreement:

Venture capital financing.

## C.D.B. SRL

Loc. Taverna Annibale | 83040 Frigento AV | Campania

CENTRO DIAGNOSTICO BARONIA S.R.L.

Contact: RENATO CIAMPA | CEO T. +39 0825 784221 | info@cdbaronia.it | www.cdbaronia.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### Project Proposal Study and experimentation for the production of linearized electricity from heterogeneous biomass

#### Description of the innovation project:

The aim of this research project is studying a new approach to the use of standard components to implement a new technique of the following elements' use: A. pyrogasification system solid/gas; B. system of cremation and pyrogasification cream/gas or emulsion/gas or organic liquid/gas; C. innovative dialysis system of filtration/ homogenization; D. conversion system of biomass homogenized endothermic engine-alternator; E. monitoring and automation systems; F. calibrated load tests. The main innovation is to experiment with the use of heterogeneous biomass through the combined use of the two systems as indicated to in points A and B for the power supply joint of the endothermic engine. This new process of combustion by elettrogenerators will have to be continuously monitored and governed in feedback with an automated control system, from which it will be realized an experimental prototype, that will optimize the exploitation in cogeneration generating a predictability management curve facilitating the international spread of the achieved industrial results.

#### **IP Protection Level:**

At the moment there is no patent application filed. The results reached by this project proposal will be protected by the rights of industrial property.

#### State of development:

Concept.

#### Industrial application:

The innovations introduced by this project affect companies in the field of micro cogeneration in the network allowing them to become competitive. Processes pyrogasification will be able to produce electricity and, where it needs, even the heat energy. The widespread installation of micro generators encourages the energy distribution in the country by balancing the national energy network and promoting self-sustaining energy. Therefore, the production of such a product on the market would increase the competitive capacity of the entire production, lowering operating costs and improving the stability over the years.

#### Market segment:

The use of heterogeneous biomass in endothermic engines decreases the capital assets needed for expensive investments in turbine generators and allows a greater distribution of the working capital allowing a greater life to its core. The possibility of using heterogeneous biomass for the production of electrical energy encourages the expansion of the cycle described above by stabilizing the prices of biomass fuel thanks to suppliers' strong competition.

#### Advantage factor:

Compared to the current state of the art, achieving the scientific and technological aims of linearization with the use of heterogeneous biomass and predictability of its effects on the plants used, will allow the sought management predictability monitored by a government system of automated.

#### Commercial challenge:

Thanks to the proposed study it will obtain: maximum energy efficiency with the increase and the persistence of high general returns; reduction of obstructions and production space; reduction of interruptions and temporary interruptions of production due to delays in start-up, shutdown, blocks for damage, wear and fraying system; reduction in operating costs (biomass supply, maintenance, waste disposal, sanctions and penalties).

#### **Publications and Customer References:**

The present project is been admitted with Resolution July 30, 2015 "Admission to the assessment of project proposals submitted under the call approved with resolution of June 30, 2014 by General Director for the electricity market, renewables and energetic efficiency and nuclear".

#### Proposal of cooperation agreement:

Commercial representative.

### GECO (GLOBAL ENGINEERING CONSTRUCTIONS) SRL

Via Gallipoli 71 | 72100 Brindisi BR | Apulia

Contact: Ing. Giulio Teodoro MAELLARO | Project Manager T. +39 083 1523881 | gecobr@libero.it | www.facebook.com/gecobr

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A. GECO s.r.l. Global Engineering Constructions

#### Project Proposal SEWAT (Sustainable Energy by Wave Trap)

#### Description of the innovation project:

The project's objective is the production of considerable amounts of energy "sustainable" with modular systems which, although of relatively small size, allow high powers. Energy production is characterized by a marginal impact on the environment with positive effects on the surrounding ecosystem, without risk to the community and without the production of waste, waste water and CO2. The related effect is the protection of the coast, making unnecessary the construction of barriers breakwaters. The plant consists in pools to be placed in the sea. The water of the waves, captured in the tank, through turbines produces energy during refilling in the calm sea near the tank.

#### **IP Protection Level:**

Italian patent for industrial invention n. 0001401060; European patent n. 11749916. The idea was tested with qualitative evidence of pattern in the tank and in the sea. The results are very promising.

#### State of development:

Prototype.

#### Industrial application:

The operating area concerns the production of "sustainable" electric power. This system can be used immediately by entering directly the energy in the network, or it can be used to produce and to store hydrogen for later production of electric power with fuel cells.

#### Market segment:

Make an assessment of the global energy market is not significant because it is of immeasurable dimensions. In reference to Italy, the Manager Energy Markets (GME), in the annual report 2013, indicates an energy price of € 62.99/MWh. The electricity demand published by Terna on "PRELIMINARY DATA FOR THE YEAR OF THE NATIONAL ELECTRICITY SYSTEM" amounted to 317 TWh. Consequently the value of the electricity market in Italy is about 20,000 millions euro. While the process in the next two years will be optimized the goal is to enter the energy market gradually acquiring an increasing amount to arrive at the share of 0.005 % for a total of 10 million Euro.

#### Advantage factor:

The system is modular, conceptually banal and uses very simple technology in use in other fields, but is able to produce a lot of energy (it is estimated prudentially 2,759,400 kWh/year with a module of 50x10 meters) without waste, wastewater, CO2, risks and harmful implications to the environment and the community. The possibility of pollution is non-existent. It occupies a limited part of waterfront that cannot be used for other purposes, it does not take away space for other activities and does not create substantial impediments to navigation. Another effect is the protection of the coast, making unnecessary the construction of barriers breakwaters.

#### Commercial challenge:

The system is essentially static. Functional parts are simple and easy to service. The materials used are common easily available. The large systems are composed of self modules immediately usable. Construction costs can be contained with the prefabrication and replaced by the cost of the necessary coastal defenses. The service life of the plant is long more than 50 years. Running costs are limited to the simple maintenance of functional parts. The energy produced is characterized by an index EROEI (Energy Returned On Energy Invested) extremely high. The particular layout along the coast creates the optimal environment for the development of other activities (fish farming, etc.).

#### **Publications and Customer References:**

The project was presented at the "Festival dell'Energia" that was held in Lecce in May 2010. Among the many projects presented was selected in the top 10. The specialized press has mentioned this project among many projects presented at the "Ecomagination Challenge," event organized by General Eclectic worldwide. This project was in the competition organized by ItaliaCamp "Your Idea for the country" and was selected to be presented during the regatta of the America's Cup at Naples 2013.

#### Proposal of cooperation agreement:

## **I-TENERE SRLS**

Via Prov. Santa Croce snc | 89813 Polia VV | Calabria

Contact: Antonio Bova | President T. +39 328 0336093 | i-tenere@pec.it | www.i-tenere.com

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.



#### Project Proposal a home for every landscape

#### Description of the innovation project:

Realization of a kind of bungalow energetically autonomous, modular, transportable inside a 20-foot container. It is produced entirely with environmentally friendly materials (no environmental impact) and it is sold disassembled. In a single day can be mounted on place of destination.

#### **IP Protection Level:**

Patent filed on 05/04/2015 with plans to expand internationally the same patent. This patent will soon be extended to international level.

#### State of development:

Prototype.

#### Industrial application:

Considering peculiarity of the bungalow, the main sector is construction but also the environment and renewable energy.

#### Market segment:

The business idea is to sell the bungalows "i-ténéré" to owners of accommodations (camp sites, beach houses or chalets in the mountains etc.).

#### Advantage factor:

From research done is not produced a bungalow removable , transportable in a container , made with eco-friendly materials and autonomous from the energy point of view.

#### Commercial challenge:

This bungalow under patent protection, can be sold all over the world because it has the measures that allow the transport in containers. Sold as a product disassembled reduces customs costs.

#### **Publications and Customer References:**

We are a startup, recently established, we have filed a patent and now we are building the prototype. We are looking for Italian and foreign investors for the commercialization of the product. In the meantime, we have contacts with the University of Calabria (UNICAL). We are working with the university to participate in European calls to test further variants of the bungalow I-Ténéré.

#### Proposal of cooperation agreement:

## RENOVATIO

Via antonio Lucarelli 2 | 70124 Bari BA | Apulia



Contact: Davide Ladisa | CEO T. +39 392 7206508 | davideladisa@gmail.com | https://www.facebook.com/pages/Consulenza-e-Servizi/137592096284438

Employees: SINGLE USER

Turnover: Less than 250.000 Euro

**Export:** Turnover not noticeable - Innovative start-up founded in the last year **Status:** Startup

#### Project Proposal Biofuels from wastes

#### Description of the innovation project:

Collection with innovative system, through direct discounts at supermarkets and gas stations, of all used oil which is currently being released into environment, collection by associated partners to achieving technically adequate quantity, filtration and introduction into plant biorefinery ultrasound for biodiesel production and glycerine refined with innovative process for obtaining the finished product in an hour instead of the usual 18 hours.environment, filtration and introduction into plant biorefinery ultrasonic manufacturing biodiesel and refined glycerin.

#### **IP Protection Level:**

In constitution, agreement with leading companies for the planning and construction of the plant of the various compartments. Patented technologies from less than 10 years.

#### State of development:

Concept - Pending funding sources.

#### Industrial application:

Innovation in the production of biodiesel.

#### Market segment:

Innovative start up companies.

#### Advantage factor:

Collaboration agreements with commercial companies which perform, meetings with public and private investors with adjoining advice.

#### Commercial challenge:

Be ready to decarbonisation with as much organic products as possible.

#### **Publications and Customer References:**

The company has worked with companies and professionals in the following areas: waste treatment and its byproducts, water treatment and purification, the fourth generation of biofuels. It has brought enterprises to the green economy.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer with oil companies, government agencies etc.

