

Winter 2013



EIT & KICs Newsletter



SAVE THE DATE
EIT conference in Dublin
on 29 and 30 April 2013:
**Fostering innovation
and strengthening
synergies within the
EU**



**Meet decarbonice,
the Climate-KIC
start-up** offering a
hassle-free way for
consumers to offset
their carbon
emissions

EIT ICT Labs is
raising
entrepreneurial
spirits with its
Doctoral School and
Doctoral Training
Centres



Neptune Project:
KIC InnoEnergy
researchers working
on their first
commercial product



FOSTERING INNOVATION AND STRENGTHENING SYNERGIES WITHIN THE EU

What makes a KIC a KIC? How have the EIT's three current Knowledge and Innovation Communities (KICs) found unique ways to best integrate the knowledge triangle in order to achieve impact on the European innovation landscape through excellent partnerships, innovative funding models and project portfolio? How can these impacts be measured? How will the future of the EIT capitalise on the multiplier capacity of individuals in spreading the expertise gained throughout their relation with the EIT and its KICs?

What is the current engagement with regions, other national and EU instruments succeeding? How can synergies be created and further explored? And what specific future measures can be taken?

Key questions not only for the EIT to learn from and to use as a basis for developing and preparing for its next wave of Knowledge & Innovation Communities (KICs) but also for the wider innovation community.

The conference will serve as a forum to answer precisely these questions, within the framework of a wider discussion on the future of EU innovation policies and the integration of the so called Knowledge Triangle (business, research, higher education) both within the EU and globally.

The EIT will showcase its activities and achievements via impact and engagement to date at all levels: at European, KIC and Co-location Centres level. The conference will aim to provide participants with an in-depth understanding of current and future EIT activities to allow them to benefit from the lessons learnt during the implementation of its ambitious agenda.

This next EIT conference will be taking place on 29 and 30 April 2013 in Dublin at Trinity College Dublin. All relevant information relating to this event can be found here: www.eit.europa.eu



CASE STUDY

decarbonice



www.climate-kic.org

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Climate-KIC's Social technology start-up Decarbonice offers a hassle-free way for consumers to offset their carbon emissions by buying into socially responsible, high impact emission reduction projects.

By attaching gold standard carbon credits to physical products, Decarbonice aims to make the current complex and often unattractive carbon credit market more transparent, tangible and appealing. Decarbonice enables people to offset their emissions quickly and in a meaningful way.

Christmas cards attached to carbon credits are the first product from Decarbonice. Recipients of these special cards, sold at 2.50 Euros each, have their average carbon emissions offset for a week.

The cost of the card is invested in a project in the developing world – such as a wind farm project in New Caledonia, or a re-forestation project in Uganda.

The facts

Decarbonice is made up of three young entrepreneurs who met on the Climate-KIC summer school, the Journey in 2011. This five week intensive course focused on climate innovation, during which students attended classes across three European cities. The three co-founders from Norway, the Netherlands and the UK met and came up with this innovative business model. Christmas 2012 was the first real trading

opportunity for Decarbonice, The team secured distribution through a retail outlet in central London and sold over 500 cards.

From student to entrepreneur Decarbonice where awarded a grant of €10,000 through Climate-KIC's student greenhouse programme. This programme is open to graduates of the Climate-KIC summer school, the journey. Decarbonice defined their market and created a viable business plan.

This grant was spent with a marketing agency to create their brand and first product. Climate-KIC provided Decarbonice with mentoring and coaching to refine their business model and launch their first product.

The Decarbonice founders also attended a Climate-KIC masterclass on sales with a leading entrepreneur. Connecting up people, Decarbonice were introduced to South Pole, a Climate-KIC partner specialising in carbon credits.

Fuelling passions

Hannah Loake, founder Decarbonice commented: "Without Climate-KIC the decarbonice venture would have no

"Without Climate-KIC, the Decarbonice venture would have no co-founders, no funding, no mentoring and no business model"

— Hannah Loake,
Decarbonice founder

co-founders, no funding, no mentoring and no business model! This EIT initiative has empowered us as young environmentally aware students to have a positive effect in the world and has also given us the opportunity to do something we are extremely passionate about. The experience so far has been invaluable."

Andrew Burford, Climate-KIC entrepreneurship commented: "Decarbonice are a fantastic team who balance a social conscience with the motivation to make a success of their business idea. Their use of everyday products such as greeting cards to promote the use of carbon credits to

the general public is a fabulous way of making climate change tangible and raising the awareness of the challenges we all face.”

The future

The team is optimistic about the future of their business, and is currently focusing on developing new greeting card designs as well as diversifying their product portfolio and developing strong relationships with widely recognized retailers.

