



EIT ICT Labs Annual Report
2014

EIT ICT Labs

Entrepreneurs in digital innovation and education

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Highlights 2014

- ▶ Our ecosystem was strengthened by London becoming a full Node with Dennis Moynihan as Node Director.
- ▶ Management Committee was joined by Chahab Nastar, new Chief Strategy Officer.
- ▶ EIT ICT Labs partnership has grown to 123 partners.
- ▶ Participation as exhibitor at CeBIT in Hannover generated high visibility among 3,500 exhibitors from over 70 countries and over 210,000 attendees.
- ▶ The Annual Partner Event was held in Berlin under the motto "Create for Value" with focus on Call 2015.
- ▶ In our first Idea Challenge year, we received 790 submissions from all 28 EU countries.
- ▶ For the first time we had Summer Schools for all our 8 Action Lines, attracting over 290 participants in total – further strengthening the integration of education and innovation.
- ▶ Our Business Development Accelerator introduced portfolio monitoring tools allowing timely and targeted action to support the development in terms of growth and impact of our activities and start-ups.
- ▶ The EIT ICT Labs hub in San Francisco was opened to act as a bridge between Silicon Valley and our ecosystem in Europe.
- ▶ High Impact Initiatives were started to allow us to mobilise resources behind focused and targeted market delivery with worldwide impact.
- ▶ Our Master School welcomed 240 new students during the Master School kick-off hosted by our partner university ELTE in Budapest.
- ▶ 54 of our first Master School graduates received their certificates during an inspiring ceremony at our partner university UPMC in Paris.
- ▶ The EIT ICT Labs Alumni organisation became fully operational.
- ▶ Maurizio Gabbrielli started as new Head of Doctoral School driving our Doctoral Training Centres (DTCs) focused on our Action Lines.
- ▶ Our Professional School is getting ready to deliver high quality blended professional education programmes focused on the areas of our Action Lines.
- ▶ Our e-learning and MOOC activities delivered initial platforms and modules and will expand to support our schools also in collaboration with KIC InnoEnergy and Climate-KIC.
- ▶ All Nodes organised Results Days, where the results of 2014 activities in our community were shared.
- ▶ In December, our Eindhoven Co-location Centre moved to a new and larger building.
- ▶ The total EIT ICT Labs Co-location Centre Space has grown from 1,000 m² in early 2011 to 7,000 m² today.
- ▶ Successful execution of X-Europe programme aimed at delivering EIT best practices and know-how to the whole of Europe.

EMPOWERING ICT TOP TALENTS FOR THE FUTURE

The EIT ICT Labs Master School, Summer Schools, Doctoral School and Professional School attracted students from all over the globe aiming at breeding entrepreneurial skills.

- ▶ 1,515 Master School student applications for EIT-branded programmes
- ▶ 400 students in total are enrolled in EIT-branded programmes of the Master School
- ▶ 74 EIT-branded Master School students from the 2012 cohort graduated
- ▶ 291 participants in eight Summer Schools
- ▶ 32 Doctoral School student applications for EIT-branded programmes
- ▶ 85 students in total are enrolled in EIT-branded programmes of the Doctoral School
- ▶ 124 students in Professional School

DRIVING EUROPEAN LEADERSHIP IN ICT INNOVATION

Teams within the EIT ICT Labs European network collaborate and drive innovation projects – Action Lines – in various fields. Together with our partners we achieved

- ▶ Incubation of 146 innovations
- ▶ 76 knowledge adoption cases and 45 knowledge transfer cases of KIC-generated knowledge
- ▶ Creation of 18 new companies

BRINGING ICT INNOVATIONS TO LIFE

The Business Development Accelerator supported a number of start-ups and spin-offs, such as Konux, Greeniant, Netmedi, Athom Homey, Ugentec, Nordcloud, Bluemark, and SpazioDati.

Foreword

2014 has been a very successful year for EIT ICT Labs. As you will read in this report, our organisation again made a significant step in terms of growth, results, impact and footprint.