## SBSKIN. SMART BUILDING SKIN SRL

Via Ponte di Mare 91 | 90123 Palermo PA | Sicily

Contact: Rossella Corrao | CEO T. +39 320 4330312 | info@sbskin.it | www.sbskin.it

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### Project Proposal Multifunctional glassblock components for active solar façades

#### Description of the innovation project:

SBskin Smart Building Skin developed high technological and esthetic quality products for the reduction of building energy consumption. The patented solution consists of multifunctional translucent building components for roofs and façades that optimize energy performance of buildings, while enhancing their aesthetics. These components are made of new high-insulating glassblock configurations integrated with 3rd generation dye-sensitized solar cell (DSC) technology. With this "total solution" the roofs and the façades of the buildings will be able to produce clean energy and, at the same, reduce building consumptions.

#### **IP Protection Level:**

SBskin holds a license agreement to use 2 national patents and 1 PCT registered by three of its co-founders, these being:

- Italian Patent n. 1411163
- Italian Patent n. 1411164
- ▶ PCT n. WO 2013/132525 A2, published on 12/09/13 and extended to EU, USA, JP e CN "
- State of development:

Prototype.

#### Industrial application:

The Sbskin products can refer to the following industrial sector (according to Confindustria's classification): - Glass industry; - Building and construction industry; - Energy.

#### Market segment:

The target markets are: - BIPV market, worth  $\in$  5.9B, with a 16.9% CAGR forecasted; - Glassblock market (114M items/year) currently addressed towards high energy performance products. With an investment of  $\in$ 1M, the company forecasts  $\in$ 11M revenues in the 5th year.

#### Advantage factor:

The SBskin's competitors can be individuated among manufacturers of high technology and energy efficient solutions for glazed building envelopes. The glassblock market sector is lacking efficient and cost-effective solutions that allow the construction of low transmittance glazed building envelopes. SBskin improved the energy performance of the traditional glassblock by developing an innovative BIPV component. Since our competitors in the BIPV market have not achieved all the key success factors (energy saving, innovation, ease of installation, aesthetic, customizability, functionality), SBskin builds its competitive advantage by meeting them all.

#### Commercial challenge:

The integration of 3rd generation Pv cells (DSSC) with glassblocks, that occupy a significant position on the worldwide market, will allow the launch of a highly performing product while contributing to the entering on the market of a yet not very diffused PV technology that, nevertheless, offers great potentialities in terms of energy efficiency and building integration.

#### **Publications and Customer References:**

SBskin arises from an academic research, carried out since 2008, which has been the topic of of more than 18 scientific publications and 10 master theses. Just to cite some: Corrao R., D'Anna D., Morini M., Pastore L., "Vetromattone fotovoltaico. Moduli con celle "dye sensitised" integrati nel vetromattone per la costruzione di pannelli traslucidi fotovoltaici multifunzionali", in Casa & Clima, n. 41, Anno VIII, 2013, pagg. 62-65. Corrao R., D'Anna D., Morini M., Pastore L., "DSSC-Integrated Glassblocks for the Construction of Sustainable Building Envelopes", in Material Research and Applications, Advanced Materials Research, Trans Tech Publications.

#### Proposal of cooperation agreement:

## **TELFORM NEW GENERATION SRL**

Zona Industriale Modugno - Via delle Mammole 22 | 70026 Modugno BA | Apulia



Contact: Fabio De Benedictis | DAC Technical Expert T. +39 080 5375656 | fabio.debenedictis@telform.it | WWW.TELFORMNG.IT

#### Employees: FROM 10 TO 19 EMPLOYEES

Turnover: From 500.000 to 2.5 million Euro Export: From 250.000 to 750.000 Euro Status: Innovative SMEs

## Project Proposal Vertical wind turbine

#### Description of the innovation project:

It is a wind turbine with vertical axis, and an integrated aerodynamic system capable of increasing the impact speed of the wind, which leads to a higher production compared to similar systems, and to a reduction of the minimum wind speed for starting the production of electricity.

#### **IP Protection Level:**

Patent Pending.

## **State of development:** Patent.

#### Industrial application:

The generator is initially targeting for residential buildings with a power from 3kw to 6kw, varying the size of the system.

#### Market segment:

It will be placed on the market of small-sized and medium-sized generators for residential buildings, with an estimated sale price of around € 8.000/10.000 and an estimated sales volume of about 1,000 units for the first year, considering an economic return of not less than 30%.

#### Advantage factor:

Smaller size compared to a traditional solar and wind systems at equal power produced. This also leads to a low visual and environmental impact. Furthermore, the wind speed necessary for the production is minimal compared to the wind energy systems on the market.

#### Commercial challenge:

The first challange is to enter a new market segment for our company, implementing a diversification compared to existing systems that use renewable energy. In particular, our system can be compared (for powers it can supply) with a photovoltaic system: it should cost 20% less, while ensuring the same output power against a smaller space required.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement.

## **TERA SRL**

Via Martin Luther King 35 | 70014 Conversano BA | Apulia



Contact: Antonio Sacchetti | Business Opportunity, Head T. +39 080 2147775 | info@terasrl.it | www.terasrl.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs



#### Description of the innovation project:

The TERA solution is designed to manage and improve the energy efficiency in homes and small buildings. The system is composed by a gateway designed by TERA, a SW platform, and sensors and actuators; monitoring user's energy consumption (or production from PV plant if any) and elaborating environmental data coming from installed sensors, it provides users with custom indexes and suggestions useful to increase their energy consumption awareness and to improve their energetic habits.

#### **IP Protection Level:**

The solution is using a sensor which is currently patent pending (utility patent request).

#### State of development:

Advanced Prototype

#### Industrial application:

Energy efficiency management in small buildings and private homes.

#### Market segment:

Prosumer (PV Energy producer <100kW and consumer at the same time) and Energy consumer in homes and small buildings.

#### Advantage factor:

The concept of the project concerns a decision support system delivering alerts and customized reports, providing a modular and scalable approach to the users. The low performance in PV systems and energy consumptions in buildings results in an average economic loss of about €400/y per house. Tera SW will provide: "customized" advices about electric failures, need for specific PV maintenance, need for installation of a power-optimizer; automatic activation of electric loads as a function of surplus production and automatic power-off of loads (lights, radiators, air conditioners) as a function of temperature/lightness level set-points and user's presence; a "customized index" to rate the specific customer's performance and to suggest the installation of a storage system; a modular and scalable "service contract" for the users, by means of the automatic-reprogramming, which will give them additional services without non-recurring costs.

#### Commercial challenge:

To be able to find partners (Utility, Service provider to Consumer market, Insurance Company) with an already established B2C sales network (or B2B in case of just PV monitoring solutions) interested to deliver to end user new services aimed to save their energy bills. In terms of trade barriers, the biggest one is the lack of awareness from end users about the technology potentiality.

#### **Publications and Customer References:**

ETA4B is the winner of phase 1 - SME-I (H2020-SMEINST-1-2014) ETA4B is the winner of INCENSe (INternet Cleantech ENablers Spark) 1st Open Call (January, 15th, 2015).

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Licensing, Distribution Agreement, Utilities, Telecom, ESCO.

## TOPVIEW SRL START UP INNOVATIVA

Via Santi Cosma e Damiano 23 | 81020 San Nicola La Strada CE | Campania



Contact: Salvatore Mennella | CEO T. +39 082 31554429 | info@topview.it | www.topview.it

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.



#### Description of the innovation project:

The purpose of the proposed project is to build up an automatic system for acquiring, georeferencing and processing of visible and thermal images captured by RPAS (Remotely Piloted Aircraft System) flying over photovoltaic plants. It is a direct response to the current growing need of several companies/users to detect faulty modules inside large PV (PhotoVoltaic) installations. Main advantages summary:

- avoiding risks for staff (Human Resources);
- increasing reliability;
- ▶ time and cost reduction.

#### **IP Protection Level:**

A patent application has been filed (TopView, n.102015000030672 presented on July the 3th, 2015) for an innovative RPAS designed for PV\_WATCH application.

#### State of development:

Prototype.

#### Industrial application:

The product coming out of this project is targeted to the following categories of users :

- 1. Owners of large solar plants, whose interest is to maximize the amount of energy produced;
- 2. The business of maintenance of solar systems , whose interest is to minimize effort and maximize efficiency during the control of a customer facility;
- 3. The technical consultants involved by banks in transactions involving the solar system ( the secondary market rising sales /purchase of photovoltaic systems), to assess the strength, reliability and value of the plants that are to be sold/ bought.

#### Market segment:

PV\_WATCH is aimed to the photovoltaic energy production sector, whose global market grew very fast, achieving a value of 139 GW at the end of 2013 (81 GW of them installed in EC), (figures given by EPIA, European Photovoltaic Industry Association). EPIA expects a quick growth to 430 GW up to year 2018, with a strong percentage (58,2%) of installed plants in Europe. According to Frost & Sullivan analysis, the European market will see increasing technical efficiency of its systems and it will be the best market to launch the product derived by PV\_WATCH project.

#### Advantage factor:

The most innovative element introduced by PV\_WATCH is the capability to recognize, through a specialized application software, the shape of photovoltaic modules, the presence of thermal anomaly on its surface and an accurate geo localisation, which help to perform a friendly, reliable, cheap and safety check of PV modules, which are the most competitive elements.

#### Commercial challenge:

The strong value coming by adopting PV\_Watch system can be incremented by introducing the innovation ideas (one patent has been filed). The innovations will make it possible to extend the system in different market areas (as safety, environment, ...), that are being investigated. TopView alone cannot afford these challenges: a financial partner is needed asap.