Now that Decarbonice is a registered company, Climate-KIC is continuing to provide coaching and has awarded them a further grant of €20,000 to support their business development.

Further information

Decarbonice can be contacted through their website, please visit www.decarbonice.com

The Climate-KIC business coach is Rahul Bansal rahul.bansal08@imperial.ac.uk

About Climate-KIC

Climate-KIC is part of the European Institute of Innovation and Technology (EIT) whose mission is to increase sustainable growth. Climate-KIC supports this mission by addressing climate change mitigation and adaptation.

Climate-KIC is a world class European network of partnerships made up of dynamic companies, the best academic institutions and the public sector. Climate-KIC integrates education, entrepreneurship and innovation resulting in connected, creative transformation of knowledge and ideas into economically viable products or services that help to mitigate climate change.



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RAISING ENTREPRENEURIAL SPIRIT



EIT ICT Labs Doctoral School and Doctoral Training Centres

The majority of doctoral students apply for job positions in an industry that is looking for more than only technical excellence.

To really excel in tomorrow's job market, innovation and entrepreneurship are highly important, as well as the skills to put your knowledge to the best possible use.

The EIT ICT Labs Doctoral School on ICT Innovation is a general framework that combines the regular doctoral studies with an Innovation and Entrepreneurship (I&E) education. This I&E education will provide the students with the required knowledge and skills to become the commercially aware research leaders who understand current and future challenges as well as the opportunities these present to industry.

● EIT ICT Labs added value

EIT ICT Labs Education Director Anders Flodström describes the educational landscape as undergoing a dramatic change, where new ways of working with knowledge are developing. In the future, the ability to adapt and use your knowledge will be the key:

"Competence and skill will be more important than knowledge itself in the future. It is increasingly important to teach the ability to use knowledge, in different contexts and with different goals. ICT is the best area in which to initiate this change. In ICT, we train not for a particular industry, but give students the prerequisites to use their skills in all industries."



Strengthening the European research and business network

One of the strongest benefits for doctoral students, who enrol in the EIT ICT Labs Doctoral School, is acquiring a connection to a broad network of academia and industry.

The I&E elements give the Doctoral students the ability to see their research from a business point of view. It makes them raise the question how their own research results may be useful for the industry. And this insight also influences their professors' way of thinking. Senior researchers know how to sell their research, but often ignore what the industry is looking for in their research. The innovation and entrepreneurship mind-set puts focus on the potential use of the research for further innovation and development.



○ Importance of mobility across the European Union

"There is a six-month exchange period within the education that the students are required to do elsewhere in Europe. The Doctoral School thus broadens the advisor's connection to other research institutes and universities in Europe and especially other KIC partners. A good European network makes it easier to apply for funding from European programs. This element of geographical mobility is a fundamental part of the doctoral students' education," says Christian Queinnec, EIT ICT Labs Doctoral School Director

DTC's links to the local ecosystem of Innovation

In addition to enrolling in the general EIT ICT Labs Doctoral School, doctoral students can choose to apply to local Doctoral Training Centres (DTC). Every DTC is hosted by a university or higher education institutional partner of EIT ICT Labs, and each of them will accept approximately 20 doctoral students, who become part of a local organization with strong industrial influence.

"The DTC share the same physical location as the Co-location Centre, and also have the same thematic focus as their academic node. This will enable each university to play a clearer role within the thematic innovation areas of the EIT ICT Labs, as well as to provide local support, and a strong industrial network, for the entrepreneurial driven doctoral students" says Gunnar Landgren, EIT ICT Labs Stockholm Node Director.

The next generation ICT doctors will be both brilliant and business-savvy

Young, bright and business-savvy ICT doctoral students with a strong head for innovation - that is what companies that get involved in EIT ICT Labs Doctoral School can expect. The aim is to make the young doctors commercially aware research leaders, ready to take on new challenges in the forefront of European ICT industry.

■ At a technical level these Doctoral students will be comparable with recruits from regular university programs. However, our doctoral students will have extras. They will receive innovation and entrepreneurship (I&E) education and have better business sense, as well as developed skills in team working in an open innovation setting, says EIT ICT Labs CEO Willem Jonker.

■ Our doctoral students will learn how good publications and good patents can reinforce each other, rather than being conflicting elements. They learn about how the innovation landscape and ecosystems work, how to found their own start-up, and get introduced to venture capital and early seeding.

■ We are looking for supervisors from the industry, actively participating in the coaching of their doctoral students, and really making sure that there is a bridge between research and industry. We want key people from the industry to take active part in the advisory boards of the DTCs, to offer advice on the content of the program, and decide which topics should be dealt with.

