



European Institute of Innovation & Technology

# Contents

## CH.A.N.G.E Awards

David Pribil.... Dorottya Maksay.... Eduardo Appleyard... Evan Bruner... Germán Leiva... Kate Hofman... Linkesh Diwan... Muhammad Rizwan Awan... Swati Pandey...

## Venture Awards.....

Chokri Mousaoui.... David Tacconi... Dominik Peus... Fabio Belloni... Héctor Martín... Lars Wallden... Lionel Chaverot... Peter Stein...

## 2012 Winners

80

Christophe Williams..... Rosa Vilarasau.... About the EIT and the KICs..... Notes.

	03
	04
	07
	08
	00
••••••	
	10
•••••••	±⊥ 1⊃
	13
	14
	16
	17
	18
	10 19
••••••	20 71
	22-23
	24
	25
	26-27
	28-29

# Welcome to the EIT Awards 2013!

Celebrating innovation and entrepreneurship in Europe, the EIT Awards 2013 showcase the talented individuals and exciting projects that are coming out of the Knowledge and Innovation Communities (KICs).

The Venture Award recognises breakthrough innovations and start-ups, while the new Change Agents and Next Generation Entrepreneurs (CH.A.N.G.E) Award is for young entrepreneurs involved with EIT-labelled and KIC training programmes. Each KIC has nominated up to three of their ventures and top students in each category, and the winners will be revealed during the 2013 awards ceremony.

This year's nominees represent the bright future of European innovation and their ideas and projects cover a vast scope. Perhaps you're a student looking for somewhere cheap to live, who doesn't mind helping out around the house in return. Then the Homebuddy scheme might be just what you've been looking for (page 5).

Or how about choosing the music in your favourite nightclub with one tap of a smartphone? The Jukeboss app and projection system has the answer (page 8).

If you've ever lived in the city but dreamed of owning your own farm, then you'll be eager to hear how the GrowUp project uses aquaponics to make an urban farm a reality (page 9).

These are just a handful of the ground-breaking ideas on offer within these pages. Want to know more? Then read on to meet this year's inspiring line-up of nominees.

> To recognise and reward the hard work of these students and entrepreneurs, the EIT launched the annual EIT Awards in 2012. Find out what some of last year's winners have been up to since they won on (pages 22-25).

The EIT "Change Agents and Next Generation of Entrepreneurs" Award (CH.A.N.G.E) is new for 2013, and has been designed to showcase the young entrepreneurs of the future that are involved with EIT-labelled and KIC education and training programmes.









## **David Pribil**

#### **Heart-Guard**

- Key words: Health, safety, protection
- **Project aim:** To prevent firefighter fatalities from heart attacks using active monitoring devices
- EIT connection: EIT ICT Labs Master School student (2012 onwards) and Summer School project team 2013

#### Inspiration

- Vision: To save lives by using advanced sensors to measure and analyse life signs.
- Motivation: Due to the dangerous environment they work in, firefighters are prone to respiratory problems and heart attacks. We thought this situation should be handled and started to think of a way to alleviate the problem.

#### Innovation

- Describe your idea: Heart-Guard is a portable active monitoring device that involves embedded sensors in personal protection equipment. The product also includes a monthly subscription-based service that incorporates personal electronic health records and data analysis.
- · Professional achievements: I'm proud of working together with wonderful people on the Heart-Guard project at the Summer School, and coming up with a business model that's profitable and self-sustaining.
- **KIC support**: The EIT ICT Labs Master School, which I started in 2012 and will complete in 2014, has given me an excellent foundation in project planning and entrepreneurship, and is also helping with technical issues. The alumni network alone is a huge asset.
- Lessons learnt: Heart-Guard is purely a business model at the moment, but I am currently managing an app with four of my EIT ICT Labs colleagues called RunTroll (www.runtroll.com), which aims to make running fun. Looking back, I would have outsourced more technical issues and concentrated more on the business side of things.
- Top tip: Do what you would like to do!

#### Ambitions

- · Goals: I want to make IT solutions more integrated into people's lives be it health, safety or entertainment.
- Dreams: I hope I will be in a position where I can find solutions to people's pain and make their lives better.



#### **Dorottya Maksay** Homebuddy

- Key words: Connecting generations
- · Project aim: To develop Homebuddy into a sustainable social enterprise
- EIT connection: EIT ICT Labs Master School student (2012 onwards)

#### Inspiration

- Vision: To improve the quality of life and well-being of older people.
- **Motivation:** Many older people across Europe need more help to be happy, social and active. Many students across Europe need support to find affordable accommodation. Discussions on these big issues at the EIT ICT Labs Summer School in Trento inspired us to come up with the concept of Homebuddy – a simple idea that aims to bring generations closer together and create value for society.

#### Innovation

- **Describe your idea**: Homebuddy provides social interaction and care for older people living alone by matching them with students who need accommodation. Students are provided with virtually free housing, and in return they spend two hours each workday helping the older person. This help can include anything from cleaning and gardening, to taking them to the cinema or teaching them about computing.
- Professional achievements: I'm proud to have been accepted to the EIT ICT Labs Master's programme and to be team leader on the Homebuddy project. We've developed a detailed business plan and presented this to potential funders in Hungary and the Netherlands.
- KIC support: The innovation and entrepreneurship courses of the Master's programme gave me a new perspective on the IT industry. I learnt to think not only as a developer, but also to recognise the business potential in an idea. By meeting new people from different cultures the course has helped me to accept new ideas and think more creatively.
- Lessons learnt: The creative process is one of sharing ideas and perspectives and not being afraid to fail.
- Top tip: If you fail, fail early. Don't worry if ideas don't work early on if it helps you to find the best solution or the best idea in the future.