#### Publications and Customer References:

- Solar Expo fair, Milan may 2014: Presentation of PV\_Watch service; - International Congress "Creare Opportunità di Lavoro attraverso l'aerospazio", Napoli, Università Parthenope, Oct. 23-24, 2014; - F. Antonacchio, M. Di Bisceglie, C.Galdi, V. Galdi, F. Gerace, A. Mennella (2014): "PEGASO for low cost Payload Data Transmission Services", IEEE International Workshop on Metrology for Aerospace - Benevento Italy;

#### Proposal of cooperation agreement:



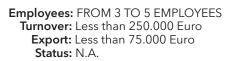
# SMART CITY Summary

AEROMECHS SRL	
BEMINT SRL	
CALBATT SRL	
CMC SRL	
DIGITAXI SRL	
EXPRIVIA HEALTHCARE IT SRL	
EXPRIVIA SPA	
EXPRIVIA SPA	
ICAM SRL	
INNOVA - CONSORZIO PER L'INFORMATICA E LA TELEMATICA SRL	
INRESLAB SCARL	
IT SRLS	
ITALDATA SPA	
ITALDATA SPA	
ITALDATA SPA	
ITALY INNOVAZIONI SRL	
MACNIL - ZUCCHETTI GROUP	
MECHATRONIC METERS SRL	
NEXTOME SRL	
OMNIA ENERGIA SPA	
PARK SMART SRL	
SEELIGHT SRL	
SOFTWARE EVOLUTION SRL	<u>141</u>
SOFTWARE EVOLUTION SRL	
STASBRANGER SRL	

## **AEROMECHS SRL**

Via Parente, 10 | 81031 Aversa CE | Campania

Contact: Beniamino Guida | CEO T. +39 081 0093877 | info@aerit.com | www.aerit.com



#### Project Proposal X-DOM: a low-cost domotic solution

#### Description of the innovation project:

X-DOM is a device used to provide domotic functions to already exisisting houses, with small installation efforts and low costs. Using the smartphone, it is possible to control the lighting system (including dimmers), the motorcontrolled doors and windows, as well as the thermostat of any house. The X-DOM system is composed by: one Master module, able to communicate with your smartphone/tablet through wi-fi, and a number of Slave modules, one for each appliance to control. Using a Slave module, it is possible to control two wall lights (normal or dimmed), or a motor-controlled shutter, or the air conditioning system switch, and even the thermostat (new or already existent).

#### **IP Protection Level:**

No patent has been released for the product (in prototyping stage).

#### State of development:

Prototype.

#### Industrial application:

Domotic, Industrial.

#### Market segment:

The product can burst into the B2C market, with a direct sale to the final client, as well as the B2B market, with customized modules.

#### Advantage factor:

This is a special case of Intellectual Property Right that might be patented as a utility model, because the main innovation is related to the ad-hoc hardware and the software module used to control the X-DOM.

#### Commercial challenge:

The competitive advantage is due to the fact that currently only few solutions (but more expensive), at the best of proposal knowledge, exist for a "partial domotization" of the house. The product is perfectly in line with the new trend of the "internet of things", therefore commercial potential of this solution is disruptive.

#### **Publications and Customer References:**

- 1. G. Conte, D. Scaradozzi, R. Donnini, A. Pedale "Building Simulation/Emulation Environments for Home Automation", 19th Mediterranean Conference on Control & Automation (MED), 2011
- 2. R. Carli, M. Dotoli, "Energy Scheduling of a Smart Home under Nonlinear Pricing", 53rd IEEE CDC (Conference on Decision and Control), 2014
- 3. Bticino MyHome (www.bticino.it)
- 4. Schneider "Wiser Home energy management system" (http://www.schneider-electric.com)
- 5. Smart Domotics "Smart-Dom" (http://www.smartdomotics.it/#prodotti\_smartdome)

#### Proposal of cooperation agreement:

Commercial representative.



## **BEMINT SRL**

via Salvatore Trinchese, 61 | 73100 Lecce LE | Apulia

Contact: Giulia Antonucci | President T. +39 320 8623192 | info@bemint.it | www.bemint.it

#### Employees: SINGLE USER

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Startup

#### Project Proposal Advisex

#### Description of the innovation project:

Advisex is realized by beMINT, an innovative start-up with a strong focus about open service innovation, smart cities projects and new sustainability models. Advisex is an internet-based platform web and mobile responsive, using cloud services and making the best use of digital technologies potential (chat, videochat, blogs, anonymous identity, cloud technology).

#### **IP Protection Level:**

n.1354317 (medical devices Ministry of Health Register -Italy). State of development: Prototype.

#### State of development:

Prototype.

#### Industrial application:

Advisex is scalable by sector (for different areas of the health sector), by target audience (from a B2C market, delivering services to end-users, to a B2B2C market, providing the platform to private companies to supply services to their customers) by region (considering the differences between countries concerning service delivery, privacy protection and monitoring mechanisms of the specialists reliability).

#### Market segment:

AdviSex is aimed at an adult target and so-called "baby boomers" (50+). The target market is promising for at least three reasons: 1. The target is numerically increasing (the 17% of european inhabitants are over 65); 2. The adult population is more and more inclined to the use of technological devices such as PCs and smartphones (Internet users between 55-74 years: almost 60% read news online and looking for information on health, and about half see wikis; 3. the target segment has the higher spending power: the English users from 56-66 years old spend more online of all generations (\$ 367 in three months).

#### Advantage factor:

1. Living Lab Approach: Advisex is a cocreated solution; 2. Specific target sector (over 50 years old target); 3. Strong partnership with more than 5 national recognized Associations for sexual health.

#### Commercial challenge:

The services offered by Advisex platform are: A1: medical/specialist care:  $(30\notin)$  (unit); A2: complementary services (diagnostic and medical prescriptions): 30/unit; A3: freemium contents (1.99/unit). In order to achieve satisfying revenue targets is necessary to activate a solid promotional strategy on line and offline. Following a pattern of sales targets for the second year of implementation: A1\_medical/specialist care:  $450000 \in$  of revenue A2\_complementary services:  $406000 \in$  of revenue A3\_freemium contents:  $33432 \in$  of revenue. The above expected revenues take into account the company's own resources only, without considering the opportunity of third-party investment to expand the sales force.

#### **Publications and Customer References:**

IBM Global Entrepreneur Program award for Cloud Startups (2015); Chest competition call 2 - award aimed to devolopment of Digital Social Innovation (2015). European competition funding: 60,000 €. Moreover, beMINT signed a Non-Disclosure Agreement with a multinational drug company that is interested to the project.

#### Proposal of cooperation agreement:

The Apulian Technological District (Dhitech S.c.a.r.l.) participates in the share capital of beMINT (which is configured as a spinoff of the District itself) at 10%. The goal is to guide the company in the promotion and development of its projects.

In order to overcome market barriers increasing the trust of mHealth, Advisex is launching partnerships with associations and recognized institutions at national and European level, such as the Italian Andrologists Association, the Institute of Health and the Italian Association of Dermatologists.

From the safety point of view, the project is also supported by the Dream laboratory, focused on e-health sector.



120

## CALBATT SRL

Via Repaci, 20 | 87036 Rende CS | Calabria

Contact: Gregorio Cappuccino | CEO T. +39 0984 494273 | cappuccino@calbatt.com | www.calbatt.com

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### Project Proposal CalBatt solutions for Smart Storage in Smart Cities

high efficiency energy storage

#### Description of the innovation project:

Based on its ultimate patented technology, CalBatt has developed NomoStor, the storage controller to provide third-party Energy Management Systems (EMS) with the rules for a perfect management of the storage system or the electric vehicle charger, capable of maximizing its efficiency, life and profitability. NomoStor has been designed to be a very flexible easy-to-use solution, which can be both embedded by storage system and EVs charger manufacturers into the power converter as an electronic expansion card (NomoStor Card), or used by system integrators as a stand-alone device (NomoStor Box) to be integrated with other devices of the system. Experimental tests with Enel have shown an efficiency increase of up to 15% guaranteed by Calbatt technology compared with traditional systems.

#### **IP Protection Level:**

>2 ITA patents (IT0001414353 and IT0001416415), >1 EU patent (2709202 EP13425120.6) >1 EU pending application (EP13425155 with positive EPO REPORT) >2 USA patent pending applications (n. US2014/0081585 and US2014/0172334) >1 JP patent pending application (n 002551/2014).

#### State of development:

Product.

#### Industrial application:

Calbatt products can be used in both the stationary energy storage and the E-mobility sectors, allowing an invaluable support for the most profitable and effective management of energy flows in the Smart City scenario.

#### Market segment:

Calbatt targets the energy storage market. The overall energy storage landscape can be divided into two submarkets, which are forecasted to reach about \$23 Billion in 2020 jointly:

- Stationary storage (main sectors: Residential, Industrial and Grid-scale storage);
- ▶ E-mobility, (main segments: Electric Vehicles (EVs) and Intralogistics).

#### Advantage factor:

CalBatt has developed an innovative technology for the dynamic analysis and optimization of the performance of all the devices involved in the storage chain (from the converters to the battery). Oppositely to competitors'approach, based on pre-defined charging/discharging programs, CalBatt technology is capable to perform, instant by instant, an accurate forecast of system efficiency in all possible operating conditions, thus guaranteeing a perfect storage management which allows the maximization of energy storage efficiency and the battery life extension, avoiding critical operating conditions of the system.

#### Commercial challenge:

Calbatt flexible and ready-to-use technology resolves one of the main issues chargers and EMS manufacturers are coping with: best exploitation of efficiency performances of storage/charging system for acquiring higher competitiveness in the market.

#### **Publications and Customer References:**

- ▶ Energy Storage Management Systems 2015-2019: Applications, Players and Forecast, GTM Research, 2015
- Finding Growth Opportunities in the \$50 Billion Energy Storage Market, Lux Research, 2014
- Efficiency: a critical success factor for solar storage systems, Intelligent Utility, 2014
- Storage Efficiency: the Dividing Line Between Consumption and Self-Consumption, CalBatt white paper, 2014
- 100 Italian Energy Stories, report presented by Enel and Symbola at COP 21 Paris Conference on Climate Change, in which CalBatt has been selected among the 100 Italian green energy excellences.

#### Proposal of cooperation agreement:

Commercial representative, IPR assignment, Venture capital financing, Licensing, Distribution Agreement.