Henning Kagermann
Chairman Executive Steering Board
EIT ICT Labs

Our first Master School students graduated in November, our Action Lines are delivering impressive technology transfers and they show to be fertile ground for creation and growth of start-ups and SMEs. Especially bringing together start-ups, SMEs and large companies in our Action Lines and Co-location Centres drives the creation and growth of new business in a true European open innovation environment.

The geographic footprint of EIT ICT Labs has been further strengthened in 2014. Activities in Berlin, Budapest, Eindhoven, Helsinki, Paris, Stockholm and Trento intensified. London started as a full Node this year and I am happy to see that the establishment of the Node is a true enabler for our UK partners to boost their involvement in our activities. The Madrid Associate Partnership Group is very active and growing its engagement in our activities. Finally, last autumn we opened a hub in San Francisco to connect to the most vibrant ICT ecosystem in the world: Silicon Valley. Through this hub, we will drive the inflow of talent, technology and investments from the US to our European EIT ICT Labs ecosystem.

Our Co-location Centres are at the hearth of our organisation. And I am very happy to see the continuous growth of them. From 2010 till today the capacity of our Co-location Centres has grown by a factor of 7. On a daily basis, we see our students, researchers, business developers, and entrepreneurs intensely working together in a true open innovation spirit. Moreover, the execution of our newly established High Impact Initiatives gives an additional boost to the dynamics in our Co-location Centres.

When looking forward to 2015 and beyond there are important challenges ahead. After a period of fast growth and establishing of EIT ICT Labs we are developing and deploying our sustainability strategy that will allow us to unlock alternative sources of income to secure the long-term development of our organisation. Recent developments have shown both the need as well as the opportunities for diversifying our sources of income. Our strategy will build on our brand reputation, the quality of our work and our impact in the European ICT innovation landscape. It will require us to sharpen our identity, our

positioning at European and national level, our value proposition to our various stakeholders as well organisation.

I have to inform you that 2015 will be the year where my mandate as the Chairman of EIT ICT Labs will come to an end. From my start in 2010 I have seen EIT ICT Labs growing from a plan into a reality. I have truly enjoyed this experience and I feel that we have built something unique. As mentioned, there are challenges ahead and I am convinced that EIT ICT Labs is able to address these and continues to bring the ICT talents and innovations that Europe needs.

Finally, I would like to thank every one of you for all your efforts to contribute to our joint journey that has delivered a strong and vibrant EIT ICT Labs. Without the commitment of all of you at various levels of our organisation this would not have been possible. I am proud of what has been established and once again, a warm thanks to all.

CEO Statement



Willem Jonker
CEO EIT ICT Labs

We can look back on an extremely energetic and successful year for EIT ICT Labs. EIT ICT Labs is all about driving ICT innovation and entrepreneurial education in Europe with high impact via impressive results. 2014 has shown that EIT ICT Labs can deliver on its strategy as laid down in our strategic innovation agenda 2014-2016 "blended life in a connected world".

Create for Value, our motto in 2014. Thanks to all of you, we certainly delivered!

We strengthened our ecosystem by welcoming London as a full Node with Dennis Moynihan as Node Director. We officially opened our Satellite in Sophia Antipolis and we started a Satellite in Milano. The Associate Partnership Groups in Madrid and Budapest gear up their engagement and last but not least end of September we celebrated the opening of the EIT ICT Labs hub in San Francisco that will act as a bridge between Silicon Valley and our European ecosystem.

In April we had our annual partner event, this time in Berlin, facilitating the call for activities that serves as a basis for our Business Plan 2015. The feedback on the partner event in Berlin has been very positive and we have experienced an atmosphere of intense community building, information and experience exchange as well as collaborative work preparing activity proposals in response to the call.

In December, our Eindhoven Co-location Centre moved to a new and larger building. Many of our Co-location Centres are expanding and the total Co-location Centre space has grown from 1,000 m² early 2011 to 7,000 m² today: a direct result from the growing demand by our Node team members, business developers, master and doctoral students, high impact initiative colleagues, marketing and communication team members.

For the first time we organised our Results Days in all our Nodes, where we shared the results of our 2014 activities in our community. These results come from our Action Line innovation funnels where research results, technology, and business ideas are grown and delivered to the market. Result Days were a big success as they showed the strength and the quality of our activities and attracted large audiences.

