

THE EIT AT A GLANCE

[eit.europa.eu]





eft European Institute of Innovation & Technology



he idea of initiating the European Institute of Innovation and Technology (EIT) originated six years ago and was based on a simple observation: innovation policies – as traditionally designed – have not been as decisive as expected and the investments in research – despite being necessary – have not automatically lead to innovation.

For innovation to thrive, Europe needs a real change of mindset, where the human capital is put back at the centre of innovation.

With the EIT, Europe addresses the innovation challenge by bringing together, within structured partnerships – the Knowledge and Innovation Communities or KICs – all the actors of innovation: businesses, research centres and, for the first time, the universities and engineering schools. The EIT is the only tool within Horizon 2020 that links these three dimensions, the purpose of which is to bridge the gap between ideas and business creation. Moreover, it connects centres of excellence around Europe to create real European innovation networks.

After two years of full activity, the EIT proves to be a concept that can bring about a lasting change in the EU innovation landscape. The strong participation of the business community, including small and medium-sized enterprises, academics and researchers is the best support to such a project.

If Europe is serious about investing in innovation and creating a real European engine for innovation, the EIT needs to grow from its initial phase to a fully fledged instrument. This requires additional financial means. For this reason, the Commission proposes to increase the budget of the EIT in the next financial period. And I hope the European Parliament and the Member States will confirm this budget.

The EIT is at the core of the European innovation policy. I am convinced that the EIT's development represents one of our competitive assets to make a real difference in Europe.

ANDROULLA VASSILIOU

European Commissioner for Education, Culture, Multilingualism and Youth, responsible for the EIT

he EIT is dedicated to addressing the great challenge of creating ecosystems that foster favourable environments and frameworks for entrepreneurship-driven innovation within the existing EU innovation landscape. This brochure will give you an overview of the EIT's pioneering role in increasing European sustainable growth and competitiveness by reinforcing the innovation capacity of the EU within a dynamic and shifting global context.



Creating and enabling such ecosystems to flourish is at the heart of our innovation factories', the so-called Knowledge and Innovation Communities (KICs), mission. This is crucial for European growth, as the current European innovation landscape remains fragmented. Indeed, many excellent higher education institutions, research centres and businesses can be found in Europe, but what is often missing, is the lack of geographical and cross-sectoral collaboration.

Working in such 'silos' leads to dispersed innovation efforts and it is, thus, crucial that we build a 'critical mass' of human and physical resources, attracting, seeding and retaining private sector investment into our KICs that integrate business, education and R&D and that focus on innovation topics of societal relevance under the leadership of a CEO and with the entrepreneur at the centre. In order to make the most of its innovation potential, Europe must overcome this fragmentation and this is exactly why the EIT was set up.

We hope this brochure will give you the opportunity to get to know us better and we look forward to interacting with you in the near future. The EIT is an Institute for Europe and we are committed to ensuring that our results and impact are widely disseminated – so you can count on more publications from us in the future.

ALEXANDER VON GABAIN & JOSÉ MANUEL LECETA

Chairman of the EIT Governing Board (left) and EIT Director (right)

The 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.

Europe is facing a significant innovation challenge, where despite an excellence research base, dynamic companies and creative talent, good ideas are too rarely turned into new products or services. Europe needs a real change of mindset towards the promotion of a more innovative and entrepreneurial culture.

The EIT mission

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

- > increase European sustainable growth and competitiveness;
- > reinforce the innovation capacity of the EU Member States; and
- create the entrepreneurs of tomorrow and prepare for the next innovative breakthroughs.

The EIT creates an unprecedented level of collaboration between innovation and excellence centres with the aim of boosting the innovation process:

- > from idea to product;
- > from student to entrepreneur; and
- > from lab to market.

How does the EIT work?

The EIT achieves its mission by fully integrating all three sides of the 'knowledge triangle', i.e. higher education, research and business, 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.

Three KICs were launched in 2010:

- Climate-KIC: climate change mitigation and adaptation
- EIT ICT Labs: information and Communication Technologies
- KIC InnoEnergy: sustainable energy.

While the EIT's headquarters are situated in Budapest, Hungary, the EIT is not concentrated in one campus as a traditional institute, instead operating through the KICs. Each of the KICs operates across a limited number of hubs called 'co-location centres'. There are currently 17 co-location centres spread across the EU. Climate-KIC additionally operates through six regions, each led by a regional or local government in Regional Implementation and Innovation Communities (RICs).

How do the EIT's KICs work?

KICs carry out a whole range of activities, covering the entire innovation chain – including training and education programmes, reinforcing the journey from research to the market, innovation projects and business incubators. KICs have been conceived so that they are able to react in an effective and flexible way to new challenges and changing environments.