121

## CMC SRL

Contrada Pagliarulo SN | 72012 Carovigno BR | Apulia



Contact: Alfonso Centuori | CEO T. +39 349 5666579 | a.centuori@cmclabs.com | www.cmclabs.com / www.cmc-srl.net

Employees: FROM 50 TO 99 EMPLOYEES

Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal

#### Wireless Sensors and Actuators Networks Solutions (IoT & Industry 4.0)

#### Description of the innovation project:

The aim of CMC LABS is to develop and market innovative system and module solutions for applications in the Industrial Internet of Things (IIOT), Industry 4.0 and M2M sectors. Main products focus on Wireless Sensors & Actuators Networks (WSAN) system platforms. CMC LABS' technology and business model addresses mainly industrial monitoring and process control applications, targeting system integrator companies and leading OEMs as potential customers. Customer's general benefits of using Industrial Wireless Sensor Network (IWSN) technology are: Reduce installation and maintenance cost up to 90% compared to wired network technology;

 Ubiquitous monitoring and control from anywhere for management and operational maintenance optimization (security, timeliness requirements and modularity).

Markets and Industries targeted are: Oil & Gas; Power & Energy; Water & Wastewater; Transportation; Minerals & Mining; Smart Buildings, Infrastructures and Cities; Pharmaceuticals; Food & Beverages; Security and Logistics.

#### **IP Protection Level:**

We are focusing in marketing our technology & products and we just patented some key aspects of our initiative. The reference of the specific patent (pending) is: WIPO application no. PCT/IB2015/052816.

#### State of development:

Advanced prototype.

#### Industrial application:

CMC LABS vision is that the Industrial Internet is indeed transformative and it will create a new wave of disruptive companies, just as the current Internet gave rise. This revolution will come from a new value creation made possible by massive volumes of data collected from connected products and the increased ability to make automated decisions and act in real time.

#### Market segment:

The global IWSN market is estimated to grow from \$401M in 2013 to \$944M by 2020, at a CAGR of 12.96% from 2014 to 2020.

#### Advantage factor:

Core technological differentiators of the proposed system are: A low power and modular hardware platform; An efficient and flexible inter-device communication protocol; An IP-based, real-time and power-aware communication protocol stack; A standardized application framework.

#### Commercial challenge:

Our primary goal is to gather about 4% of the overall IWSN European market and start getting some customers outside of Europe by 2020 or earlier, also with the introduction of end-user services such as lease or rent of devices and WLAN infrastructure for: environmental monitoring, condition based maintenance of machinery & system, power plant monitoring, process control automation and reporting functions (selling previously unavailable information necessary to optimize production activities, reducing capital and operating expenses), HMI configuration and maintenance.

#### **Publications and Customer References:**

http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010L0075&from=IT http://eippcb.jrc.ec.europa.eu/reference/BREF/IS\_Adopted\_03\_2012.pdf

"ICT-30-2015 Internet of Things for Connected Smart Objects" Official Journal of the European Union; "Best Available Techniques (BAT) Reference Document for Iron and Steel Production" Frost & Sullivan Research; "Embracing the Internet of Everything To Capture Your Share of \$14.4 Trillion" Cisco ISBG.

#### Proposal of cooperation agreement:

## **DIGITAXI SRL**

Via del Parco Margherita 33 | 80121 Napoli NA | Campania

# DIGITAX

Contact: Michele Palmieri | CEO T. +39 338 8118920 | info@digitaxi.it | www.digitaxi.it

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal DigiTaxi the free App to call and valuate a taxi

#### Description of the innovation project:

The project improves the distribution of the taxi service across the territory, reduces waiting times and optimizes costs, by leveraging mobile devices' GPS. The system is based on a central application server accessible through an internet connection geographically based, given the use of a map server. DigiTaxi Client Mobile App enables to: - get an overview of the taxis available within a specific area; - know the taxi driver's details and waiting time; - know the estimated price of the ride and the recommended route; - valuate the taxi driver at the end of the ride;-book a taxi for a specific day and time; - pay the ride using a credit card.

#### **IP Protection Level:**

The software source has been filed with the Software Public Registry of the SIAE of Rome.

#### State of development:

Product.

#### Industrial application:

App used for booking, calling and valuate taxis with mobile devices.

#### Market segment:

Main Italian radio operators are in Naples (market of 2400 cars; total annual turnover of  $\notin$  2 mln), Milan (5300 cars; total annual turnover of  $\notin$  12 mln) and Rome (7.800 cars; total annual turnover of  $\notin$  11 mln).

#### Advantage factor:

In the near future cities will have more Restricted Traffic Areas, therefore taxis will replace private cars. The DigiTaxi App aims therefore at reducing the number of private cars circulating in towns, encouraging a more natural way of approaching urban life.

#### Commercial challenge:

There are no fixed costs related to the technological offer, for every call received the taxi driver will pay a revenue of  $\notin$  0,50. The monthly cost of the service provided is less than 50% compared to the costs related to the existing services by Radio taxi (Naples:  $\notin$  38,75; Rome:  $\notin$  87,12; Milan:  $\notin$  99,12). DigiTaxi is currently being tested in the city of Naples, with the intention of exporting the service in the main european cities.

#### **Publications and Customer References:**

DigiTaxi selected among the best applications in Italy by the Italian Association of Chambers of Commerce in "Room Hub Forum" Milan, May 23, 2014. DigiTaxi winner of innovation prize ICT Campania Smau in the category of "Mobile Apps that make life easier" Naples, December 11, 2014. DigiTaxi selected by the Municipality of Naples in the international event "Naples for Expo, Milan 2015".

#### Proposal of cooperation agreement:

Corporate and trade agreements.

## **EXPRIVIA HEALTHCARE IT SRL**

via A. Olivetti, 11 | 70056 Molfetta BA | Apulia

# exprivia

Contact: Chiara Altomare | International Operations consultant T. +39 02 280141 | chiara.altomare@exprivia.it | www.exprivia.it

Employees: FROM 100 TO 499 EMPLOYEES Turnover: From 15 to 25 million Euro Export: From 250.000 to 750.000 Euro Status: Large companies

#### Project Proposal Mobile healthcare

#### Description of the innovation project:

eLifeMonitor is a mHealth solution for the ubiquitous monitoring of the lifestyle of patients with chronic diseases that allows the proactive participation of the patient and data collection. eTrialMonitor is a mHealth solution for the monitoring of patients during clinical trials that allows the collection of data. eMobileAssistant is a mHealth solution integrated with the Apulia regional health information system for the supply of healthcare services "at home" able to create a report of the activities carried out by the healthcare professionals and to collect vital signs.

#### **IP Protection Level:**

No patents and no certifications have been requested.

**State of development:** Product.

**Industrial application:** Healthcare and telemedicine.

Market segment: Healthcare IT.

#### Advantage factor:

The three APPs enable a telemedicine service within different organizational scenarios, such as Homecare with nursing active involvement, patient autonomous care management and Clinical Trials. The advantages of such approaches are significant in terms of quality of care, prevention, admissions/re-admissions costs reduction. the APPs integrate a wide range of portable Medical Devices, through Bluetooth or NFC technologies.

#### Commercial challenge:

The eLifeMonitor, eTrialMonitor and eMobileAssistant are ready for large scale deployment projects. EHIT is looking for partners in Europe and other Countries in order to develop a network of telemedicine services. Partners may provide access to local Healthcare Authorities, as well as integration services, while EHIT can provide the APPs, as well as the frontend and backend telemonitoring software.

#### **Publications and Customer References:**

The eLifeMonitor, eMobileAssistant and eTrialMonitor APPs and backend solution were initially developed thanks to PCP European funded projects in the Apulia Italian Region.

#### Proposal of cooperation agreement:

Commercial representative, Project partners.

## **EXPRIVIA SPA**

via A. Olivetti, 11 | 70056 Molfetta BA | Apulia

# exprivia

Contact: Chiara Altomare | International Operations consultant T. +39 02 280141 | chiara.altomare@exprivia.it | www.exprivia.com

Employees: MORE THAN 499 EMPLOYEES Turnover: More than 25 million Euro Export: From 15 to 50 million Euro Status: Large companies

#### Project Proposal InfoMiner

#### Description of the innovation project:

Infominer is a platform that allows analysts of a security operation center to supervise their internal document processing generation, or external document repositories, such as social networks, in order to monitor and generate alerts when specific conditions defined by the user occur. Examples are: - check whether confidential documents are accessible to unauthorized groups of people - check whether an email storage contains information covered by NDA. Analyzed documents can be accessed via standard connectors: ftp, email, http; or ad-hoc connectors written to access custom repositories.

#### **IP Protection Level:**

No patents and no certifications have been requested.

#### State of development:

Product.

#### Industrial application:

Information Technology security.

#### Market segment:

Customers are public and private companies that already have a SOC (Security Operation Center) or that are willing to protect their business, investments or patents.

#### Advantage factor:

Less manual effort to intercept a possible fraudulent information flow that can affect the company in terms of: law violations, market competition, time to market.

#### Commercial challenge:

InfoMiner solution matches the usual needs of a company SOC. Commercialization of Exprivia technology, solutions and know-how can better match the company needs, replicating the successful results already obtained in Italy.

#### **Publications and Customer References:**

InfoMiner is already used by two customers under No Disclosure Agreement.

#### Proposal of cooperation agreement:

Commercial representative, Distribution Agreement.

## **EXPRIVIA SPA**

via A. Olivetti, 11 | 70056 Molfetta BA | Apulia

# exprivia

Contact: Chiara Altomare | International Operations consultant T. +39 02 280141 | chiara.altomare@exprivia.it | www.exprivia.com

Employees: MORE THAN 499 EMPLOYEES Turnover: More than 25 million Euro Export: From 15 to 50 million Euro Status: Large companies

#### Project Proposal Città Digitale

#### Description of the innovation project:

CittàDigitale provides "a city in a hand". It is a cloud-based technological platform accessible through a mobile device, which provides city services in integrated and easy way. The end user of this platform can be: • a person living in a city • a person visiting a city for tourism, business or other reasons. This platform provides to the end user integrated services available for the city, regarding public transport, healthcare, tourism, taxes, culture and leasure, etc. Services already implemented on the platform are: • Parking payment • Public transport e-ticketing and payment • Info on public transport schedules • Public healthcare services booking and payment. New features coming soon are: • «Limited traffic area» access payment • Municipal tax payment. Any other service can be easily added (for instance, theater program info and ticketing, etc.). This is also a multi-city platform, as it gives the possibility to switch from a city to another in a limited geographical region. You can freely move in a region and access city services, avoiding the need for new app downloads.