When it comes to outreach and dissemination we have successfully executed our X-Europe programme that we will further develop in 2015 in the context of the EIT Regional Innovation Scheme aimed at delivering EIT best practices and know-how to the whole of Europe. Dissemination took place via numerous channels such as social media, newspapers, events, conferences, etc. Most notably we had big presence at CeBIT 2014.

This year our business development accelerator has been further strengthened and professionalised; the introduction of portfolio management tools allows timely and targeted action to support the development in terms of growth and impact of our activities and start-ups. We feed our innovation funnels through an open and transparent call process where we select top quality activities with high impact potential.



Innovation ideas from all over Europe were solicited via our first pan-European Idea Challenge that was launched in March 2014 at CeBIT. In our first idea challenge year, we have received 790 submissions from all 28 EU countries. We selected three winners per Action Line and the 24 winning teams will be at our Co-location Centres supported by our business developers.

In the last quarter of 2014 we started our High Impact Initiatives that allow us to mobilise resources behind focused and targeted market delivery with worldwide impact. The agile scrum way of work in the High Impact Initiatives at our Co-location Centres will allow fast and iterative delivery. We ramped up and are all set for a full-blown execution of our High Impact Initiatives in 2015.

Our Master School delivered the first graduates of our EIT-labelled master programmes; 54 of them received their EIT ICT Labs certificates during an inspiring ceremony at our partner university UPMC in Paris end of November. They will, like all of us, be EIT ICT Labs ambassadors and become active members of the EIT ICT Labs alumni organisation that is now fully operational. Our Master School is expanding and in October we welcomed 240 new students during the Master School kick-off hosted by our partner university ELTE in Budapest.

For the first time in 2014, we had summer schools for all our 8 Action Lines, attracting over 290 participants in total and further strengthening the integration of education and innovation as well as the EIT ICT Labs reputation in high quality entrepreneurial education. Participant's feedback confirmed the high quality and professional organisation, indicating that we made a good step towards our ambition to be 'the summer school of choice' in the areas where our Action Lines are active.

In our Doctoral School we welcome our new head Maurizio Gabbrielli driving our Doctoral Training Centres focused on our Action Lines. The Doctoral Training Centres are hosted in our Co-location Centres, thus bringing together researchers, entrepreneurs, SMEs and large corporations.

Our Professional School is getting ready to deliver high quality blended professional education programmes focused on the areas of our Action Lines. Our e-learning and MOOC activities are delivering initial platforms and courses and will expand to support our schools also in collaboration with the two other KICs.

The success of EIT ICT Labs in 2014 is a result of the contributions from everyone in our organisation. During the year I did meet many of you and I like once again to thank you for everything you bring to EIT ICT Labs. Indeed we create, and we do that together, and indeed for value, value we share across Europe and beyond. Thank you all for being part of the EIT ICT Labs value creator.



Strategy

EIT ICT Labs is a leading European organisation for Innovation and Education in the field of Information and Communications Technology (ICT). Our mission is to foster innovative technology and entrepreneurial talent for economic growth and quality of life in Europe.

EIT ICT Labs was established in 2010 as one of the first Knowledge and Innovation Communities of the European Institute of Innovation and Technology (EIT), at the initiative of the European Union. EIT ICT Labs invests human and financial resources in key high-potential activities for the development of ICT business and talent in Europe. The investments are clustered in pan-European Education and Innovation Action Lines – portfolios of thematic activities targeting impactful outcomes.

Action Lines are executed within our European ecosystem of top corporations, SMEs, universities, research institutes and start-ups, and in our Co-location Centres situated in Berlin, Eindhoven, London, Helsinki, Paris, Stockholm, Trento, as well as Budapest and Madrid. We bring together talents, ideas, technologies and investments that turn our Co-location Centres into vibrant hot spots where students, researchers, engineers and business developers cross-pollinate to succeed in the market.

Our Innovation & Entrepreneurship strategy (see figure 1) is driven by our eight Innovation Action Lines: Cyber-Physical Systems, Future Cloud, Future Networking Solutions, Health and Wellbeing, Privacy Security & Trust, Smart Energy Systems, Smart Spaces, and Urban Life & Mobility.



