START-UPS AND INNOVATION

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ALMA MATER STUDIORUM UNIVERSITÀ DI BOLOGNA

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Start-ups and Innovation aims at strengthening the offer of the exhibition about Open Innovation and to provide new matching opportunities between the exhibitors, buyers and selected start-ups.
33 start-ups dealing with Ecomondo topics are ready to share their knowledge, products and services and meet the exhibition attendees in a large area next to the main entrance, Hall Sud.

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Beacon Conference Investment Forum

November 7, 2019 | Room Neri 2,
Hall Sud ECOMONDO

The Investment Forum is part of "Innovation and Start-ups @ Ecomondo 2019" action, powered by IEG - Italian Exhibition Group, ART-ER Attractiveness Research Territory, the Emilia-Romagna Region, in collaboration with the European Knowledge and Innovation Communities EIT Climate, Food, Raw Materials, with Confindustria- Giuseppina MAI Foundation, the University of Bologna and Talenteco GmbH.
Selected Italian and international start-ups, searching for investing opportunities for business development and scale up, will be on stage to pitch their business with a 3 minutes presentation in front of a panel of potential investors, industry and financing experts.
The Forum will be introduced by the opening speech "Improving access to finance for circular economy projects" by the European Commission DG Research representative, with an overview of recommendations set elaborated by the (informal) European Commission Expert Group on Circular Economy Financing.

9.45 - 10.00 Welcome

10.00-10.10 Introduction and Chair
Donata Folesani, Finance for Innovation,
Intellectual Property Head of Unit - ART-ER

10.10 - 10.40 Opening Speech - Improving access to finance for circular economy projects.
Janneke van Veen, European Commission - DG Research & Innovation

10:40 - 11:50 Pitch Session

11:50 - 12:10 BREAK

12:10 - 13:20 Pitch Session

13:30 - Conclusions

WORKING LANGUAGE: ENGLISH

INVESTMENT FORUM START-UPS

3BEE

STARTUP AREA HALL SUD

3Bee designs an artificial intelligent decision support system (DSS-AI) for farming animals: an IoT monitoring and diagnostic machine learning algorithms that analyze the animals' most important biological parameters. These data are sent to a Cloud platform and are used to develop AI predictive algorithms that can early detect and prevent diseases and anomalies. Thus, prompt and focused interventions are made possible, reducing the treatments that are now used to cure and ward off illnesses. At the same time, costs for farmers are decreased and productivity is improved. Pharmaceutical companies are already interested in 3Bee data that would allow them to reduce R&D costs. 3Bee started from targeting beekeeping sector developing HIVE-TECH. Thanks to it, 3Bee users are profiting of a reduction in bee mortality of the 20%, enhancement of productivity of the 27%, reduction of chemicals usage of the 32%. 3Bee is now testing FARM-TECH product for the Swine sector.

DATE OF INCORPORATION: December 2017

TEAM

Niccolò Calandri, CEO and Product Developer
Riccardo Balzaretti, Data Scientist
Elena Fraccaro, Marketing and Communication Specialist
Marco Croci, Data Scientist and Machine Learning Specialist
Federico Faugno, Supply Communication Specialist Manager
Nicky Alexander Silvestri, Digital Marketer and Analyst

CONTACTS

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COMPANY BACKGROUND 3Bee merges electronic sensors and biological analysis to develop innovative solutions for the animal farming sector. 3Bee first focus has been bees, for which a specific IoT, monitoring system has been produced (Hive-Tech). The idea came from alarming data: the bee population is constantly decreasing due to many causes: pesticides, poor diet, diseases, pathogens, poor beehive management, and climate change. At the present time, the only viable solution to tackle the problem is using chemical and antibiotic treatments. Developing AI-IoT monitoring devices allows to remote control beehives, to early detect illnesses and anomalies, and to intervene promptly and in a focused way to halt unforeseen events. Thus, chemical and antibiotic treatments can be drastically reduced and bee health safeguarded. 3Bee is developing similar SaaS-enabled by IoT solutions for other farming animals (pigs, broiler) to tackle antibiotic abuse in the sector, that is causing a growing antibiotic resistance.

PARTNERS Bayer: interested in 3Bee devices that allow them to gather on-field data, useful to speed up the transition towards a near-zero treatments phase of farming. 2) UQIDO, a leading IT service company, supports 3Bee in developing SaaS platform. 3) OMP Mechtron Co., Ltd: industrial partner with strong expertise in IoT devices that will support 3Bee in enhancing production capacity. 5) Demetra: will demonstrate 3Bee positive carbon footprint demonstration 6) IZSLT: Research institute specialized in biology that supports 3Bee in analysing animal parameters.

DEVELOPMENT STAGE 3Bee was founded in December 2016 by Calandri and Balzaretti. In January 2017, 3Bee developed the Hive-Tech first prototype, attracting the interest of many investors. After months of on-field tests, a second prototype was released (Nov. 2017). In March 2018, the product was launched on the market. The first revenues enabled the enlargement of the production capacity and the expansion of the team. Currently, Hive-Tech project has achieved a large network of beekeeper in Italy, it is going to start sales in other European market. In the end of 2018, 3Bee started Farm-Tech project, making research on the swine farms sector with the goal of developing a new product, capable of replicating the success reached with Hive-tech into another farming category. In 2019, 3Bee team gathered feedback from swine farmers, collecting their needs and verifying the size of the potential demand. Currently, 3Bee is improving hardware for Farm-Tech project.

PRODUCT DEVELOPMENT STATUS TRL8 - Actual system completed and qualified through test and demonstration.

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS Farm-

tech project is going ahead its development stage, completing TRL4 step and starting TRL5 phase. As a matter of fact, the first prototype of Farm-Tech device has been developed and tested into laboratory environment. Now the aim is to improve the prototype and validate and demonstrate it into a relevant environment (TRL 5-6). The Hive-Tech system has reached TRL8, since it is already on the market.

MARKET

Total Addressable market For Farm-Tech Project the Total addressable Market is the European Market of swine farms. In future will be considered application also for other typologies of farming (broiler, cow). 3Bee assessed the TAM that could be achieved through the installation of IoT monitoring systems, based on the market value of pig farms in Europe. Considering that the average market value of a live pig in Europe is equivalent to about 1.50 €/kg and being the average weight of the animal in a range between 160 and 176 kg, the value of each animal is about 252 €. Moreover, every year in Europe, are farmed 252 M of pigs. These values have allowed 3Bee to estimate the total market value for 3Bee in Europe, equal to 3.2 Billion €/year for the sale of hardware devices. This calculation was made the 5% of the value of the livestock, which is equal to 63 Billion €/year.

Segmented Addressable Market Once the business model will be validated, 3Bee will commercialize Farm-Tech by targeting Italian market of swine farmers. Indeed, as already done with the Hive-Tech project, the goal is to start from local market and then scale up in Europe when the revenues will enable the growth of an international sales network. Italian market of pig farms is composed by 26000 pig farms where, every year, 12 Million animals are farmed (the 5% of the European market). Considering the market price in Italy (1.40 €/kg, slowly lower than the European one), it can be estimated the value of the market for 3Bee starting from the value of total market for swine in Italy. SAM is equal to 141 M € per year.

Share of the Market Farm-Tech devices are not already on the market. 3Bee individuated that there are potential customers, has installed a device for a field test, is collecting and analyzing data and is improving the prototype to validate it on a large scale. 3Bee has reached a MKT share of the 2% considering Hive-Tech project in Italian market, with a marketing effort cost of 15.000. The acquisition cost for a single beekeeper was around 50 dollars, the NET life-time value in 5 years is around 2.000 dollars.

CUSTOMER AND END USER DEMAND 3Bee costumers for Farm-Tech project are swine farmers. 3Bee reaches customers through different channels: 1) Commercial Agent: associations, distributors, and large clients will be reached through a commercial agent; 2) Direct Selling: dedicated phone calls and mail; 3) Digital Marketing: SEO, SEM. 4) Advertising on sector-based journals. 5) Participation to fairs.

DISTRIBUTION CHANNELS 3Bee sells its product directly through its website, through a commercial agent and through distributors. On the website, customers can require customized quotations according to their needs. Commercial agent targets large associations and large customers. Partnerships with incumbent distributors in the market, like wholesalers and drop-shippers, allow 3Bee to rapidly increase its customer base. 3Bee offers to distributors quantity discounts up to 20%. In this way, 3Bee products can be commercialized on websites having the largest number of visits.

COMPETITORS The analysis of competitors has allowed 3Bee to outline how the market is evolving rapidly and there are currently no players who have gained a high market share. Furthermore, 3Bee has identified the following weaknesses in competitors' business models: focus only on weight monitoring and excessively bulky hardware devices. The most relevant competitors for Farm-Tech are Pig Scale and SoundTalks.

BUSINESS MODEL SCALABILITY 3Bee business model is scalable for the following reasons: 1)Increasing production volumes, it is possible to enhance bargaining power with suppliers and achieve lower costs for input components. 2)By increasing the number of customers on the platform economies of scale can be exploited in relation to costs for cloud and hosting server. 3)Increasing the number of customers, increase the number of historical data. In this way, the accuracy of the predictive algorithms developed with machine learning techniques increase as well, improving the service delivered to users.

ECONOMIC AND FINANCIAL DATA

Ownership Calandri 37% Balzaretti 26% Nipoti 3% Colombo 10% Simontacchi 23%

Founders Capital 40k cash and 350k of work for equity. Balzaretti has refused a position in a Swiss pharmaceutical industry (RAL 80k) and has invested two years of free work in 3Bee. Calandri has refused a Postdoc position at the MIT and CQC2T (RAL 95k€) and has invested 2 years of free work in 3Bee.

	Revenue - 0€	EBIT*	Headcount **
2016	0	0	0
2017	0	-90.000	2
2018	200.000	-50.000	4

Funding needs
Up to 500.000 euro
Funding sources
Public grants and schemes

Subsidies / investors and funding needs
Indiegogo: 15k € (donation funding, 2016) Unioncamere Lombardia: 20k € (best project for research and innovation, 2016) Private investments from Team and angels: 120k € (2017) Premio Marzotto: 50k € (Best Italian Start-up Idea 2017) SME1: 50k € (equity free grant, 2017) Climate KIC, Stage 1: 5k € (2019)

Financial roadmap
Farm Tech Project: in the next 3 years, 3Bee aims to:
– Finalize the prototype: consultancy expenses, obtain certifications (about 50 k € in 3 years)
– Produce 1.000 devices at a cost of 100 €/unit in order to start field-test and collect data for developing algorithms (100 k €).
– Hire a new data scientist to develop algorithms starting from the data collected from the first devices installed. (120 k €).
– Hire a Sales agent: in the 3rd year (2021), the product will be launched on the market.
A commercial agent will be introduced targeting large customers (40 K € in the 3rd year). Total investment in the next 3 years (2019, 2020, 2021): 310.000 €.

bluetentacles
USE LESS, GROW MORE

BLUETENTACLES

STARTUP AREA HALL SUD

eit Food

BLUETENTACLES is a complete solution for precision irrigation based on IoT and Artificial Intelligence for the retrofit of existing irrigation systems. The objective is to increase yield and quality of crop production saving water and energy in agriculture.