#### **IP Protection Level:**

No patents and no certifications have been requested.

State of development:

Product.

#### Industrial application:

Services to Citizens (transport, healthcare, tourism).

#### Market segment:

CittaDigitale is addressed to Municipalities, group of Municipalities and public/private companies belonging to the same geographical territory (es. Municipalities in a District or a Region), willing to start or improve their Smart City path, offering to their citizens an integrated platform for city/local services. End users are local citizens and tourists.

#### Advantage factor:

CittaDigitale is a "multi-cities and multi-public institutions or public/private companies" platform that is usable in "all-in-one" smartphone app. Some technical advantage factors: -Less frauds for falsification of tickets and opportunistic parking start/stop -Tickets represented by an encrypted QR Code (Asymmetric encryption with two 24h-lasting keys) -Tickets have automatic expiry date -Users are not allowed to start a new parking payment for the same car within 5 mins after last stop.

#### Commercial challenge:

We are looking for a commercial/technical partner that can bring our platform to new cities/regions/local territories willing to provide services to their citizens in an integrated and "smart" way. We also look for new business partners to add their services to our platform, in order for them to reach our users base. Some advantages that our partners would benefit: - Multiple and different citizen/tourist services provided and paid through a single tool - Mobile services, improving the availability of services involved and enabling real time payment and control - Complete travel/parking tickets dematerialization - Services Management Economy - Very low initial investment.

#### **Publications and Customer References:**

BariDigitale was a 3-year pilot project for the town of Bari. Started in May 2013, following a MoU among the Municipality of Bari, AMTAB and Exprivia.

- The pilot concerns:
- Parking payment service and
- Purchasing of city-bus tickets BariDigitale won the 2014 "SMART CITY" prize assigned by SMAU, the main Italian exhibition for Information & Communication Technology.

#### Proposal of cooperation agreement:

Commercial representative, Business partners to join our platform with their services.

126

## ICAM SRL

S.P. 237 delle Grotte C.P.129 | 70017 Putignano BA | Apulia



Contact: Roberto Bianco | Business Opportunity, Head

T. +390804911377 | direzione@icamonline.eu | www.icamonline.eu

Employees: FROM 50 TO 99 EMPLOYEES Turnover: From 5 to 15 million Euro Export: From 750.000 to 2.5 million Euro Status: Innovative SMEs

#### Project Proposal HUBBOX

#### Description of the innovation project:

The ICAM Srl idea's, at the base of the proposed invention, is to radically innovate the system of distribution and sale of products / services, in urban areas and not through a system that solves the serious and growing problems of collection and delivery goods in the field of sustainable mobility (SMART CITY). The proposed invention will give rise to a system for access to limited areas of a container of goods, "necessary" to the creation of an automated system of distribution logistics Urban called HUBBOX.

#### **IP Protection Level:**

ITALIAN PATENT APPLICATION FOR INDUSTRIAL INVENTION N .: TO2014A000385 FILED May 14, 2014 TITLE: BAY PICKING / STORING FOR A WAREHOUSE, SPECIFICALLY FOR VERTICAL AUTOMATIC WAREHOUSE.

#### State of development:

Prototype.

#### Industrial application:

Urban Integrated Logistics.

#### Market segment:

Business segment, market value estimated at 3 years: 15 million euro and its economic return expected: 6.5 million euro.

#### Advantage factor:

The main innovative elements of the solution are: 1. Multi-carrier system- a unique reference for urban logistics 2. Multi-service - One-stop Shop The technological equipment that distinguishes kiosks HUBBOX (warehouses, touchscreen displays, video walls, wi-fi) enables the diversification of services offered. 3. An automatic warehouse - "materials - to - person" Compared to the traditional network of Lockers, the HUBBOX platform present infrastructural features and unique technology, that diversify the services offered and, consequently, their sources of income. 4. Design oriented to social inclusion and sustainability.

#### Commercial challenge:

HUBBOX aims to become the global partner of all the company's e-commerce and urban logistics, through the creation of an urban logistics platform accessible, flexible and sustainable. Anytime, Anywhere, Self-Service, are the three cardinal principles of the solution HUBBOX to meet the emerging challenges imposed by the growth of urbanization, changes in lifestyle and buying habits, the explosion of online shopping and mobility.

#### **Publications and Customer References:**

At the moment there are not publications to mention. The project has received funding FIT (Law 46/82) with the title of "Audis" (Automatic Distribution Service) submitted in December 2009 and ended in 31/03/2015.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Distribution Agreement.

## INNOVA - CONSORZIO PER L'INFORMATICA E LA TELEMATICA SRL



Via G. D'Annunzio, 6 | 70022 Altamura BA | Apulia

#### Contact: Marina Doubell | Project Manager T. +39 346 0327589 | info@consorzio-innova.it | www.consorzio-innova.com

Employees: FROM 10 TO 19 EMPLOYEES Turnover: From 500.000 to 2.5 million Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### Project Proposal INNOVAMBIENTE

#### Description of the innovation project:

INNOVAMBIENTE integrates innovative and intuitive ICT, GPS, RFID and mobile technologies. It has been designed to enable the management of the complete waste collection cycle, reaching the EU recycling objectives, and to involve citizens, public administration bodies and waste collection companies with the overall aim of establishing a pay-as-you-throw system and work towards zero waste.

#### **IP Protection Level:**

INNOVAMBIENTE has been completely designed and developed by INNOVA. No patent has been requested as of yet. The domain name has been purchased by INNOVA.

**State of development:** Product.

#### Industrial application:

INNOVAMBLENTE is aimed at all the parties involved in the waste collection cycle: - town halls can have clear reporting on the waste collected (how much recycling is done per type / percentage) - companies carrying out the waste collection can monitor the activity of their vehicle fleets and operators; the efficiency of the service; - commercial and domestic tax payers can monitor how much waste they produce and how much they recycle.

#### Market segment:

The product is based around the Waste Collection market. Market value is difficult to estimate. The product has been developed for the Italian market. For example, over the last few months, several calls for tender have been issued for the Apulian Region alone (ARO). INNOVAMBIENTE has the value of 1-2% of the total value of the call regarding a service to be provided for 7-9 year periods. We estimate only for these 10-20 million euros over the whole period.

#### Advantage factor:

Precise monitoring of waste pick-up (reporting and statistics available for each commercial and domestic user) to ensure a Pay-As-You-Throw system.

#### Commercial challenge:

Adapt to different national and international realities.

#### **Publications and Customer References:**

Key companies that operate in the waste collection business.

#### Proposal of cooperation agreement:

Commercial representative.

## **INRESLAB SCARL**

Contrada Baione, snc | 70043 Monopoli BA | Apulia



Contact: Domenico Mazzone | President T. +39 080 2256 905 | info@inreslab.org | www.inreslab.org

Employees: FROM 3 TO 9 EMPLOYEES Turnover: From 250.000 to 500.000 Euro Export: Less than 75.000 Euro Status: Research centers, Universities

**Project Proposal** 

## Integrated hybrid system for the production, the storage, and the smart sustainable management of the energy in the residential sector

#### Description of the innovation project:

The present invention relates to a hybrid system equipped with energy production devices using conventional (electric grid) and different renewable sources such as wind, solar, and bio-derived endothermic, or a combination thereof. The energy provided can be stored by means of innovative system based on Redox Flow Battery technology. The energy stored is then provided to the end-user or if required to the grid, contributing to the qualification of renewable energy and improving the electric grid operative efficiency. The system is managed by a smart algorithm purposely developed.

#### **IP Protection Level:**

To date InResLab is working on the patents deposition. This activity is expected to start in the next few months.

#### State of development:

Prototype.

#### Industrial application:

The industrial relevance of the present invention concerns the production the storage and energy management mainly but not only for stationary application. Furthermore, the implementation of the Hybrid System provides various industrial applications: (1) Energy Services: time-shift energy; load levelling; peak shaving; (2) Auxiliary services; (3) UPS: Load following; supply of reactive power and voltage control; additional reserves; replacement of real power losses; black start; (4) Deferral of generation capacity upgrading; (5) Support to the transmission and distribution;

#### Market segment:

The market segment identified concerns on applications for residential sector. The hybrid system has a power and a capacity up to 5kW/30kWh respectively. The segment range has been identified as a result of a careful market analysis, depending on the application sector and the evolution of energy market demand. A price of 500€/ kWh should guarantee a revenue of 630 - 777 k€ for a market share of 0.001% on a total of 35GW of installed renewable power.

#### Advantage factor:

Our research has been addressed towards the development of optimized integrated hybrid systems for residential application and the implementation of related logical sizing and operational algorithm. In particular, our innovative formulations of battery electrolyte allow to dissolve higher percentages of the active species that entail an increase in energy capacity and operative temperature range with respect to conventional redox flow battery of about 50%. Furthermore the use of smart energy management algorithm contributes to improve overall energy efficiency.

#### Commercial challenge:

The main commercial challenge focuses on the cost reduction of Hybrid System. A potential goal should be the capture of the market share currently occupied by systems that use as energy storage means technologies such as "eco-unfriendly" lead-acid batteries and the expensive lithium-polymer battery.

#### **Publications and Customer References:**

Dassisti et al., LCA of in-house produced small-sized Vanadium Redox-Flow Battery; SEEP, 2015. Bruno et al., Managing networked hybrid-energy systems: a predictive dispatch approach; IFAC 2014. Bruno et al., Predictive dispatch across time of hybrid isolated power systems; IEEE Transactions on Sustainable Energy, 2014. Di Lecce et al., An auction based agency for demand side management system: An evaluation; I2MTC, 2013 IEEE International.

#### Proposal of cooperation agreement:

Commercial representative, Venture capital financing, Licensing, Sub-contracting Agreement.