Each KIC has been set up as a legal entity and has appointed a CEO to run its operations – a first for an EU initiative. The EIT has provided the KICs with a great degree of autonomy to define their legal status, internal organisation and working methods.

The KICs are driven by a pursuit of excellence in all of their activities and are established with the aim of reaching the necessary critical mass to achieve systemic impact, including the creation of new businesses and new jobs, and the promotion of new skills and entrepreneurial talent in the economy.

What makes a KIC a KIC?

As new types of partnerships within the European innovation landscape, KICs are characterised by the following features:

- **High degree of integration:** each KIC is organised around an independent legal entity, gathering world-class KIC partners from all the innovation dimensions. The specificity of the KICs is to integrate, for the first time at EU level, education and entrepreneurship with research and innovation. The EIT does not address education, research and innovation independently but instead simultaneously, as constitutive elements of a single innovation chain, to deliver incremental and disruptive innovation.
- Long-term perspective: each KIC is set up for a minimum of seven years to contribute to overcoming fragmentation via world-class, long-term, integrated partnerships. This long-term perspective enables partners to commit to a strategic initiative for a longer time than in traditional innovation policy initiatives. It also ensures that the KIC is able to focus on short-, mid- and long-term objectives, remaining agile enough to adapt to emerging needs from the field in which they operate.
- Efficient governance: strong leadership is a pre-requisite; each KIC is driven by a CEO and KIC partners are represented by single legal entities for more streamlined decision-making. KICs must produce annual business plans, including an ambitious portfolio of activities from education to business creation, with clear targets and deliverables, looking for both market and societal impact.
- The co-location model: each KIC consists of five or six world-class innovation hotspots, building and leveraging on existing European capacities. A co-location centre brings together diverse teams of individuals from across the Knowledge Triangle together in one physical place (usually within partners' universities or companies), acting as a hub for many KIC activities, and combining competences and skills developed in different areas of specialisation at a pan-European level.
- **KICs culture:** Europe needs to embrace a true entrepreneurial culture, which is essential for capturing the value of research and innovation, for setting-up new ventures and actual market deployment of innovations in potential high-growth sectors. KICs are doing just this by integrating education and entrepreneurship with research and innovation and operating according to business logic and a results-oriented approach.

Climate-KIC



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, its centre in Brussels co-ordinates six regional implementation and innovation communities: Central Hungary, Lower Silesia in Poland, West Midlands in the UK, Hessen in Germany, Emilia Romagna in Italy and the Valencian region in Spain.

More information www.climate-kic.org

Climate-KIC takes science and research results and identifies a market for them through three areas of expertise: innovation, education and entrepreneurship.

Climate-KIC Innovation

Climate-KIC has developed a dynamic and open network whilst simultaneously managing integrated community partnerships to create climate innovations. These projects rally companies, cities and academic institutes around delivery of new projects and services.

Climate-KIC Education

Climate-KIC Master and PhD education and training programmes install climate change entrepreneurship into hundreds of students and leading professionals. Courses combine climate change science and entrepreneurship with an emphasis of learning-by-doing and exposure to innovation activities.

Climate-KIC Entrepreneurship

Climate-KIC builds and connects the wider climate change entrepreneurship community including students, young entrepreneurs, research and development centres and venture capital investors. The aim is to generate more climate-related business start-ups, help start-ups grow faster and generate market growth into the business.

EIT ICT Labs



EIT ITC labs' 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.

More information www.eitictlabs.eu

By developing and applying catalysts, the KIC leverages existing regional, national and EU-level funding instruments to speed up innovation in Europe. Its catalysts focus on integrating the three elements of the Knowledge Triangle – education, research and business:

- EIT ICT Labs breeds entrepreneurial ICT top talent via the transformation of higher education to promote creativity and entrepreneurial spirit.
- This community speeds up ICT innovation by bringing people together from different countries, disciplines and organisations via mobility programmes and co-location centres.
- EIT ICT Labs generates world-class ICT business via broader and faster industrialisation of research results.

KIC InnoEnergy



KIC InnoEnergy's strategic objective is to be the leading engine for innovation and entrepreneurship in the field of sustainable energy.

Sustainability will be achieved by addressing:

- the reduction of the cost in the energy value chain (supply, transport, storage, distribution and retail);
- the increase of security (autonomy vis-à-vis the resource holders, intrinsic operational security); and
- the reduction of CO2 and other greenhouse gas emissions.

KIC InnoEnergy is a commercial company, incorporated as Societas Europea, with 27 shareholders, all of them key players in the energy sector 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 reinvest our profits in our activities.