#### Ambitions

- · Goals: Long-term, I'd like to finish my studies and gain some hands-on experience in the IT industry. In the meantime, I'd like to become the CEO of Homebuddy.
- Dreams: I want to continue to learn from other cultures and help Homebuddy develop into a strong and successful social enterprise.

**f** The five essential entrepreneurial skills for success: Concentration, discrimination, organisation, innovation and communication **[]** (Harold Geneen)

**66** Do. Or do not. There is no try. (Yoda, Star Wars)









#### **Eduardo Applevard** Solar Lighting for Africa Project for www.solar-aid.org

- Key words: Focus, empower and grow!
- **Project aim:** To develop a solution to help SolarAid, an international charity specialising in clean, affordable solar product distribution in Africa, to achieve 1 million sales through its social enterprise
- EIT connection: KIC InnoEnergy Master School SELECT Programme student (2010-12)

#### Inspiration

- Vision: I want to bring low-cost, clean energy services to developing regions of the world, through innovations in technology and new business models such as social enterprise.
- Motivation: Today 20% of the world's population still live without access to electricity; this includes 550 million Africans who rely on candles, kerosene lamps and low quality torches for lighting. Introducing a brand new range of low-cost, portable solar lanterns to them could improve their lives dramatically!

#### Innovation

- **Describe your idea**: The idea was developed as part of the prestigious Hult Prize 2012 competition, where my team had to propose a way for SolarAid – one of the prize partners – to implement their products in Africa. We suggested building an inclusive business ecosystem in partnership with a large African financial institution (Equity Bank), ICT innovators and SolarAid's social enterprise (SunnyMoney), to provide customers with a credit solution specifically designed for the purchase of portable solar lanterns.
- **Professional achievements:** We presented our idea during the global finals in New York City, in front of such respected people as former president Bill Clinton and Nobel Peace Prize recipient Muhammad Yunus. We came second and SolarAid took note of the project, employing me as a consultant to work on a trial of the solution in Kenya. I am also proud to have been asked by SolarAid to set up a new business innovation programme.
- KIC support: The EIT, and in particular, KIC InnoEnergy have provided financial support and access to top quality business training. The SELECT Master's programme has given me the tools to combine energy engineering sciences with innovation and entrepreneurship.
- Lessons learnt: I have learnt that successful social enterprises depend on innovations in business models.
- Top tip: Consider problems and barriers at all levels of the value chain when looking for innovative solutions.

#### Ambitions

- Goals: I would like to set up my own company and continue to test and trial all sorts of concepts and ideas that could help sell more solar lights in Africa.
- Dreams: My aim is to remain involved in development aid in Africa, and to continue to come up with innovative new ideas that can improve people's access to clean energy around the globe.

## We will make electricity so cheap that only the rich will burn candles (Thomas Edison)



#### **Evan Bruner** SolarCatch

- Key words: Efficiency, visibility and money-saving
- Project aim: To make clean technology attractive and appealing to business property owners
- EIT connection: Climate-KIC Summer Journey 2013

#### Inspiration

- Vision: To develop a cheap, efficient way to produce energy using photovoltaics (PV) and bring sustainable energy to the business world.
- Motivation: Climate change is a huge challenge for society, with many businesses wanting to save energy and protect the environment. The SolarCatch project wants to make clean technology an inviting option for building property owners and also raise awareness by demonstrating that clean energy is the future.

#### Innovation

- Describe your idea: My team started by looking at putting PV in solar glass, but this proved too complicated and restricted the product to new buildings only. We wanted something that could be fitted to older buildings too, so we came up with the idea of placing PV on solar blinds attached to the exterior of the building.
- **Professional achievements:** The progress that's been made so far and the fact that SolarCatch won two awards at the Climate-KIC Summer Journey (Best Innovation and the Audience Award) is great! I'm also proud of the experience I've gained in climate change studies, business, sales, marketing and policy research, as it's enabled me to develop a unique and diverse set of skills.
- **KIC support:** Climate-KIC helped to bring my team together and gave us a network where we were able to get feedback on our idea and participate in events. The KIC also gave me entrepreneurial skills that are helping to bring our idea to market, while explaining the challenges we might face along the way.
- Lessons learnt: Looking back, I don't have any regrets. Along with winning the awards, I'm extremely happy with the diverse team that I helped put together and what we've achieved.
- · Top tip: It's okay to fail.

#### Ambitions

- Goals: In the future I hope to make a positive impact on the world by raising awareness about climate change through sustainable entrepreneurship or playing a role in social activism and public education.
- Dreams: I wish I could remember everything I read!