129

## **IT SRLS**

Via E. Carfi, 23 | 93012 Gela CL | Sicily

Contact: Stefano Carrara | CTO T. T. +39 3240797927 | soulsafe.lab@gmail.com | www.soulsafe.it

#### Employees: UP TO 2 EMPLOYEES

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Startup

#### Project Proposal SOULSAFE

#### Description of the innovation project:

SoulSafe is an APP/Web services developed for the collective security It enhances the video surveillence systems allowing direct communication with law enforcement agencies, thanks to cloud computing and a free Application to download. Upon the occurrence of any criminal act such as terrorist acts, robbery, brawl, theft etc.., anyone can start an alert from its own smartphone or by the IP CAM public/private belonging to our safety circuit. As Soulsafe receives the signal, will handle it, and sending it immediately to the Police Force.our first solution designed for all public private activities (able to integrate the current system of video surveillance) can show the IP cameras video placed on site to the Police that will be able to visualize "on air" (in real time) what is happening on that particular site, watching directly on their own screen, and intervene promptly and efficientely furthermore, also with the our App "the second solution" designed for every citizen, anyone can report a crime even from places where the special SoulSafe surveillance have not been placed yet. From practically anywhere eigther indoor or outdoor if you are assisting to any kind of crime , you can film it with your own smartphone and send the video geographically located (GPS) directly to the Police, easily, directly from the App. However if you would like to skip this call, Soulsafe will activate an automatic call to the Police, with a relevant registered Warning message.

#### **IP Protection Level:**

we are develop the prototype, we are copyrighted It has been submitted in other contests and invitations to tender and patent office ensuring intellectual property of the project.

#### State of development:

Prototype.

#### Industrial application:

SoulSafe provides an effective and integrative improvement in the Security&Surveillance , IT, telecommunications

#### Market segment:

Surveillance Security sector with an average cost of the service the amount of  $\in$  800.00 (1/3 of the average cost applied by competitors) and an initial target group of 1,000 customers, we would have an initial annual turnover of  $\in$  800,000.00, this concerns soulsafe software. The our app instead will be distributed free.

#### Advantage factor:

unlike competitors it is available to anyone citizen, public or private activity, the forces of order. Our App is focused on mobility and User Experience User centered design to make a quick and easy request for help.Absolute mobility for iOS / Android smartphones and, transforming the device into a useful tool for protecting Themselves and the others. SoulSafe software runs on Windows PC / MAC / Linux.

#### Commercial challenge:

our technological innovation is effective and inexpensive, unlike the competitors Nowadays, none of them work in the way we have conceived it.Our competitors will be our customers themselves because we will enhance their own and improve services.This will enable us not only to be the first in the market, but also to keep position in the long run.

#### Publications and Customer References:

- "Video Surveillance'trends by IHS" Jon Cropley (Video-Surveillance Analyst, HIS Technology). As estimated by the global market, the Security industry will have an average annual growth of 12% for 5 consecutive years, so as to reach \$ 23.6 billion by 2018.
- "Video Surveillance' technologies and development in 2015 and more" Johan Paulsson (CTO, Axis Communications).

#### Proposal of cooperation agreement:



## ITALDATA SPA

Collina Liguorini - Centro Direzionale Ed. D | 83100 Avellino AV | Campania



Contact: Rossana Vetrano | Partner T. +39 082 574221 | rossana.vetrano@italdata.it | www.italdata.it

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: Large companies

#### Project Proposal KON.it (Knowledge On the Net)

#### Description of the innovation project:

Kon.it enables the Customer to configure and activate Learning Management functions, Social Networking 2.0 features and Reporting and Analytics to monitor the user learning and collaboration activities. KON.it can facilitate the Online Academy setup and management avoiding the Customer to be involved in IT platforms and infrastructures issues and topics. KON.it can host and publish SCORM and TINCAN digital contents provided by Customer or by 3rd parts helping the Customer to focus on the training needs (contents and support services) of the members or course participants.

#### **IP Protection Level:**

KON.it is ready to be used by Customer and to be sold by resellers. The web site is http://www.kon.it Brand registration at CCIAA of Avellino (n. AV2001C000046 of 24/07/2001).

#### State of development:

Product.

#### Industrial application:

Online Course Academies, Corporate Academies management, School and Universities learning management.

#### Market segment:

(Large Accounts, SME, LPA, etc.).

## Advantage factor: nobody.

#### Commercial challenge:

to win International early adopters, to increase the KON.it International visibilità and market share.

#### **Publications and Customer References:**

Enel, Euronics, Centro Europeo di Formazione, Istituto Commercio Estero, Indesit, Siemens France.

#### Proposal of cooperation agreement:

Commercial representative.

## ITALDATA SPA

Collina Liguorini - Centro Direzionale Ed. D | 83100 Avellino AV | Campania

(it)aldata

Contact: Rossana Vetrano | Partner T. +39 082 574221 | rossana.vetrano@italdata.it | www.italdata.it

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro

Export: Less than 75.000 Euro Status: Large companies

#### Project Proposal iCity

#### Description of the innovation project:

iCity is a modular software solution able to connect several domains in a smart city, collecting and elaborating data and generating aggregated information useful to optimize the administrative and decisional processes concerning the town life.

#### **IP Protection Level:**

Brand registration at CCIAA of Benevento (license n. 0001607260 of 29/09/2014).

#### State of development:

Prototype.

#### Industrial application:

Public Administration (mainly Municipalities).

#### Market segment:

The utilities will improve their competitiveness thanks to real-time information management and to foresee the energetic demand for energy and water supply The public administration could offer innovative services to citizens in the domain of mobility, security, asset management, adding transparency to the administrative processes.

#### Advantage factor:

The solution allow to interact with different applications, operating data aggregation and correlation among heterogeneous sources. For utilities, the costs for energy supply and maintenance for a complex system could be significantly reduced by using the iCity solution.

#### Commercial challenge:

The towns that will start the evolution towards a "smart city", one of the more important development trends in the next years, have to re-organize the administrative processes, improve the quality and the number of services for citizens, involving them actively. The iCity solution could be a product (among only few available on the market), customized and configured in a suitable way, that will follow this evolution. Before to sell the solution it is necessary to complete the requirements specifications and to develop some modules at the moment in a prototype state.

#### **Publications and Customer References:**

- Municipality of Avellino Sistema integrato di gestione della mobilità urbana;
- Municipality of Viterbo Interventi a sostegno della mobilità pubblica e privata nel centro storico In both cases the "iCity" solution is installed in a control room, acquiring in real time data collected by independent subsystems like;
- traffic and parking monitoring, thanks to vehicle counters on the roads and parking areas;
- ▶ access control for vehicles to pedestrian areas;
- meteorological and air monitoring, through a sensor and station network;
- video surveillance of critical areas;
- ▶ public transport information (bus/train departures/transits/arrivals).

#### Proposal of cooperation agreement:

## ITALDATA SPA

Collina Liguorini - Centro Direzionale Ed. D | 83100 Avellino AV | Campania



Contact: Rossana Vetrano | Partner T. +39 082 574221 | rossana.vetrano@italdata.it | www.italdata.it

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: Less than 75.000 Euro Status: Large companies

#### Project Proposal LogoFleet

#### Description of the innovation project:

LOGOfleet is a smart mobility solution for logistics and monitoring of vehicles fleets used in freight transport logistics. It has been designed with innovative technologies to be hosted in a cloud environment and enjoyed as a service. It allows to optimize the use of resources (trucks, drivers and fuel), to prevent laws' infringements and to monitor in real time the load through specific sensors.

#### **IP Protection Level:**

Brand registration at CCIAA of Avellino (n. AV2014C000051 of 24/03/2014).

**State of development:** Product.

#### Industrial application:

Transport Companies.

#### Market segment:

Freight Transportation and Fleet Management. Innovative technologies (UMTS, GPS, Internet, Smart Phone, Cloud Computing, Wi-Fi, ...) applied to the world of transport enable the creation of new solutions that allow to improve competitiveness and quality of offered services in an environment of cost reduction.

#### Advantage factor:

LOGOfleet is a travel monitoring solution designed to meet needs of Transport Companies taking advantage of the most innovative technologies of smart mobility.

#### Commercial challenge:

Creation of an international network of sales channels allowing to increase investments and improve the offer. The business internationalization will allow to reach level of turnover that makes sustainable the relevant investments necessary to maintain a high level of innovation.

#### **Publications and Customer References:**

- Lannutti S.p.A. 700 vehicles international transport
- Mesaroli S.p.A. 160 vehicles international transport
- ▶ Roller S.p.A. 75 vehicles national transport including integrated order management.

#### Proposal of cooperation agreement:

## ITALY INNOVAZIONI SRL

C/da S. Francesco 115 | 87064 Corigliano Calabro CS | Calabria

Contact: Antonino Zito | Marketing Manager T. +39 392 9516 337, marketing@hidestore.it, www.hidestore.it

Employees: SINGLE USER Turnover: Less than 250.000 Euro Export: Status: Innovative SMEs



Project Proposal Hide

#### Description of the innovation project:

Hide revolutionizes the power socket concept. The plug disappears inside the wall, behind the sliding cover, and the wall always stays free and tidy. Also available with induction-charger on the front cover, with phone holder.

**IP Protection Level:** Patent no. 14/821 and 14/260.

**State of development:** Prototype.

**Industrial application:** Electrical parts, power sockets.

#### Market segment:

Retail, distribution, mass market; Electrical installers.

#### Advantage factor:

Design and usability:. It frees space: It lets you put furniture even in front of the power sockets without the annoying encumbrance of the plug. It protrudes from the wall by only 9 mm with the plug inserted and ensures reduced visual impact. Untidy cables are no longer a problem.

#### Commercial challenge:

The socket installs exactly like any other socket, on common flush mounting boxes. So no extra work is needed to install it in substitution of existing sockets. It delivers much more design, tidiness and utility than any other power outlet.

#### **Publications and Customer References:**

None.

