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Startup Exhibition

In collaboration with
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Exhibition Coordinator

ARCA Consortium

ARCA is a consortium for the application of research and the creation of innovative enterprises, which has been active since 2003 and has exploited a partnership between the University of Palermo and a private entrepreneurial group committed to industrial research and technological transfer.

In 2005 the Consortium started up the ARCA Incubator to promote and assist the generation of innovative business initiatives.

The incubator is located within the University of Palermo campus, covering a total area of about 1,500 square meters and is built around a system of common spaces (coworking areas, a kitchen, a lounge area, printing facilities), units for businesses, offices, staff and meeting rooms, training classrooms and technological laboratories.

In a complementary and integrated way with the activities of the incubator, we promote industrial research and technological transfer programs customised to the needs of small and medium-sized enterprises, networks and industrial districts.

We are strongly committed to transnational cooperation programs; we carry out social innovation initiatives in collaboration with other local development actors.

The technological areas in which we operate are different and related to scientific production and specific expertise within the region:

- renewable energy and sustainable building
- mechatronics
- environmental monitoring, GIS systems and remote sensing
- digital technologies
- management and enhancement of cultural heritage
- biotechnology and human health
- technologies addressed to marine environment and sea industry.

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Demotic

Low cost and open source home automation system controlled by simple arms and hand movements by means of wearable technology. Demotic is a home automation tool designed for the disabled and the elderly, a hardware and software solution for building automation - based on open source and open hardware projects - able to listen to information from sensors and translate them into implementations. Automations are introduced by simple arms and hand movements or smartphones, tablets, voice control or web applications. DEMOTIC is a traditional low-cost home automation system. Designed and engineered to be controlled by smartphones or webs, it can be installed in offices, shops, houses and flats on several floors or on particularly large surfaces in a few days.

The target in question is often forced to convert its traditional plant into a home automation system, with an over initial investment that does not justify the expected benefit. Another difficulty encountered is the lack of adaptability to future needs and possible expansion of the structure or system. Demotic is also Data Mining service: All consumption data, the sequence of sent commands, and the monitoring of energy habits are transmitted to the cloud server for synchronization with all devices.

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IDEA srl

Idea is acting as an integrator between research and industry, coordinating innovation projects in the fields of renewable energies and energy saving, low impact materials and products, environmental engineering, mechatronics. Idea accelerates the market deployment of disruptive solutions that can support the radical change towards a more sustainable development. Idea has a consolidated expertise in managing complex projects of research and development. A multidisciplinary team of engineers is combing mechanical and electronic design, plant and chemical engineering within a visionary approach to new product development. The access to a very wide network of collaborations, and the scientific advise of a team of professors from the University of Palermo, makes of Idea a powerful environment where new industrial initiatives can be validated and accelerated.

Idea LFR solar collector IFC-1832

Idea LFR solar collector IFC-1832 Technical data sheet IFC-1832 is a linear concentrating solar collector specically designed for process heat generation in the temperature range from 150°C to 300°C. e compact and modular structure allows the installation both in dedicated elds and in building integrated sites, including roofs. The primary reecting system integrates 18 high quality silver plated mirrors, which redirect the solar radiation towards a secondary metallic mirror. Finally the sun rays are concentrated into a vacuum glazed absorber, where the heat transfer uid – either pressurized water or thermal oil - is heated at the requested temperature. Each module reaches a thermal peak generation of 12.2 kW under reference conditions, which corresponds to 530 W/m2 in terms of collector aperture area, and 345 W/m2 in terms of footprint area.

Idea hybrid solar collector IHC-2025

IHC-2025 is a focus concentrating solar collector for hybrid generation of heat and electricity, which represents the state-of-the-art in terms of solar technology. e solar radiation is reected by high quality silver plated mirrors on a receiver including a high performance multi-junction PV cell and a heat exchanger, mounted on the back of the photovoltaic cell. One module includes 20 basic receivers, for a total peak power at reference conditions of 1kW electric and 2 kW thermal, with a total e_ciency in solar energy conversion of about 75% (30% electric, 45% thermal). Modules can be connected together for reaching the desired output and easily integrated into the heating and electric networks of single buildings or settlements.