More information www.kic-innoenergy.com

With a focused portfolio of activities, KIC InnoEnergy looks to achieve market impact:

- Master of Sciences, PhD Schools or lifelong learning tailored to the market needs. With a specialisation in at least one of the thematic topics, hands-on four months experience in industry, tuition in entrepreneurship and new management skills, finalising a guided business case on a real industrial need, from its design to its launch and execution.
- Dedicated Research, Development & Innovation teams compiled from the key technicians of our top-rank shareholders better fit to solve the singular energy requirements with disruptive market impact.
- Business Creation Services or the KIC InnoEnergy Highway, which transforms an idea into a business and helps creating the workflow of 'innovation to business' in existing institutions.

What's in for you?

> Are you a student?

As a student you will find that the EIT and KICs are built around a new way of approaching innovation and business creation. Thanks to their broad partner base, you will be able to meet professionals from companies, SMEs but also entrepreneurs, increasing your chances of landing a job or creating your own company!

Your training will reflect the multifaceted reality of innovation. You will be able to spend time in companies, doing on the job learning and benefiting from the learning by doing philosophy of the EIT. You will be graduating from high quality EIT labelled degrees. You will have the opportunity to experience mobility from one country to another and from universities to companies. Get ready to learn and work all over Europe!

> Are you an entrepreneur?

KICs gather top innovation players. As an entrepreneur, you will be able to learn from the best and, who knows, you might find new business partners to develop your ideas! KICs offer you direct access to the European marketplace. Be prepared to expand to new markets!

KICs have many activities directed to entrepreneurs: mentoring schemes, enhancing access to finance, and providing access to resources: from administration to the know-how of the KIC partners. The KICs accompany you during the entire journey of creating a business.

> Are you a researcher?

Researchers will discover that the KICs provide them with direct access to companies' research capacity. KICs have access to state of the art labs spread across Europe. Be part of a European innovation network!

The KICs offer a unique environment to interact with applied research, with a strong focus on the invention's journey from research to market. Have a say in how your research can be used to find solutions to global challenges!



> Are you a large company?

The EIT is forming the next generation of entrepreneurs by integrating traditional scientific programmes and entrepreneurial education. By being part of the KICs, your company will have direct access to talent as well as an opportunity to develop new curricula together with Universities. Do not waste the opportunity to find talent at the source!

By working in a long-term partnership such as the KIC, your company's innovation capacity will be boosted. Bringing together professionals with different backgrounds will trigger the type of innovative thinking that will greatly benefit your company. Decisions in the KICs are taken by their partners, by participating in a KIC, you can make a difference!

> Are you a small and medium-sized enterprise (SME)?

Small and medium-sized enterprises will find that the EIT creates a direct avenue of contact with innovation players across Europe. By integrating a European network, you will be working with Universities, researchers and big companies.

These interactions will greatly contribute to the development of your SME. By sharing your experience with other KIC partners, you will be in a privileged position to learn from other European markets, access them and expand your operations!

> Are you a University?

Many of the most innovative products and ideas originate in Universities. Why not share this knowledge with the rest of the innovation players? As part of the KICs, you can raise your profile, increase the attractiveness of your institution, integrate European networks and actively promote the transfer of knowledge.

You will be working hand by hand with researchers and professionals from the business sector to develop new and better curricula, advance the technological frontier and find new ways to overcome economic and societal challenges. Become an agent of change!

> Are you a national or local public authority?

The EIT gives you the opportunity to directly plug your innovation policy into the European level and align resources to boost efficiency. Your participation in an innovative organisation such as the KICs will be crucial in order to capitalise on your strengths and adapt to a rapid changing economy.

By being part of the EIT, you will have access to a EU wide innovation network bringing together Universities, research centres and businesses. Make the EIT your platform to compete on the global stage!

EIT at a glance

CLIMATE-KIC

Co-location Centre

RIC (Regional Implementation and Innovation Centre)



EIT ICT LABS

Co-location Centre

Associate Partner

KIC INNOENERGY

Co-location Centre

EIT Funding

- EIT budget 2008-2013: EUR 308.7 million
- + EIT \leq 25% of total KIC budget
- Leverage effect of 4: 78.5% of the KIC funding comes from external sources

Partners

- 282 of which 82 Core partners
- 113 companies
 (29 Core partners)
- 81 higher education institutions
 (29 Core partners)
- 64 research centres (25 Core partners)
- 24 cities, regions, NGOs
- Open strategy with regard to entry and exit of affiliated partners

EIT Education

- 2011-2012: More than
 600 students enrolled
- 2012-2013: More than
 1300 students expected
- 3 Masters schools & PhD Schools



Future of the EIT – the proposal from the European Commission

The SIA represents the Commission's commitment to the EIT and the role of innovation in Europe. We need to invest in innovation if we want to overcome the crisis and the many challenges ahead of us. Investing in excellent innovation is one of the key elements of a quick economic recovery and a sustained long-term gain in wellbeing. The EIT is one of the main instruments to achieve these objectives. This is why the Commission has put forward a proposal strengthening the EIT and supporting investment in innovation.

Androulla Vassiliou, European Commissioner for Education, Culture, Multilingualism and Youth In the EIT's Strategic Innovation Agenda (SIA), the European Commission has presented a proposal that defines the framework for the EIT's operations for the period 2014-2020*:

- → Proposed budget for 2014-2020: **EUR 3.18 billion** within the envelope of EUR 80 billion of Horizon 2020, the EU's future Framework Programme for Research and Innovation (around 3.5 % of the Horizon 2020 budget).
- ightarrow Consolidation and further development of the three existing KICs.

1st wave: 2014 (tbc)	Innovation for healthy living and active ageing			
	Food4Future – sustainable supply chain from resources to consumers			
	Raw materials – sustainable exploration, extraction, processing and recycling			
2nd wave: 2018 (tbc)	Urban mobility			
	Added-value manufacturing			
	Smart secure societies			

 \rightarrow Creation of six new KICs to be launched in two phases or waves:

→ Objectives for 2020: Create 600 new companies, train 10 000 Master's students and 10 000 PhD students, and achieve systemic impact in the way universities, research centres and companies cooperate for innovation.

The EIT will contribute strongly to the objectives set out in Horizon 2020, in particular by addressing societal challenges in a complementary way to other initiatives in these areas. Horizon 2020 is a key pillar of the Innovation Union, a Europe 2020 flagship initiative aimed at enhancing Europe's global competitiveness.

EIT-KICs Partners

The EIT is an Institute that builds upon existing European excellence centres to propose a new approach to innovation in Europe and to create the entrepreneurs of tomorrow. Today, the EIT, through its three KICs, gathers the best universities, research centres and most important companies to work together to find solutions to the key societal challenges in Europe.

In 2012, the EIT KICs brought together 282 partners* of which 82 are Core Partners:

→ 113 companies of which 29 are Core partners

Including ABB, Alcatel-Lucent, Areva, Bayer, Deutsche Telekom, DSM, EDF, EnBW, Ericsson, Gas Natural Fenosa, GDF Suez, Intel, Nokia, Orange-France Telecom, Philips, SAP, Schiphol Amsterdam Airport, Siemens, Telecom Italia, Total, and Vattenfall.

ightarrow 81 higher education institutions of which 29 are Core Partners

Including Aalto University, ESADE, ETH Zurich, Imperial College London, Instituto Superior Técnico de Lisboa (IST), Katholieke Universiteit Leuven, Karlsruhe Institute of Technology, Paris Tech, the Royal Institute of Technology – KTH, Silesian University of Technology, TU Berlin, TU Delft, University Pierre et Marie Curie, and Utrecht University.

→ 64 research centres of which 25 are Core Partners

Including Catalonia Institute for Energy Research, Centre National de la Recherche Scientifique (CNRS), Centrum Wiskunde & Informatica (CWI), Commissariat à l'Energie Atomique (CEA), Fraunhofer Gesellschaft (FHG), German Research Center for Artificial Intelligence (DFKI), l'Institut National de la Recherche Agronomique (INRA), Institut Telecom, Potsdam Institute, Swedish Institute of Computer Science (SICS), Trento RISE, and Vito.

ightarrow 24 cities, regions or non-governmental organisations (NGOs)

Including Advancity, Birmingham City Council, City of Castellón, City of Frankfurt, Fundación Comunidad Valenciana-Región Europea, Institute for Sustainability, Province of Utrecht, and Wroclawskie Centrum Badan.



* Figures from September 2012.

Partners

282 of which 82 are Core partners

- 113 companies (29 Core Partners)
- 81 higher education institutions (29 Core Partners)
- 64 research centres (25 Core Partners)
- 24 cities, regions, NGOs
- Open strategy with regard to entry and exit of affiliated partners

Core Partners are members of the KIC Association or KIC Company. They represent worldclass excellence, are fully committed to KIC implementation and raise the necessary co-funding for the KIC. They contribute to the management of the KIC through their membership in the relevant governance bodies.

Affiliated Partners are other organisations participating in and contributing to the activities of a KIC. They are usually active in the co-location centre. They have a contract with the KIC or a co-location centre; they supply specific competence and human resources for the KIC; they may be in the KIC for a particular task and a limited period of time; and they are not fully represented in the KIC governance bodies.

A dynamic partnership approach

KICs apply a very open strategy with regard to new partners. This provides for a high degree of openness and dynamic development, which is indispensable when dealing with a highly innovative environment. Potential partners can contact the KICs in order to express their interest in becoming Core or Affiliated Partners.

In addition, Climate-KIC has created another partner network – the so-called Regional Implementation and Innovation Communities (RICs). RICs oversee the development of innovative business and technology solutions, their test phase and regional implementation. Presently there are six such regional centres: Hungary, Lower Silesia (Poland), West Midlands (UK), Hessen (Germany), Emiglia Romana (Italy), and Valencia (Spain).

Funding

The EIT funding model is based on the concept of leverage; every euro invested from the EU budget will trigger a higher investment from other sources.

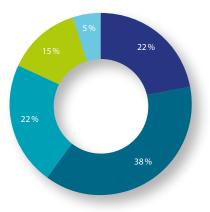
For 2008 to 2013, the EIT has been allocated EUR 308.7 million from the EU budget. Through its unique funding model, the EIT contributes on average a maximum of 25% of the overall budget of each KIC.

The EIT financial contribution is decided on an annual basis following the assessment of each KIC's individual performance and a competitive review between them, which includes the evaluation of KICs' past performance, future plans and the level of co-financing from other sources.

EIT Funding

- EIT budget 2008-2013:
 EUR 308.7 million
- EIT ≤ 25 % of total KIC budget
- Leverage effect of 4:
 78.5 % of the KIC funding comes from external sources

KICs Budget 2010-2012 Average distribution of funding sources







2010-2012

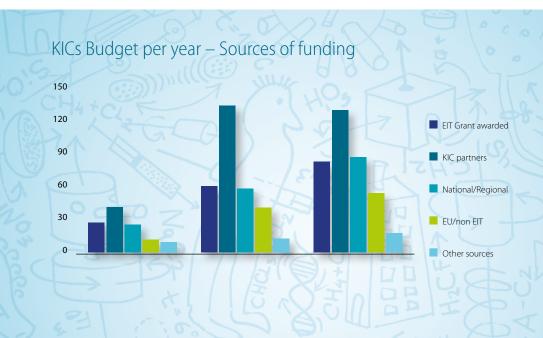
As agreed in the respective grant agreements, the total budgets of the KICs **totalled EUR 777.4 million**, coming from the following sources:

- \rightarrow EIT Grant awarded: EUR 167.4 million (21.5%);
- → Contribution from partners: EUR 299.1 million (38.5%) (of which, business partners: 20-31% of total budget depending on the KIC);
- → Contribution from national/regional governments: EUR 167.2 million (21.5%);
- → Contribution from other EU budgetary sources (EU/non EIT): EUR 104.6 million (13.5%);
- ightarrow Other sources: EUR 39.2 million (5 %).

Other EU budgetary sources (EU/non EIT) KICs can apply for other sources of EU funding on a competitive basis. They include inter alia: FP7, the seventh Framework Programme for research; Competitiveness and Innovation Framework Programme (CIP) funding; Structural Funds; or Erasmus Mundus funding.

Other sources: Equity, royalties, investment from venture capital, consultancy services, etc.

Through its three KICs, the EIT managed **to attract 78.5 % of the total budget** (EUR 610 million out of EUR 777.4 million), bringing a leverage effect of around **four**.



Monitoring

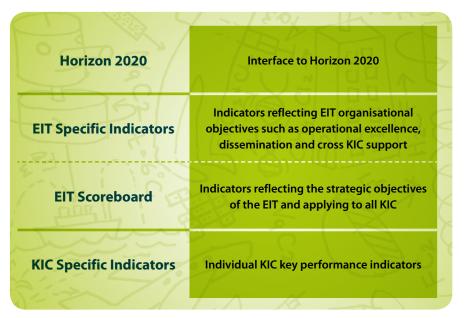
Monitoring principles

In order to show the impact of its activities, the EIT is implementing an internal mechanism that allows monitoring of its performance and the objectives achieved, focusing on achievements, outputs and the generation of both economic and societal impact, benchmarked against best international practices. That is the objective of the EIT Performance Measurement System.

The EIT Performance Measurement System

The EIT's Performance Measurement System (PMS) was designed in early 2012 and is being implemented during the course of autumn 2012. Its overall objective is to support a result-oriented monitoring of the implementation of the EIT strategy. It consists of four levels, reflecting the multi-layered governance of the EIT. It is based on common strategic objectives resulting from a shared vision and values of the EIT and the KIC:

EIT Monitoring







Level 1 – KIC level:

KICs have put in place rigorous criteria for the monitoring of their activities portfolio. KICs gauge the impact of their activities through KIC-specific *Key Performance Indicators* (KPIs) that are included in the annual business plans they present to the EIT.

Level 2 – Cross-KIC level:

The EIT Performance Measurement System reflects the strategic objectives of the EIT delivered by the Institute and each of the KICs. Examples of such indicators comprise, inter alia, the number of start-ups created, new products and services launched in the market and the number of graduates.

Level 3 – EIT level:

The EIT Performance Measurement System includes specific indicators aimed at assessing the EIT Headquarters' own processes and activities, focusing on its operational efficiency, positioning and value added. These indicators include, for example, the talent on the job, operational excellence, outreach and dissemination.

Level 4 – EU Level:

The European Commission will use the data collected by the EIT and the KICs in order to demonstrate their contribution to the general objectives of EU policies and programmes, such as Horizon 2020. The synergies of EIT planned activities with other EU programmes will be assured via the EIT Triennial Work Programme.

The EIT will report on all its monitoring activities in its Annual Activity Report.

Education

One of the main added values of the EIT is to integrate the education dimension into the innovation web, as it has often been absent from the more traditional research-business partnerships.

The EIT supports the creation of tomorrow's entrepreneurs and promotes a real change of mindset towards an entrepreneurial culture and attitude. By investing in the EIT, Europe invests in the talent of tomorrow who will not only create new start-ups but also contribute to innovation in existing companies, thus becoming a source for growth.

With this perspective, the KICs have developed their own education programmes that have a very strong focus on the delivery of entrepreneurship and innovation skills, and that are more tailored to the needs of the European innovation system.

KICs' higher education partners focus on developing innovative curricula that provide students, entrepreneurs and business innovators with the knowledge and skills necessary for a knowledge and entrepreneurial society. These innovative programmes are based on partnerships between different universities, companies and research centres that collaborate closely and offer double degrees, international and cross-sectorial mobility experiences, as well as applied innovation and entrepreneurship education.

In 2011 (the first year of fully-fledged education activities by the KICs) the EIT attracted more than 600 students. By the end of 2012, the EIT expects the KICs to have attracted more than 1 300 students with a specific focus put on the Master's programme (for more on this, check the Education Spotlight):

		2011-2012			Prospects 2012-2013		
		Master	PhD	Summer school	Master	PhD	Summer school
Γ	Climate-KIC	46	31	115	80	60	180
	EIT ICT Labs	0	0	268	200	50	360
Γ	KIC InnoEnergy	155	0	0	345	69	0
	TOTAL	201	31	383	625	179	540
-							

In more details:



In the context of a proposed total budget of **EUR 3.18 billion** for the EIT from 2014 to 2020, more funding will be available for EIT education activities. Therefore the EIT, through its KICs, is expected to train **10 000 Master's students** and **10 000 PhD candidates** in new curricula combining excellent scientific and technical content with a strong entrepreneurship component during this period.

EIT Education Education for Creativity, Innovation, and Entrepreneurship

The hallmark of EIT educational programmes is to not only to educate students to know, but also to know what to do and how to solve real life problems, all framed within an entrepreneurial mindset.

EIT-labelled educational programmes at Master and PhD levels foster students to become more creative, innovative and entrepreneurs. This is why **EIT-specific quality criteria** and **EIT overarching learning outcomes** are applied.

EIT-specific quality criteria for EIT-labelled degree programmes:

- ightarrow Robust entrepreneurship education
- ightarrow Highly integrated, innovative learning-by-doing curricula
- ightarrow International and cross-organisational mobility, the European Dimension and openness to the world
- ightarrow Access policy and joint outreach strategy

EIT-labelled programmes ensure that students demonstrate skills and competences in all the following areas:

- \rightarrow Creativity
- \rightarrow Innovation
- → Entrepreneurship
- \rightarrow Research
- \rightarrow Leadership

Spotlight on EIT and KIC education activities

Since the start of their operations, the KICs have launched and implemented a wide range of education activities. Here are some examples of these:

> Climate-KIC is striving to accelerate and stimulate innovation in climate change mitigation and have, since 2010, run a successful summer school, called **theJourney**. TheJourney attempts to address important gaps in the current educational offering. It provides students with an opportunity to learn about the multifaceted context of climate change, to experience climate innovation in action and to try it out in practice. Entrepreneurship is an overarching theme in the programme, which combines the exploration of climate change at first hand in its scientific, environmental, political, social and economic contexts and the opportunity to work within multidisciplinary teams supported by business coaches to develop and pitch own ideas as potential business ventures. TheJourney will be integrated into the KIC's Master's Programme and, to date, four of the ventures that emerged from the business competition are being incubated and supported within the KIC's co-location centres across Europe.

> The EIT ICT Labs Master School has been set up as a joint venture between 21 out of 28 of the KIC's universities and business schools. One of the reasons for the Master School and the other EIT ICT Lab education programmes is that Europe is facing a considerable shortage of engineers and ICT practitioners with the right combination of skills. The EIT ICT Labs Master School distinguishes itself from other Master's programmes through:

- ightarrow the scale of the partnership and structure;
- ightarrow the creation of a new set of Master's courses designed to work across Europe;
- ightarrow the course structure across institutions;
- \rightarrow the integration of innovation and entrepreneurship content into the engineering curricula; and
- ightarrow the interactions and involvement with the KIC's six co-location centres and industry.





The EIT ICT Labs Master School is one of the largest joint European ventures in higher education. The institutions involved have developed an agreement to deliver seven technical majors and the course includes a fully standardised minor in 'Innovation and Entrepreneurship'. Students will also benefit from a mentoring scheme and an internship at one of the industry partners.

> At the core of KIC InnoEnergy's ambitious mission lies the belief that talented people are at the heart of innovation (beside the technology they develop) so it is not by chance that one of the KIC's first priorities is the development of a new approach to education. The KIC's education programmes are seeking to establish excellence in engineering education and are addressing the most talented students. In order to prepare students to face the challenges of their future careers, coherent Master's programmes and structured PhD trajectories have been developed with a strong focus on the acquisition of transferable skills, especially in innovation and entrepreneurship. The educational programme has been in development since it was designed in December 2009 and the first courses started in September 2011. Demand for these new courses has been overwhelming: nearly 1 200 students applied for the 220 offered in 2011 across KIC InnoEnergy's six colocation centres.

Entrepreneurship

Europe needs more entrepreneurs

Creating more business and more jobs through fast-growing, innovative firms is one of the key objectives of the Innovation Union. A cornerstone of the EIT's activity through the KICs is to support innovation in existing companies and also the creation of new business opportunities. The vital ingredients in fostering entrepreneurial activities are ensuring access to finance and support for enhancing business skills.

'Majorities in the US, the European Union, and China associate themselves with attitudes often ascribed to entrepreneurs. Americans, however, are more likely than those in the European Union and China to see themselves as risk takers, competitive, and confident they can accomplish difficult tasks' (Gallup World, 2010).

> In order to tackle this gap in entrepreneurial mindset, the EIT aims to create a more favourable environment in Europe for talent and entrepreneurshipdriven innovation to flourish. One of the challenges is to achieve a shift in the perception and recognition of entrepreneurs in Europe. This is why boosting and encouraging individuals and companies to embrace innovation and take it to the market are among the EIT's top priorities.



Preparing the entrepreneurs of the future

In each of the KICs' respective fields, innovation and entrepreneurship are strong vectors to overcome global societal challenges. Together with the KICs, the EIT is placing a strong emphasis on developing the next generation of young entrepreneurs, encouraging and supporting individuals and companies to develop innovative ideas and take them to the market, thus contributing to a more innovative and competitive Europe.

All three KICs offer, through their entrepreneurship programme, a range of business support services that help entrepreneurs translate their ideas into successful businesses. These services focus on areas such as support for technology, market assessment, access to human resources, mentoring and, last but not least, seed and venture capital through specific KIC innovation funds.

The added value of the KICs stems from helping the entrepreneurs in one Member States to enter, through the network of co-location centres and contacts, into several Member States and develop a clear strategy towards the penetration of the European market, breaking the existing fragmentation around national markets and overcoming the entrepreneurs' fear of going European at an early stage.

BUSINESS DEVELOPMENT KEY FEATURES

- ightarrow Fostering the development of new businesses
- Organising a European-wide specialised business support that is committed to finding the first customer for young ventures
- Accelerating time to market of innovations through demonstration actions, facilitating experience labs and demand-side measures

All three KICs also have the objective of decreasing the average time to market of innovations and they have established specific activities to fulfil this objective such as the Climate-KIC Market Accelerator scheme or the EIT ICT Labs Technology Transfer Programme.

Spotlight on the winners of the EIT Entrepreneurship Awards

The EIT Entrepreneurship Awards Start Up!

A central part of the EIT's mission is to create the framework that will allow a fresh entrepreneurship culture to flourish – both as a mindset and as an action. The annual 'EIT Entrepreneurship Awards' were granted for the first time in 2012, as an initiative to promote the entrepreneurial risktaking culture in Europe.



Commissioner Androulla Vassiliou and the Chairman of the EIT Governing Board Alexander von Gabain with the three winners of the first EIT Entrepreneurship Awards.

The Award Competition highlights and encourages entrepreneurial ventures within the EIT's

three thematic areas, and it is organised in collaboration with the Knowledge and Innovation Communities (KICs): Climate-KIC, EIT ICT Labs and KIC InnoEnergy.

For the first time in 2012, each KIC put forward three outstanding entrepreneurial ventures with a high innovation potential within the thematic field addressed by the KIC. The nine nominated ventures were invited to Brussels, Belgium to pitch their business ideas to an expert audience.

EIT Climate Change Award: NAKED ENERGY

What differentiates Naked Energy from its hybrid competitors is that its product, which is being developed with Imperial College London (UK) and has already been patented, is a vacuum tube rather than the more familiar flat panel mounted on an A-frame rack – VIRTU TM.

The opportunity to collaborate with other members across the Climate-KIC network is a great benefit and the start-up is very keen to pursue commercial opportunities with relevant core partners within the community.

'Naked Energy's experience to date with the Climate-KIC has been hugely beneficial. Our company exemplifies the knowledge triangle of business, academic research and education. We are already enjoying productive collaborations within Climate-KIC and are now in the scaling up process to take the technology to market.'

Christophe Williams, founder and CEO of Naked Energy



EIT ICT Entrepreneurship Award: TRIFENSE

'Trifense being one of the winners of the EIT Awards shows the growing importance of security solutions in the digital society. I hope that this European level recognition will give an additional boost to the further development of Trifense.'

Willem Jonker, EIT ICT Labs CEO Protecting a company or organisation against known cyber-security threats is one thing; protecting them against unknown cyber-threats is quite another. But that is exactly the goal of Trifense, a Technical University of Berlin (DE) spin-off, named as the EIT ICT Labs winner of the EIT Awards.

Trifense is working together with EIT ICT Labs in one of their thematic action lines 'Future media and content delivery', providing innovative secu-

rity solutions. Working closely with the KIC has been proven useful to Trifense and the venture is benefiting from connections with people from different backgrounds.

EIT Sustainable Energy Entrepreneurship Award: NOEM

'EIT's KIC InnoEnergy is very relevant to us, as renewable energy is our primary energy source, and key to empowering a low carbon economy from different backgrounds.'

Rosa Vilarasau, Noem co-founder and CEO Winner of the EIT Entrepreneurship Awards in the category Sustainable Energy, NOEM - Think CO2 is working hand in hand with KIC InnoEnergy.

The company's basic concept is an energy-efficient, pre-fabricated, modular house. Being pre-fabricated, it can be put up in four or five days and taken down in a couple of days if it needs to be moved to a new

plot. Also modular, it can be expanded if a bigger space is needed. In general, a 'noem' (no emissions) home can be between 30 and 90 square metres; it can stand alone or be an annex for a growing family or grandparents. The price range per square metre is EUR 1 600 to EUR 2 000.

Spotlight on EIT and KIC activities

Since the start of their operations, the KICs have launched and implemented a wide range of activities. Here are some examples of these:

Climate-KIC develops pioneers at the cutting edge of climate innovation by offering a knowledge development programme called Pioneers into Practice (PiP). This programme is committed to producing a new generation of specialists, entrepreneurs and policy-makers with high-level skills for the low carbon transition in Europe. The programme is delivered across the KIC's Regional Innovation Implementation Community (RIC) – Lower Silesia (PL), Hessen (DE), Central Hungary (HU), West Midlands (UK), Emilia-Romagna (IT) and the Valencian Region (ES).

All these regions have implemented strategies and initiatives aimed at addressing the challenges of climate change. In this context, PiP seeks to develop a mix of inter-disciplinary knowhow and managerial capability through a 'learning-by-doing' approach with placements in the four sectors of the innovation pyramid: research, education, business and public bodies. Pioneers undertake two four-week placements in projects related to lowcarbon living and low-carbon mobility in at least two different regions. In parallel to this, facilitated intensive workshops encourage system innovation and transition thinking among the practitioners. A leading European sustainability expert hosts each pioneer.

> An example from EIT ICT Labs is the FITTING (Future InterneT of ThINGs) research project that brings together partners from several of the EIT ICT Labs co-location centres. The FITTING facility enables network researchers to safely and reliably develop and experiment next generation services and applications. Here the KIC has used its catalyst model to support experiments, enhance existing test-beds and by conducting training activities for researchers within its co-location centres. The result? The involved partners submitted a proposal to the French national economic stimulus funding initiative for excellence in major scientific equipment and were awarded EUR 5.8 million for the development of a test-bed federation in France.





> KIC InnoEnergy aims to become the leading engine of innovation and entrepreneurship in the field of sustainable energy and one of the three key cornerstones of this ambitious objective is the implementation of a new European incubator that offers entrepreneurs added value services which cannot be found in today's existing incubators. They will support them in bridging the 'Valley of Death' (gap between venture capital and project finance) and in starting their commercial businesses. This managed process of added value services, called the KIC InnoEnergy Highway[™] was launched commercially in June 2011 and already by the end of 2011, 82 entrepreneurs with business ideas in the field of energy had requested to be nurtured in the Highway[™]. Of those, 27 fulfilled the minimum criteria and are currently in their path towards starting their own commercial businesss.





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