DATE OF INCORPORATION: October 2018

TEAM

Marco Bezzi, CEO, Cofounder
Silvano Pisoni, CTO, Cofounder
Carlo Pellegrini, Client Service, Cofounder
Paolo Grisenti, CFO
Filippo Stabile, Sales & Marketing
Marco Bacci, Developer

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	Revenue - 0€	EBIT*	Headcount **
2016	-	-	-
2017	-	-	-
2018	50	-	-

Funding needs
Up to 500.000 euro
Funding sources
Seed/venture capital

Subsidies / investors and funding needs We were able to funding Bluetentacles using different strategies: grants, investments and prizes.
Financial roadmap We decided to open our Seed-Round Friday, 11th, during the Pitch Investment Night in Bolzano to collect 500k euro to accelerate our time to market and to reach the leadership position in the precision-irrigation-retrofit of existing irrigation systems. The 500k euro will be used 40% for AI development, 10% for patenting and product certification, 30% for marketing and 20% to IoT development.

COMPANY BACKGROUND BLUETENTACLES is an advanced and complete precision irrigation solution based on IoT and Artificial Intelligence to save water and resources in agriculture. The solution is able to perform a cost-reduction retrofit of existing irrigation systems through an integration of different input-information such as satellite data, soil moisture data and meteo forecast models. BLUETENTACLES algorithms are able to suggest the best irrigation cycle saving water and energy.

PARTNERS We have active collaboration with the University of Trento, Fondazione Edmund Mach, Italian Research Council for Agriculture. We have active collaboration with Irrimec (horse-wheel irrigation machine production) and Otech (pivot system for irrigation) We start a strong collaboration with other 2 start-up: xFarm (producing a data management platform) and Idroplan (focused on crop specific irrigation advice).

DEVELOPMENT STAGE During the past irrigation season (2019) we installed our devices in field and we could have a real condition test of our solution. We involved 2 irrigation consortia and 2 private farms that are also our first customers. During the real test condition we could verify the range of coverage of our gateway, we could test different kind of sensors for soil moisture analysis and we could test the controllers for the proper management of irrigation.

PRODUCT DEVELOPMENT STATUS TRL7 - System prototype demonstration in operational environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS Regarding the Hardware development of our solution we did many test and adjustments and we can consider close the development. Regarding the software management platform (front-end) we found the final configuration and we are working now on the final set-up to enhance the User Experience of our customers. Regarding the irrigation advice we decided to hire an agronomist (Filippo) and a developer (Marco) to improve our algorithms both from the scientific side and software (AI) side.

MARKET

Total Addressable market Our Market is the precision irrigation market estimated in 10 bln euro in 2025 with a CAGR 14,2% (Grand View Research).
Segmented Addressable Market Our segmented addressable market are the drip irrigation systems already installed: 9 mln hectares world-wide and 600 k hectares in Italy. Our initial target market are high income farms in Italy bigger than 10 hectares were we have a easier access point thank to the previous and long-time activity of bluetentacles cofounders in the irrigation sector. Our initial focus is in Italy and we already planned to scale our business in the Mediterranean Basin (France, Spain, Marocco,...).
Share of the Market We expect to reach in 2020 the 5% of the segmented addressable market.
Customer and end user demand Our customers are farmers willing to increase yield and quality of their products and to guarantee production consistency year over year thanks to a more sustainable and precise use of resources. Our revenue model is based on Free-Loan devices and Software as a Service with a 3 years contract and recurrent annual fee. We will create a end user demand thanks to the many services we could provide once our devices are installed in the field.
Distribution Channels We expect to acquire new customers both directly (farmers, vineries, irrigation consortia) and trough the involvement of distributors (irrigation resellers, agronomist, irrigation technicians) and the involvement of farmers and vineries associations.
Competitors The competition landscape is full of proposal and solutions. There are many start-up providing partial solution: just monitoring or just irrigation advice. Our competitive advantage is to have a complete solution for precision irrigation: from monitoring to irrigation advice and control of irrigation system. Another big competitive advantage are the retrofit-potential of our solution and the devices's auto-installation.

BUSINESS MODEL SCALABILITY Our solution is completely scalable both in space (different countries) and for the range of crops we could manage. The solution is focused on precision irrigation but it will soon be scalable to an increasing variety of services like fertirrigation or diseases alarm and control.

ECONOMIC AND FINANCIAL DATA

Ownership Marco Bezzi (CEO) 33,34%, Silvano Pisoni (CTO) 33,33%, Carlo Pellegrini (Client Service) 33,33%, Andrew Sentance 5,89%.
Founders Capital So far we could raise almost 400k euro. We raised the first 50k euro through a reward-crowdfunding campaign. Then we raised 100k euro thanks to the selection of Bluetentalces, among 650 start-ups, in the KatanaProject (https://katanaproject.eu/katana-top-10/bluetentacles-irrigation-system/). In March 2019 we were funded with 100k euro from a super-angel and thanks to this investment we could participate and been selected in a matching-fund initiative of Bolzano Province, receiving 100k euro equity free. We also collected almost 50k euro participating in different start-up competition at national and international level.

EVJA

STARTUP AREA HALL SUD

Evja is revolutionizing agriculture with OPI, the first Intelligent Support System that allows farmers to forecast critical events and increase the quality and quantity of their yield. Evja was founded in 2015 and based in Naples, Italy, and is participated by BayWa and RWA, major players of the German and Austrian agricultural markets.

DATE OF INCORPORATION: June 2015

TEAM

Davide Parisi, CEO
Antonio Affinito, CTO
Marco Matascioli, CIO
Paolo Iasevoli, Chief Marketing Officer
Domenico Crispo, PhD Field Agronomist
Niccolò Loret, PhD Algorithms and Models
Prof. Giuliano Buonanomi, Plant Pathologist
Prof. Salvatore Cuomo, Data Scientist
Paolo Ippolito, Operations
Flavia Monti, CRM and Operations
Marco Valerio del Grosso, Senior Agronomist Consultant
Pietro di Benedetto, Senior Field Agronomist Consultant
Antonio de Rosa, Business Strategy Consultant

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COMPANY BACKGROUND Evja is the first decision support system based on sensors, predictive agronomic models and artificial intelligence. Evja helps you make the best decisions, improving your agrochemicals and irrigation management so you can get a healthier, more abundant yield with minimum environmental impact. Evja works in open field, protected crops, greenhouses and vertical farms and is designed for the hard work. Wireless and solar-powered, it is 100% waterproof, resistant and has no detachable parts. Practical and efficient as your farming machines, just turn it on and it works. No setup or installation needed. Evja is participated by BayWa and RWA, major players of the German and Austrian agricultural markets and has been awarded 3 Seals of Excellence by the European Union. Evja is on the market since May 2018 and is currently used by 20 top farmers of the Italian baby leaf market.
Partners Evja has a commercial partnership with its shareholders BayWa (GER) and RWA (AT) and scientific research partnerships with the University of Naples Federico II (Italy) and the University of Wageningen (The Netherlands). Additional research partnerships are in place with CNR (Italy's national research center) and CREA. On the technical side, Evja is partner of Google, IBM and Libelium, a major European manufacturer of sensors and Internet of Things systems.

DEVELOPMENT STAGE Evja is proven in an operational environment and has been on the market for more than a year so far.

PRODUCT DEVELOPMENT STATUS TRL9 - Actual system proven in operational environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS Evja has been extensively tested and validated in labs and on the field for 2 years. The product then entered the Italian market in May 2018. New features are constantly under development and are seamlessly rolled out to customers, being Evja an online platform. The new features development includes software features (new charts, platform and UX/UI improvements), agronomic features (new disease prediction models, new measurements or additional details on a current measurement) and hardware features (new sensors, new connection technlologies).

MARKET
Total Addressable market Evja works with every kind of crops in open field, protected crops, greenhouses and vertical farms. However, our primary target market at the moment is the Lettuce and Baby Leaves Market. According to the figures available, millions of tons of lettuce are grown annually worldwide. The largest part of this production comes from China, which accounts for 6.25 million tons. Other countries in the ranking

include Belgium, France, India, Italy, Japan, Mexico, Spain and the US. The greenhouse production in the Netherlands and Belgium is plagued by fungi, which has put growers under pressure. Meanwhile, there is sufficient iceberg lettuce available in many European countries and this is slowing down trade. The late summer in the United Kingdom has resulted in a good market. On the other side of the ocean, growers in California are increasing their domestic cultivation, putting pressure on the market for commercial growers.

Segmented Addressable Market

Our SAM is the European lettuce and baby leaf market, worth 140 million euros to us. We further focus on the Italian segment, worth 30 million to us. The marketing strategy and the positioning on the market led Evja to be the first-mover on the Italian and European scenario. Measurability. The Italian fresh cut vegetables market destined to the large distribution segments market amounts to 15.000 hectares, 4.000 of which are located in the Piana del Sele (south of Naples) representing the major hub on a European. Accessibility. The first target area of Evja is the Piana del Sele and Bergamo area. The geographic proximity allows for a lower customer acquisition cost, and the cultural proximity increased the trust and openness of the local farmers towards an unknown startup like Evja. Attractiveness. The Piana del Sele is the leading production hub in Europe for leafy vegetables, and the most profitable in terms of revenue, production output and technological innovation.

Share of the Market Evja is currently servicing 20 Italian farmers, all major representatives of the lettuce/baby leaf market. With a total of 50 units sold, Evja is monitoring in real time ca. 200 hectares and collected so far more than 3 million micro-climatic data. In terms of monitored hectares, we are currently servicing 0.5% of our SAM.

Customer and end user demand Growers are in demand of solutions that help them improving their business by boosting the quantity and the quality of their crops. Evja allows for a more abundant yield thanks to real-time monitoring of the specific area where crops are grown, helping forecasting adverse weather events that could pose a risk to the growth and health of the plants. Evja is also optimizing the usage of pesticides and fertilizers with disease prediction models, so that the final product will have a lower chemical residue and a higher overall quality. Another major concern of growers is managing their customers expectations, especially when they have to deal with periods of low production levels. Evja helps forecast the production output, with positive impacts on their commercial partnerships.

Distribution Channels Evja is a plug'n'play system. The hardware just needs to be turned on in order to work, and the software being an online platform users can access with their username and password. This allowed for the product to be sold online, as it happened for our sales in Greece and Bangladesh. However, the main distribution channel relies on direct sales. Being geographically concentrated, the agriculture market allows for an affordable acquisition cost when it comes to direct sales. In our cases, we complement it with online lead generation and a referral system relying on the word of mouth by customers and Evjanion leaders that are part of our extended network.