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Istituto Tecnico Economico e Tecnologico "Girolamo Caruso" ALCAMO

The local context of the High School "Institute Girolamo Caruso" is that of the province of Trapani and is located in an urban expansion area of the city of Alcamo. In addition, the institute's location is also central point of the two provincial capitals (Trapani and Palermo) and the main airports of western Sicily (Birgi and Falcone Borsellino). The Institute is the head of the CTRH network of schools and of the Observatory for legality, set up in school year 2013/2014 with tasks of monitoring and study of the phenomenon of school dropout. The Institute shares with local schools and educational initiatives of inclusiveness and for several years been organizing training sessions involving local, national and international institutions by organizing seminars for thematic analysis and in particular on innovative and experimental teaching methods.

The school addresses of education of the Institute are the following ones:

- ADMINISTRATION FINANCE AND MARKETING
- IT SYSTEMS FOR ENTERPRISES
- INTERNATIONAL REPORT FOR MARKETING
- CONSTRUCTIONS, ENVIRONMENT AND TERRITORY
- ELECTRONIC AND ELECTRICAL ENGINEERING
- INFORMATION AND COMMUNICATION TECHNOLOGY

ITET G. CARUSO has participated in several Comenius actions: two Comenius multilateral partnerships, and also is the leader of the project funded by the Erasmus + Indire Agency called SCHOOL MOBILITY MANAGER - Strategic Partnership KA2 code 2016-1-IT02-KA201-024701 and also ad partner in another Erasmus+ Project called Flip2Learning. The school also hosted a student from Romania and has participated in several projects involving the mobility of students and teachers in England, France and Belgium. Everyone has had a very positive impact on the motivation of students, increasing awareness of the need to learn one or more foreign languages. It has strengthened the European dimension as a school and allowed to establish and maintain friendship and cooperation with our European partners former schools. The school has a language center and the languages taught are English, French and Spanish. The school works to develop European citizenship of students and Teachers involved are engaged in activities to raise awareness among students about the use and opportunities of new media, as part of curricular materials and the cross-cutting objectives.

In the last three years we have implemented a series of actions in order to encourage more active participation of the students, to help build positive relationships that contribute to a better and safer school environment, and especially to promote the responsible use of ICT.

- Creation VR Environment
- Creation Digital TV and Web TV
- Creation of a school blog/online magazine
- The promotion of peer mediation of conflicts in school, preparing students to become active mediators
- Increase awareness of the issues raised by the increasing use of social networks: the organization of workshops on cyberbullying

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M2D Technologies

Founded in 2009, M2D Technologies is a tech company focused mainly on industrial monitoring solutions. Thanks to a talented team, composed by experts and researchers in computer vision, machine learning and complex systems, the company develops and proposes software and integrated solutions based on Artificial Intelligence modules. M2D is currently active in Europe and Emirates, cooperating with energy utilities and distributing thermal imaging solutions and A.I. applications.

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OCORE

OCORE is a dynamic start-up, its goal is to develop new production methods that allow to overcome the problems of traditional 3D Printing. OCORE explores new opportunities for design by means of the use of advanced software which can obtain integrated and more sustainable products highly optimized and performed.

The proponents have approached the 3D printing solutions in the nautical field, starting with research in the field of topological optimization of structures, in fact, traditional production methods lay strict limits on the definition of complex shapes that can be lighter and more efficient. Additive manufacturing opens new scenarios to this and inter alia provides for the use of easily recyclable materials. Today they are working on the construction of the first 3D sailing boat that will not only navigate but will participate in a transoceanic race (MINI TRANSAT) in 2019 demonstrating the remarkable potential of technology developed by OCORE. The main partners of OCRE are Autodesk, KUKA, LEHVOSS, CRP Technology and SABIC.