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## **Kate Hofman**

GrowUp www.growup.org.uk

- Key words: Sustainable urban farming
- Project aim: To demonstrate a sustainable, commercial model for urban agriculture through vertical growing and aguaponics
- EIT connection: Climate-KIC Contextual Learning Journey student and EIT Foundation Young Leaders Programme

#### Inspiration

- · Vision: I'm looking to change the way we feed people in cities. I want to show how fresh food can be grown anywhere in the city, in a way that's ecologically sustainable and commercially scalable. For me, aquaponics is the technology that can make that vision a reality.
- Motivation: During a lecture for the Climate-KIC Contextual Learning Journey (CLJ) summer school I met the founder of UrbanFarmers, who were pioneering rooftop urban aquaponic farming in Switzerland. The concept inspired me and after working remotely with them for a year and a half. I set up GrowUp in London!

#### Innovation

- Describe your idea: The GrowUp Box is an upcycled shipping container with a greenhouse on top, which is a highly productive demonstration of aquaponic urban farming. Aquaponics is a farming method that combines hydroponics (growing plants in a water solution without soil) and aquaculture (fish farming) to make an efficient, closed-loop system.
- **Professional achievements:** The three successes I'm most proud of are: getting the GrowUp Box designed, built and fully operational in under six months; raising sufficient capital through Kickstarter crowd-funding thanks to an incredible group of supporters; and opening the GrowUp Box to the public every weekend this summer in London!
- KIC support: The Climate-KIC Contextual Learning Journey was the start of everything! It gave me the knowledge, skills, tools and inspiration to leave my job as a management consultant and set up my own business.
- Lessons learnt: I should have checked that the truck would be able to get through the gates before having the shipping container delivered...
- Top tip: "Sleep your way to the top" by the founder of the Huffington Post, who's on a mission to make people slow down, sleep more and be more present in the moment.

#### Ambitions

- Goals: In the future I see myself as a global leader in delivering solutions for sustainable food production. Our next step is to build London's first commercial urban farm.
- Dreams: Teleporting is what I dream of; I'd love to solve that pesky problem of the carbon footprint of travelling ...!





#### Germán Leiva Jukeboss

www.iukeboss.eu

- Key words: Music powered by you
- Project aim: To bring a new level of interaction to events and nightlife
- EIT connection: EIT ICT Labs Master School student (2012 onwards)

#### Inspiration

- Vision: Using new interactive possibilities, I want to enhance activities like choosing where to go out, buying drinks, getting a ticket for an event or simply enjoying the music at a nightclub.
- · Motivation: While on a course as a first year Master's student in Paris, I was part of a group that came up with the innovative idea of Jukeboss. The idea grew from the following two thoughts: "wishing for a song in a bar with your smartphone" and having "nightlife quests".

#### Innovation

- Describe your idea: Jukeboss is a system that enables people attending an event to request and vote for the song they want to listen to. It includes a mobile app, a projection visualising the songs that have been voted for and a plugin that works seamlessly with common music players like iTunes and Serato.
- Professional achievements: As a co-founder, I'm proud of having successfully tested Jukeboss with real users and for the project winning three business competitions in 2013, including The European Enterprise Challenge JA-YE Europe (Company of the Year 2013)!
- KIC support: The support from the EIT ICT Labs, Oracle and Banque Populaire gave me and the team the opportunity to attend the Enterprise Challenge in Belgium in 2012 – a competition with more than 20 nominees from across Europe! Winning first prize inspired us to continue working on Jukeboss during the second year of our degrees.
- Lessons learnt: Learn from experience! Mistakes created the perfect opportunity for me to learn and without those pitfalls, the learning process wouldn't have been as useful.
- Top tip: "Get out of the building" from Steve Blank, author of The Startup Owner's Manual. Also "share your ideas" and "talk about what you did, but not how you did it!"

#### Ambitions

- · Goals: First I want to make our product more robust and develop new features. Jukeboss is a nice opportunity to share, to show to others that it is possible to develop such a project during your studies and that they can do it too!
- Dreams: I aim for Jukeboss to be the definitive 'pocket sidekick' for everyone going out to have fun!







#### **Muhammad Rizwan Awan Chimnev Sheet**

- Key words: Health, environment, life
- **Project aim:** To improve the health of millions of people by providing them with basic cooking facilities
- EIT connection: KIC InnoEnergy Master School Renewable Energy programme (2011 - 13)

#### Inspiration

- Vision: I want all people who cook on open fires to be able to so safely, without harming themselves or the environment.
- **Motivation:** 40% of the world's population cook their food over open fires. Every year, two million people die from diseases caused by long-term exposure to smoke from household fires. Meanwhile, open fires generate black carbon, which has recently been found to be the second greatest contributor to global warming. This can be easily avoided with the use of a stove and a chimney.

#### Innovation

- **Describe your idea:** The innovation constitutes a simple concept for the large-scale manufacture. distribution and assembly of chimney stoves. A feature of the product is that the whole stove is contained in one simple sheet. The stove is easy to use, cheap and very easy to transport. We believe that there will be no other chimney stove that can provide so many people with cooking facilities, within such a short time, at such an affordable price.
- Professional achievements: In March 2013, we won the Best Business Plan award at the Excitera Innovation Challenge, a major competition for innovators in Sweden. Our idea is currently being tested at the Royal Institute of Technology in Stockholm.
- KIC support: The KIC InnoEnergy programme helped to harness my entrepreneurial spirit. The entrepreneurship training at ESADE business schools helped me to understand the role of innovation and inspired me to participate in the Excitera Innovation Challenge. Entering this competition was key to taking our business plan forward.
- Lessons learnt: I have learnt that the most difficult social and environmental problems can be addressed through business innovation and entrepreneurship.
- Top tip: The size of your success is measured by the strength of your desire, the size of your dream, and how you handle disappointment along the way.