Competitors The current market leader is METOS, with 35 years of experience and a well established presence. BOSCH is the largest in size and offers the lowest price, although their product lacks any agronomic crop management feature. TECNOQUADRO and AGRICOLUS are two Italian startups, the first operating exclusively in the kiwi market and the latter focusing on open field crops. Both have a marginal presence on the Italian market. EVJA has won several field competitions when directly pitched against its competitors. Alphacom, a leading farm in Lombardy, tested at the same time METOS, BOSCH and EVJA, deciding to buy EVJA. Compared to a standard weather station like METOS, EVJA analyzes the micro-climate at crop level. Thanks to in-house designed mechanical supports, the device is not invasive and can be easily rotated to make room to machine or field operators. EVJA is also the only product to be sold with an all-inclusive leasing model.

BUSINESS MODEL SCALABILITY Evja is sold with a one-off pricing of 3.000 euros or with a leasing of 99 euros per month. The leasing is operated by the German bank Grenke, that pays out the entire amount to Evja within a week and then takes care of collecting the monthly fee from the customers. This guarantees a fast cash flow with not downsides. Being a global company, Grenke makes the lease available in countries all over the world. The validated option to sell our product online opens for large scale sales, given a proper support by online marketing. Evja can also work with hardware of third parties, and so the system can be commercialized as a software-only license. Worldwide availability, online sales and flexibility in terms of product and pricing allows for high scalability.

ECONOMIC AND FINANCIAL DATA

Ownership

Davide Parisi (41,95%), Antonio Affinito (41,94%), STARTUPBOOTCAMP FOODTECH SRL (5,70%), Paolo Iasevoli (5,41%), BAYWA VENTURE GMBH (2,50%), RWA INVEST GMBH (2,50%)

Founders Capital Evja has been mostly self-founded by founders' own money and via bank loans. Additional funds have been collected from acceleration and incubation programs and from money prizes.

	Revenue - 0€	EBIT*	Headcount **
2016	4	4	3
2017	10	-23	4
2018	92	4	8

Funding needs
500,000 - 2 Meuro
Funding sources
Seed/venture capital

Subsidies / investors and funding needs We are looking for investors (VCs, business angels)

Financial roadmap We are looking to launch our first investment round in Q1 of 2020. We are planning to collect from 500.000 to 2 million euros to be allocated in structuring and improving the sales department, involving local sales agents and distributors in different European regions. Part of the funds will be allocated to the constant product improvement, with the R&D and release of new features.

FRAGILE
EARTH-SURFACE MONITORING

FRAGILE

STARTUP AREA HALL SUD

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

We are an academic spin-off of the University that is participated by the University of Bologna via Alma Cube.
Our slowly but steadily growing team of experienced geologists use different remote sensing and ground based monitoring techniques to address problems in the field of applied and engineering geology.
Fragile S.r.l. provides to its costumers detailed geological models by the combination of InSAR analysis and site investigation and monitoring.

DATE OF INCORPORATION: April 2018

TEAM
Alessandro Simoni, Chairman
Silvia Franceschini, Geological Officer
Benedikt Beyer, CTO
Fabrizio Bugamelli, Marketing and Finance Officer

CONTACTS

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COMPANY BACKGROUND Fragile S.r.l. is an innovative Start-Up and a Spin-Off Company of Applied Geology of the University of Bologna founded in April 2018 and actively partecipated by AlmaCube srl. Our main business is related to the use of InSAR technique (Interferometric synthetic-aperture radar) to detect and monitor ground displacements induced by natural (landslides, subsidence) or man-made (tunnelling, underground excavation, pump & treat) deformation processes. We propose to our costumers two different approaches: - MT-SBA (Small Baseline Approach) to reconstruct precise historical time series of displacements in correspondence of stable reflectors (houses); - RAINS (Rapid Areal InSAR Survey), a traditional InSAR approach, to obtain almost continuous deformation maps also in vegetated and scarcely urbanized areas. This approach is poorly commercialized by our competitors. Our strong geological background drives the selection of the most effective processing parameters and permits data interpretation.

PARTNERS AlmaCube S.r.l.

DEVELOPMENT STAGE Validating

PRODUCT DEVELOPMENT STATUS TRL5 - Technology validated in relevant environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS We commercialize services, not products. We are continuously developing new tools for improving our processing schemes, in particular for large area InSAR analyses.

MARKET

Total Addressable market Fragile S.r.l. offers InSAR-based services that can be precious in various fields ranging from civil engineering to oil & gas to risk management. The possibility to investigate also large areas that are affected by different deformation phenomena like landsliding or land subsidence is very useful for civil protection purposes, but also for companies that manage buried and linear infrastructures. InSAR based monitoring techniques are also suitable to obtain information regarding the interaction between geological or man-induced processes and dams, levees or mining areas. As a consequence, our markets are various, ranging from Public Authorities dealing with problems related induced by deformation processes to Companies Leaders in the sectors of Energy distribution.

Segmented Addressable Market We are mainly focused on landslide and applied geology market.

Share of the Market 10%

Customer and end user demand Our costumers are ranging from public authorities that deal with problems related to geological risks to global companies that manage linear infrastructures that directly interact with deformation processes.

Distribution Channels Direct sales and channel partners.
LinkedIn campaigns.

Competitors TRE Altamira; Planetek Italia; Sintema Engineering srl; Nhazca srl; GeoApp srl. TRE Altamira is the global leader in providing InSAR data, in particular for the mining industry.

BUSINESS MODEL SCALABILITY We are developing an internal project of R&D aimed at the scalability of our business.

ECONOMIC AND FINANCIAL DATA

Ownership
Alessandro Simoni: 30%; Benedikt Bayer: 30%; Silvia Franceschini: 30%; Fabrizio Bugamelli: 10%

Founders Capital
Private money

	Revenue - 0€	EBIT*	Headcount **
2016	-	/	/
2017	-	/	/
2018	100	/	/

Funding needs
Up to 500,000 euro
Funding sources
Public grants and schemes

Financial roadmap
Principally we are looking for money in order to employ people that could help us in increasing our business.

Subsidies / investors and funding needs /

GREENARCO

STARTUP AREA HALL SUD

ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

GREENARCO is an innovative enterprise with a strong scientific background, aiming to provide technical support in construction management services, management, monitoring and consultancy to private companies, administrations and local public bodies, regional, national and international bodies. We aim to improve the quality of urban life by using nature based solutions.

DATE OF INCORPORATION: February 2019

TEAM

Alessandro Chiarucci, President
Valerio Amici, Founder
Rossano Bolpagni, Founder
Antonio Gabellini, Founder
Sara Landi, Founder, Technical Director
Federica Milioni, Founder Marketing Director
Andrea Velli, Founder
APS, Founder
AlmaCube, Founder

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COMPANY BACKGROUND The company was created to join into a single team different and complementary expertises, to manage the cultural and aesthetic features of landscape together with the ecological functioning of seminatural systems, aimed to properly develop and manage anthropic and natural landscapes as parts of a unique system. Our mission is to restore the balance between man and nature, through the use of a scientific approach, along with architecture and participatory management of landscape management processes. GREENARCO is sustainability and architecture at the same time. It focuses on the ecological and functional continuum between cities and natural environments: sustainable projects that determine multiple benefits (such as naturalistic and human health protection) in response to the growing demand for cities based on the new concept of resilient cities.

PARTNERS PennPraxis is an applied research center at PennDesign (University of Pennsylvania). It is aimed at pursuing architectural projects able to improve the natural environment. PennPraxis offers opportunities for interdisciplinary collaboration between students and professors through partnerships with public, private and non-profit organizations. Indeed, GREENARCO has an agreement with the Municipality of Ferrara to be part of the Stakeholders Group of the European Interreg Project "PERFECT - Planning for Environment and Resource eFficiency in European Cities and Towns" (*http://www.interregeurope.eu/perfect/*), whose main purpose is to improve the regional policies for the protection and development of the natural heritage through the recognition of the multiple advantages of green infrastructures. This involves the regional operational program management authorities, local administrators, partners and interest groups.

DEVELOPMENT STAGE Impact assessment studies, Monitoring studies, a LIFE project proposal under review.

PRODUCT DEVELOPMENT STATUS TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

PRODUCT DEVELOPMENT STATUS TRL 9 – actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS Aimed at public and private corporations or bodies: architectural and landscape projects dealing with the introduction of nature based solution into the planning and improvement of urban contexts to improve the city quality

and provide ecosystem services to the local communities, to improve the social aware on environmental responsibility, CO2 compensation, increased biodiversity, clean water, mitigated local temperatures, air purification from dust and pollution.

MARKET

Total Addressable market Landscape Architecture.
Environmental conservation.
Segmented Addressable Market Customers have be identified in companies and public and private bodies that need to adopt new approaches and strategies in the design and development of buildings and settlements, improving the quality of life, providing ecosystem services and connecting the urban contexts to the natural ones. In addition, participation in European and national tenders is envisaged, such as those of associations and private foundations that have biodiversity, ecology and sustainable development among their objectives.
Customer and end user demand The standard customer is the owner of unsustainable and not environmental-integrated infrastructures. Large companies, for example, which need green bonuses for the redevelopment of their company, can find in GREENARCO a valid aid to transform their buildings (offices, plants, etc.) in structures that are more environmentally sustainable and can be integrated with the surrounding environment. This could benefit the image of the company, the work environment for the workers and an enhancement of the landscape.
Distribution Channels Web site and social networks (Facebook and LinkedIn profiles), takink part in thematic cnventions and meetings, network and personal meeting BtoC and BtoB.

Competitors Among the possible competitors, we have identified some companies that already operate in the field of landscape architecture and spatial planning (such as BScape architettura del paesaggio), open-space design (such as Green Design Studio) and, in general, all the technical offices that deals with environmental monitoring, e.g. Terradata srl or companies that create "green" solutions, such as Green Solution, LandsPlanning, Landsnetwork, and Growing Green.

BUSINESS MODEL SCALABILITY It is very difficult for a service provider to make economic and financial forecasts, because there are many factors influencing the market, particularly the national economic situation. The prices of our services vary depending on the complexity of the problem to investigate and the extension of the area in which we will operate. Generally speaking, the prices per project vary between 1.500,00 and 30.000,00 Euro and the amount received in the first year can reach 100.000,00 Euro to increase by about 50% in the second and another 50% in the third year.

ECONOMIC AND FINANCIAL DATA

Ownership 0
Founders Capital The current company's capital comes from the membership fees, paied during the setting-up of the company. Therefore, the share founders' capital of GREENARCO amounts to EUR 10.000,00.

	Revenue - 0€	EBIT*	Headcount **
2016	0	0	0
2017	0	0	0
2018	0	0	0

Funding needs
500,000 - 2 M euro
Funding sources
Business angels

Subsidies / investors and funding needs
Currently GREENARCO is taking part in a Life programme first step selection: we are involved as a partner in a Life Governance and Information project proposal and we are waiting the decision of the first phase proposal by the EU agency EASME.

Financial roadmap
Architectural project for regeneration of a peri-urban environment of a company that intend to invest in the territory, by using nature based solutions, to improve the quality of cities and urban life. The purpose is studying the surrounding natural environments in order to create a functional ecological connection, to achieve positive impacts, social and environmental enterprise's responsibility, CO2 compensation, to increase biodiversity, clean water, to achieve a local temperatures mitigation, cleaning air from dust and pollution. The roadmap includes the architectural project, environmental monitoring, the ecological dimension, the construction of the infrastructures. Expected time: 18-24 months.