#### Proposal of cooperation agreement:

## MACNIL - ZUCCHETTI GROUP

Via G. Matteotti, 63 | I-70024 Gravina in Apulia BA | Apulia

Contact: Mariarita Costanza | Chief Technical Officer - CTO T. +39 080 2464245 | info@macnil.it | www.macnil.it

Employees: FROM 20 TO 49 EMPLOYEES Turnover: From 2.5 to 5 million Euro Export: From 75.000 to 250.000 Euro Status: Innovative SMEs





## Project Proposal INFO SMART CITY

#### Description of the innovation project:

InfoSmartCity is an innovative system of sustainable mobility in urban areas. Through both an APP and a WEB SAAS platform is possible to monitor the whole city mobility thanks to several sources: big data from local traffic source, public transportation services and also private citizens. As well as the APP the Web platform will be available to all the citizens. Any user will have access to all the open data collected and checking the sustainable mobility dashboard. The APP will inform citizens about arrivals, congestion, delays, touristic information, monument, local artisan shops, point of general interest and city work in progress. It will be able to give options in case of emergency.

#### **IP Protection Level:**

Part of the project is covered by the Italian Patent Certification: "Sistema di Telerilevamento di un Veicolo" N. 0001379121.

#### State of development:

Concept.

#### Industrial application:

Public Transportation and Mobility.

#### Market segment:

Part of the world is looking for smart solutions to improve the quality of the life around cities and urban areas. The target segment is huge: each city up to 250.000 inhabitants will be a potential service user.

#### Advantage factor:

Nowadays, there is no any other comparable services. MACNIL - ZUCCHETTI Group is the first company in the world to develop such a service. There are very important and innovative outcomes: Beating Traffic Congestion, Real time monitoring and trafficking of public transportation vehicles for users and citizens. Reducing CO2 impact (coherently with Kyoto Protocol). Making citizens proactive and socially involved.

#### Commercial challenge:

MACNIL ZUCCHETTI Group competitive advantage is about pioneering aspect on non-replaceable services because it is the first service of this type in the world. A unique APP which explains everything about the city we you are based anytime you wish around the globe. Of course there are lots of opportunities especially in major cities of the biggest world countries: China, Brasil, Europe, USA, Emirates, South Africa and Russia.

#### **Publications and Customer References:**

Dissertation Thesis written by one of our trainee from University of Bari - Aldo Moro, Italy. Course in Information Communication Technology. Title: "SMART MOBILITY: Models and Technique for Info mobility GPS data analysis. Besides, the Municipality of Bari, Italy is one of the official public user. The International Event: "Matera Balloon Festival" supporting Matera Capital of Culture 2019 has experimented using the APP for all the attendees to the hot air balloon event.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing, Distribution Agreement, Sub-contracting Agreement.

## MECHATRONIC METERS SRL

Via Milano, 51 | 73040 Felline - Alliste LE | Apulia

metrology intelligent network and electronic devices

Contact: Salvatore D'Ambrosio | Business Opportunity, Head T. +39 348 8716843 | info@mmeters.com | www.mmeters.com

#### Employees: UP TO 2 EMPLOYEES

Turnover: Turnover not noticeable - Innovative start-up founded in the last year Export: Turnover not noticeable - Innovative start-up founded in the last year Status: Innovative SMEs

#### Project Proposal Smart meter for gas and water

#### Description of the innovation project:

The main results of patents above are two smart meters. The first one is a smart meter for the gas measurement compliant to the UNI/TS 11291 norm. The second one is an ultrasonic smart meter for the water measurement. Both of them have an embedded rf system which allow for bidirectional remote communication with each unit. With this system utilities are enabled to have a continuous control over each meter which can lead to manage a lot of new information coming from the meter and to discover a lot of problems like leakages (continuous lower sensed flow for long periods), bursts (higher sensed flow for a period), etc.

#### **IP Protection Level:**

Integrated system for gas measurement in gas nets. - Patent N. 1403406 Integrated system for hydraulic nets control and optimization. - Patent N. 1383914.

#### State of development:

Prototype.

#### Industrial application:

The industrial application concerns all public utilities and also could be applied to other scenarios like schools, hospitals, apartment blocks, etc.

#### Market segment:

The target market segment is global for all our solutions. All could be used to solve a lot of currently opened issue in the fields of water and gas measurement, and to generate a lot of valuable information for the utilities. So all products have a great commercial value for final users. For smart gas meter the authority established the final price to be within the range 90€..120€, but for this market does not exist historical data to calculate the payback period. For the smart water meter the final price is different nation by nation from 400AUD to 120€ here, and for this market the payback period, based on older experience from the israelian market, is about 1 to 3 years long.

#### Advantage factor:

The state of the art for both markets is a older technology consolidated from a long period of time. The new technology is the future technology and will be essential for the integration with the smart cities and IoT paradigms. Moreover the market increment for the next 5 years is calculated to be greater than 10% by annual base (Source: Smart Meters Market by Type (Smart Electric Meters, Smart Water Meters, Smart Gas Meters), by End User (Industrial & Commercial and Residential), & Region (Americas, Asia-Pacific, Europe & RoW) - Trends and Forecast to 2019).

#### Commercial challenge:

The commercial challenge is to create a unique offer for two solutions related to water and gas measurement fields to enable customers to build complex advanced metering infrastructure (AMI) to be used for achieve an advanced management of the target resource.

#### **Publications and Customer References:**

As the old company branch we received the prize Hydrica 2011 inside an international symposium in Padova for the main project WaMac - Water Management and Control. About the gas smart metering all the previous work related to the UNI/TS 11291 together with the market scouting, about the gas market needs, included in the ARG/ GAS L.155/08 directive e subsequent attachments.

#### Proposal of cooperation agreement:

Venture capital financing, Licensing, Distribution Agreement, Sub-contracting Agreement.

## NEXTOME SRL

c/o Laserinn strada prov. Casamassima Km 3 | 70010 Valenzano BA | Apulia

Contact: Vincenzo Dentamaro | CEO T. ++39 340 2680417 | info@nextome.org | www.nextome.org

#### Employees: UP TO 2 EMPLOYEES

Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Startup

#### Project Proposal Nextome - Indoor Navigation System

#### Description of the innovation project:

Nextome makes indoor positioning and navigation a reality. When visiting a building, walking inside a closed space, locate where you are and navigate to a chosen destination is now possible with Nextome technology. Nextome was born to solve the problems of the people, replacing the paper maps, it eliminates the hassle of checking signs, it allows targeted couponing and advertising everything with their own smartphones.

#### IP Protection Level:

patent: Enhanced Indoor Localization Method n° (WO2015/049660).

State of development:

Product.

Industrial application:

#### ICT e Smart City.

#### Market segment:

The target market for Nextome, are the large buildings: Museums, Shopping Malls, Exhibitions, Airports and Hotel. The market has finally exploded in 2015: ABI Research says that indoor positioning will reach \$4B in 2018. Between 2013 and the beginning of 2015 were spent over \$123M in funding for startups focused on indoor positioning and were completed three exits for a total of \$44.2M (Source AngelList). Lately also RetailNext leader in the in-store analytics was funded for \$ 125M.

#### Advantage factor:

Nextome technology has the following advantages: State of art technology. The patent pending technology of Nextome was created to be adaptable to any type of environment, it is accurate to about a meter of error. High Scalability. The whole computation of the position is made on the smartphone and therefore is not necessary any remote server architecture, making it possible to use Nextome also offline, as well as normal GPS. Fault tolerant. In the case where a sensor stops working, the architecture remains active and still allows users to be able to locate precisely. No Fingerprinting. Almost all existing indoor positioning systems are required to fingerprinting, which is why there is still no massive deployment of indoor location systems. Nextome does not use fingerprinting because thanks to its technology (patent pending) allows to filter out the signal from the sensors by removing the noise allowing a better accuracy of location. Easy to setup and use. Nextome guarantees high scalability and easy configuration thanks to its advanced configuration system that allows to load the map (a banal image of the floor plan in jpg or png) and the system will automatically recognize the walls and will distinguish the walkable from nonwalkable areas. Thanks to its advanced auto-deployment beacons technology, the configuration system, in real time, suggests where to place beacons inside the environment. Ready for the market. Research continues for improving the accuracy, but Nextome is a commercial product already usable and affordable. It 'can be improved also by creating a powerful user experience by integrating seamless indoor / outdoor positioning: every time user moves from one indoor environment to external and vice versa, the system chooses whether to use Nextome or GPS.

#### Commercial challenge:

With the patent filed you can be able to market the product and make it extensible all nations. Today is preparing a second patent. The first patent has a filing date of Oct. 2013 beginning of what would be the explosion of this technology.

#### **Publications and Customer References:**

Many international magazines and blogs have written about Nextome. Below is a short list of international journals and industry who spoke about Nextome. It has been deliberately omitted the numerous interviews Italian (just search Nextome and pages in Italian on Google) to underline the international nature of the company. GPS Business News (http://goo.gl/WOlikL); Italian General Consul of San Francisco (goo.gl/4sfwuH); Museums and the Web Florence 2014 ( http://goo.gl/ao4l5q ); [Best Seller Book] "Future Cities: 42 Insights and Interviews with Influencers, Startups, Investors" (http://goo.gl/tEp8d3) ABI Research (https://goo.gl/Keu8nX) Nextome included in the prestigious Grizzly Analytics report (http://www.grizzlyanalytics.com/).

#### Proposal of cooperation Agreement:



## **OMNIA ENERGIA SPA**

Zona Industriale - Via Beato Francesco Marino, 102 | 87040 Zumpano CS | Calabria



Contact: VINCENZO D'AGOSTINO | CEO T. +39 0984 825356 | vdagostino@omniaenergia.it | www.omniaenergia.it

Employees: > 50 Turnover: From 15 to 25 million Euro Export: Less than 75.000 Euro Status: SME

## Project Proposal OMNIA METER

#### Description of the innovation project:

Omnia Meter is an electronics device, intended for home end-users and micro-business, that with a simple installation and configuration and by the measurement of two-way flows of energy (electricity, gas and water), has the following objectives: optimizing energy consumptions through smart loads management based on predefined logics; informing the user about operational status of his electrical system and making him more aware about his habits on energy consumption, both from local and remote access, through Web portal and APP for mobile devices; verifying the voltage quality provided by electrical distributor and the amount of energy actually taken from the network, compared to that charged in the bill; driving electrical loads with calendar based logics for Home Automation operations.