#### Ambitions

- Goals: Our immediate goal is for our product to succeed in the market, which would mean helping to change the lives of millions.
- Dreams: In the future, I see myself as an entrepreneur who is known for developing innovative products that benefit society.

**I** The best way to have a good idea is to have a lot of them (Thomas Edison)

## Linkesh Diwan

Wise Earth Technology (main product: CrisisCommunicator) www.WiseEarthTechnology.com

- Key words: Dependable disaster communications
- **Project aim:** To provide a handheld communication system, with access to all the necessary information for disaster areas
- EIT connection: KIC InnoEnergy Master School SELECT Programme student (2011 - 13)

#### Inspiration

- Vision: To reduce the social and economic costs of natural disasters.
- Motivation: I've been personally involved in two large natural disasters: the Asian tsunami in 2004 and the Ladakh cloud bursts in 2010. My upbringing near Holy Mother Amma, the Hindu spiritual leader, has instilled in me a drive to serve our planet.

#### Innovation

- Describe your idea: The CrisisCommunicator is a portable device that can bring the power of information technology and computer networks into disaster areas, when the existing infrastructure is either overwhelmed or out of action.
- Professional achievements: A 2012 Young Innovator Fellowship from the United Nations' International Telecommunication Union provided much-needed funds for further development. Coordinating an international programming challenge in 2013 resulted in the development of an open-source codebase and a group of Python computer coders. Wise Earth Technology will be a social enterprise to guide the development of CrisisCommunicator, provide training and ensure the devices are kept up to date.
- KIC support: Studying in the KIC InnoEnergy SELECT Master's programme exposed me to the notion of entrepreneurship and gave me the tools to learn the 'right way' to go about starting a company. In addition to learning technical topics related to energy and project work, it initiated me into the world of business plans, pitches and financial projections.
- Lessons learnt: Professor Mohammad Yunus, the economist and Nobel Peace Prize winner, visited my undergraduate university in India. When asked how social entrepreneurship could be maintained without corporate excess, he said it all boils down to the attitude of the people running the show. For the business to have a social service orientation, those at the top need to have this orientation themselves.
- Top tip: Endeavour to be of some help or service to everyone you meet. You, and the rest of the world, will benefit.

#### Ambitions

- Goals: To see Wise Earth Technology and Wise Earth Publishers (a company I started in 2008) become worldwide entities, enriching our planet through socially orientated business.
- Dreams: One day I would like to travel to remote communities around the world to teach young people how to provide emergency response with first aid, renewable energy and communication skills, including the CrisisCommunicator, in disaster-affected areas.

Man becomes great exactly in the degree in which he works for the welfare of his fellow men [] (Mahatma Gandhi)





# Swati Pandey

- Key words: Medicinal plants for sustainable communities
- **Project aim:** To help rural communities grow high value medicinal plants on degraded land
- **EIT connection**: Climate-KIC student (2011) and Contextual Leaning Journey student

#### Inspiration

- **Vision**: I want to provide rural communities in India with sustainable livelihoods, utilising degraded land wherever possible.
- Motivation: An alternative source of income will discourage these communities from destroying forests and harming biodiversity.

#### Innovation

- **Describe your idea:** TRA Labs bridges the gap between laboratory research, farmers and the industry. We provide information on innovative and sustainable ways of cultivating and harvesting medicinal plants on degraded land, while supplying high quality products to the industry.
- **Professional achievements:** : I'm a mechanical engineer with an MSc in Sustainable Energy from Imperial College London as a Commonwealth Scholar. I'm also a StartingBloc fellow (2011) and co-founder of the Internet Society Bangalore Chapter. Last year I set up Infuse Ventures, India's first early stage, clean energy-focused venture capital fund. In parallel, I helped to launch TRA Lab's first pilot project on 60 acres of land in Madhya Pradesh, India.
- **KIC support:** From my first exposure to entrepreneurship during the six week Contextual Learning Journey through to financial support (greenhouse funding) and personal mentoring, the KIC programme has impacted TRA Labs at every stage. Without Climate-KIC's support and encouragement, we certainly could not have come this far.
- **Lessons learnt:** The most difficult thing in any business is to start. I wish we hadn't waited a year to start our operations on the ground and had just jumped in with whatever we had.
- **Top tip:** There will always be unexpected surprises and doing is the best way to learn how to make something work in the real world.

#### Ambitions

- **Goals:** I would like TRA Labs to become the leading global supplier of high quality medicinal plants, while working in harmony with local communities.
- **Dreams:** To scale up both in and outside India, and to extract and sell concentrated medicinal ingredients nationally and internationally.

Doing, not learning to do, is the essence of entrepreneurship (Guy Kawasaki)







The EIT Venture Award was launched in 2012 (as the EIT Entrepreneurship Award) to highlight the new business ideas and innovative projects that are emerging from the KICs. The award aims to give nominated ventures the opportunity to access established management expertise, expand into new markets, and raise venture capital financing.