IUV

Innovation Utility Vehicle

IUV

STARTUP AREA HALL SUD

Climate-KIC

IUV is a youthful italian startup aimed at looking for innovative, sustainable and natural packaging solutions. The company's mission is to stop the consumption of plastics, to reduce food losses and waste and to raise awareness of responsible and sustainable consumption. The COLUMBUS'EGGTM project is
born with this ambition: a system of edible, biodegradable packaging materials, functional to the consumer's health; it can be applied to fresh or dry foods in the beverage, cocoa, chocolate, candy and confectionery, meat and fish, condiments, confectionery, grain, dairy, animal feed, fruit and vegetables, bakery and flour products, tea and coffee sectors.

DATE OF INCORPORATION: May 2019

TEAM

Cosimo Maria Palopoli, CEO&Founder
Maria Lucia Gaetani, CTO&Cofounder
Andrea Sala, Business Analyst

CONTACTS

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COMPANY BACKGROUND IUV Ltd. was born from the intuition of a young Food Technologist, Dr. Cosimo Maria Palopoli, who already in high school has made his own the serious problem of pollution by plastics, and has designed an innovative packaging system that can replace them. His studies at the University of Florence and Cattolica allowed him to acquire the skills to transform an idea into a concrete project. His union of a highly qualified team, with technical skills on natural and innovative polymers, on the food- by products valorization, as well as on machines and plants for the preservation and packaging of food & beverage. The transversality of know-how brought by the group provides the company as an added plus in the commercial and management of the development-launch of innovative products and projects, as well as marketing.

PARTNERS IUV Ltd. has managed in recent years to make itself known at numerous events, attracting the interest of various players in the food industry. Many of them said they were interested in closely following the evolution and development of the company's technology, declaring themselves ready to implement it when it will be suitable for mass production and large volumes (with special machinery).

DEVELOPMENT STAGE IUV is currently improving the advancement of the technological stage at TRL4 - TRL8, trying to validate its solutions by simulating their effectiveness in a real environment, through testing and looking for partners with whom to industrialize its product range.

PRODUCT DEVELOPMENT STATUS

TRL4 - Technology validation in laboratory environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS

IUV is currently trying to conduct chemical, physical, rheological tests, as well as indoor and outdoor consumption tests for the edible coatings line, in order to develop and define a standard from which to start a pilot-industrial production project.

MARKET

Total Addressable market Currently, food packaging in Italy has a market value of 7.7 billion euros, with CAGR between 2010-2018 equal to +3.1%.
Segmented Addressable Market If focused on fresh fruit and vegetables, the packaging market has a value equivalent to 2.1 billion euros.
Share of the Market IUV intends to cover 0.5 million over three years, with a focus on fresh exports in the dairy and fruit and vegetable sectors.
Customer and end user demand IUV's customers are basically B2B customers in the packaging supply and primary production sectors.

Distribution Channels Key Account Managers, Sales Managers, Large-Scale Distribution, Agents, Consultants, Retailers
Competitors It is worth mentioning the presence of companies in the edible coatings market (Italian-foreign), although with still great limitations, able to offer solutions on food products, such as meat, fish, fruits and vegetables. For illustration purposes: Apeel Sciences, Mantrose-Haeuse Co. Inc., Proinec, Ooho!, Naturen, Wiki Pearl, Packtin.

BUSINESS MODEL SCALABILITY I.U.V. plans four ways to generate revenue from its technology, and none of them appear to be currently held back by obvious technical impossibilities: (2019) Sale of semi-finished products in a fluid state, applicable to different categories of products (both food and non-food); (2020-2022) Sale of biodegradable film (film), natural and edible, organized in reels and obtained by extrusion from the semi-finished product in a fluid state; (Hp.) Use of technology by third parties through the granting of patents; (2022-2024) Sale of packaging machineryTranslated with www.DeepL.com/Translator

ECONOMIC AND FINANCIAL DATA
Ownership Dr. Cosimo Maria Palopoli, 70 % (CEO & FOUNDER, IUV Ltd.); Dr. Maria Lucia Gaetani 30 % (CTO & CO-FOUNDER, IUV Ltd.)
Founders Capital The capital invested, equivalent to 100 euro, is derived from self-financing operations carried out by the two founding partners.

	Revenue - 0€	EBIT*	Headcount **
2016	0	0	0
2017	0	0	0
2018	0	0	0

Funding needs
Up to 500,000 euro
Funding sources
Seed/venture capital

Subsidies / investors and funding needs
-

Financial roadmap
In the first year, 2019, IUV expects, through an investment operation of 50-100K, mediated with business angel, to be able to improve and advance the technological state of its product from TRL4 to TRL9, in order to constitute a pilot-industrial plant and production project. In 2020-2022, by means of an equity crowdfounding operation or the support of 500K ventures, it will be possible to set up a large-scale production plant and, at the same time, to establish a communication and market positioning plan.

NANOMNIA

STARTUP AREA HALL SUD

Nanomnia is an innovative startup enterprise operating in the nano and microtechnology field. Nanotechnologies play the role as fundamental driver for technological innovation and growth, and are widely recognized as key enabling technologies leading to a wide range of innovative industrial applications.
Nanomnia provides encapsulation of active ingredients in organic nano/microparticles as a smart way to improve stability in final products and during processing. It focuses on those fields where nanotechnologies can promote benefits, ranging from cosmetics, pharmacological, nutraceutical, environmental and medical technology.

DATE OF INCORPORATION: February 2017

TEAM

Marta Bonaconsa, CEO - Founder
Michele Bovi, CTO - Founder
Pietro Vaccari, Researcher
Alessandro Cordova, Business Developer
Cristina Panara, CFO

CONTACTS

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COMPANY BACKGROUND Nanomnia Srl is a nanotech, innovative startup company founded in Verona in 2017. The team members Marta Bonaconsa, Michele Bovi and Pietro Vaccari shared the same lab in University of Verona, Dept. of Biotechnology, and master a strong research experience in cellular models, biotechnological approaches, and industrial nanotechnologies. With a focus on improving drug delivery, the company uses nano-encapsulation to shield drugs from degradation, to target specific biological tissues, to bypass certain barriers and deliver limited harm to the organisms, being they humans, plants or animals. By addressing valuable research into exploitation of potential, Nanomnia has identified Agricolture as a route to market, with the aim to match the need for agricolture to identify novel strategies to overcome the overload of agrochemicals in the environment. This gain of focus fostered the firm to grow and secure strategic partnerships in the future.

PARTNERS The founders of Nanomnia are Marta Bonaconsa, Michele Bovi are shareholding partners. Pietro Vaccari (researcher), Alessandro Cordova (business developer) and Cristina Panara (financial advisor) are team members. Nanomnia has recently partnered with local firm DMD Srl, a water-treatment company, which has provided lab space and equipment for research and development for agritech activities. With DMD we are testing a proprietary product to be encapsulated and delivered as antibacterial/antifungal compound against diseases of grapevine (botritis, peronospora, mal dell'esca) which deeply impact on italian local productivity. DMD provides Nanomnia also with a nework of agricolture partners, as agritech technicians and farmers, for testing the efficacy of the products in open field.

DEVELOPMENT STAGE At present, Nanomnia is in the earlier stage of growth, offering to potential customers its technology research service, for a fixed price (200k) and 5% royalties which ensure at least low grade scalability. The target is achieving in the mid term (2 years) a more scalable business model. To this purpose, the company has completed basic lab setup and within 2019 will approach a crowdfunding campaign to develop 6 identified patentable products. The important industrial and commercial partnership established with DMD Srl, to gain a direct channel to the market once the products will be developed. This way Nanomnia will dock at the second stage of growth, the main goal, aiming to: 1) develop proprietary products with its innovative core/shell combination technology, 2) become a patent factory, 3) set up licencing agreements with bigger firms holding huge market share. In the late term, Nanomnia aims to: 4) directly place in the consumer market with its own brand.

PRODUCT DEVELOPMENT STATUS TRL6 - Technology demon-

strated in relevant environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS The technology has been tested in lab and in open field, on grapevines of Conegliano (Treviso), in cooperation with Institute CREA, and has reached level 6-7. Higher fruit production and quality, and enhanced disease resistance have been achieved. After tests, patent application has then been submitted. Nevertheless, deeper and extended tests are needed to have full comprehension of the mechanisms underlying metabolic and cellular processes occurring after nanoparticles are uptaken by plant leaves.

MARKET

Total Addressable market Considered that our technology fits with several life science markets where there is an issue in delivering a compound in the proper biological target (Pharma, Nutraceutics), we nevertheless addressed its first exploitation on Agricolture market, which is Italy is quantified 31 BLN Euro. It has been estimated that global food production should rise by 50-70% within 2050, to supply the demand by demographic explosion. Moreover, agricolture is responsible for 70% global water consume. Moreover, agricolture production keeps to be hit by infesting insects, herbs and diseases causing losses up to 40%. To avoid this, a large use of pesticides is applied, nevertheless only 0.1% of agrochemicals reach the target, due to dispersion in environment and partial absorption by plant and crops (Different sources, 2017).

Segmented Addressable Market Our target is Agrochemical market segment. • The global market of is 65 BLN USD; • The EU market of is 13 BLN USD; • The italian market is 1BLN Euro. 75% of the market of pesticides is covered by 6 big companies (3 from EU, 3 from USA). In last years the global market of pesticides has increased especially in emerging countries, developing new processes and products. EU market downturn is registered, due to restriction laws by ECHA and increasing competition by USA and China. Nanomnia identifies the global scale as target of penetration. Nevertheless, market experiments are (and in the short term, will be) validated at the local scale. The italian market of Agricolture is quantified 31 BLN (2017) and agrochemical italian market is 1BLN Euro. Italian industry is at the sixth place in world ranking, third in Europe. One of our strength points is our location in a geographic area with invaluable biodiversity heritage, where our innovation can be tuned on different climate challenges.

Share of the Market In the mid term, once Nanomnia will be a licencing company, the market share we aim to achieve is at the magnitude of 0.5% of the italian market, considering at least 6 new products to be licenced. This is a prudential estimation, kept in mind that our horizon is european and global. Nevertheless, we are aware that in order to gain a remarkable share we must build solid commercial agreements with big players, while paying attention to preserve competitiveness and acquire strong identity.

Customer and end user demand Both in early service and mature licencing company stages, Nanomnia calls on agritech 11 companies, offering its innovative cutting edge technology - first - and then, later, proprietary forefront products. At a deeper market penetration, the company will acquire robustness by strengthening commercial and industrial partnerships with bigger companies with whom signing agreements. Thus, customers will properly become growth partners.

Distribution Channels By being a licencing company, we plan to outsource all activities not directly related to core technology development. Likewise, we plan to enter the market by exploiting the commercial and distribution channels of customers/partners. Once we dock at the third stage of growth, directly reaching the consumer market, we will exploit all the potential of the Nanomnia's tech brand, and activate specialized distribution channels.