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Park Smart

Park Smart is a smart parking solution company who strongly believe to make life easier by developing smart technology services in order to create new urban mobility models for smart cities. At Park Smart, the team have the vision of working to overcome this challenge by contribute with their technology software to build a more efficient city-life, letting citizen saving precious time avoiding stressful situations, reducing pollution and traffic congestion in order to create positive effects in terms of quality of life on the whole community.

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Safety Environmental Engineering srl

The Spinoff company essentially aims to promote innovative ideas in the field of environmental safety. To this end it is proposed to promote and continue the different phases (design, prototyping, experimentation, patenting, engineering and possible production) for the definition of techniques/technologies, systems and / or products for the safety and protection of man and the environment.

The Spinoff's constitution is inspired by innovative ideas promoted by its members and aimed at guaranteeing greater safety in energy production systems. Specifically, the attention in this first phase was directed to a photovoltaic (PV) system that may represent a fire hazard.

SCH-PV®

The SCH-PV® (Safety Cover Hydro PV) proposed by the Safety Environmental Engineering s.r.l. improves the eco-design of the photovoltaic panels. The SCH-PV allows the maintenance conditions while increasing the safety and the energetic efficiency of the photovoltaic panels. The panel’s maintenance ensures that its life is preserved for as long as possible obtaining that the efficiency of the system is better sustained, the panel’s failure is reduced and, consequently, greater safety for both operators and users is achieved.

The SCH-PV® is a system totally innovative and it includes mechanics remotely controlled so that it is easily actionable. The SCH-PV is also made with materials environmentally friendly and it is resistant to high temperature and to environmental stresses. The SCH-PV® consists of an obscuring element of the PV panel allowing the electrical disconnection of the panel and its cleaning. Thus the SCH-PV® device improves the maintenance technology of the PV systems providing simultaneously a higher efficiency, durability and safety conditions of the system.

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Made Simple s.r.l., an innovative startup, was founded by the two engineers Gregorio Russo and Giuseppe Monforte and the IT Expert Armando Marra. The basic idea was to simplify and improve the workflow of all the technicians who deal with the management of construction sites. The over ten-year experience of the founders in the field has allowed them to often face the problems strongly felt by the various operators in the construction world: collect information (photographs and annotations) in an orderly manner, manage this information in an efficient and accessible way and generate the mandatory documentation for the management of the site.

Site Assistant is a platform able to support the construction activities of all the players in the sector. Using innovative data analysis and data presentation technologies, it allows users to automate most of their site management tasks. The platform is accessible from the web interface and via the mobile app for iOS and Android devices. With the web interface users can control the workflow, using automations such as: automatic organization of inspections, schedule of activities (feature under development), sharing sites with other users and generation of mandatory documentation.

The mobile app supports the user during the inspection allowing him to take pictures, save specific information, take quick notes and record voice notes. All this data is saved to the cloud instantly or synchronized once under internet coverage. The acquired data are automatically classified and can be used for the automatic production of various documents required by law. An additional module, actually under development, will allow to speed up and make more precise and secure the mandatory procedure of collecting and delivering the sample materials to testing laboratories. With the use of special coded labels (QR code + RFID) to be affixed to the specimens, it will be possible to identify the samples of material to be tested in a univocal and anonymous manner and, at the same time, transmit the related information to the test laboratories.

Path in TIM # WCAP

In 2016, Site Assistant won the grant offered by TIM’s open innovation program TIM# WCAP. In September 2016, founders began the three-month acceleration process that allowed them to acquire the skills necessary to pass from the validation of the business idea to the realization of a prototype subject to early adopters. The path ended with the Demo Day held at the TIM headquarters in Rome, where the potential of Site Assistant was presented to the managers of the TIM business units, who showed a keen interest in the product.

Path in Next Energy

In 2018 Site Assistant is selected to participate in the Next Energy acceleration process promoted by Terna s.p.a. and Cariplo Foundation, and created by Cariplo Factory. Acceleration takes place at the Consorzio Arca in Palermo where a preliminary patent study is launched for the Site Assistant Label System, a system that innovates the process of labeling and traceability of construction materials. At the same time begins the promotional activity of Site Assistant, through a roadshow that allows to present the product during events and conferences dedicated to players.

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