#### Chokri Mousaoui Eternal Sun

www.eternalsun.com

- Key words: Solar simulation systems
- Project aim: To supply innovative and accurate solar testing equipment for worldwide partners in the solar energy, automotive, aerospace and chemical industries
- EIT connection: Climate-KIC start-up 2011

#### Inspiration

- · Vision: To provide accurate solar simulation tests for the next generation of solar panels will result in better quality checking, less rejected panels and more accurate certification.
- Motivation: My partner, Stefan Roest, and I were developing a new type of solar panel, but couldn't find accurate measurement equipment for performance and reliability tests. We therefore decided to develop one of our own!

#### Innovation

- Describe your idea: We develop and manufacture solar simulation systems that can simulate sunlight with up to 99% accuracy, which is unprecedented in the field of quality testing. We sell our independent solar system service with state-of-the-art solar testing equipment to R&D departments, manufacturing companies and certification bodies.
- Professional achievements: Eternal Sun developed into a solid company within two years and is now selling worldwide. We are debt free, fully equity financed and no external capital is involved. We won both Climate-KIC The Netherlands Entrepreneurship Award and the Climate-KIC European Audience Award in 2012 and are appearing in several international clean tech magazines as a start-up that needs to be taken seriously.
- KIC support: Climate-KIC selected us for their Start-up Acceleration programme, providing coaching and master classes. It also selected us for their US start-up tour.
- · Lessons learnt: We spent too much time giving our first customers the perfect customer experience. Given the lead times, we should have focused on new potential customers as well.
- Top tip: The best advice I received was from Professor Drew Isaacs from the Berkeley Haas School of Business. He said you should always volunteer for anything to get out of your comfort zone. Except when you are in the military...

#### Ambitions

- **Goals:** To enhance the quality of solar products in terms of reliability, performance and inherent sustainability.
- Dreams: We want to set up a leading technology brand that supplies solar simulation systems to multiple industries.

*If everything seems to be under control, you're not* **going fast enough (**Mario Andretti)



#### **David Tacconi** CoRehab (main product: Riablo) www.corehab.it

- · Key words: Enjoy, control, rehabilitation
- Project aim: To increase the international sales of Riablo, an innovative rehabilitation product
- EIT connection: EIT ICT Labs support at their Node in Trento

#### Inspiration

- · Vision: To enable more enjoyable and effective orthopaedic rehabilitation in both a rehabilitation centre and at home.
- Motivation: I was an aspiring football player, but racked up a number of orthopaedic injuries that kept me in rehabilitation. These experiences inspired me to conceive Riablo and start a new company, CoRehab. We wanted a way of helping patients manage their own rehabilitation in an enjoyable, motivational and controlled way.

#### Innovation

- **Describe your idea:** With this product, patients can perform their usual exercises by playing a video game. The gaming aspect is motivating and is a distraction from physical discomfort and pain. What's more, by using precise motion sensors, patients can focus on their movements. And with Riablo, the physiotherapist can follow and assess the patient's progress remotely, which saves time.
- **Professional achievements:** As CEO of CoRehab, I have guided the company from start-up to its entry into the international market with Riablo. We have so far raised €1 million from investors to support the development of our products.
- **KIC support:** EIT ICT Labs helped us to improve our business plan by allowing us to identify specific market opportunities. It also enabled us to identify suitable investors and experts to improve our product and expand our sales in worldwide markets.
- Lessons learnt: The business has developed faster than we ever imagined. But if we'd involved an industrial design expert earlier on, product development would have been even quicker. It's important to bring additional expertise on board at an early stage.
- Top tip: Be humble and open to suggestions. Have a good team around you and don't be afraid to delegate to those with more experience than you.

#### Ambitions

- Goals: We want to continue to support the market for orthopaedic rehabilitation through innovative new products. We would also like to form new partnerships with big companies and investors to help develop our products and increase their global reach.
- **Dreams**: My aim is to radically change physiotherapeutic rehabilitation around the world, making it more efficient, effective... and even enjoyable!

Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning (Albert Einstein)





## **Dominik Peus**

• Key words: Carbon neutral coal

• Project aim: To make our biomass conversion green energy technology available

• EIT connection: Winner of the Climate-KIC UK 2012 Venture Competition

• Vision: To use technological innovation to bring low cost and carbon neutral energy solutions to the

· Motivation: When I was a student I worked in a hospital in the Amazon in Peru. The area had one

of the highest concentrations of biomass in the world – organic matter that can be used as a fuel

to generate electricity – but during my stay there were regular power cuts. My experience in Peru

· Describe your idea: We have developed and patented an innovative solution that replicates nature

the carbon emissions when burnt, and is able to act as a direct replacement. Capital costs for the

conversion of biomass to biocoal are low compared to conventional approaches such as the use of

wood pellets. This technology will also enable larger amounts of waste to be diverted from landfill.

**Professional achievements:** Our key achievements to date have been obtaining a €1 million grant from the UK government to help commercialise the technology. We are also proud to have finished

**KIC support:** In 2012, we won the Climate-KIC UK Venture competition, which has been hugely

ensure that key funders and decision-makers are aware of its potential. Persistence and hard work

· Goals: Our immediate goal is to commercialise our innovative technology and ensure it is available

Dreams: I want to contribute to the most important social innovations of the next century and to

important for the visibility of our product. In addition, the KIC has supported us by providing

· Lessons learnt: I have learnt the importance of gaining visibility for your product in order to

research funds to develop a testing facility in partnership with a UK university.

• Top tip: If you have a good idea, make sure your voice is heard.

by turning organic matter into coal. The biocoal has the same heat value as fossil coal, but without

therefore inspired me to consider innovative ways to convert biomass into energy.

**Biowaste to Biocoal** www.antaco.co.uk

on a global scale

engineering and designing our first prototype.

Inspiration

Innovation

are key to this!

Ambitions

around the world.

helping to eradicate poverty.

poorest regions of the world.



## **Fabio Belloni**

Quuppa www.quuppa.com

- Key words: Track, analyse, optimise
- **Project aim:** To become a leading provider of highly accurate positioning technology, to track and analyse the movement of people and products
- EIT connection: Based at the EIT ICT Labs Helsinki Node as a business start-up

#### Inspiration

- Vision: To help a wide range of businesses, retailers and enterprises to better understand the movements of their customers and products, leading to optimisation and improved services.
- Motivation: After 10 years working in positioning and location-based technology services, we realised that there was an unmet demand for a reliable, cost-effective and accurate positioning technology.

#### Innovation

- Describe your idea: Quuppa is a technology provider offering a complete, scalable positioning technology package, which includes hardware, software and services. For retail we can provide in-shop analytics to evaluate customer behaviour and optimise product placement. For transport, we can track pedestrian traffic flows to help improve customer service and decrease traveller delays. For sports, we can track the movement of players or balls in real-time and provide analytics for coaching and media. Quuppa can also be used to aid inclusive mobility, and to help businesses manage their resources and increase efficiency.
- **Professional achievements**: Quuppa is now in its second year of business and aims to break even in early 2014. We have a growing number of customers and, along with our business partners, operate across Europe. We're also currently planning to roll-out commercially in North America.
- **KIC support:** We moved into the EIT ICT Labs Helsinki Node premises after only a week in business. Since being there, we've benefitted from assistance including logistical support and access to the KICs network of professional business advisers. EIT ICT Labs also helped us to access a wide network of companies, which led to business deals and relationships with companies from across Europe.
- Lessons learnt: Set yourself ambitious but realistic goals.
- Top tip: Learn all you can about your business field and use this to shape a realistic business strategy. Also, be brave!

#### Ambitions

- Goals: We aim to become a leading provider of unique, highly accurate positioning products and services for consumers and businesses.
- · Dreams: In the future we'd like to be operating in a larger variety of environments and industries.

**Mothing is as powerful as an idea whose** time has come (Victor Hugo)

Vision without execution is hallucination (Thomas Edison)



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17



#### **Héctor Martín** Smalle Technologies

www.smalletech.com

- Key words: Sustainable, clean energy
- Project aim: To increase the sales of our energy technologies in international markets
- EIT connection: KIC InnoEnergy Highway<sup>®</sup> supported venture

#### Inspiration

- Vision: To help develop new forms and sources of clean, renewable energy, which don't depend on fossil fuels or contribute to environmental degradation.
- Motivation: As a team we strongly believe that research and innovation are essential in achieving sustainable development goals. We have a particular interest in the role that innovative technologies play in developing cleaner and low cost energy solutions.

#### Innovation

- **Describe your idea:** We acquired an exclusive license to develop and commercialise an innovative technology that generates electricity from movement; for example, the rocking motion of waves or wind. Our main markets at the moment are buoys and sailboats because they don't require much energy to operate.
- **Professional achievements:** My training in physics and business experience helped me to analyse the commercial viability of the technology and design an effective business plan. Even though our start-up company, Smalle Technologies, was created very recently, we've already won several awards, including the EcoEmprendedor XXI Prize. We've also raised over €300,000 in financial support from public and private sources.
- KIC support: The KIC InnoEnergy Iberia Node has been critical to the success of our business. Along with the EIT, they have helped us develop our product by providing financial support and quidance on accessing further investment.
- Lessons learnt: It's so important to put a strong and balanced team in place as early as possible. Negotiation skills are also essential to reach agreements with universities and public research centres on licensing industrial property.
- Top tip: Before starting, put lots of time into thinking about the people you want to take with you on the journey. Consider the number of people you need, their level of commitment and their capabilities.

#### Ambitions

- **Goals:** Regarding our current products, our goal is to sell a superior alternative to the energy technology currently available in our target markets.
- Dreams: I dream of a sustainable society that doesn't consume natural resources a society in which economic growth no longer means increased energy consumption. I want to help make the changes we need to make our way of life more sustainable.

**1** You must be the change you want to see in the world **J** (Mahatma Gandhi)



### Lars Wallden Northstar Telemetrics (main product: OAMR) www.northstartelemetrics.com

- Key words: Optical, automatic, meter reading
- · Project aim: To enable automatic utility meter readings via sensors and computers
- EIT connection: KIC InnoEnergy Highway<sup>®</sup> supported venture

#### Inspiration

- · Vision: I would like to see an 'Internet of Things', where everything is connected. Billions of machines, big and small, will be joined together in large networks, giving rise to possibilities only previously seen in science fiction. Control, data and knowledge will merge with the internet and social networking, and be with us 24/7. Sensors, like our Optical Automatic Meter Reader (OAMR). are the data inputs for these networks.
- Motivation: The technology I work with is inspiring. The Internet of Things concept will change our future and have a great impact on our life and society. I want to be a leader in that development.

#### Innovation

- Describe your idea: OAMR is a new, innovative approach to an existing problem. Using optical computer vision in small sensor systems, it automatically collects utility meter readings (water, gas, electricity, etc) without changing the infrastructure of the meter. These readings are then transmitted wirelessly to a local or central data unit. This process saves money on meter readings and, as studies in Scandinavia show, helps raise awareness of utility use. It can help reduce consumption by up to 20%.
- Professional achievements: I'm proud that I've helped to develop a state-of-the-art technology with a wide range of applications and great potential. Setting up several new start-up technology companies in different countries has been a great achievement too.
- KIC support: KIC InnoEnergy provided us with the first start-up resources, including workspace and mentorina.
- Lessons learnt: We should have developed more quickly and avoided unnecessary delays. Time is the most precious commodity for an entrepreneur.
- Top tip: Never, ever give up, and trust in yourself and your ideas.

#### Ambitions

- Goals: My ultimate goal is to be a top company and business leader within the Internet of Things.
- Dreams: I built my first computer 38 years ago and haven't stopped building new ones since they are just better now. I hope this new technology can change our society and life for the better

**I** evolved with the industries' challenges, studied the problems I faced in detail, and put in a lot of hard work. It was bound to give results sooner or later (Sven Winaauist)







#### **Peter Stein** oreenTEG (main product: oTEG) www.greenteg.com

- Key words: Smart, efficient energy
- Project aim: To generate electricity from waste heat
- EIT connection: Climate-KIC European Venture Competition Winner 2012

#### Inspiration

- Vision: To convert industrial waste heat and body heat into electricity.
- Motivation: Around 50% of all primary energies are lost in the form of waste heat. We can turn a part of that into electricity.

#### Innovation

- **Describe your idea:** We are able to turn waste heat into electricity by integrating a thermoelectric generator with a polymer foil. One side of the foil is hot, the other cold, and the temperature difference generates electricity. The technology is outstanding and the production process is totally new. There's nobody else in the world able to manufacture thermoelectric generators in the way we do.
- **Professional achievements:** Winning the Climate-KIC European Venture Competition gave us a boost, which we could see by the increased traffic on our homepage and requests. The highlight of the business so far has been successfully bringing our product to market.
- KIC support: Climate-KIC helped us, especially with marketing, and we gained a strong network. We also got some funding, which always helps start-ups.
- · Lessons learnt: It's important to learn from any failures and, if I could change the past, I would have taken our first product to market earlier.
- Top tip: Go to market as quickly as possible and get the customer's view on your product. Then improve it.

#### Ambitions

- Goals: We want to raise energy efficiency in the value chain.
- Dreams: Lots of heat is wasted so there's huge potential in unused energy. With our technology we're able to use this waste heat. We want to scale this technology and be one piece of the puzzle in mastering the energy challenge.

#### **Lionel Chaverot** Enerstone

www.enerstone.fr

- Key words: The future of rechargeable batteries
- **Project aim:** To help battery manufacturers prolong battery lifespan and reduce the environmental impact of their products
- EIT connection: KIC InnoEnergy Highway<sup>®</sup> supported venture

#### Inspiration

- Vision: We want to transform batteries from a throwaway commodity into a source of value for manufacturers, consumers and the environment.
- Motivation: The business idea originated with my partner, Alexandre Chureau, who wanted to explore how embedded systems on a chip could be used to enhance battery performance.

#### Innovation

- **Describe your idea:** Enerstone works with rechargeable battery manufacturers who want to improve the charge quality of their products and offer extended warranties to customers. Our smart battery management system preserves the initial post-factory battery charge capacity, charge after charge.
- · Professional achievements: I'm proud that we've secured the interest of major players in the field of rechargeable batteries, who are now testing our products.
- KIC support: KIC InnoEnergy, one of our earliest partners, understood the potential of our technology. By setting up a clear business roadmap, they boosted our technical and market developments. They also provided a wide European network, including other start-ups, bringing us more visibility in the energy field.
- Lessons learnt: Keep your start-up lean and take a "minimum viable product" approach. Put a system in place as early as possible where you can analyse and validate your idea, and let the results drive your product development.
- Top tip: Consider the market first. Make sure you listen to your customers and understand your competition.

#### Ambitions

- **Goals**: We want to become the European leader of battery management with active balancing technology by 2018.
- Dreams: Our dream is to make a significant contribution to reducing global carbon dioxide, both personally and professionally.

A nation that can't control its energy sources can't control its future (Barack Obama)

In any moment of decision, the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing (Theodore Roosevelt)









2012 introduced the Venture awards, which celebrate breakthrough innovations and exciting start-ups. Nine start-up companies were named finalists for the EIT's first entrepreneurship awards and Christophe Williams from Naked Energy (Climate-KIC nominated venture) and Rosa Vilarasau from Noem (KIC InnoEnergy nominated venture) were two of the three 2012 EIT Entrepreneurship Awards winners.

So what have they been up to since then? What have they learnt? Find out more here...

eltawards

**2012 Winners** 

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#### **Christophe Williams Naked Energy Ltd**

www.nakedenergy.co.uk

- Key words: Hybrid, solar, redefined
- **Project aim:** To continue to develop and commercialise a breakthrough solar technology
- EIT connection: EIT Award Winner 2012 and Climate-KIC affiliate partner

#### Inspiration

- · Vision: To become a global business, cutting carbon emissions and making the world a better place.
- **Motivation:** Whenever we burn fossil fuels, carbon dioxide is released into the atmosphere. This is causing the overall temperature of the planet to increase, resulting in climate change. We want to tackle this problem by developing a renewable energy alternative that helps to cut carbon emissions and protects the environment.

#### Innovation

- Describe your idea: When a conventional solar panel overheats, it stops creating as much energy. We've developed photovoltaic (PV) solar panel technology that prevents this overheating, allowing our solar panels to produce up to 46% more energy per square metre than a standard panel, as well as a significant amount of thermal energy too. We're developing a really exciting technology and we've gained global interest.
- **Professional achievements:** The real highlight over this past year has been successfully raising the capital we needed to finish developing our product. We'd already received some grants and prize-related funding through Climate-KIC and the EIT, but now we've been able to raise funds ourselves too, which will make a huge difference to the business.
- KIC support: Climate-KIC has made a huge difference. We were early affiliate partners and at the very beginning they gave us capital grant funding, which allowed us to test product performance. We also benefitted from some really useful business coaching and received very high level introductions to key affiliate and core partners within the KIC. As a small start-up you wouldn't necessarily get those opportunities and those introductions have led to some potentially very successful commercial deals.
- Lessons learnt: One of the key things we might have done differently was keep a slightly lower profile. We had some very high profile press and interest in our product rocketed, with 120 countries approaching us in the space of 3 days. We weren't prepared for that level of interest and couldn't meet demand at the time.
- **Top tip:** Never take no for an answer! As an entrepreneur you've got to be thick-skinned to get to where you want to go, so be brave and just believe in what you're doing.

#### Ambitions

- · Goals: To turn our business into a global company. The more successful we are as a business, the more successful we will be at cutting carbon emissions. Having our product generate sustainable energy on sites around the world really is a win-win situation for all of us.
- Dreams: I'd love to have the power of foresight. It would be very useful in this industry!

I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that (Thomas Edison)



### Rosa Vilarasau NOEM

www.noem.com

- Key words: Energy, efficient, pre-fab
- **Project aim:** To continue to increase the sales of our products whilst improving their technological scope and environmental performance
- **EIT connection**: KIC InnoEnergy Highway<sup>®</sup> supported venture and EIT Award 2012 winner

#### Inspiration

- Vision: To minimise energy consumption in pre-fabricated residential buildings.
- Motivation: We believe that there is great potential to reduce the CO2 emissions of residential buildings in the production phase and later on, when the buildings are being used. Our aim is to minimise CO2 emissions in the sourcing of wood for the manufacturing process, and in designing the usability and functionality of the building.

#### Innovation

- **Describe your idea**: Our company's basic concept is an energy-efficient, pre-fabricated, modular house. NOEM offers an innovative building system and responds to the threefold challenge of modern construction: sustainability, versatility and energy efficiency. In essence our product is developing homes for the 21st century! The product offers a construction system based on locally sourced natural materials, which minimises and controls CO2 emissions at every step of the process.
- **Professional achievements:** Some of my biggest achievements have been in the past few years. I established our company, Think CO2, in December 2009 and I'm proud to have assembled a young and passionate team that is committed to innovation. I also have a growing feeling that we are on the right track.
- **KIC support**: KIC InnoEnergy has helped to place us in a network where our activities can expand and our challenges can be met in a more affordable way. Our EIT Award in 2012 resulted in substantial press attention in our local market and is helping us to both achieve a major technological upgrade in the way we work and define our projects.
- Lessons learnt: I would have invested in building a team earlier on, because expanding the team has made a big difference. Bigger team, bigger leap forward!
- Top tip: Follow your passions, but keep your eyes wide open so you can react to new challenges on your journey.

#### Ambitions

- · Goals: To proudly build and shape my own future, and to contribute to building the futures of those around me.
- **Dreams**: To enjoy every minute with the sensation of shared goals and accomplishments. I am a passionate person, and I need to enjoy what I do and feel proud of it.







# About the EIT and the KICs

The European Institute of Innovation and Technology (EIT) was established in 2008 to enhance Europe's ability to innovate. It accomplishes this by nurturing young entrepreneurial talent and supporting exciting new ideas through the KICs.

There are currently three KICs:

- Climate-KIC addresses the challenge of climate change.
- EIT ICT Labs generates world-class ICT business.
- KIC InnoEnergy tackles the issue of sustainable energy.

All offer training and education programmes, business incubators and invaluable networking opportunities for their students and entrepreneurs.

# Contact

To find out more about the exciting opportunities on offer through the KICs and the EIT and how you can get involved, please use the following contact information:

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EIT ICT Labs Website: www.eitictlabs.eu

KIC InnoEnergy Website: www.kic-innoenergy.com

#### Climate-KIC

- ▲ Co-location Centre
- RIC (Regional Implementation and Innovation Centre)

#### EIT ICT Labs



**KIC InnoEnergy**Co-location Centre





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