Bringing ICT Innovations to Life

eitictlabs.eu

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eit Knowledge & Innovation Community
EIT ICT Labs



Neptune Project

Researchers working on their first commercial product!

A team of scientists, in the early stages of planning an offshore wind farm in the Mediterranean Sea, found that there was no product on the market that could suit their particular needs. When they started spreading the word of their intention to develop their own solution, they soon discovered the interest of the industry in using it.

So, if both the need and the demand exist why not work on your own commercial product, and then sell it!

We interviewed Frieder Schuon and Dr Daniel González, representatives of an enthusiastic team of 15 people from universities, research centres and commercial companies in both the German and Iberian co-locations of KIC InnoEnergy. They are working on a product called 'Neptune', a combination of hardware and software which, they say, will contribute to a breakthrough in energy generation - expanding offshore wind farming out from the North and the Baltic Sea, initially into the Mediterranean Sea, but, in the future, into many other sea zones of the world.

About KIC InnoEnergy

KIC InnoEnergy SE is a European company fostering the knowledge triangle of education, research and business, to create a steep change in innovation and entrepreneurship. Our strategic objective is to be the leading engine for innovation and entrepreneurship in the field of sustainable energy.

KIC InnoEnergy is one of the three KICs (together with ICT Labs and Climate) created under the leadership of the EIT. We are a commercial company, incorporated as Societas Europea, with 27 shareholders, all of them key players in the energy field, with top rank industries, research centres and universities. More than 100 additional partners contribute to our activities, in a very dynamic network, open to new entrants that will increase its excellence.

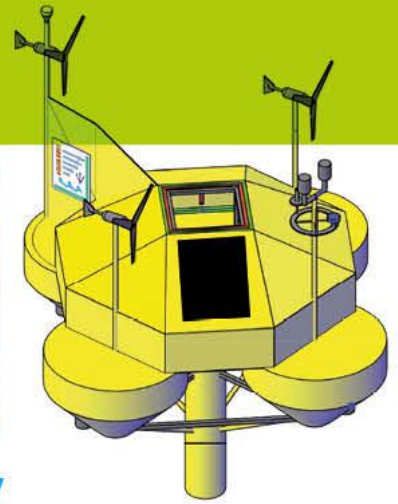
KIC InnoEnergy is profit oriented, but has a "not for dividend" financial strategy since we will reinvest our profits in our activities.

Forseeable impact

If we take as 100 the cost of any good produced/consumed in Europe, 27 is energy cost. Thus 1% of reduction in the cost of energy will represent 20B€ of savings, thus of additional competitiveness of the European industry.

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Success story. Neptune Project



Neptune is an Innovation Project fostered by KIC InnoEnergy developing two commercial products: 'EOLOS', a Lidar buoy, and NEPTool, a highly accurate software program for forecasting wind, waves and currents.

What is Neptune?

(Frieder Schuon) Neptune is a project focused on creating two different products: the Lidar buoy 'EOLOS', a wind measuring system based on laser technology, and 'NEPTool', high-accuracy forecasting software for measuring wind, sea waves and sea currents.

'EOLOS' replaces metrological masts in situations where the installation costs are too high, in deep waters for example.

The Lidar System of 'EOLOS' also allows performing measurements at heights of more than 200 m over the sea level, which is also a competitive advantage compared to masts. 'NEPTool' can simulate wind, waves and currents in a single tool, a substantial improvement on current commercial systems.

It may sound like an unexciting combination! But taken together, these two products will dramatically reduce the financial risk taken when developing wind farms, both in the Mediterranean Sea and in many other seas around the globe.

Is it not currently possible to deploy a wind farm in the Mediterranean?

(FS) All current technology, based on structures that are fixed to the bottom of the sea, is only applicable in maritime areas similar to the Baltic or North Seas. In these areas it is possible to deploy farms both very close to the coast and quite far offshore because the sea is generally no deeper than 40 metres. The market does not offer solutions for the Mediterranean Sea, where tourism prevents the installation of wind farms in areas with depths of less than 40 metres.

(Dr Daniel Gonzalez) Let's take the Greek islands for example: The wind is highly influenced by the islands themselves and also by the difference in daily temperatures, which simply doesn't occur in an open sea. You don't need to consider these effects when planning for wind farms in the Baltic or North Sea.

Why did you decide to develop Neptune as a product?

(FS) The partners at Neptune are also involved in the creation of a test wind farm for floating wind turbines; it is open to any company wanting to test floating wind turbines. Right now when a company wants to carry out these tests, it needs to apply for the necessary permits as well as deploying the supporting infrastructure. Our plan is to offer companies a turnkey solution so that they only need to worry about their real interest: the turbine. Permits and infrastructure are provided by the test field. We knew we had to develop the measurement and prediction systems for the wind farm ourselves (wind, sea waves, the interaction between

the waves and the wind...) as all current commercial systems are focused on the requirements of the North and Baltic Seas. However, when we shared our intentions with the energy community, we encountered such a degree of interest in this particular system that we thought we could make it available commercially.

At what stage of development is the product currently in?

(FS) The buoy and the software can be sold as separate products or bundled together. The LIDAR buoy will be ready by the end of 2013 and will be tested during 2014 in an exhaustive prototype testing and measurement campaign.

In the next few months we will have already deployed the first buoy to sea in order to test our design. It has been developed using the results of various onshore tests that used a motion simulator replicating the likely motion of the buoy at sea.

What is the role of KIC InnoEnergy in Neptune?

(FS) As well as seed funding we want KIC InnoEnergy to help us deliver it to the market. Researchers know how to create prototypes but not how to transform them into marketable "mass manufactured products". There is also the need for market knowledge: who are the customers we need to first target and how do we need to modify the design to adapt it to their different needs. We also would like to leverage KIC InnoEnergy's European network to find our first "launch customer".

What would you tell scientists who are interested in developing products from their research?

(FS) From our experience they will probably need to revise their way of thinking and approach to projects. Just like in "normal" research, the aim is excellence, so time is needed to achieve it.

However, when developing a product the aim is to satisfy the requirements of the market at a specific point in time and not only excellence. This means they will need to look for the best possible solution which can be operative by a certain date.

(DG) There is tight competition to bring products like Neptune onto the market, we estimate that around six other groups are also working on similar products, so it does not make any sense to have an excellent product two years after all our competitors have started to sell theirs!

Neptune

Frieder Schuon, *Project Leader*

Dr. Daniel González, *Work Package Leader*



The European Institute of Innovation & Technology (EIT)

Innovation is the key to growth, competitiveness and social well-being in the 21st century. The capacity of a society to innovate is crucial in an ever more knowledge-intensive economy. The EIT aims to enhance Europe's ability to innovate, which translates into adapting quickly to the fast pace of development, being one step ahead in providing solutions to rapidly emerging societal problems and developing products that meet the demands and desires of consumers.

Created in 2008, the EIT's mission is to:

- Increase European sustainable growth and competitiveness.
- Reinforce the innovation capacity of the EU Member States.
- Create the entrepreneurs of tomorrow and prepare for the next innovative breakthroughs.

The EIT achieves its mission by fully integrating all three sides of the 'Knowledge Triangle', i.e. higher education, research and innovation – in Knowledge and Innovation Communities (KICs). By bringing together major players from all these dimensions to cooperate in the KICs, the EIT is able to promote innovation in Europe.

Climate-KIC

Climate-KIC supports the EIT's mission by addressing climate change mitigation and adaptation. Climate-KIC is a world class European network, consisting of dynamic companies the best academic institutions and the public sector. Climate-KIC integrates education, entrepreneurship and innovation resulting in connected, creative transformation of knowledge and ideas into economically viable products or services that help to mitigate climate change. Creating opportunities for innovators to address climate change and shape the world's next economy is Climate-KIC's mission.

Climate-KIC has five national centres in Paris, London, Zurich, Berlin and the Netherlands. Additionally, our centre in Brussels co-ordinates the six regions of the Regional Implementation and Innovation Community (RIC): Central Hungary, Lower Silesia in Poland, West Midlands in the UK, Hessen in Germany, Emilia Romagna in Italy and the Valencian region in Spain.

EIT ICT Labs

EIT ICT Labs is a Knowledge and Innovation Community (KIC) supported by the European Institute of Innovation & Technology (EIT). Our mission is to turn Europe into a global leader in Information and Communication Technologies - ICT innovations. Education, Research and Business are three elements in the EIT ICT Labs "Knowledge Triangle" and key drivers of the knowledge-based society.

EIT ICT Labs aims to create a new breed of innovators and entrepreneurs that can develop breakthrough ideas - supported all the way to the market. EIT ICT Labs Co-location centres play a vital role as virtual and live meeting places for project members, students, entrepreneurs, SMEs and start-ups as well as major industrial partners searching for new talents and new innovative opportunities. Mobility is a key factor - we bring people together across geographical and organizational borders.

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Willem Jonker (CEO, EIT ICT Labs), **Diego Pavia** (CEO, KIC InnoEnergy),
Mary Ritter (CEO, Climate-KIC) and **José Manuel Leceta** (EIT Director)

(From left to right)



www.eit.europa.eu



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www.eitictlabs.eu



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