Competitors The technology proposed by Nanomnia is highly competive due to complete compliance with EU REACH normative.Moreover, in last months (January 2019) the ECHA (the European Chemicals Agency (ECHA) released a Restriction Report, which further limits the concentration of many polymers (also encapsulating ones) that give origin to microplastics. The competitors show some disadvantages in their solutions, since they choose an inorganic approach, easier to achieve but prone to give origin to microplastics and toxic nanoparticulate: - formulations of silicium or titanium nanoparticles of agrochemical, beside some benefits also reported a toxic effect, due to non compete biodegradability. - the size of inorganic nanoparticles (50-100 nm) is considered hazardous due to nanoparticulate release in the environment, with health risks for humans and animals. Multi-national corporations having proprietary encapsulated products are looking to innovate their solutions due to REACH and ECHA Restriction.

BUSINESS MODEL SCALABILITY Nanomnia's scalability relies on royalties coming from licencing contracts. Since our company is pure know how, patents represent crucial assets in defining our growth, strengthening negotiation power, attracting investors. As described, the business model will gain scalability as the company will develop new patents able to face new challenges in a fast evolving scenario, where off-patent pruducts are replaced by generic ones, and disruptive tools like Nanomnia's technology are needed on order to run a profitable business.

ECONOMIC AND FINANCIAL DATA

Ownership Marta Bonaconsa 46%; Michele Bovi 44%; DMD Srl 10%

Founders Capital The founders capital is 10k EUR. We are now in crowdfunding stage with the goal of 100k EUR. The valuation is 4M, achieved by selling company shares, and benchmarking to other same-size and same-stage companies. During the first 2 years of company life, the partners

have invested their own capital and resources up to 60k Euro, purchasing instrumentation and services. The effort was to achieve results in order to apply for patent in December 2018.

	Revenue - 0€	EBIT*	Headcount **
2016	0	0	0
2017	7650	7315	0
2018	46670	46331	0

Funding needs
500,000 - 2 M euro
Funding sources
Crowdfunding

Subsidies / investors and funding needs
Nanomnia has received public funds: 10k from MISE (Voucher Internazionalizzazione 2017) and 8k from Regione Veneto (FSE).

Financial roadmap
We need 100k Euro to develop in next 12 months a complete project to fight the reproduction of Cimice Asiatica. Money will be destinated to purchasing technical instruments (40k), personnel (28k), lab tests (5K), in field tests (15k), external services (7k) and marketing (5k).

OPICE

STARTUP AREA HALL SUD

OPICE is a start-up that invests to create economic and environmental value for companies, offering opportunities for the development of process, systems and products for the construction market.
Enabling the cooperation between industry and science environment, OPICE analyses needs, search resources and builds new supply chains for the commercialization of:
- New materials made by industrial waste.
- New industrial process of prefabricated building component.
- New integrate plant and product for building.

DATE OF INCORPORATION: April 2015

TEAM

Simone Zannelli - Technical Manager
Manuela Brotto - Project Manager
Maurizio Bellotto - Senior Expert
Veronica Pasinato - Junior Expert
Enrico Rossato - Junior Expert
Enrico Zannelli - Laboratory Assistance
Nicola Granzotto - Laboratory Expert
Elisa Pozzato - Business and Audit
Jasna Zelich - Administration
Martina Caduco - Marketing & Communication

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COMPANY BACKGROUND OPICE is a start-up that invests to create economic and environmental value for companies, offering opportunities for the development of process, systems and products for the construction market.
Enabling the cooperation between industry and science environment, OPICE analyses needs, search resources and builds new supply chains for the commercialization of:
- New materials made by industrial waste.
- New industrial process of prefabricated building component.
- New integrate plant and product for building.

PARTNERS OPICE operates in the local developments through a dense network of public-private partnerships including participation as founder in the innovative regional network "Veneto Green Cluster" recognized by the Veneto Region with DGR n. 54 of 27/01/2017.

DEVELOPMENT STAGE OPICE is a start-up that invests to create economic and environmental value for companies, offering opportunities for the development of process, systems and products for the construction market

PRODUCT DEVELOPMENT STATUS TRL6 - Technology demonstrated in relevant environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS From 2017, within the framework of the "Veneto Green Cluster", OPICE is the promoter of a research on the development of building materials obtained from the valorisation of steel industry slags. The importance of the results of the activity have transformed the research project into a business strategy for OPICE called OPIGEO which will have its first place in the market since 2020.

MARKET
Total Addressable market There are over 1360 ferrous metal foundries in Europe. The total amount of smelting that is annually sent to landfill in Europe is about 4,2 million tons per year, with an average cost of 60 euros per tonne. OPIGEO beachhead market is focused on foundries having a production of mimum 3.000 tons. In Veneto Region the potential customer are 11 foundrie in Italy 120 and in EU 1140 (most of them in Germany and in Spain).
Segmented Addressable Market In Veneto Region there are 11 ferrous metal foundries.
Share of the Market During the next three year the start-up aim to reach 3 italian foundries achieving 1% of market share.
Customer and end user demand OPIGEO will offer a contract to Foundries for a ZEROWASTE service to reduce costs of waste management of 20% (compare to waste treatment centre costs 30€/tons) or 60% (compare to landfill disposal costs 60€/tons): • renting of a process to install inside foundry; • end-user market uptake and management; • technical, quality control assistance; • ECONOMIC FEE of 5% on geopolymers end-user selling;
Distribution Channels: Direct sales forces
Competitors Plants for Waste Internal reuse. Weakness: recovery of only 30-50% of produced waste.Valorization of waste to produce inert materials Weakness: no economic value to create a secondary raw material market that could reduce cost of recovery.

BUSINESS MODEL SCALABILITY OPIGEO will offer a contract to Foundries for a ZEROWASTE service to reduce costs of waste management of 20% (compare to waste treatment centre costs 30€/tons) or 60% (compare to landfill disposal costs 60€/tons): • renting of a process to install inside foundry; • end-user market uptake and management; • technical, quality control assistance; • ECONOMIC FEE of 5% on geopolymers end-user selling;

ECONOMIC AND FINANCIAL DATA
Ownership Gilberto Artioli 15%, Manuela Brotto 30%, Simone Zannelli 55%0
Founders Capital Not applicable

	Revenue - 0€	EBIT*	Headcount **
2016	350k	100k	2
2017	450k	150k	2
2018	300k	90k	3

Funding needs
Up to 500.000 euro
Funding sources
Guarantees

Financial roadmap
Support the investment for the process to be installed inside foundry
Subsidies / investors and funding needs
Public Grants ERDF-ROP and EIT Raw Materials

PACKTIN

STARTUP AREA HALL SUD

Packtin is a spin-off of the University of Modena and Reggio Emilia, producing biodegradable and edible films and coatings that improve the preservation of fresh food, reducing waste and the use of plastic packaging and increasing food safety. The raw materials of the products, fibers and antimicrobial compounds and antioxidants, are obtained from the by-products of the food chain, thus generating a circular bioeconomy at the territorial level. Using different combinations of natural products at its disposal, Packtin has developed products for various applications foodstuffs, which are initially proposed in the industrial sector, to then be extended to domestic use: post-harvest coatings to protect and slow down the ripening of climacteric fruits; coating to slow down oxidation and degradation of cut fruits and vegetables; coating to avoid Salmonella contamination through the eggs ; Natural and biodegradable films for food packaging.

DATE OF INCORPORATION: May 2017

TEAM

Andrea Quartieri, Vice President IPRs Manager
Riccardo De Leo, President R&D Manager
Prof. Andrea Pulvirenti, R&D - Industrial Certification
Francesco Bigi, Prototyping - R&D Expert
Germana Capitani, Marketing&Sales Manager
Andrea Bedoni, Administration Officer

CONTACTS

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COMPANY BACKGROUND We are a group of young experts on green chemistry, food microbiology, industrial biotechnology and biopolymers development, sharing a common interest on the concepts of sustainability and circular economy. After years of research on the valorization of by-products from agrifood industries and on bio-based packaging, in collaboration with the University of Modena and Reggio Emilia, we gave birth to the University spin-off Packtin. The novel business idea is to unite these two sectors in a circular economic production chain: by-product – raw material – ecosustainable product. The early accomplishments in start-up competitions and prizes, but most of all the fruitful collaborations with local industries confirmed the actual validity of the project and its importance for a future productive system able to contain or manage the waste it creates.

PARTNERS We actively collaborate with many Italian companies, mainly from food sector but also active in packaging and mechanics. Thanks to the University background, we built our own network, supplying innovative and sustainable ideas and solution to well-established companies with process or product problems.

DEVELOPMENT STAGE By 2019 we will complete the realization of our prototypes for the stabilization and extraction of raw materials from agri-food waste recovered from food industries. After completing the pilot plant, we will start production and look for industrial partners to scale up the model.

PRODUCT DEVELOPMENT STATUS TRL5 - Technology validated in relevant environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS The first products for food industry are ready for commercialization, that's why we are negotiating an agreement with a producer of food ingredients to produce and enter the market. Same conditions apply to the biodegradable detergent, ready to be produced and commercialized. The industrial process for the recovery of agri-food by-products is at the end of the pilot scale phase. For the realization of biodegradable polymers, important research step must be done to allow its scaling up.

MARKET

Total Addressable market The sectors on which Packtin can act are multiple: recovery of by-products, commercialization of raw ingredients and materials, production of food ingredients and coating, production of biodegradable detergents, production of biopolymers.
Segmented Addressable Market Final consumers are gradually evolving

into more informed, aware and responsible ones. At the same time, European and global policy framework is enforcing new laws on environmental impact and sustainability. These two factors guarantee a strong marketing appeal to Packtin's products: the production of high-quality raw materials at competitive prices and using efficient and eco-sustainable processes generates substantial advantages both for B2B and B2C market. As an example, the utilization of natural ingredients in food industry, providing nutritional benefits and shelf-life increase is indeed a strategical advantage, allowing us to avoid the use of synthetic chemicals and to be chosen for our recognizable added value. The present demand for bioplastics is exponentially higher than the offer, because of the increasing awareness that petrochemical plastic is nor sustainable nor scalable anymore. We can therefore conclude that the potential market for Packtin in this area is relevant.
Share of the Market We don't have a production plant yet, so we don't have a share of the market. However, we are already testing our innovative food ingredients for minced meat and stuffed pasta with Early adopters.
Customer and end user demand Our food ingredient and coatings utilize natural materials to increase the shelf-life of fresh foods. We develop customized solutions for the food industries that want to collaborate with us and therefore become our first customers. In a second period, these solutions could also be extended to the B2C world.
Distribution Channels The first step will be direct sales force, from us or from our production partners. Our food partner has different distributors that will also add Packtin's product to their portfolio.
Competitors Competitors can be traditional or innovators. Traditional competitors sell food additives with preservative function and they represent the current situation of food sector. Their products are efficient and reasonably cheap, but they face increasing regulatory limits and the increasing consumer awareness consider these products in a negative way. The products proposed by Packtin will allow to preserve shelf-life with clean-label products, emphasizing the sustainability of the whole production process.

The consumer demands for organic and "green" products will push the food industry to switch to a new quality standard. Innovators, including Packtin, are mostly start-ups with a strong scientific/academic background, who are trying to apply on industrial scale the innovative solutions developed during years of research. The state-of-the-art is very advanced, in comparison with the actual state of industry, so good timing will be fundamental to gain a prominent position on the market

BUSINESS MODEL SCALABILITY Scalability and replicability are concepts usually mentioned in the business model of a startup, characterized by innovation and rapid growth. Packtin's industrial model is a standardized process, easily applicable and able to adapt to different sectors, supported by a flexible and advanced technology and by a constant R&D effort, always receptive about market needs. Our background, based on Agri-Food Technologies, brought us to focus, initially, on the final products for the food industry, but Packtin's model is applicable to other sectors, such as animal feed, nutraceutics, cosmetics, textiles, pharmaceutics and green building. The vast range of available by-products will provide many eco-friendly raw materials that can be directly utilized in these sectors or that will be the basis for the creation of new Packtin technological products. The direct utilization of bio-compounds will be a relevant and indispensable part for the creation of a circular sustainable model.

ECONOMIC AND FINANCIAL DATA

Ownership Riccardo De Leo = 44% Francesco Bigi = 20% Andrea Quartieri =14% Andrea Pulvirenti = 10% University of Modena and Reggio Emilia = 7% Germana Capitani = 5%
Founders Capital The company capital is from founders funding. We raised 20K from startup competitions and crowdfunding and 80K by a grant of Emilia Romagna Region.

	Revenue - 0€	EBIT*	Headcount **
2016	n.a.	n.a.	0
2017	12K	0	2
2018	30K	0	0

Funding needs
500,000 - 2 Meuro
Funding sources
Seed/venture capital

Financial roadmap
March 2020 Pilot Plant 400K - June 2020 Packtin laboratory 200K - 2020 Research costs 250K - December 2020 Extractor Scale-up 150K

Subsidies / investors and funding needs Grant for innovative start-ups from Emilia-Romagna Region, 100K. 10K prize from Demetra Innovation.
Now pursuing FTI European Grant and talking with different investment funds.

PHONONIC VIBES

STARTUP AREA HALL SUD

Phononic Vibes introduces a new technology with unprecedented performances in the control and isolation of vibrations and noise. It was born from the research activity at the Milan Polytechnic and at the Massachusetts Institute of Technology of its founders in the field of metamaterials, to create and engineer materials with new and unmatched properties. Thanks to the versatility of the technology, whose fundamental technology is protected through a set of patents, it can be applied to a large variety of sectors, spanning from infrastructures,appliances, automotive, building construction and industrial applications.Since the performances are based on the metamaterial topology, i.e. on the shape of the fundamental unit cell, the technology can be adapted and scaled and its performances are independent on the employed material.Therefore, a large amount of end-of-life material can be disposed, allowing to reduce the environmental impact of the sound-proofing and vibration control sector

DATE OF INCORPORATION: July 2018

TEAM

Luca D'Alessandro, CEO Cofounder
Giovanni Capellari, Project Manager & Cofounder
Sebastiano Conti, Project Manager
Stefano Caverni, CTO e Cofounder
Simone Meduri, Technical Development
Francesco Mori, Technical Development
Valentina Panicià, Product Designer
Andrea Boeri, Board Member
Renato Mazzoncini, Board Member

CONTACTS

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phononicvibes.com

COMPANY BACKGROUND Phononic Vibes introduces a new technology with unmatched performances in the control and isolation of vibration and noise. It was born from the research activity at Milan Polytechnic and at Massachusetts Institute of Technology of its founders in the field of metamaterials. The versatility of the technology, protected through a set of patents, allows for a large variety of applications, ranging from infrastructures, appliances, automotive and building constructions. Since the metamaterials are based on their topology, i.e. the shape of the fundamental unit cell, their performances are independent from the employed material. Therefore, a large amount of end-of-life material can be disposed, allowing to reduce the environmental impact of the sound and vibration control sector. The long-term goal is to revolutionize the anti-vibration and noise sectors, replacing old technologies with that of metamaterials, which presents higher performance, with the key aspect of circular economy

PARTNERS Politecnico di Milano: the partnership with an important university is fundamental to attract high skilled engineers and product designers; Pantecnica S.p.a.; SME company which sells sound-proofing products based on traditional technologies; it will allow to reach the main customers in the infrastructure sector; Trentino Sviluppo: thanks to the winning of the D2T Award 2018, Phononic Vibes has the possibility of take advantage of the most important Italian hub in the green tech industry (e.g.Habitech); Materiacustica s.r.l.: a spin-off of Università di Ferrara, specialized in experimental and numerical acoustics, it is part of the leading research group of acoustics in Italy; it helps as senior consultant in the technical growth of the team.

DEVELOPMENT STAGE Phononic Vibes has now several working products that have been validated through the collaboration with major companies in the anti-noise and anti-vibration markets.
The industrialization phase is now targeted. For the anti-noise products, Phononic Vibes is now working with big corporates that are among the major players in the sectors of appliances and automotive. With those corporates, contracts have been signed targeting the development and industrialization of our technology in their products. Additionally, the pre-industrialization of the anti-noise panel is being targeted in collaboration with Phononic Vibes partners. For the anti-vibration products, Phononic Vibes is now working with major companies which are owners of the railway infrastructure in the North of Italy (such as FerrovieNord) and Germany (such as Deutsche Bahn GmbH).

PRODUCT DEVELOPMENT STATUS TRL5 - Technology validated in relevant environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS

Phnononic Vibes has now developed two products: -an anti-noise panel, made of 100% recycled plastic, to be used to acoustically insulate infrastructures, buildings and machineries; •an anti-vibration pre-fabricated module, to be inserted laterally to the railway infrastructures to protect buildings from trains and trams generated vibrations. Additionally, other products are now developed in collaboration with companies which are among the main players in several markets sectors, namely automotive and appliances.

MARKET

Total Addressable market The target market is composed by the transportation and infrastructure sectors for the anti-vibration product and the industrial sector for the anti-noise product. The anti-vibration market consists of the municipal utilities which manage the tramways and railways in the urban context, where the need for vibration control technologies is fundamental due to the buildings proximity both for the structural safety and the comfort. The estimated total European market of the anti-vibration products is approximately 600Mln€, with anannual growth rate of 5%, but is not saturated due to the difficulty to implement the present solutions. The anti-noise products European market, in terms of revenues of the manufacturers of sound isolation solutions, which sell to big machineries, trains, cars, aircrafts, anti-noise barriers manufacturers and construction companies, is approximately 14.4bln€, with an annual growth rate of 6%.

Segmented Addressable Market The segmented addressable market for the anti-vibration product includes the public transportation authorities in Italy (estimated market is 40 M€), in the first stage, and all the authorities in the main European cities with tramways in operation, in the second stage. The segmented addressable market (SAM) for the noise control product in the first phase includes the manufacturers of big industrial HVAC systems and cooker hoods (Italian market is 250 M€), to go then to acoustic barriers for infrastructures, interior isolation panels of high speed trains and leisure helicopters.

Share of the Market In the first 2 years we'll start with very few installations, dozens of meters both for the anti-vibration product and for the acoustic one. In the fifth year of our company, the target market share is expected to be approximately 12% for the antivibration product and 8% for the noise control segmented addressable market previously described in Italy. This will be reached thanks to the partnership with our commercial partner in the first stage, with our own commercial network in a second stage.

Customer and end user demand The activity of Phononic Vibes is meant to be business to business. 1. industrial sector: soundproof cabins for the abatement of noise emissions from large machineries, such as chillers or industrial plants; soundproofing devices internally embedded in new models of home appliances or automotive components. 2. construction sector: sound-insulating elements for civil and industrial buildings.

Distribution Channels In the early stage of our company, to simplify the go-to-market, both the anti-vibration and the noise control products will be sold to the customers thanks to partnership with a company which operates since 50 years in the Italian market, Pantecnica SpA. Then, we'll internalize this competences in order to grow as a whole manufacturing and selling company, internalizing the sales division. The European market will be managed through a network of distributors.

Competitors For the antivibration sector, several competitors are active in the market since dozens of years, using two types of technologies: insulating mats and spring suspensions. They need the removal of the railway track for the installation. On the contrary, our technology allows to damp out trains and trams vibrations without removing the railway track, being installed laterally as a panel in the ground. This allows us to go on existing infrastructures in a not invasive way. For the noise control sector, the direct competitors rely on traditional technologies, i.e., the use of materials for noise isolation such as soundproofing foams. Compared to them, our solution due to the novel patented technology allows to meet unprecedented performances, which are a real need for the sector. Moreover we will employ recycled materials, being the performances not dependent on the material but on the topology of the structure, having for the first time in this sector a full circular economy approach

BUSINESS MODEL SCALABILITY

The business model is different for each product and it depends on the specific sector: • Anti-vibration product: the modules will be produced by a supplier, under strict regulations to protect the IP rights of Phononic Vibes; then the modules will be sold directly by Phononic Vibes to the customers, which are the main companies which manage the railways and tramways infrastructures. • Anti-noise phononic panel: the panels will be produced by suppliers, in recycled plastics, and Phononic Vibes will sell directly to customers, through a network of commercial agents and the parntership with a SME which sells existing traditional technologies (Pantecnica S.p.a.). • Appliances and automotive sectors: the products which are developed for specific applications will be managed through specific agreements and partnerships with the companies. Depending on the company, the revenue will be based on a patent or product license agreement.

ECONOMIC AND FINANCIAL DATA

Ownership Founder 1: Eng. Luca D'Alessandro 30.71%. Founder 2: Eng. Giovanni Capellari 15.71%. Founder 3: Eng. Stefano Caverni 7.14%. Founder 4: Eng. Francesco Braghin 3.57% Founder 5: Andrea Boeri 3.57%.

Founder 6: Eng. Alberto Corigliano 3.57% Founder 7: PoliHub Servizi s.r.l. 4% Founder 8: Pantecnica S.p.a. 3%. Founder 9: Eng. Federico Perotti 0.71% Founder 10: Eng. Raffaele Ardito 0.71% Founder 11: Emanuele Riva 0.71% Investor 1 Poli360 Fund 26.60%.
Founders Capital In January 2019 Phononic Vibes s.r.l. has been the first startup in which the VC Poli360 Capital Partners has invested with a Seed Round of approximately 550 k€.

	Revenue - 0€	EBIT*	Headcount **	**Funding needs**
2016	0	0	2	2 - 5 Meuro
2017	30	10	3	**Funding asources**
2018	300	40	7	Seed/venture capital

Financial roadmap
We expect to have a Series A Round in 2020, of at least 2M€, to proceed with the development of the project

Subsidies / investors and funding needs in January 2019 Phononic Vibes S.r.l. has been the first startup in which the VC Poli360 Capital Partners has invested with a Seed Round of approximately 550 k€. Besides that, Phononic Vibes has been awarded with the following grants since September 2017: Switch2Product 30 k€, Everis Italia Award 20 k€, Innodriver Regione Lombardia 25 k€, Climate-KIC Accelerator Stage II 15 k€, Climate-KIC Accelerator Stage III 30 k€.

THE PREDICTIVE COMPANY

THE PREDICTIVE COMPANY

STARTUP AREA HALL SUD

Climate-KIC

FIELD OF ACTIVITIES:
Our story began with a simple goal: help companies save money by eliminating their energy inefficiencies and by that give our contribution towards a more sustainable world.
The Predictive Company's solution is a Building (Energy) Management System based on Artificial Intelligence.

DATE OF INCORPORATION: June 2019

TEAM
Alonzo Romero Lauro, CEO
Prof. Luis Romeral, CTO
Prof. Miguel Delgado, CSO
Natalia Skwarek, COO

CONTACTS
alonzo@thepredictivecompany.com
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thepredictivecompany.com

COMPANY BACKGROUND Our technology is the result of more than 10 years of research from the MCIA technological centre, part of the Polytechnical University of Catalunia. They have applied this technology to customers in some European projects of collaboration among investigation centres and corporates for example:
•GDO2Clim: savings were 23% of total yearly consumption of energy
•OPTIENER: saving was around 20% Through the Venture Builder of the Mobile World Capital in June 2019 we have created the company to bring this technology to a larger market.
We have currently signed already 3 pilot projects:
•Polytechnical university of Madrid
•Canodromo (office space)
•Caja Ingenieros (office building of the bank)
We aim to conclude the pilots by the end of 2019. The company is composed by 2 business people with 100% dedication, 2 University professor and 2 institutions: Mobile World Capital and the UPC (Polytechnical University of Catalunia)

PARTNERS Funding and strategic partners:
• Mobile Word Capital (mVenturesBCN)
• Climate-kic (EIT)
• Caja de ingenieros
• Kgap+ (ATR investigation center from Japon)
Commercial partners (under negotiation):
• Enertika (International ESCO)
• Eneractua (ESCO) I+D
Partners: • MCIA • UPC

DEVELOPMENT STAGE We have currently signed already 3 pilot projects:
• Polytechnical university of Madrid
• Canodromo (office space)
• Caja Ingenieros (office building of the bank)
We aim to conclude the pilots by the end of 2019. The technology is already validated by the MCIA as they worked with Customer in solving problems their customers had. Now we are reformatting the interface to make it accessible to larger audiences (different types of commercial buildings). The pilot project serves us to fine tune our business model, check the different impact depending of the building infrastructure, create an operational flow, check cost of implementation, etc.

PRODUCT DEVELOPMENT STATUS TRL7 - System prototype demonstration in operational environment

PRODUCT DEVELOPMENT STATUS TRL7 - System prototype demonstration in operational environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS
We are finalizing our pilot project within the buildings of the University polytechnic of Madrid with the most recent applications. The precision of our prediction is higher than 95% therefore they will let our algorithm manage the heating machines in an autonomous way starting from October in order to optimize consumption. In the Canodromo we are already capturing the data in real time and started the optimization strategy In Caja de ingenieros we started receiving the flow of information. The technology is already validated, our Pilots are more to validate business assumptions and operational flows.

MARKET
Total Addressable market The global market of the energy management systems based on software reached 36 billion dollars in 2019 and is estimated to reach 63 billion dollars in 2023 .
Segmented Addressable Market The market in EU of the energy management systems based on software reached 12 billion dollars in 2019 with the CAGR of 16% between 2019 and 2027.
Share of the Market There are around 2500 ESCOs in EU and we estimate to work with 150 of them by 2022. This means a 6% of the ESCO market
Customer and end user demand When looking at ESCOs, their market is very competitive and services are very similar. Being able to offer an extra layer of sophistication could make the difference. Also, we should consider that the extra % energy reduction that can be obtained, and their subsequent savings, will be reflected in the EBITDA of the ESCO. Being able to reorganize the maintenance only when really needed could produce other source of savings.
Distribution Channels We plan to have an indirect model, selling our solution to the ESCOs for them to use it with their customers The advantage of the indirect model is the reduced costs to find the final customer (although a network of partners needs to be created and maintained) and a rapid diffusion as the partners have already their own customers. There are few exceptions when a final customer is interested in our solution and they don't work with an ESCO; for them we will apply our solution directly.
Competitors Compared with other Energy Management Systems (EMS) solutions that only display current consumptions (Dexma, Inergy, Lucid, etc.), the difference is that while they are reactive to the energy demand, we can anticipate the demands for an actual energy consumption optimization allowing superior savings. Compared with other EMS that do predictive analysis (Energy Elephant, Dattica, Instep, etc.) they mainly use only historical data, while we include many other variables and data from inside and outside the building reaching higher levels of precision. Comparing with those very few companies offering a predictive control, for an autonomous and optimized

operation of the energy systems, like BuildingIQ and Recogizer, they act as ESCOs (Energy Service Companies) and target only very large surfaces, while we offer a more affordable solution and we sell to ESCOs, to reach the maximum number of final customers with the minimal effort.

BUSINESS MODEL SCALABILITY We offer a SaaS solution, connecting us to the BEMS customer have. User just need to log in the platform to see his personal dashboard. Focusing our business model as a SaaS, we can cover a large number of customers at the same cost. Once we have developed the software, we can lunch it to as many customers as we can catch. As we deal with more customers we will have the integration with the existing BEMS covered (API)

ECONOMIC AND FINANCIAL DATA

Ownership CEO: 35% COO:10% CSO: 12% CTO: 18% University (UPC): 5% Mobile World Capital: 20%

Founders Capital Founders: 3k€ Participative Loan from our Venture builder: 50k€ from Mobile Word Capital (mVenturesBCN) Grants: 20k€ from Climate-KIC (EIT) - 10k€ from Caja de ingenieros - 5k€ from KGAP+ accelerator program

	Revenue - 0€	EBIT*	Headcount **
2016	n/a	n/a	n/a
2017	n/a	n/a	n/a
2018	n/a	n/a	n/a

Funding needs
Up to 500,000 euro
Funding sources
Other (please specify)

Financial roadmap
February 2020 60% Sales Development, 35% Technology improvement, 5% Legal/Marketing

Subsidies / investors and funding needs
Grants secured: 20k€ from Climate-KIC (EIT) - 10k€ from Caja de ingenieros - 5k€ from KGAP+ accelerator program Grant pursuing: Start-up Capital from Accio (70k€)

SOUTH AGRO

STARTUP AREA HALL SUD

FONDAZIONE GIUSEPPINA MAI

South Agro is an innovative start-up that produces and sells seaweed extracts, for agricolture, with biostimulant properties. The innovative products proposed by South Agro makes possible to reduce the use of chemical fertilizers and plant protection products, for greater environmental respect. Biostimulants allow to increase defenses of plants and to improve nutrient absorption, guaranteeing healthy, productive and better quality crops. South Agro is developing two research projects: the first open sea macro algae propagation and breeding farm and a unique atmospheric pressure chemical reactor, usable for the production of biostimulants. South Agro has obtained many regional, national and international acknowlegments. South Agro actively collaborates with national and international research centers and with italian flagships agriculture companies

DATE OF INCORPORATION: April 2017

TEAM

Valentino Russo, Cofounder CEO
Michelangelo Stola, Cofounder CFO
Ilaria Longo, Marketing&Communication Manager

CONTACTS

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southagro.com

	Revenue - 0€	EBIT*	Headcount **
2016	//	//	//
2017	7600	0,855	2
2018	84,06	3,997	3

Funding needs
500,000 - 2 Meuro
Funding sources
Seed/venture capital

Subsidies / investors and funding needs
20k€ bank loan, 33k Pugliasviluppo loZan, 7k€ BlueBioValue grant
Financial roadmap
In the next year, we need to increase our team to cover all the area of the business, we need also to increase our experimentation to confirm our results.

COMPANY BACKGROUND South Agro helps organic farmers to solve the climate stresses on cultivation using ALGAFIT27 a seaweed extract biostimulant which is better the other chemical fertilizers because it decreases water stresses and therefore increases the quality of crops in ecofriendly way. Furthermore South Agro helps big CO2 emitters to decrease their environmental impact using seaweed farms as CO2 sink.

PARTNERS Balab University of Bari (mentorship), San Marzano wine S.p.a. (Research partner), Intesa Sanpaolo (financial partner), Pugliasviluppo S.p.a. (financial partner), Matchup-Confindustria BAT (mentorship)

DEVELOPMENT STAGE Traction stage: we have a product and the services and we are gaining customers

PRODUCT DEVELOPMENT STATUS TRL6 - Technology demonstrated in relevant environment

DESCRIPTION OF PRODUCT DEVELOPMENT STATUS
ALGAFIT27 is validated in open field test like in the vineyards of San Marzano Wine. The seaweed farm is validated in open sea with 2 experiment of about 10 square meters in two different years

MARKET: *Total Addressable market* Global agriculture nutrition and defense products & Big CO2 emitters
Segmented Addressable Market Organic farming & Big emitters that need CO2 credits
Customer and end user demand Young and organic farmers or high-value agriculture producer
Distribution Channels Dealers, partner stores, direct sales and consultants
Competitors Our competitors are big size company specialised on agriculture products. Our strength is the circular economy approach because we don't use wild natural resources but we grow it and we obtain gain from the transformation of the raw material and from the raw material itself.
BUSINESS MODEL SCALABILITY Our business model is based on the sale of seaweed extracts and on the sales of CO2 credits. We can improve our profit by Selected by customers and selected from the surface cultivated with algae
ECONOMIC AND FINANCIAL DATA
Ownership 80% Valentino Russo (Founder and CEO) , 20% Michelangelo Stola (Founder and CFO)
Founders Capital 130k€ total : 77k (own and family funds), 20k€ (loan with Intesa San Paolo), 33k€ (PugliaSviluppo)

PREMIUM STARTUP

AGRICOLUS

STARTUP AREA HALL SUD

FONDAZIONE GIUSEPPINA MAI

CONTACTS

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www.agricolus.com | discover@agricolus.com

FIELD OF ACTIVITIES:

Agricolus S.r.l. is a startup that develops solutions for Smart Agriculture. The mission is to optimize agronomic practices by supporting farmers and agricultural operators with simple and easy-to-use Agri Tech tools, thanks to innovative technologies of data collection and analysis. The core of the company is a cloud platform composed of smart farming applications: Decision Support Systems, forecast models, smart pest and disease control, remote sensing. A complete solution for any agronomic need. The goals are: increase yield's quality, prevent and monitor climate and pest adversities of crops, reducing costs for the use of resources (water, plant protection products, fertilizers), reduce environmental impact.

BUILTI

STARTUP AREA HALL SUD

eit Climate-KIC

CONTACTS

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www.builti.it | info@builti.it

FIELD OF ACTIVITIES:

Builti s.r.l. is a spin off a bigger company called Telematica Informatica which has been in the market since 1979.
BUILTI is a start-up born with the aim of simplifying the experience of engineers in the world of construction and infrastructure, providing the user (Public Administration, Real Estate, Private and Strategic ones) with the possibility of quickly processing and analysing buildings and infrastructures, on a single portal, quickly, safe and simplified. Buildings and Infrastructures are worsened by the climate change. Due to that, the probability of damages, removal of materials and harmful gases in the city increases. We propose a system where buildings and infrastructures will be examined in order to prevent catastrophic situation (es. Rigopiano in Italy), citizens will be taught how to react in this situation (es. Traffic management) and the resilience of the city will be greater. The start-up has already its own costumer for the 5 different services.

DIAMATEX

STARTUP AREA HALL SUD

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FIELD OF ACTIVITIES:

The Company has been founded by three phycisists, working since decades in research (X-ray techniques, nuclear fusion, ionising radiations and detectors, optoelectronics, modeling and so on).
The Company has been created to valorize and launch to the market their patented invention (SELEX).
Beyond this product, the ambition is to reverse the knowledge acquired in the research domain to applications.

PARTICULAR MATERIALS

STARTUP AREA HALL SUD

CONTACTS

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FIELD OF ACTIVITIES:

Particular materials develops, manufactures and commercialises nanoparticle dispersions prepared via a low carbon footprint proprietary process.

PURITY

B5 PAVILLION

CONTACTS

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www.puritytec.com

FIELD OF ACTIVITIES:

We are a dynamic and cutting-edge technology company. Our " core business " is to solve the problem of the treatment and recovery of water to our customers. More than words , for us to count the facts : - 99 % of our products are aimed at the recovery of the water with " zero discharge".

A.G.MA. GEOPOLIMERI

STARTUP AREA HALL SUD

CONTACTS

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FIELD OF ACTIVITIES:

The project consists in the development and production of a new-concept building material, consisting of an innovative geopolymer that we designed and used as a material resistant to high temperatures. Geopolymers are a new class of inorganic materials derived from the activation of precursors of alumi-num-silicate origin, they can be formed at room temperature using industrial waste materials to form a solid, durable and refractory binder. At the base of our work there is an idea of circular economy, based on the reuse of waste material, which reused in a new technology gives new life to a product, which besides having physical-chemical and mechanical properties that can be used in many areas, such as refractory materials, reduce the costs for raw materials and significantly reduce the energy costs used for the production of conventional cements.

AGREEN LAB

STARTUP AREA HALL SUD

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FIELD OF ACTIVITIES:

Agreenlab offers an all round solution for every agrifood company on his path for innovation and ecological transition, with a focus on spotting the right financial strategies to make a decisive impact on business. Lean process and product research, Industry 4.0, energy & cleantech, Permaculture design and Artificial Intelligence are our main tools with a wide field of application in the Agrifood sector. Agreenlab is developing Trust Your Soil, a Machine Learning driven soil service solution born to help farmers to produce biostimulants with on-farm technologies at a fraction of the cost with comparable products.

AMAVIDO

STARTUP AREA HALL SUD

CONTACTS

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FIELD OF ACTIVITIES:

Amavido is a German company whose international team has developed an innovative portal and booking platform for the promotion of the accommodation and cultural offer of rural areas, small villages and Italian countries excluded from mass tourism circuits. The Italian territory has an enormous unexpressed potential: there are many wonderful places and rich in accommodation facilities, whose offer is still poorly aggregated and digitized. Italy and Germany are the two pilot markets, but the opportunity to climb is global: there is a growing tendency for travelers to move towards destinations far from mass experiential tourism. Amavido combines the characteristics of an innovative booking platform with the human warmth and the assistance of a travel agency able to offer personalized and tailor-made. Amavido's vision does not stop at the travel market: the "Amavido on line store" project, aimed at marketing typical food products made by the hosts, is already being studied. Moreover the company is in contact with some local administrations in order to identify needs of isolated communities and support them through the amavido project itself and also creating some ad hoc projects to implement directly locally.

BASCA

BASCA

STARTUP AREA HALL SUD

ART-ER ATTRATTIVITÀ RICERCA TERRITORIO

CONTACTS

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FIELD OF ACTIVITIES:

At Basca we supply solutions for tanks and containers washing with scope of their reclamation and reuse.

GUARDIAN®

THE FIRST SOCIAL IoT SYSTEM

GUARDIAN

STARTUP AREA HALL SUD

ART-ER ATTRATTIVITÀ RICERCA TERRITORIO

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FIELD OF ACTIVITIES:

Guardian is an innovative startup registered in the special register of companies (Legislative Decree 179/2012). Guardian is a company with paid-up share capital of 3 million euros. Guardian's mission is to design, develop, industrialize and produce advanced digital platforms, specializing in environmental monitoring, prevention, safety and protection of people and infrastructures, with detection solutions and early warning of seismic events, environmental and natural risks, domestic accidents The Guardian proprietary solutions are considered by Government and Agencies, Public Administrations, Multiutility, to monitor critical real-time scenarios, integrating communication and energy saving technologies, aimed at limiting damages. A team of 25 people consolidated for the development, design and production of systems and networks for environmental monitoring and early warning. A team that shares values and strategic mission.

HBI

STARTUP AREA HALL SUD

CONTACTS

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www.hbigroup.it | info@hbigroup.it

FIELD OF ACTIVITIES:

HBI enables fair innovative technologies for the Green and Circular Economy through R&D&D and prototyping activities. HBI has patented a polygenerative system capable of recovering added value materials from sewage sludge, along with renewable energy, in only 3 hours. HBI's technology allows a continuous treatment and 40% reduction of both CAPEX and OPEX, if compared to common treatment technologies. The system is governed by an artificial intelligence software.The system can be used also to treat other wet biodegradable residues. Common solutions for sewage sludge require a lot of energy to remove humidity from the sludge, while the direct spreading of sewage sludge in fields provokes the spreading of hazardous pathogens and other pollutants. Moreover, in these ways sludge is not properly valorised, while the treatment costs are constantly rising.
In addition, valuable nutrients are lost due to the destructive nature of those treatment.

MERCATOMETALLI.COM

STARTUP AREA HALL SUD

CONTACTS

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mercatometalli.com

FIELD OF ACTIVITIES:

Wholesale marketplace for trading metals. We work with foundries, manufacturing companies and recycling industries. Any company can sell or buy metals at different step in supply chain to complete the circular economy.

MT-EUROPE

STARTUP AREA HALL SUD

CONTACTS

info@mt-europe.eu
+39 3497184357
www.mt-europe.eu

FIELD OF ACTIVITIES:

MT-Europe, an inspiring work space for professionals, entrepreneurs and innovators. Members have access to the collective talents and knowledge of others who work here, creating an organic style of collaboration and rapport that is invaluable to small businesses, independent workers and growing organizations.

We deal of:
- Territorial Marketing
- Training for Entrepreneurship
- Job Orientation
- Start-up Coaching

We are the organizers of Climathon 2019 Matera (European Capital of Culture 2019).

POP & SMART

STARTUP AREA HALL SUD

CONTACTS

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www.popsmart.it

FIELD OF ACTIVITIES:

The project is aimed to realize a new service for the collection and reuse of food and other surpluses by small operators, using an innovative warehouse management system (virtual) and avoiding several car travels, waste of personal time and useless packages, in a returnable way (cases).
Structured by replications of local network, will recover donations from small businesses such as bars, food stores, markets and cosmetics stores, to provide quantification and transport document for the purpose of tax relief for the goods designated to active local NGOs.

SEMIDAIUNIDEA

STARTUP AREA HALL SUD

CONTACTS

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www.semidaiunidea.com | info@semidaiunidea.com

FIELD OF ACTIVITIES:

Semidaiunidea Srl is a company specialized in custom gadgets. We made an Eco Map that cointains a group of eco friendly gadgets to purpouse to our clients. These gadget are made with special materials, biodegradable and environmentally friendly.

SFRIDOO

STARTUP AREA HALL SUD

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www.sfridoo.com | info@sfridoo.com

FIELD OF ACTIVITIES:

Sfridoo is the startup of the Circular Economy that helps companies in the transition to the circular economy.

STOREH ENERGY STORAGE TECHNOLOGIES

STARTUP AREA HALL SUD

Climate-KIC

CONTACTS

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store-h.com | info@store-h.com

FIELD OF ACTIVITIES:

STOREH Energy Storage Technologies is an innovative startup that offers an energy storage system and on-demand production of hydrogen. HOD, Hydrogen On Demand, solves the problem of intermittence and non-programmability of renewable sources by making possible the seasonal storage of energy. § The system has been designed and built starting from the needs of the industrial and domestic sectors: lower cost than current market solutions, scalability thanks to the complete independence between power and capacity, safety as there are no gases under pressure and sustainability thanks to the use of extremely popular and recyclable materials. HOD is also applicable for the stabilization of distribution networks and for the production of hydrogen for mobility.

SYNAPSEES

STARTUP AREA HALL SUD

Climate-KIC

CONTACTS

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www.synapsees.com

FIELD OF ACTIVITIES:

Energy management task is focusing on improving efficiency by capital intensive investment without controlling if design target is achieved. The investors hope that the use of new automation system (AS) can ensure both the control of production and energy efficiency, but the reality reveals that AS just improves the control of production. Synapsees sells custom software that allows energy/facility manager to ensure that energy efficiency target is achieved, by continuous analysis and control.

WINDCITY

STARTUP AREA HALL SUD

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windcity.it/en | info@windcity.it

FIELD OF ACTIVITIES:

“Windcity makes the first passive variable geometry turbine or, in other words, self adaptive turbines that represent the next phase in renewable energy generation. Our patented technology is called V-Stream as “”variable stream”” because it adapts to any fluid density, any change of direction and any change in intensity to maximize energy production.”

XFLIES

STARTUP AREA HALL SUD

CONTACTS

r.salvia@unibas.it

+39 3334443284

www.xflies.it

FIELD OF ACTIVITIES:

XFlies realizes the rearing on an industrial scale of the bioconverter insect Hermetia illucens, fed on waste and by products deriving from the agri-food chain, in order to produce and market live larvae usable for feeding pet animals (birds, reptiles etc.) and dehydrated larvae transformed into protein meal to be used in the aquaculture sector (EU Reg. 893/2017) and aviculture (in the process of approval) and to feed pets as dogs and cats. The industrial rearing of insects on waste from the food supply chain and on waste deriving from the agri-food chain offers the possibility of valorise the by-products, with a view on the environmental sustainability and the zero-waste circular economy.

Zero3 s.r.l.

ZERO3

STARTUP AREA HALL SUD

Climate-KIC

CONTACTS

manton@zero3.cloud

+39 3284546660

www.zero3.cloud

FIELD OF ACTIVITIES:

The Zero3 s.r.l. is born from an idea of plant optimization, with the application of solutions that improve performance in the recovery of energy from renewable sources. Our aim is to improve and increase energy recovery through targeted technological solutions specifically designed to achieve the intended purpose. The road we want to follow is innovative but is based on established principles. The results of the implants show that functional improvement in energy recovery is possible. Zero3 srl offers the Gas Stabilizer machine. GAS STABILIZER is an automatic regulation system that acts on the biogas collection systems present in energy recovery plants (e.g. landfills) for the production of electrical and thermal energy.