#### **IP Protection Level:**

A patent industrial application (application number: FI2015A000116) is already been filed, at the Chamber of Commerce Industry Crafts and Agriculture in Florence (Italy). This device (from 17th July, 2015) complies to the CE mark for RESIDENTIAL, COMMERCIAL AND INDUSTRIAL LIGHT and HEAVY INDUSTRY ENVIRONMENT for the following certifications: EN 61326-1; EN 61010-1; ETSI EN 300 328-1; Wideband transmission system.

#### State of development:

Product.

#### Industrial application:

The final use of Omnia Meter, hardware and software, is in the Energy sector and more precisely for the final domestic and small businesses usage; it is also used for Smart Grid, Smart Cities and Renewable Energy applications.

#### Market segment:

The target market of Omnia Meter consists of domestic consumers and small businesses, holders of a single-phase electrical supply. The first phases of commercial developments concern the Italian market (composed of 34.6 million of POD - Point of Delivery) and the research of new potential markets like the rest of Europe and North of America. The Italian market is predicted to be growing and is currently characterized by 7.1 million potential customers with consumptions above the national average and/or that possess a photovoltaic system. A preliminary estimation of the commercial wholesale value of the product is from 300.00 €/p with a return on sales of around 30%.

#### Advantage factor:

OM is a device able to inform the end users about their consumption habits with the aim to minimize energy costs thanks to a number of features all included in a single device. Among its features, the most innovative are: the limitation of electricity withdrawals in the hours with the most expensive tariffs through smart loads actuating; the measurement and the availability of Power Quality analysis related to the variations of voltages; versions for deaf and blind persons; informing about power failure and power recovery; the "no blackout" functionality to avoid the trigging of the switch off device of the electronic meter, based on the same operating logic.

#### Commercial challenge:

The Italian electrical system will be characterized by a growing distributed energy generation, so there will be an increasing need to adopt smart-meters. Thanks to the limitation function of the hour withdrawals provided by OM, the end user may stipulate contracts for the purchase of electricity at the stock market price with the same advantages of the big industrial customers. The end user will also be more aware of the electrical loads malfunctions caused by voltage variations out of contractual values provided by the local electrical network distributors. Moreover, there is also the possibility for disadvantaged persons, such as the blind and deaf, to take benefits from the OM functions.

#### Proposal of cooperation agreement:

## PARK SMART SRL

Corso Italia 298 | 95127 Catania CT | Sicily

Contact: Carlo Sciuto | Business Opportunity, Head T. +39 329 4957517 | info@parksmart.it | www.parksmart.it

Employees: FROM 3 TO 9 EMPLOYEES Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal Park Smart

#### Description of the innovation project:

Park Smart implemented a software-based technology able to analyse, in real time, the availability of parking lots in the cities. Park Smart uses the physical infrastructure of video sensors, even the ones already existing in the area, to process the images and show vacant and occupied parking spaces. Information is then made available to drivers on their smartphone in order to indicate parking availability in the nearest areas in real time.

#### **IP Protection Level:**

Park Smart is patent pending with 44 patent claims.

#### State of development:

Patent.

#### Industrial application:

Smart Cities and smart mobility software and hardware solutions.

#### Market segment:

Smart Cities.

#### Advantage factor:

Park Smart uses the physical infrastructure of video sensors, even the ones already existing in the area, to process images. The software platform is able to work in synergy with other smart-city services and it will contribute to help public administration to organize public spaces more efficiently. Park Smart doesn't damage the street to install or to maintain sensors.

#### Commercial challenge:

Park Smart is a win-win solution. Our clients win because they increase parking revenue about 20 or 30%. Our users win because they save time and money to park. Even the environment wins, because Park Smart reduces traffic pollution.

#### **Publications and Customer References:**

We have a pilot working at the University of Catania.

#### Proposal of cooperation agreement:

Venture capital financing.

PARK SMART

## SEELIGHT SRL

Via Fra Nicolo da Leguile, 1 | 73100 Lecce LE | Apulia



Contact: Mirco Manciulli | CEO T. +39 392 2224463 | mirco.manciulli@seelight.it | www.seelight.it

Employees: SINGLE USER

Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: Innovative SMEs

#### Project Proposal **RBB - REFEREE BLACK BOX**

#### Description of the innovation project:

Realization and marketing of innovative services applied to Sports: the Referee Black Box provides a service aimed at the world of sport through which commentators, TV services and their spectators will have a new point of view of sports matches, that of the referee team.

#### **IP Protection Level:**

Ongoing developments will be subject to specific patent applications.

#### State of development:

Prototype.

#### Industrial application:

A new point of view in sports events to see exactly what the referees and their assistants see. Subjective videos of the referee team.

#### Market segment:

TV channels, international and national sports associations.

#### Advantage factor:

Technological factors: - Wearable ergonomic and mini invasive devices for video recording acquisition - Stabilizing images and time indexing software of the videos recorded by the various team members Service characteristics: The service allows the registered users to view the subjective videos of the referee team for specific sports events, download them partially or completely by selecting the time frame he requires according to one minute time span for specific occurrencies during the match.

#### **Commercial challenge:**

TV channels, international and national sports associations are strongly interested in technological tools that can improve both the show and the assessment of the performance of the referee team. The challenge is to give them the possibility to use subjective videos of the referee team.

#### **Publications and Customer References:**

SDR Project (Bando FAR FAS Regione Toscana 2014) Our Scientific and Technological Partners:

- Scuola Superiore di Studi Universitari e Perfezionamento Sant'Anna
- D'Appolonia SpA Namirial SpA (Certification Authority)
- T.I.M.E. Srl The Italian Sport Company Srl
- ▶ LUDEC a.s.d.
- ▶ Technical Consultancy in the SPORT field: Giuseppe Dossena.

#### Proposal of cooperation agreement:

Commercial representative, Know how transfer, Venture capital financing.

## SOFTWARE EVOLUTION SRL

Via Virgilio III traversa nr 4 | 80078 Pozzuoli NA | Campania

softwarevolution

Contact: Marco Finizio | CEO T. +39 081 2133091 | info@softwareevolution.it | www.softwareevolution.it

Employees: UP TO 2 EMPLOYEES Turnover: Less than 250.000 Euro

Export: Less than 75.000 Euro Status: N.A.

#### Project Proposal Smart Automata

#### Description of the innovation project:

Creation of smart automata for smart cities by using our semantic analysis software engine. Key features include: dynamic learning, facts correlations, local processing with no internet access needed.

**IP Protection Level:** No IP yet.

**State of development:** Prototype.

Industrial application: Smart Devices, Home/Office Appliances, Automotive, Customer care.

**Market segment:** Internet of Things, Smart cities, Mobile Apps.

Advantage factor: Proprietary technology, unique features such as smartness and advanced interactivity.

**Commercial challenge:** First version launch on main App stores.

Publications and Customer References:

A first prototype video is available here: https://youtu.be/crTQx\_yqJZM

#### Proposal of cooperation agreement:

## SOFTWARE EVOLUTION SRL

Via Virgilio III traversa nr 4 | 80078 Pozzuoli NA | Campania

softwarevolution

Contact: Marco Finizio | CEO T. +39 081 2133091 | info@softwareevolution.it | www.softwareevolution.it

Employees: UP TO 2 EMPLOYEES

Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.



#### Description of the innovation project:

The Human Machine represents a new era of smart automata and virtual assistants. Based on VIKI Technology, The Human Machine is a virtual friend that likes to talk to and behave like humans.

IP Protection Level: nd.

**State of development:** Prototype.

**Industrial application:** ICT.

Market segment: Wearable Devices, Mobile apps, IoT environments.

#### Advantage factor:

Unique smartness levels. The Human Machine sets new standards in the industry state-of-the-art.

Commercial challenge:

Worldwide market (it can be installed on every smartphone or smart device).

**Publications and Customer References:** nd.

**Proposal of cooperation agreement:** Venture capital financing.

## STASBRANGER SRL

Via Sosta San Riccardo 28 | 76123 Andria BT | Apulia

Contact: Flavio Troia | CEO T. +39 088 3380207 | info@stasbranger.com | www.stasbranger.com

Employees: FROM 3 TO 9 EMPLOYEES

Turnover: Less than 250.000 Euro Export: Less than 75.000 Euro Status: N.A.

> Project Proposal SPIDLY

BASERANSER

**S**pidly

#### Description of the innovation project:

Spidly is a Social Media Management Tool. Spidly keeps social accounts updated posting multimedial contents on them. Spidly works in a semi-automatic way.

#### **IP Protection Level:**

Product development is complete. It is available online @ www.spidly.com. We own the brand "spidly". International patent filing in progress.

#### State of development:

Product

#### Industrial application:

Target: web agencies and companies

#### Market segment:

Spidly is yet available online for being purchased by agencies or private customers. Spidly works at the same time on several accounts on the following platforms: Facebook, Twitter, Linkedin. We are currently fundraising to:

1. improve our commercial strategy;

2. implement our tecnical staff;

#### Advantage factor:

Companies which have already realized the importance of "social market", invest an average of 500\$ per month to update their social accounts. Spidly, using both the keywords defined by the user and its own artificial intelligence, automatically retrieves multimedia content from the Web, publishing it on social media accounts and keeping them updated. The purpose is to increase the company reputation on the internet.

#### Commercial challenge:

Many agencies work on social marketing but they use too many human resources to keep their customers social accounts updated. In addition to these agencies, there are several softwares implemented to post or tweet in a given schedule. Spidly offers more: it uses its semantic engine to look for content on the Web and it stimulates user engagement with games and competitions.

#### **Publications and Customer References:**

www.spidly.com La Repubblica delle idee 2014 StartCup Apulia 2013 Smau Napoli 2014 Smau Milano 2015 (padiglione delle Startup) Office Automation Dicembre 2013.

#### Proposal of cooperation agreement: