sustainability works.

The magazin edited by Center for Industry and Sustainability at Provadis Hochschule
powered by EIT Climate-KIC

#focus:
european start-up stories & successes 2018 & 2019
**effective cleantech start-up support:** EIT Climate-KIC Accelerator

The EIT Climate-KIC Accelerator provides a range of coaching, training and matchmaking services for entrepreneurs to help prepare them to be ready for the market, customers and investors.

This includes among others: storytelling and pitch training, business modeling and sales, financial planning and fundraising, etc. In addition to that, the EIT Climate-KIC Accelerator programme fosters connections to investors through specific matchmaking and event formats, such as venture fairs, demo days or investor dinners.

The Center for Industry and Sustainability of the Provadis Hochschule offers, in cooperation with EIT Climate-KIC, an accelerator programme for the topic of climate and sustainability. It is financed by the European Institute of Innovation and Technology (EIT) and managed in cooperation with selected partners from across Europe. This three-stage programme has become a leading programme in the world of cleantech.

The EIT Climate-KIC Accelerator 2018 & 2019, delivered via twelve partners in nine European countries and coordinated by Provadis School of International Management and Technology AG, had several great successes. This booklet presents some exciting success stories of start-ups, that took part in our programme.

How the "needs-oriented start-up" approach, originating from a relevant problem faced by an existing customer, can work is proven by a series of testimonials by companies, which received support from the Accelerator Programme. All of them have one goal: to help make our blue planet a little bit cleaner.
welcome to a better world: 20 success stories 2019

**Optimus Power by SmartCat** – From mathematical models to live testing

**MIRET** – Shoes, invisible to nature

**Winegrid** – Receives 1.59 million EUR from Accelerator of the European Innovation Council (EIC)

**BeOn Energy** – Developed its first pilot with Vodafone Portugal

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**Ascalia** – Using artificial intelligence to reduce environmental impact of factories

**FuelSave** – Raised over 1.4 million EUR in the first year

**EMBIO** – Raise the bar on the quality of the food we consume

**BeOn Energy** – Developed its first pilot with Vodafone Portugal

**Agnon** – New generation of non-polluting, highly efficient wood stoves

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Bulgarian start-up Agnon was the first Bulgarian company to be accepted into InnoEnergy Highway® Accelerator.

Today, 2.7 billion people worldwide are still relying on the traditional use of solid fuels and heating which generates 40% of air pollution. The start-up company Agnon dared to address this global challenge by creating Gamera – a new generation of high-efficiency, non-polluting wood burning stoves that minimize harmful particulate matter emissions. Backed-up by the EIT Climate-KIC RIS Accelerator Bulgaria and Eleven Ventures, in 2018 the start-up became the first Bulgarian company accepted into the prestigious InnoEnergy Highway® Accelerator. In 2016, the Bulgarian company received funding through the EIT Climate-KIC Accelerator Bulgaria, operated by Cleantech Bulgaria. Thanks to the programme, the team of Agnon managed to validate its business model, achieve significant improvement in the product features and enhance the investor deck. A couple of months later the results started to appear as Agnon came into the highlights of distinguished entrepreneurial competitions and in 2017 won the national finals of the largest sustainable energy start-up competition in Central and Eastern Europe – PowerUp! organised by EIT InnoEnergy. This is how Agnon entered into negotiations with InnoEnergy Highway® Accelerator. The start-up company has already signed an investment agreement of 120,000 EUR and has access to the largest sustainable energy business network in Europe. More than 360 international partners, product development and protection support, team building, access to international users and external funding sources are just some of the benefits to companies accepted in the InnoEnergy Accelerator program. “Thanks to InnoEnergy’s investment, we will move to mass production and increase production capacity 10-fold, and thanks to our partnership with them we will be open to the European market. We are honored to be the first company funded by InnoEnergy in Bulgaria, which is also a great responsibility and we thank Cleantech Bulgaria for trusting us at a very early stage”, shares Zhivko Stefanov, co-founder of Agnon.

The Bulgarian start-up Agnon found a way to keep the air pollution free by inventing a new generation of wood burning stoves.

“Agnon was accelerated by the EIT Climate-KIC RIS Accelerator Bulgaria in 2016, operated by Cleantech Bulgaria. Thanks to the program, the team of Agnon managed to validate its business model, achieve significant improvements in the product features and enhance the investor deck.”

“Gamera is a line of products based on the rocket stove technology using 2-3 times less fuel consumption and emitting 100 times less air pollution. The first amateur model was created in 2013. The stove can be connected to custom built heated bench (thermal mass) and thus can reduce the use of wood two to three times more. It can also work with branches which reduces the costs for fuel and labor. The Gamera model is certified with 89.6% efficiency. Agnon is the winner of the ENERGY GLOBE Award Bulgaria for 2018.”

Initial situation
Agnon Ltd. was founded by two friends who were involved in the IT sector and decided to quit their jobs and find a solution for the polluted air in cities. They moved to their home town and started manufacturing the Gamera heater in their garage. Today, Agnon exports to customers in 16 countries.
LAM'ON – Making plastic in print 100 % biodegradable for a healthier planet

The printing industry doesn’t just create paper waste – it uses a whole lot of plastic too. Bulgaria-based LAM’ON has come up with a biodegradable laminating film that could help eliminate the printing industry’s huge – but mostly invisible – plastic problem.

Ever since the EU declared a ban on single use plastics, plastic packaging and things like one-use straws, cups and plates have all experienced a popularity nosedive and the search is on for non-plastic or biodegradable alternatives. But while all eyes are on the packaging pollutors, another plastic-filled industry has been overlooked: print. Currently, a huge amount of print media is covered with a layer of plastic film, often things like shiny magazines, flyers and catalogues that end up being thrown away weeks, days or sometimes just a few minutes after they’re used. Right now, the film used is nearly always petroleum-based plastic. The result is a mixed media – plastic and paper stuck together – which is difficult, and expensive to separate.

Angela Ivanova and Gergana Stancheva have worked in the printing sector, experiencing the problem first hand. They approached Cleantech Bulgaria with the idea for an eco-alternative product for the printing industry and they were invited to join the Climate Launchpad start-up competition to develop it further. This is how LAM’ON was formed and chosen by the jury to be one of the finalists to represent Bulgaria in the global finals. In 2018 Gergana and Angela also joined the Journey Programme by EIT Climate-KIC, where they advanced significantly in the development of their company and expanded the team in the face of Philip Ublekov (PhD) – a scientist specializing in biopolymers. Next, LAM’ON was approved for the EIT Climate-KIC Accelerator Bulgaria programme in 2018. Thanks to the programme LAM’ON was funded with a 15,000 EUR grant and supported through coaching, services and mentorship to successfully validate the first prototypes, the business model and incorporate the company.

LAM’ON has come up with a biodegradable and compostable alternative. It looks and feels the same as conventional plastic laminating films, can be manufactured using the same machines – and it crucially costs the same too. The start-up was set up in 2017 by Bulgarian entrepreneurs Gergana Stancheva (an illustrator) and Angela Ivanova (a photographer) as part of the EU’s EIT Climate-KIC Accelerator programme – where the founders received initial funding to develop their product.

Shortly after graduating the EIT Climate-KIC RIS Accelerator Bulgaria, LAM’ON was selected among the global top 10 of Chivas The Venture Acceleration competition receiving further funding of 30,000 USD in April 2018. Currently, the team is negotiating pilot testing of the laminating film with the largest Bulgarian printing houses.

http://lam-on.com/

“LAM’ON is a EIT Climate-KIC Launchpad alumni and local finalist and graduated the EIT Climate-KIC RIS Accelerator in Bulgaria, Phase 1 stage in 2018.”
**Ascalia** – Using artificial intelligence to reduce environmental impact of factories

Ascalia is on a mission to use artificial intelligence and Internet of Things to reduce the environmental impact of factories and infrastructure. With Ascalia in the picture, clients are experiencing increased efficiency while keeping the costs down.

“In addition to benefiting from mentoring and workshops, being part of the EIT Climate-KIC Accelerator greatly expanded our visibility and network. This led us to new prospects, clients and investors. Because of the exposure that Ascalia has received during the six-month program, we successfully closed a pre-seed investment round of 165,000 EUR. This was our first financing round since our start-up was bootstrapped up until that point. Being recognized by the EIT Climate-KIC boosted the investors’ confidence when it came to us, making the fundraising far easier than usual and facilitating a good relationship with international investors”, explained Marin Bek, the co-founder of Ascalia.

Besides gaining the investment, Ascalia closed the deal with their biggest client to date. Iverpan, a Croatian 20 million EUR ARR chipboard processing company, is now using Ascalia’s services to optimize its processes. This means shortening manufacturing times, cutting down waste and, ultimately, reducing the environmental impact per unit of product. Shortly thereafter, Ascalia signed the second client. The successful start-up built a digital twin of a chemical processing company’s production process, thus ensuring the uniformity of the final product and reducing the rate of production defects.

The connection with the German-Croatian Industrial and Trade Chamber that was initiated through the programme, is currently navigating Ascalia into expanding into the German market.

Ascalia’s 8 full-time employees are dedicated to innovating the way high-end technology interacts with the machinery in the real world. Our primary focus (as well as the main value that we offer our clients) comes from an easy, non-intrusive way of connecting existing machinery into our smart factory solution. The collected data is analyzed using artificial intelligence, resulting in the detailed analytics and optimizations of processes. This leads to the reduction in energy and raw material usage, reduction of manufacturing times and overall reduction of environmental impact of a factory per unit of a manufactured product.

In May 2019, we started the fundraising process and met a number of potential investors. We closed a 165,000 EUR private-equity financing round in September. Following the investment, the team grew with the addition of 2 engineers (a control system engineer and machine learning engineer) and we are currently in the process of hiring at least 3 new colleagues.

https://ascalia.io

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"Ascalia entered the EIT Climate-KIC Accelerator Croatia as a small, young start-up with a lot of ambition and few clients. Becoming part of the programme helped us structure our growth plan for the following 6 to 12 months. We learned how exactly we can reduce and measure the environmental impact."
MIRET – Shoes, invisible to nature

MIRET are the most environmentally advanced sneakers in the world. The co-founders, brothers Hrvoje and Domagoj Boljar, said it took five years to develop ‘the coolest sneaker on the planet’.

"Having designed and produced sneakers for global luxury brands for 10 years, we have visited countless leather and footwear factories. We were shocked to see the extent of the environmental pollution created by the footwear industry. The experience has made us put our knowledge to better use and bring forth a product that is both sustainable and respectful of nature. In fact, our main inspiration is nature. We use amazing natural materials such as hemp, eucalyptus and flax", explained Hrvoje Boljar, the co-founder of MIRET.

The EIT Climate-KIC Accelerator has helped the brothers create a new and improved version of the product, meaning that their sneakers are now 98 % bio-based. During the course of the programme, they have also secured an initial seed investment round of 50,000 EUR, established a subsidiary in the United States, gained major national publicity and completed prepping the promo materials for a global crowdfunding campaign.

"EIT Climate-KIC provided us with the recognition that we needed. This helped us focus even harder on developing our start-up and gave us a boost of new-found energy and enthusiasm. We met fantastic people, learned important business-growing lessons and accelerated our company to a whole new level."

MIRET secured 50,000 EUR funding and is currently getting ready for a Round A venture capital investment. We have 2 full-time employees who have succeeded in enhancing the sustainability of the product and gaining new suppliers.

https://miret.co/
EkoNest – Eco friendly products for living a plastic-free life

EkoNest was founded in 2018 by Eleni Kazelas and Andrey Voloshin and in just a small period of time they have been able to solidify themselves in the market and have signed agreements with some important and big clients in the local market.

In 2019 the start-up participated in the Stage 2 of the RIS EIT Climate-KIC Accelerator programme and by the end of their contract has managed to secure many important clients and gain important product certifications.

Whilst being part of the programme the team managed to secured agreements with Four Seasons, Alion Beach Hotel and St. Raphael hotel, three of the biggest hotels in Cyprus, stating that the hotels will sell the EkoNest branded products in their gift shops. Additionally EkoNest has secured agreements with retailers such as S.A Honey & Spice Healthy foods Ltd and S.A.N.A Investments Ltd.

Throughout the programme team EkoNest was able to develop new products, conduct multiple different material testings through an SGS laboratory for a variety of products within the EkoNest product line, and they also applied for two different product certifications (vegan & palm oil free) which were granted to them. The team has also presented their journey on a Demo Day organised by Chrysalis LEAP on the 11th of September in Cyprus. The event was attended by EIT Climate-KIC representatives and representatives from the business and industry sectors in Cyprus.

With the funding provided to them, they were also able to create the EkoNest Website and apply for a European Union Trademark (EUTM) which will allow them to further promote and sell their products on a global scale.

“We were really grateful to be part of the EIT Climate-KIC RIS Accelerator programme and learn new skills that helped us with our business and have the financial support that allowed us to continue and progress at a faster pace.”

EkoNest is an eco-product brand that develops and distributes environmentally friendly products for domestic and commercial use. The products are alternatives to plastic and help to prevent waste, with the aim of contributing to a clean and healthy planet.

There is a strict production principle for all EkoNest products. Each product must have at least two of the following:
1) Be compostable or biodegradable
2) Contain no toxins or harmful ingredients
3) Made from or of recycled materials, to prevent waste from ending up in landfills.

EkoNest also proudly supports and contributes to the environmental conservation organization: Let’s Make Cyprus Green. Every purchase helps to support their efforts in combating plastic pollution.

https://eko-nest.com/
EMBIO Diagnostics was founded in 2016 and has successfully completed the 2018 Stage 3 RIS Accelerator programme. In the duration of the programme, the team traveled to meet with potential customers, conducted interviews, ran compliance tests and pilots and had secured a paying customer. More specifically after having just completed the programme and while concluding their pilot testing, the team managed to sign agreements with a large supermarket chain in Greece (AB Vassilopoulos) for the sale of its pesticide testing kit.

Having been in the market for over 3 years, having secured many important collaborations and meetings with investors and being featured in the local press, the start-up was invited to participate in the EIT Awareness Day, organized in Cyprus in June 2019, and present their journey as an up and coming start-up and more specifically as a EIT Climate-KIC alumni and a success story.

EMBIO Diagnostics designs and develops custom based hardware solutions and consults as an expert in the biotechnology sector at a global scale.

The start-up offers an inexpensive monitoring biosensor devise (B.EL.D) for testing specific pesticide residue levels anywhere. The monitoring device is portable and easy to use in any location and in any step of food-production chain before the fruits and vegetables are consumed. The low cost of each analysis allows the monitoring of large number of samples on a daily basis. The detection process only takes a few minutes to generate the result ‘Above’ or ‘Below’ the MRL (maximum residue level).

"The beginning part of the EIT Climate-KIC Accelerator programme was vital for the further improvement of the services EMBIO will offer with the pesticide detection system. We as a team know more about our clients than ever before. Additionally, we got an incredible training for the business model canvas."

EMBIO Diagnostics is a Cyprus based Internet of Things company that offers producers/farmers, distributors and supermarkets a solution to easily and economically detect any pesticide residue on their products.

EMBIO Diagnosis is a company that develops, manufactures and distributes biotechnology products, aiming to revolutionize practices and methodologies used in academia and the food industry through innovative and advanced diagnostic applications. EMBIO has entered the market with food safety control products.

B.EL.D users can accurately test several samples of their products and analyze them on the spot. With a unique hardware design and a connected mobile app it only takes 3 minutes to see the results.

https://embiodiagnostics.eu/
FuseBox – Reducing electricity measuring costs

In the business of balancing electricity grid and trading of consumers flexibility, every spent cent counts. The less you spend, the smaller amounts of flexibility you can go after.

Electricity measuring devices are very often an area where one can spend thousands of euros.

FuseBox had a goal to lower the cost of measuring devices as low as possible. Participating in the programme allowed us to focus on that problem more than we would have done in any other case.

As a result we managed to find technology which we had to modify to reach our goal. We managed to lower the usual cost ~10 times. Now we can approach new client segments and smaller loads of flexibility than before.

“EIT Climate-KIC gave us the opportunity as a start-up company that in monetary terms is struggling from one month to another not to focus on earning money but to turn our focus to the problem, which is more relevant, in longer term.”

FuseBox is a team of 6 people and we have gotten 160,000 EUR funding in the past years.

FuseBox is a demand response aggregator, focused mainly on SME clients. The company is also building an IT and technology sector to manage and trade the flexibility.

http://www.fusebox.energy

FACTS & FIGURES START-UP:
Founder: Tarvo Ong
Founded in: 2014
Employees: 6
Important customers: Baltic TSOs
Country: Estonia

EIT CLIMATE-KIC
PARTNER:
CleantechForest
Country: Estonia
Suckõrs – Reed straws finding their way to more and more users

The year 2019 has been highly productive and progressive for team Suckõrs and the reed straw production.

A great step forward early in the year was our own production facility set-up. The small shed previously used for production was switched for a suitable factory, that enabled us to raise our production, improve machinery usage, set up appropriate raw material storages and create better working conditions.

The production of straws also improved in the means of tools used. We were able to duplicate multiple processes and make some threefold more efficient by implementing technologies from both wood and metal industries. We also acquired a laser engraver, substituting hot stamp for applying logos on straws. Together the steps helped us to raise production capacity to 2000 straws a day.

In 2019 we have produced more than 100 000 straws so far. We have sold all of them successfully and validated a market far greater than our current output, which gives us room and reason for further growth. As of today we have had more than 200 B2B clients, many of which we gained by offering straws with custom logos, making it highly attractive for marketing materials and business gifts. We have also gained additional customers abroad and wish to further expand to other European countries.

We were rewarded as an Environmentally Friendly Enterprise by the Estonian Ministry of Environment, giving us confirmation about our environmental cause.

Suckõrs is producing reed straws and developing novel reed-based materials for commodities and packaging production. The drinking straws are 100 % natural, reusable and dishwasherable. In both production and development we use no synthetic additives and ensure the full biodegradability and eco-friendly life cycle of the products.

We want to help solve the plastic pollution and climate change by providing reed-based commodities. Reed is an abundantly available and quickly renewable plant, which makes it a highly sustainable raw material. We keep our whole production on the island of Saaremaa, in order to contribute to regional development.

We have participated in EIT Climate-KIC Accelerator Phase 1, under the Estonian umbrella organization Cleantech ForEst. We have a core team of 4 plus 4 hired full time workers. So far we have raised equity-free fundings in total of 33,000 EUR (Estonian Design Awards; Prototron Start-up Competition; EIT Climate-KIC Accelerator).

https://suckors.com/

“The EIT Climate-KIC Accelerator contributed to our success in many ways both in terms of knowledge and resources. The local coaches have given us fruitful engineering connections and aided us in finances. The financial support provided has enabled us to invest in raising production capacity.”
**CYRUS PC – Technological disruption, awards and investments**

Hydrogen compressors comprise 50% of the total capital and O&M costs of hydrogen refueling stations for vehicles. Conventional compressors are quite noisy as well and cannot be installed in urban areas. CYRUS PC has developed metal hydride hydrogen compressors providing solutions to the above mentioned facts.

CYRUS PC manufactures hydrogen compressors, which are ideal for Hydrogen Refueling Stations (HRS) in residential areas due to their zero noise levels (no moving parts). In addition, they are flexible and modular and present low O&M costs, high availability and reliability. They can be driven by 100% renewable energy and they present a low environmental impact.

- Technological disruption on clean energy transport (hydrogen) applications
- Pre-commercial prototype has already been developed
- Pre-seed financing for the implementation of go-to-market strategies and helping build the foundations of the entrepreneurial ecosystem; external investment from a Venture Capital already in place
- Innovation Award on Scientific Research to enhance efficiency and reduce carbon footprint of airport transport services using compressed hydrogen as a fuel
- National Grants for the next generation product (hydrogen compressor)

Transport applications are responsible for 25% of Greenhouse Gases Emissions in Europe. Hydrogen is the most efficient clean energy carrier in this sector. To support this shift towards cleaner energy, new infrastructures of Hydrogen Refueling Stations (HRS) are already underway. Hydrogen compressors are a key element of these stations, accounting for ca. 50% of their capital costs and over 60% of their O&M costs.

CYRUS PC has developed and manufactured a new series of Metal Hydride Compressors with unique advantages:

- Pressure over 500 bar
- No use of CRMs
- Use of low-grade thermal energy resulting in very low O&M costs
- Potential to operate 100% driven by renewable energy sources

We have already attracted a 200,000 EUR funding from a venture capital (Uni.Fund). Our team comprises 5 highly experienced experts and is a spin-off of the biggest Research Centre of Greece namely NCSR DEMOKRITOS. We are already negotiating with big players in the transport applications market to achieve first sales.

www.h2cyrus.eu

“Help was provided to the CYRUS team in the following sectors: 1) Coaching on business development, 2) Market survey, 3) Development of a detailed and focused business plan, 4) Design of the production line and 5) Completion of certification procedures. We also finalized the investment attraction.”
Cogastro – Secures the first investment of 170,000 EUR and joins 70Ventures Accelerator

After proving a market need and interest from the industry, Cogastro attracted the first investment.

The first investments in the company came from Lithuanian venture capital fund 70Ventures and private investor Jos Dikhoff. The investment will be dedicated to finalizing the pilot version of the product and delivering it to a primary group of farms that expressed an interest in it and were keen to use it.

Cogastro provides core management systems for edible insect farms which assures traceability and monitors all farming data in one central location. The tool fosters the market of sustainable proteins because insects require less land, consume less water and emit less CO₂ than livestock for the same amount of valuable protein.

Officially the company was launched in 2019 July and immediately afterwards received funding.

The company is founded by Mante Sidlauskaite and currently employs a 4 people team.

https://cogastro.com/

“EIT Climate-KIC contributed to the success by helping to define clear KPIs and supported the company all along the way towards reaching its goals. This led us to idea validation and shaping the product based on the market needs and helped to prove the concept to investors in order to get the funding.”
PVcase is a solar software company which allows to significantly shorten particular designing stages of solar power plants by as much as 95%, while at the same time, helps to increase the amount of energy generated up to 17%.

PVcase is disrupting the way solar parks are engineered. The unique tool automates 3D terrain based solar engineering.

Since the start of the EIT Climate-KIC Accelerator programme PVcase sales channels have exploded and reached a total of 48 paying customers across the globe with a total of 568,479 EUR sales revenue. PVcase has become a fully sustainable business and currently employs 20 people in Vilnius and Kaunas offices. Back at the start of EIT Climate-KIC Accelerator we had 11 employees. In addition to that, PVcase and Imec, a world-leading research and development (R&D) company, together developed a prototype software which shows best-class results of yield simulations. Going to market is their target for the first half of 2020.

“...always a good idea to look at your business from the outside, not only to track where you are, but to see your progress as well. It is also important to learn the development pace. This is relevant for the future assessment. That being said, EIT Climate-KIC programme enabled us to see the big picture.”

PVcase was established in 2017 in Kaunas, Lithuania, with the goal to disrupt the way solar parks are engineered globally. For next year, PVcase had managed to attract 500,000 EUR from two major VC companies in the Baltic States.

Eco-dimension problems have an impact on our activity because the solution that we provide for EPC companies are decreasing eco-dimension problems worldwide and our software enables to improve precision aspect for EPC companies and they can save up to 10% of raw materials (cables and etc.) in order to build solar farms.

https://pvcase.com/
BeOn Energy – Developed its first pilot with Vodafone Portugal

It all started in 2019, when BeOn joined the fourth edition of EIT Climate-KIC Accelerator in Portugal. With already more than 5,000,000,000 EUR raised and a great portfolio of clients, this team aimed at developing pilots with corporates and scale up their photovoltaic system for home consumers that makes anyone an electricity producer easily and without installation help in the German market.

BGI Accelerator has welcomed them to the Accelerator programme on the first bootcamp, that basically consists of a one-week intensive training for their business model, with over 50 relevant Portuguese stakeholders. After, they were submitted to the BGI Mentoring programme, which consists of private mentoring over 8 sessions. BGI chose Peter Holm as their mentor, as a member of Provadis, we helped BeOn Energy build up their market plan and strategy.

2019 could not seem brighter, since BeOn Energy has developed a pilot and proof of concept with Vodafone Portugal. In July, BeOn installed their solar kits at one of Vodafone’s stations allowing the station’s supply of energy to come from renewable sources connected with it. Also, during this year, BeOn Energy solar kit was featured on the Vitrin programme. This programme developed by Vodafone Portugal allows start-up’s products to be commercialized in a Vodafone online store giving them the possibility to access an already established market to introduce their products.

BeOn Energy is a developer and manufacturer of industry-leading microinverters and pioneering plug & play complete solar kits. BeOn developed a unique plug-in microinverter unlocking the potential to connect a power generating solar panel to an electric socket, just like a common electric appliance, in a safe, reliable and simple way. BeOn’s solar kit is a PV that can be configured to generate energy for your home in less than 15 minutes. It is a simple to install kit that includes a solar panel with 300w with an assembly structure of 3 in 1, for the floor, balcony and outside wall, with the revolutionary BeOn ‘Pluginverter’.

www.beonenergy.com

“We were part of EIT Climate-KIC Accelerator in 2019, in stage 3. We enjoyed the bootcamps and the private mentoring programme, since they helped us develop our strategy to scale up in Germany and go-to-market strategy.”
It all started in 2018, when FuelSave joined the second edition of EIT Climate-KIC Accelerator in Portugal. With a prototype and great energy, this team aimed at developing a technology that would help trucks save fuel consumption up to 20 % by providing real-time feedback to the truck driver.

BGI Accelerator has welcomed them to the Accelerator programme on the first bootcamp, that basically consists of a one-week intensive training for their business model, with over 50 relevant Portuguese stakeholders. After, they were submitted to the BGI Mentoring programme, which consists of private mentoring over 8 sessions. BGI chose Benny Kim as their mentor. He as a project manager in GreenTown Labs and helped FuelSave build up their market plan and strategy. Later that year, this team went through the international bootcamp and the second national bootcamp, where they focused on their sales and marketing strategy.

At the end of 2018 FuelSave was incorporated, in Évora, and chosen to receive funding under the Alentejo 2020 Incentive System for Research and Technological Development. 2019 could not seem brighter, since EDP Ventures, committing 500,000 EUR in FuelSave, as well as their expertise in helping this start-up succeeded. This commitment led way to other important private investors, in the field of logistics and transportation, that also participated in this first equity round of FuelSave. All in all, after piloting with over 100 trucks in different national companies, it looks like this start-up has come to stay, and that transportation companies now have an efficient option when it comes to saving fuel and datasets providing key information to both management and operations teams.

FuelSave is a real-time data science company that performs analyses for predictive driving optimization. We provide a mobile app that fits the truck driver’s cockpit and performs everyday training on the job. With this technology trucking companies can reduce the fuel consumption and CO₂ emissions by up to 20 %, increasing efficiency and environmental social responsibility.

Simultaneously, it provides key information about patterns and different variables on fuel consumption, allowing not only to reduce consumption but also increase safety. Due to its unique algorithm, this technology has a patent application in course. So, we can say it’s a good deal, that combines saving CO₂ emissions and money.

www.fuelsave.io

“The help that we got from EIT Climate-KIC is the network of course, a good mentor and also the ability of getting some funds, and the opportunity to meet some investors and people that are connected to this network and it’s amazing!” CEO, António Fradique
WINEGRID® – Receives 1.59 million EUR from Accelerator of the European Innovation Council (EIC)

At the present time, WINEGRID® is a smart and innovative solution bringing indispensable tool by winemakers and oenologists around the world. It includes proprietary sensors installed in the wine production vats, real-time digitalization and data collection.

It all started in 2014, when the company was founded, with a strong technological and R&D background. WINEGRID® has great energy with a dynamic and experienced team.

The innovative solution aimed at using artificial intelligence in a fiber optic sensor system for real-time monitoring of wine properties during winemaking. Simultaneously, the platform provides key wine information about 5 critical wine parameters in real time: density, temperature, colour, turbidity and level.

Now, with 5 years of experience, national and international clients and more than 3 million EUR raised, the future could not seem brighter, since on the 27th of June of 2019, the European Commission announced they were supporting the Portuguese company with 1.59 million EUR, under the pilot-project Accelerator of the European Innovation Council (EIC), formerly known as SME Instrument Phase 2. In addition to financial support, the organization will benefit from business coaching and free business acceleration services.

WINEGRID® wants to continue on the forefront of precision oenology, they will be developing best management solutions for the winemakers, they will enable high productivity, less waste, less human errors and improve brand reputation.

WINEGRID® uses artificial intelligence in a fiber optic sensor system for real-time monitoring of wine properties during winemaking. WINEGRID® is a fully integrated solution for smart monitoring of the winemaking process in real time.

This solution has sensors for all types of containers and measures the most critical parameters in different stages of wine production. All the data is available in the WINEGRID® platform that is accessible online through any device.

https://watgrid.com/winegrid/

“2016 – Stage 2, 1st Ed. of EIT Climate-KIC Accelerator in Portugal: bootcamp with relevant stakeholders and private mentoring programme. The company built up their market plan and strategy. 2018-Stage 3, EIT Climate-KIC Accelerator: 3 bootcamps and private mentoring. The company built up their investment strategy.”

WINEGRID® uses artificial intelligence in a fiber optic sensor system for real-time monitoring of wine properties during winemaking.

WINEGRID® is a fully integrated solution for smart monitoring of the winemaking process in real time.

This solution has sensors for all types of containers and measures the most critical parameters in different stages of wine production. All the data is available in the WINEGRID® platform that is accessible online through any device.

https://watgrid.com/winegrid/
Reactive Boards – Prototypes close to production

Our story begins in 2015, when my co-founder's bike was stolen. Shortly after, we found instructions for a low-budget electric longboard online. Needless to say we built it and rode it through the city. People always stopped us to ask where we got it and how they could get one themselves. So we thought this would be a nice business to start. And in 2016 we founded the company. Ever since we’ve dedicated most of our weekend and afternoons to building electric longboards. The first longboard that we built, the low budget version, ended up being very expensive, and that is why we tried to develop and build as many of the components as we could in-house, to keep the price down. Over the next 2 years we improved the initial prototype, we participated in some start-up competitions and we tried to make ourselves known. We’ve also come up with a more intuitive and safer way of controlling the board, for which we have a patent pending.

In 2018 we entered the Climate LaunchPad competition where we won the 2nd price in the national finals and went to the global finals in Edinburgh. We had a blast there.

In 2019 we applied for the Accelerator programme and we were accepted in Stage 1. With the funding received from the EIT Climate-KIC Accelerator, we managed to find manufacturers for most of the parts in the longboard and develop further prototypes. We’re now really close to the production version. We didn’t yet sell any of our boards but we’re working on our online presence and marketing to be prepared for a crowdfunding launch sometime next year. To keep up with our progress just follow us on Twitter, Facebook, Instagram or drop your mail on our website. And don’t forget to “Enjoy the ride!”.

We are a relatively small team, 5 members, out of which 3 work on product development and 2 on marketing. The company was founded in 2016 by Sorin Dabiste and Andrei Bora. So far we’ve only invested ourselves in the company and we received the Stage 1 EIT Climate-KIC Accelerator funding of 10,000 EUR.

We want to provide city commuters with an alternative to driving. We plan on doing that by developing the most intuitive electric longboard on the market.

https://reactive-boards.com

“In 2018 the Climate Launchpad helped us with refining our business model and visibility of our start-up. In 2019 the EIT Climate-KIC Accelerator helped us “accelerate” the development of our product and we got a lot closer to a production ready prototype of our boards.”
For Veltra, 2019 was an iconic year! The EIT Climate-KIC programme empowered us to achieve some of our long-term goals: we patented the design and the trademark of our bike, refreshed our manufacturing and assembly process, designed 2 new models and sold our first units to end users.

We are extremely proud to share that our products are 100 % designed, engineered and manufactured in Romania. Our community has grown significantly over the past year and our success story was shared by many important media publications not only nationwide but also internationally. It’s overwhelming and exciting because after all these years of failures and hard work, we finally transformed our company from an idea to a fully fleshed sustainable product that will be mass-produced.

One thing is clear! Without EIT Climate-KIC, our goals and timelines to get to this point would have been pushed long into the future; that’s why the entire team at Veltra is thankful for being given the opportunity and for believing in us.

Veltra Bikes is the first start-up in the world that manufactures laminated bamboo bicycles, that are unique, lightweight and more comfortable than a normal bicycle. This year we made it to Stage 3 of the program and received 40,000 EUR to scale our business. At the moment, our team has 6 members and is constantly growing.

So far, we managed to reduce our manufacturing process from days to hours and, in addition, design and build a prototype for a new electric model which is to be released in early 2020. So far, our bicycle integrates more than 50 % biomaterials and we have plans to improve that in the coming years. Our mission is to build the most sustainable bike in the world!

https://www.veltrabikes.com/

“I think the most important impact from EIT Climate-KIC was not only the financial support, but the opportunities which arose along with it. We managed to attend interesting workshops in Timisoara and Frankfurt which gave us valuable insights and then feedback onto what and how to improve our bike and streamline our business.”

Veltra Bikes – Bamboo your bicycle-life
FreonFrog – Turn the refrigeration industry upside down

Two years ago we had just an idea about what changes we wanted to make in the refrigeration industry. Every investor told us that we are not their type of start-up because we are dealing with technical and industrial products that need time to accelerate.

So we started with knowledge and will go further with the help of EIT Climate-KIC. From then till now we have done projects on different continents, we sold our solution and installed it for customers we didn’t see as customers, and most important, we will finish this year having prepared documentation for mass production of our product. From idea to mass production in two years, from 2 to 20 people working, we still believe we can change things in the refrigeration industry.

We are FreonFrog, we are doing reconstruction on cold storages that are working with HFC gases and making them reusable with new F-gases regulation. We convert them from direct to indirect expansion and we install a FreonFrog box that controls the F-gases inside the box.

We started with our idea at the Climate Launchpad 2017 as National winners with 2 team members, in 2018 we were in EIT Climate-KIC Accelerator 2nd stage where we had our first customers. Now in 2019 we are at 3rd stage, we are preparing for mass production, we have 20 employees, 5 partners in the country and 10 in the EU.

“\nThe EIT Climate-KIC is the only investor we had and the biggest support we could get from them is not the money: it’s the thinking and delivering milestones. To challenge ourselves, to achieve what we set out to do, to push our limits and make us do more and faster than we thought we could.\n”
Optimus Power by SmartCat –
From mathematical models to live testing

At the beginning of 2019 we had a clear vision and lots of math to support it: we were trying to reduce energy consumption in buildings by controlling set-point temperatures of HVAC systems and at the same time keeping the tenant’s or employee’s comfort intact. The math was solid and simulations worked – and worked remarkably. But, as for this problem and our solution, we are using advanced optimization techniques that are glorified in recent scientific papers, but never battle-tested and not proven to be production-ready yet, so we were skeptical. Therefore, our goal for 2019 was to do a Pilot study – optimize and control a real working environment.

With our partners, Virtual Power Solutions, we have chosen a bank branch in Coimbra willing to be our test unit. We have visited the branch and agreed on the conditions – their only concern was that they would freeze! And ours: how to measure the impact? We have set success criteria and agreed on methodology and are just finishing this exciting journey from math books and papers to real use-case. Stay tuned to hear about the results!

“Achieving main milestones from EIT Climate-KIC had great value in validating our business model and unique selling proposition with our potential partners and customers. As a result we started pilot testing in Portugal in August and have scheduled one more test in the Netherlands in November.”

Optimus Power is a software solution for optimal energy consumption control for HVAC appliances based on AI.

Optimus Power is developed under the roof of SmartCat and soon will be a start-up of its own.

So far, Optimus Power received 85,000 EUR from the EDI challenge (October 2018 - February 2019). After that, we applied to the first stage at EIT Climate-KIC (April 2019 - September 2019). A significant milestone for us was winning at PowerUp! by InnoEnergy Country Finals in Serbia in May 2019, which gave us the opportunity to receive financing from the High Way Program by InnoEnergy.

https://theoptimuspower.com/
EVEGREEN, Eva Štraser s.p. – In partnership with Nature2need

We will do for plastic the same as John Wesley Hyatt did a 150 years ago for ivory – implement new biodegradable compounds to substitute traditional, non-biodegradable thermoplastics at an affordable price level.

The innovative aspect of the proposed project lies in the product: Material formulations are customized, easy to process on standard injection moulding machines, 100 % biodegradable in soil, have an eco look (natural fibers) and are made without any petrochemical sources. Our products – gardening flower pots – also serve as fertilizer (addition of rice husk to the formulation) and natural protection against garden pests (EVEGREEN eco gardening pot – Gold award from the Regional Chamber of Commerce for Innovation 2019, EVEGREEN – Semi-Finalist European SOCIAL innovation Competition 2019 (CHALLENGING plastic waste).

Team size (4 members – researcher, marketing, sales design)

Funding received:
- P2 SPS (54,000 EUR till 2022)
- EIT Climate-KIC 2. phase (15,000 EUR in 2019)

Impact:
- Decreased amount of plastic waste.
- Increased economic opportunities in the biodegradable materials industry.
- Increased awareness about the use and effects of different kinds of biodegradable materials.

Indicators:
- Kg of granulate sold to injection molders (including for own production): 418 kg (360 kg for agro, 58 kg other)
- No. of new biodegradable materials developed: 1
- No. of own bioproducts sold: 4000 pcs
- Kg of agro-waste used: 144 kg
- No. of injection moulding companies switching from traditional plastic to biodegradable plastic: 0 (4 in testing period)
- No. of small scale farmers as material agro waste providers: 1
- No. of development partnerships (materials, entrepreneurship support community): 2
- No. of expert partners engaged: 5
- Standard developed (plan after 2022)

www.bioplasticpot.com
SPARK inovacije is a member of a consortium that has won a public tender for a mobility-related pilot project. The project will be done in Maribor, Slovenia's second largest city. The consortium includes several of Slovenia's leading companies in the field of IT and hardware for mobility.

The project iPot is developing a next-generation traffic management center. Our goal is to develop a traffic simulator that will evaluate the (possible) traffic flow, propose the most appropriate route for individual drivers, and modify the plan for the traffic lights, according to the expected traffic flow. The project lasts for 3 years and we get the subsidy for 45% of the salaries for several employees.

In the beginning of 2019 we had only one employee, in the end of 2019 we will have over 15 employees.

The project iPot is aimed at improving the traffic flow in cities, therefore significantly decreasing the amount of emissions.

“EIT Climate-KIC support was really crucial for us to keep developing our solution. It has helped us to develop more functionalities, try out new future employees and buy some hardware that we really needed.”

FACTS & FIGURES START-UP:
Founder: Martin Pečar
Founded in: 2018
Employees: 1

EIT CLIMATE-KIC PARTNER:
Kemijski inštitut
Country: Slovenia
13 for a better world: success stories 2018

WooBox – Natural alternative to styrofoam packaging in the food supply industry
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BioMyc – Mushrooms vs. Styrofoam. Start-up makes biodegradable material to rival (and replace) plastic foam
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RAWCKERS – A business that rawcks!
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Microbium D.O.O. – Fast Microbiology
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MyCol D.O.O. – Preventing hotspots inside well-operated multideck chillers in cold food supply chains
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FuelSave – FuelSave wins Repsol Foundation Accelerator and Altiee Innovation Awards, attracting 194,000
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Roofit Solar Energy OÜ – Best looking & Innovative 2-in-1 solar roofs
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Aqualoop – From the garage to the market in under two years
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Greenroads Malta – Fostering a green mobility shift
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Odo Ride – Making urban mobility smart, green and sustainable
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SensiX.io – Next iteration of ambient devices and expanding our pilot projects
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MyCol D.O.O. – Preventing hotspots inside well-operated multideck chillers in cold food supply chains
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66-67

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64-65
BioMyc – Mushrooms vs. Styrofoam. Start-up makes biodegradable material to rival (and replace) plastic foam

BioMyc, a biotech start-up, graduated from the EIT Climate-KIC Regional Innovation Scheme Accelerator in 2017. Mentoring, support and 92,000 EUR funding from EIT Climate-KIC and Cleantech Bulgaria (EIT Climate-KIC’s local partner), helped the company build a strong team and start producing commercially astute prototypes.

BioMyc makes a biodegradable material to rival plastic foam. One use is for lightweight packaging. It’s proving a serious alternative to styrofoam, the oil-based plastic that releases harmful hydrofluorocarbons in production and never biodegrades. Now BioMyc is working on a pilot to determine the best way to manufacture and launch its product. It’s in close communication with Zagorka, part of the Heineken group, as well as one of Bulgaria’s new high-end wine producers to create custom packaging for beverages. Prototypes are manufactured in the industrial facility of a Bulgarian furniture producer and in-lab in the University of Food and Technology in Plovdiv, Bulgaria. When the wine producer settles on a design for its gift boxes, the first order of 100 units will go into production. Successful completion will result in more business. It’ll also help the extended team of engineers, working with BioMyc, create a pilot production installation to test the process. A crucial step that precedes the planned Seed investment round by the end of 2019.

Deyan Georgiev, managing partner, says: “We’ve had such tremendous progress with the lab-scale technology that we’re looking to build up to a small, automated manufacturing facility. The goal is to get ready for Series A funding and, ultimately, create a demonstrator production plant by the end of 2020.”

BioMyc is a starting biotech company that accelerates sustainable industrial processes. At its core is a process that binds agricultural waste (such as straw, corn husks or tobacco stems) with the root structure of mushrooms, mycelium, to create an eco-friendly material to rival plastic foam.

It can be used to develop a multitude of products from hard boards to construction materials and bio-leather. BioMyc is currently using it to make fibreboard and packaging prototypes. Though the company is still extensively developing R&D, in May 2018 the first sale was closed. The company was selected as one of EIT Climate-KIC’s top 30 Cleantech start-ups in 2018. In September BioMyc works with a peer start-up, CRISTA – an introduction from the Accelerator programme – to create an agricultural waste map of Bulgaria. A month later the company started work on a commercial pilot, an order of protective packaging for premium wine. Please see additional awards and achievements in the annexes.

http://biomyc.eu

“BioMyc was accelerated by EIT Climate-KIC Accelerator Bulgaria in 2017, graduating second stage of the programme. Shortly after, BioMyc became an incorporated company. In February 2018 BioMyc starts a Pathfinder project with Cleantech Bulgaria and a group of professionals to continue its work.”

Bulgaria

FACTS & FIGURES START-UP:
Founders: Atanas Enev & Deyan Georgiev
Founded in: 2018
Employees: 1
Important customers: Zara Wines Ltd. (disclosed)
Aqualoop – From the garage to the market in under two years

This success story relates to the commercialisation of a product, a hot water controller, by Aqualoop. Aqualoop began its journey as a ClimateLaunchpad start-up in 2016 (Team H2OT) with two co-founders, Andreas Ioannides and Matthew Norton. Shortly after the conclusion of the ClimateLaunchpad competition, the team joined the EIT Accelerator programme in Cyprus successfully completing Stage 2 in 2016 and Stage 3 in 2017.

In 2017, the team registered the company in Cyprus under the name Hot Water Control Ltd. In just two years the team managed to test and validate its business model, travelled abroad to meet potential clients and secured first orders which very soon led to the manufacturing of the product. The team has already sold and installed 50 Aqualoop units in households in Cyprus and is currently planning its expansion to Ireland.

Aqualoop’s success prompted Chrysalis LEAP to invite the team to present their rapid journey from garage to market at the ClimateLaunchpad 2018 Demo Day in Cyprus, an event that was attended by 80+ people. Matthew and Andreas described the product’s functionalities and features whilst giving the audience a live demo with the product on site and repeatedly referenced the importance and invaluable support of EIT Climate-KIC as they presented their journey. Given the team’s success and the impact of their story telling, the ClimateLaunchpad Central Team invited Aqualoop to present their journey at the Global Grand Final of ClimateLaunchpad in Edinburgh Scotland.

Aqualoop offers an Internet of Things ‘smart’ controller for managing domestic hot water. It allows users to monitor how much hot water is in their tank at any moment, enabling them to save energy, time and money by heating only the amount of water needed, when it is needed. The user knows how much hot water there is without running the tap: a win-win for the user and the environment.

Aqualoop was designed from the start to be easy to install and easy to use. No plumbing needed. No batteries to replace. Its sleek, pure white design blends naturally into any wall, lighting up only when needed.

With Aqualoop’s free smartphone app one can monitor the amount of hot water in their tank remotely and is able to switch the heater on or off from anywhere.

www.hotwatercontrol.com/en

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www.hotwatercontrol.com/en
Laava Tech – Just do it. Laava Tech keeps moving forward

2018 has been an exciting and successful year for Laava Tech. Laava Tech CEO Tatsiana Zaretskaya pitched our energy-saving lighting technology at the University Startup World Cup in Copenhagen, Denmark, on 8 - 12 October. Laava Tech was chosen as the winner of the Product & Design category, as well as the Overall Winner of the University Startup World Cup! 60+ start-ups from more than 40 countries around the world took part in the event, pitching their ideas to a panel of industry experts, so the competition was intense.

Earlier the same year Laava Tech became a winner of Polar Bear Pitching competition – one of the coolest (pun totally intended) pitching events in the world. Start-ups plunge down in the ice water and pitch to a panel of judges from a hole cut through the ice in the frozen Baltic Sea.

These achievements wouldn’t be possible without EIT Climate-KIC and Cleantech ForEst. During the 1st stage of Accelerator we have finalized our hardware and software prototypes. Wrote a business plan that includes both sales and marketing strategy plans. And we have developed a very clear roadmap for future R&D. The most exciting part is, that we have successfully run our pilots and now our pilot customers are transferring into paid customers! More than that we have a strong pipeline of new customers for 2019.

2019 is already going well! We have been accepted to the 2nd stage of the EIT Climate-KIC Accelerator in Estonia. In the beginning of January Laava Tech has been exhibiting at The World Future Energy Summit in Abu Dhabi, which is the is the leading B2B sustainability event in the Middle East, and a part of the Abu Dhabi Sustainability Week. And we also have graduated from the Alchemist Accelerator on the 23rd of January – a 6 months long programme in the best B2B Accelerator located in the Silicon Valley, USA.

Laava Tech has developed a combination of hardware and software that can decrease lighting energy consumption for indoor farming by up to 90 % and increase yield by up to 20 %. Our target market is vertical farming (microgreens, hydrophonics, etc.) and we’ve successfully ran pilots in these markets.

Lighting represents one of the biggest costs for indoor farmers and the blanket lighting solutions that most farmers use are inefficient, expensive, and both damaging for the plants and the environment. Our solution provides the optimal growing conditions for each plant at each stage of growth, while saving energy by customizing the spectrum and intensity of light.

We’re offering our customers a turnkey lighting solution for a monthly subscription fee, giving them access to our hardware, software and database of the optimal growing conditions and enabling them to have practically immediate ROI.

We have a team with expertise in molecular chemistry, electrical, chemical and software engineering, as well as marketing and sales. The process of plant growth is chemical reactions, so our technical founders are ideally suited to solving the issues in the market.

www.climateventure.com

“EIT Climate-KIC and Cleantech ForEST had our backs this whole time. The Accelerator taught us how to develop future strategies and think bigger. We learned how to present our technology and we have also achieved big milestones within our hardware and software development. The EIT Climate-KIC Accelerator is the only EU acceleration programme focused on cleantech commercialisation, making it ideally suited for

FACTS & FIGURES START-UP:
Founders: Tatsiana Zaretskaya, Jussi Pikkarainen, Oleg Zaretski, Sergei Radzionau
Founded in: 2017
Employees: 4
Important customer: Urban Farms OU

Laava Tech develops artificial lightning systems to decrease energy consumption and increase yield for greenhouses.
Roofit Solar Energy OÜ – Best looking and innovative 2-in-1 solar roofs

We have invented an innovative 2-in-1 solution, which combines the traditional European roofing material and a photovoltaic module.

The new sustainable roof generates electricity and looks exactly like a standard non-solar metal roof. Now people can choose sustainable solar energy for their household without ruining the appearance of their house. European cities will stay beautiful when innovative building materials for roofs and facades are used. Even churches and museums can generate green energy without compromising the architecture.

The new European industries and factories producing innovative building-integrated photovoltaic materials (BIPV) will create new jobs.

The technology created by Roofit Solar Energy can be licensed and therefore new investments are triggered in several regions in Europe to support sustainable growth. The new material that combines traditional roofing material (steel/metal) with solar cells will revolutionize the real estate market on a big scale and will make the European solar market more competitive and innovative. Tesla is still not out with its solar tiles solution, but the European Roofit Solar Energy technology is market-ready and can be mass produced in 2019. Only if the market’s awareness and demand will support it. Therefore we hope to receive the EUSEW Innovation Award to draw attention to existing new technologies, which can help contribute to EU’s target of increasing the share of renewable sources in energy generation in many of the EU member states.

https://roofit.solar

“Financial support and pitching training + very supportive Estonian EIT Climate-KIC team.”

Estonia

FACTS & FIGURES START-UP:
Founders: Andri Jagomägi, Andres Anijalg, Raimond Russak, Kari Maripuu
Founded in: 2016
Employees: 8
Important customer: Private customers in Estonia and Sweden

Roofit makes photovoltaic building elements that allow real estate owners to produce solar electricity on their roofs and facades without compromising the aesthetics of the building.

EIT CLIMATE-KIC PARTNER: Cleantech ForEst
Country: Estonia
InLable – An industry unique authenticity verification system

InLable is the winner of the second call of “EIT Climate-KIC Accelerator Latvia, 2018”. During the Accelerator programme it developed a lab prototype of a unique authenticity verification system and was able to secure interest from large original metal parts and materials manufacturers (OEMs) from Germany. At the end of the Acceleration InLable signed test project agreements with 2 German OEMs to start industrial tests as of 2019. The business idea development path was very rapid.

The market is saturated with a variety of product identification solutions, but it turns out that there is still an acute problem, as counterfeit volumes keep increasing in all industries. Advanced InLable technology allows you to read the geometric parameters of the label at the nanometer scale. Making counterfeits at such a scale has to be very difficult and complex, if not impossible. Each label has a random surface structure, which means that each label is unique like a fingerprint and can be applied to any hard surface. The label application methods can be many, from spray-on, industrial coating, to even laser burn within the surface. This makes this solution highly adoptable and cheap to integrate, as existing manufacturers’ equipment could be used. The initial focus was on pharmaceutical, luxury goods, beverage and parts/components industries; the latter was the quickest to respond. Counterfeiting causes losses to business, pollutes the environment and poses serious risks to human health, especially counterfeit medicines or, for example, chemical products. Counterfeits often fail to comply with set standards for raw materials and utilisation. InLable technology ensures control and transparency.

IRREPRODUCIBLE and the most versatile anti-counterfeit labeling and verification system, that limits the growth of product counterfeits and gives back full control over the property of brand owners and manufacturers.

“EIT Climate-KIC gave InLable international recognition, different skills, mentors to support in setting the development direction and to get to the industry faster. Of course, money is always needed, but first and foremost – support to develop the idea and develop a structured roadmap.”

InLable TEAM includes 2 experienced venture entrepreneurs with passion for deep-tech start-up development and the scientist, the brains behind the technology. InLable is passionate and committed to revolutionising the anti-counterfeit market.

The company was founded in May 2018 and successfully passed the selection to the EIT Climate-KIC Acceleration programme 2018. May through December InLable acquired a total funding of 65,000 EUR from local accelerators to support its development. By September the first lab prototype was completed. During October, after its successful presentation, InLable was accepted into FAST-TRACK, organised by large German manufacturers, and by December 2 agreements were signed to perform tests of InLable technology in an industrial environment.

The small successes and the rapid pace InLable achieved thanks to the hard work, creativity and persistence of its team. What makes it great is the speed of making the decisions and dealing with challenges.

www.inlable.com

FACTS & FIGURES START-UP:
Founders: Raivis Nikitins
Founded in: 2018
Employees: 2
Important customer: No customers yet. We are on our way to perform our technology solution field tests.
Greenroads Malta – Fostering a green mobility shift

We’re very happy that we were able to exceed our expectations as a start-up for 2018 thanks to both the EIT Climate-KIC fund and our willingness to take some bold steps!

When we applied for the EIT Climate-KIC fund, we were simply a strong team with an idea and a basic prototype. During the 5 months of, we managed to develop that idea and turn it into reality. First and foremost we managed to create the sustainable mobility app with the name ‘breeze’. Not only did we develop the app thanks to the fund, but our business model also developed throughout those 5 months.

Thanks to the insight, we decided to jump at the opportunity of launching our app at the University of Malta in the new academic year. Today, the app breeze is being used at the university to encourage and promote carpooling in exchange for a free parking spot. Meanwhile we have also managed to get precious information through a survey and focus groups from among the Maltese general public. These helped us to better understand the needs of these people and how best to facilitate sustainable mobility in a country which is very car dependent.

“Networking with start-ups that hold core values of sustainability close to heart proved invaluable. Thanks to the funding & support from the local manager & coach, we developed our solution, exhibited at fairs, launched a carpooling app at the University of Malta & are in discussions with more potential clients.”

Get green, get rewarded!

Greenroads Malta is a sustainable mobility solution that aims to encourage and facilitate green mobility around the Maltese islands.

We want to foster a culture that moves away from the habits of car dependency towards a culture that is more respectful to our environment, our future generations and most importantly, ourselves. We ultimately dream of an environmentally responsible and proactive society that can enjoy clean air and peaceful streets with significantly less vehicles.

Through the launch of the carpooling app breeze at the university in 2018, we created a unique approach where users do not predetermine if they want to be a driver or passenger, hence allowing for users to find a logical solution for everyone and set aside their inclination of wanting to be drivers. Thanks to pioneers our business model evolved to include consultancy on mobility behaviour and perception. We believe we are laying the foundations for a gradual sustainable mobility shift that we deserve.

www.greenroadsmalta.com

FACTS & FIGURES START-UP:
Founders: Josef Florian Micallef, Kristian Cardona & Claire Ciancio
Founded in: 2018
Employees: 3
Important customer: Malta Students Council (KSU)

EIT CLIMATE-KIC PARTNER:
Paragon
Country: Malta
FuelSave – FuelSave wins Repsol Foundation Accelerator and Altice Innovation Awards, attracting 194,000 EUR

The Portuguese start-up FuelSave that developed an app to retrain lorry drivers to save fuel was one of the 6 winners of Repsol’s Accelerator “Entrepreneurs fund”, by Repsol Foundation, receiving up to 144,000 EUR in August.

“We are developing the mobile app that performs live training for truck drivers, using unique pairs of data, each truck-driver pair performs differently. With our methodology, road freight companies can save up to 20% in fuel and gas emissions. Following this award, in October 2018, FuelSave won the Altice Innovation Awards winning 50,000 EUR and a pilot with the Altice Group for one year. After the jury filtered the 82 applications for the Award, FuelSave was the winner. António Fradique, one of the co-founders of the start-up, said that FuelSave differs from the competition “by the team and by the people surrounding the company, such as our consultants.” He assured that the team, which deals with data science in real time and that has an application to optimise truck driving, was able to achieve the milestones planned in 2018 and still get funding in a short time – since the start-up was founded in February 2018.

FuelSave is a real-time data science company that performs analyses for predictive driving optimisation.

We provide a mobile app that fits the truck driver’s cockpit and performs everyday training on the job. With this technology, trucking companies can reduce fuel consumption and CO2 emissions by up to 20%, increasing efficiency and environmental social responsibility. FuelSave affects one of the most problematic sector in the world regarding CO2 emissions, fuel consumption and energy efficiency: the transport sector worldwide. FuelSave already analyses 20 trucks with its technology. The team has 4 team members and in 2018 attracted 194,000 EUR of investment.

https://fuelsave.io

FACTS & FIGURES START-UP:
Founders: António Fradique
Founded in: 2018
Employees: 4
Important customer: CMTIR, Luis Simões, RNM, Transportes Nogueira, TPCF, CT

“The help that we got from EIT Climate-KIC is the network of course, a good mentor and also the ability of getting some funds, and the opportunity to meet some investors and people that are connected to this network and it’s amazing!”
CEO, António Fradique
Behind Rawckers is a couple that decided to eat super healthy and realised they had very limited options in restaurants, supermarkets or in social occasions.

This lack led to a lot of researching and travelling in order to find better solutions to a healthy diet. Soon, they started exploring dairy-free alternatives and after 1 year of daily testing, they had finally succeeded in creating a new product: A plant-based fermented cheese, using just 3 simple ingredients: cashew nuts, water, salt.

The secret of success is the technological process. It involves fermentation, moulding, blending, cheese aging and it’s very hard to copy. The product tastes just like dairy cheese, but it’s healthy and is significantly reducing pollution. When the product was released, they sold 300 pieces in less than 48 hours. The market embraced the idea and the business started growing so fast, they had to increase production constantly. Now they produce around 2,000 pieces a month.

They never spent a cent on creating ad, the newspapers and television just started talking about the healthy dairy-free product and the innovation of it. In November 2018, Rawckers won the EIT Food RIS Innovation Grant of 5,000 EUR. “Being the first raw vegan cheese producer in Romania is a great advantage, but we also care about quality because we are our best customers”, said one of the founders. For 2019, Rawckers plans to release more products, including vegan butter, Camembert, Blue Cheese, parmesan, cheese desserts and more. Additionally countries like Austria, Germany, Italy, Hungary and Belgium have shown interest in importing their products.

Rawckers sales show that 60 % of the are children that have lactose intolerance, or allergies to gluten. That means, they grow up eating plant-based cheese and will contribute their whole life to saving the planet.

Another important aspect is that Rawckers also respects people by making sure all the ingredients come from a fair-trade source. So far, Rawckers’ team has 4 full-time members and 2 collaboration mode members.

www.rawckers.ro

“Designing a production factory was not easy and the EIT Climate-KIC Accelerator helped us grow from an idea to a running business. It was a boost that gave speed and support. The whole networking brought a lot of new opportunities, brand awareness and feedback.”
SensiX.io – Next iteration of ambient devices and expanding our pilot projects

We managed to experiment with different wireless technologies and prototype three versions of our ambient and energy tracking devices. The challenge is to reduce the cost of production for our devices. This way we can provide affordable subscription-based solutions for the complete solution.

Apart from that, we were able to launch our new website sensix.io and started the heavy work on the next version of the mobile app.

SensiX.io provides complete monitoring solutions for small and medium-sized companies that own or rent a working space. This way admins can identify business specific issues and make well-informed decisions that are measurable over time.

We are a team of 8 with mixed skills: software and hardware developers, graphic designers, and data scientists.

Our solution contributes to reducing the environmental footprint by suggesting ways to optimize energy usage of office buildings, factories, hospitals, storage spaces or homes.

https://sensix.io

“EIT Climate-KIC programme helped us to focus on innovation & collaborating with a local prototyping company, while expanding our pilot projects.”

FACTS & FIGURES START-UP:
Founders: Lucian Corduneanu, Ionu Movil
Founded in: 2018
Employees: 2
Important customers: EcoLiving, Arena Aqua Sport, Restart Energy

EIT CLIMATE-KIC PARTNER:
CCIAT Timisoara
Country: Romania
Odo Ride – Making urban mobility smart, green and sustainable

Odo Ride is the shortest vehicle in its class so it can easily maneuver through traffic jams, but without compromising passenger space and comfort. And even though it’s the shortest, it has the largest advertising surface, which is very important to our clients. This was managed by closing off the side facing traffic, making it also an important safety feature.

Solar panels on the roof of the Odo bike will fully recharge the battery in around 5h. We also set up WiFi hotspots in every bike, since this is very important to our customers. Statistics show that 65% of the rickshaw rides in Germany are taken by tourists.

Odo Ride is the only company in the rickshaw industry to offer the service through an app and it allows the customer to do everything through their smartphone – locate the vehicle, book a ride, rate the driver, do a mobile payment and get the bill via email.

For B2B customers, the real game changer, business wise, custom data report system is provided through a web app. Data regarding number of rides and passengers, total and average mileage, most frequent routes and everything else important to the client regarding the rides, will be available in daily, weekly, monthly or seasonal reports, in real-time, 24/7.

For B2C customers, a contemporary, sharing economy business model will be presented. This model could potentially earn a customer a lot of money, by putting an ad on their Odo bike.

Odo Ride is a mobility service for passenger transport in future smart cities, where overcoming space shortage, air and noise pollution and obsolete transport solutions are the greatest challenges.

Odo bike is a light, smart, beautifully designed vehicle, and its compact dimensions, electric drive, solar panel and smart system make it a perfect means of urban transportation.

Our team is well balanced, with 4 engineers out of 8 team members. Most of us have known each other for more than a decade, and we have been working together for years in solving urban mobility problems.

www.odo.bike

“EIT’s Climate-KIC helped us transform the idea into a reality, in the first place by funding the production of Odo bike prototypes. Secondly, its mentors and mentoring sessions that really helped and contributed in shaping the complete idea.”
WooBox – Natural alternative to styrofoam packaging in the food supply industry

We know that the organic food production and small-scale independent farming is the future of agriculture in the modern world. Over the last 10 years there has been a noticeable trend of young people deciding to commit to working the land with a desire to produce healthier food for themselves, their families and other people. However, this sustainable trend in agriculture hasn’t been appropriately followed by the packaging industry. Styrofoam, an increasing threat for our environment, is still one of the most widely used materials, with little or no alternatives.

As a response to this pressing environmental issue, we developed WooBox, the missing link in the organic food supply chain everyone has been waiting for!

WooBox revolutionises the way perishable products are delivered and presented to potential buyers. Up to now, producers have been forced to buy or rent generic food stands and to package their products in styrofoam or single use crates, which didn’t do the amount of effort and love producers put into growing their products.

Finally, there is a solution to all three of these issues in a single product. Displaying their produce in the WooBox allows them to proudly present their product in its best condition and stand out at the farmer’s market, while simultaneously raising awareness among shoppers about the necessity of sustainable solutions in our everyday lives.

“Through participation in EIT Climate-KIC Accelerator we gained necessary financial support in stage 2 of the programme (15,000 EUR) to build and test our product and make a WooBox prototype in 2016. In 2018, with the help of funds from stage 3 (35,000 EUR), we continued to implement our go-to market strategy.”

WooBox is a small company with big ambitions and even bigger ideas. Our team of 9 aims to raise the environmental awareness of their fellow citizens and contribute to the battle for a more sustainable tomorrow.

The battle we picked – the one against styrofoam in the food delivery industry. So far, our efforts have been backed by various stakeholders and organisations. Apart from the support from EIT Climate-KIC, we were backed by ExpoLive 2020 through the Grant Innovation Programme and chosen from 1,200 applicants to compete for 100,000 $ grant in the final round.

In 2018, our team received the support from Innovation Fund of Serbia (grant of 80,000 EUR), allowing us to develop our production capacity and launch our product on the international market in a short term period.

Additionally, we are currently negotiating a partnership with the World Expo in Dubai 2020, for WooBox to be used to satisfy their food & beverage cooling needs during the event.

http://nomorestyrofoam.org

FACTS & FIGURES START-UP:
Founders: Nikica Marinkovic, Ivan Erkic
Founded in: 2017
Employees: 8
Important customer: Balkan wineries and food delivery companies

EIT CLIMATE-KIC PARTNER:
Chamber of commerce and industry
Serbia & Start it Belgrade
Country: Serbia
Microbium D.O.O. is a Slovenian company founded in 2015 in response to the needs of the industry, which is challenged by microbial contaminations. Due to the growing demand for tailored solutions, Microbium delivers: 1. products for detection of bacteria in various industrial samples, 2. services to eliminate bacterial contaminations in the industry.

We developed unique methods for fast detection of bacteria in complex industrial samples. The method is shortening the time of detection from a few days to four hours. With the help of our product, the customers are sure about the current quality of their material. Thus, they can react and take measures immediately, if needed. This helps them to eliminate contaminated hotspots and significantly reduce costs of production and CO₂ footprint.

Our target groups are all industries that are using biocides to prevent bacterial spoilage of raw materials or products including those using technological waters in production processes, especially where such water has significant impact on the quality of the end product, energy efficiency or presents environmental or health hazards to employees or consumers. These industries are producers of water-based paints, pigment producers and coal power plants.

We got our first customers for these testers in 2017 (early adopters in 2016) and in 2018 we signed the first yearly order of the testers with an international calcium carbonate slurry producer.

We started the year 2018 as a team of 3 employees and ended it with a new co-worker. We prepared our market communication strategy and moved to new offices where we equipped the analytical and development laboratory. That means we now have resources to start serial production.

Currently Microbium employs 4 people. In 2018, we employed a new co-worker from the field of biotechnology and there is another new job position opened. We received EUR 50,000 EUR from the EIT Climate-KIC Accelerator.

The main objectives that we have set and achieved:
- Helped large enterprises to evolve into eco-friendly companies through reduction of waste. For example, in one of the top 50 global coatings producers, we helped to significantly reduce the amount of waste, which resulted from bacterial contaminations in the past, and now we are helping them to reduce consumption of biocides (allergenic compounds).
- Create adequate market communication (branding & company identity design).
- Connect to relevant international customers (AkzoNobel – Netherlands, Flugger – Denmark, Pigment – Russia).
- Design financial model (pricing, cashflow monitoring).
- Serial production of testers (setting up laboratory for aseptic production).
- Staffing (new team members).

www.microbium.si

“EIT Climate-KIC Accelerator 2018 programme in Slovenia helped us to push our business to the next level. With the help of EIT, we achieved three main goals: Create adequate market communication, connect to relevant international customers, design a financial model.”
MyCol D.O.O. – Preventing hotspots inside well-operated multideck chillers in cold food supply chains

Temperature-sensitive food is commonly exposed in shops inside multideck chillers having fully integrated refrigeration- and sensor technology. The sensor system controls the temperature and sends an alarm if the chillers go outside the defined region of temperature. The error must be solved in a couple of hours, otherwise the food has to be thrown away.

However, an uneven distribution of temperature inside chillers could be caused by locally improper distribution of items which cannot be detected by the sensor system. Our long-term measurements of the time-dependent “temperature map” inside different chillers during normal operation conditions show some places with considerable overheating lasting for periods of several hours. Such places represent a high risk for temperature-sensitive food, but were not detected by the build-in sensor. We recognized those locations as the best locations for applying our innovation – the reversible temperature indicators. This visual identification will show the “hotspots” inside chilled space, which needs an intervention. Thus, the indicators will strengthen the control of chilling efficiency inside multidecks and assure safe, healthier and higher quality food. In addition, some food could also be saved from wastage. Our analysis was presented at the annual conference of the Slovenian Association for Quality and Excellence (SZKO) in Portorož Slovenia, 8–9 November 2018. It was received with high interest and was an excellent opportunity for networking with experts working on quality in the food chain and represents a solid ground for the continuation of our work. The measurements started 1st August 2018 and are still going on to get all-season data.

MyCol aims to become a highly competitive provider of new products for visual control of the current temperature and for the registration of past changes. This will be achieved by mass production of flexible labels that change colour at a predefined temperature. Reversible (repeatable) and irreversible (permanent) change of colour at the desired temperature are possible. The target applications are control of temperature inside cold chain space and of individual packaging in transport. This will help to provide higher quality food and prevent food waste.

MyCol was founded privately in Mach 2017 by 4 researchers. It has 1 employee. With suitable incomes, additional employments will be made.

Fundings:
- Slovenian Enterprise Fund (up to 50,000 EUR for eligible costs in 2 years)
- Accelerator 2018

MyCol provide recyclable products suitable for circular economy with beneficial environmental impact. The quality control is planned. The company looks for suitable projects/investments.

www.mycol.si/en/frontpage-en/

“The idea was developed for the Accelerator 2018 and was realized under the wide support of EIT Climate-KIC, with great help of bootcamps and other activities. The gained knowledge was used to clarify and strengthen our ideas, especially towards commercialisation of our sustainable application.”
strong connections: your benefit

EIT Climate-KIC is a knowledge and innovation community established and funded by the European Institute of Innovation and Technology (EIT) in 2010. Our purpose is to tackle climate change through innovation. We are Europe’s largest public-private partnership with this purpose – a growing pan-European community of diverse organisations united by a commitment to direct the power of creativity and human ingenuity at the climate change challenge.

We bring together large and small companies, scientific institutions and universities, city authorities and other public bodies, start-ups, and students. With over 350 formal organisational partners from across 25 countries, we work on innovation to mitigate climate change and to adapt to its unavoidable impacts. The Center for Industry and Sustainability (Zentrum für Industrie und Nachhaltigkeit, or ZIN), located at the Industriepark Höchst and partner of EIT Climate-KIC, has made it its goal to lend support to sustainable innovation through funding programmes, applied research in sustainable business models, and through networking. Besides the success stories in this magazine, read more about the start-ups on our website or get in contact with us.

For more information: www.matchmaking-startups-cleantech.eu
we make sustainability work.

We support the industry on its path to sustainable development.