In each Action Line, we select the most promising research results, disruptive technologies and business strategies from our ecosystem and beyond. We package them in Innovation Activities and Start-ups. Our ambition is to drive these innovations to succeed in world markets and become European success stories.

The sourcing of Innovation Activities is through the Call for Innovation Activities. Start-ups are sourced either through the Idea Challenge – the largest European start-up contest in ICT – or through a direct application to the Business Development Accelerator (BDA).

The BDA has a central role in the success of the Innovation Funnel, as it coaches the entire funnel (Innovation Activities & Start-ups) with a focus on access to market – that is, customer adoption. Helping BDA start-ups raise funds via a pan-European investor network is accomplished by the dedicated Access to Finance team.

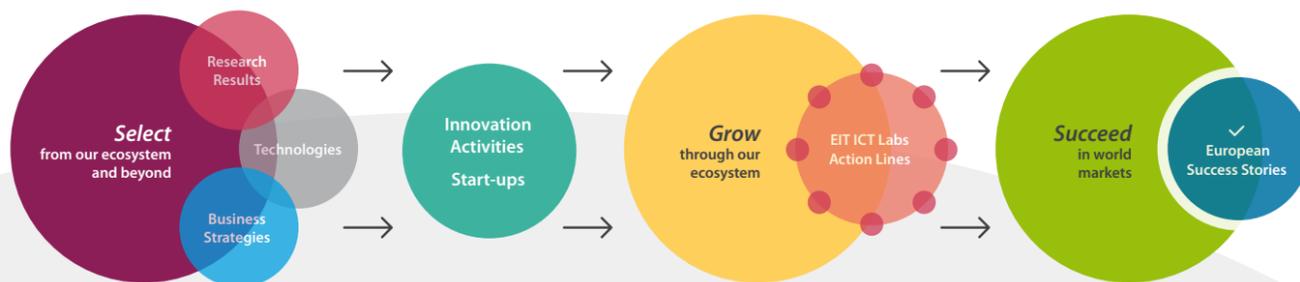


Fig. 1 Our Innovation & Entrepreneurship strategy

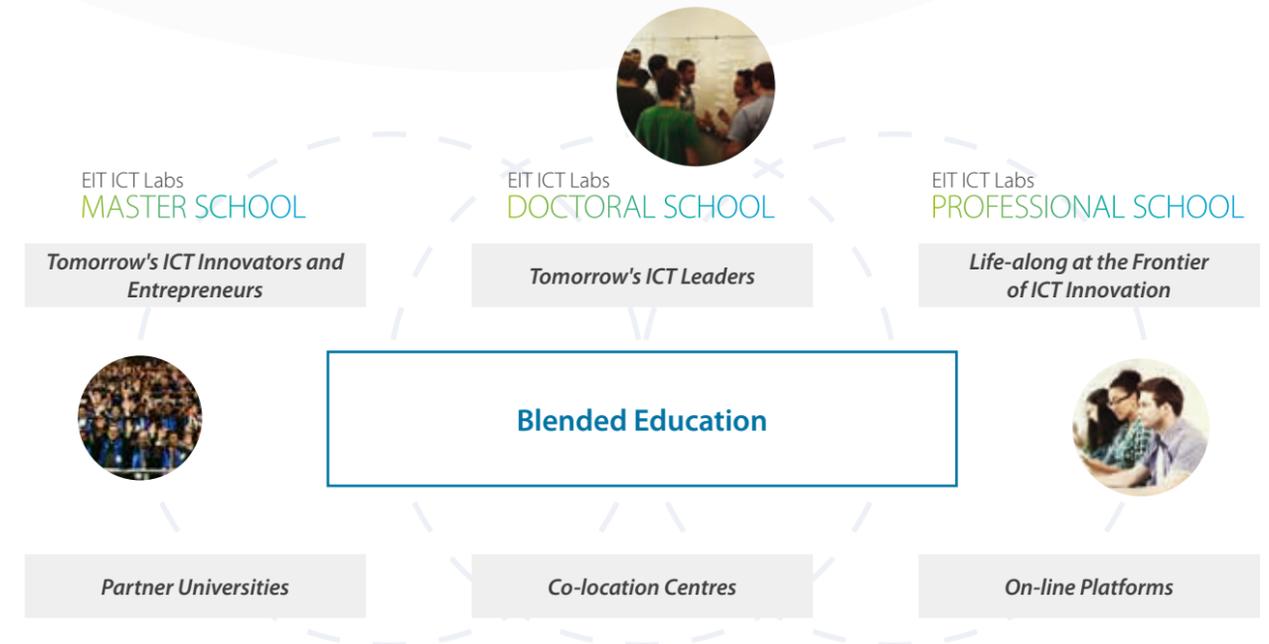


Fig. 2 Our Entrepreneurial Education strategy

To take up the grand societal challenges of our time and to feed the needs of tomorrow's industry, Europe needs a new generation of professionals with both excellent ICT knowledge as well as the capability to transform ideas into products and services. That observation is the basis of our Entrepreneurial Education strategy. Our ambition is twofold:

- ▶ Educate a new generation of ICT thought leaders, innovators, and knowledge workers by providing excellent technical programmes with deeply embedded innovation and entrepreneurship education.
- ▶ Build a strong entrepreneurial education brand via a disruptive and systemic change to European higher education that will attract top talents to Europe.

EIT ICT Labs adopts a Blended Education approach where students develop cutting-edge ICT knowledge merged with innovation and entrepreneurship skills (figure 2). The settings can be physical or virtual classrooms, or combinations of both. This approach yields three Education Action Lines: Our Master School breeds a new generation

of European entrepreneurs, our Doctoral School delivers tomorrow's ICT leaders, and our Professional School keeps European ICT professionals at the front of the ever-changing industry needs.

The education programmes feature a strong European dimension with geographical mobility and frequent team building activities, and are enriched through interaction with research and business activities, made available to students through the national Co-location Centres.



In order to drive Innovation & Entrepreneurship, we select the most promising research results, disruptive technologies and business strategies; we package them in Innovation Activities and Start-ups. Our ambition is for these innovations to succeed in world markets and become European success stories.

Chahab Nastar
CSO EIT ICT Labs

Berlin NODE

In 2014, the focus of the Berlin Node has been to bring innovations to the market, especially along the defined Innovation Areas Smart Energy Systems, Cyber-Physical Systems, and Privacy, Security & Trust. Berlin has become a vibrant place and a European hotspot for ICT start-ups. Therefore, the attention was also directed to strengthening bonds to the start-up scene and networking in the fields of entrepreneurial education and innovation. As a consequence, the Berlin Node enhanced its visibility in the national innovation ecosphere, e.g. at Germany's National IT Summit. Regular meetings, activity workshops, Round Tables and joint Master School classes made the Berlin Node and its Co-location Centre become a pulsating meeting spot for students, entrepreneurs and industry.



The pan-European Idea Challenge played an important role in 2014, since conceptualisation, core project management and marketing were run from the Berlin Node. It successfully kicked-off in March 2014 during a press conference at the international IT fair CeBIT in Hannover. With the goal of fostering entrepreneurship and innovation under the umbrella of EIT ICT Labs, the Idea Challenge reached out across Europe with valuable collaboration of all EIT ICT Labs Nodes. By the end of 2014, it produced 24 winners out of 790 participating start-ups. More than 1,000 articles have been published, 5,000 subscribers of the campaign newsletter received regular updates, and about 100,000 visits were counted on the website. The success of the Idea Challenge was also recognised through a shortlisting at the European Excellence Awards.

The Berlin Node took pleasure in organising the EIT ICT Labs Partner Event in April 2014. Its programme and its theme "Create for Value" focused on the Call 2015. Together with about 400 participants an engaging and productive event took place in the German capital. Presentations on the state of projects, the call process and guidelines, productive talks, numerous start-up success stories as well as several workshops and networking made it an inspiring occasion.

In April 2014, the Berlin Node also hosted the Health and Wellbeing (HWB) Business Community Kick-Off. In total, 19 SMEs from six Node

countries were selected to participate in the 2014 Community. The feedback from the participants was very positive, with many valuable business contacts made, many business leads generated and many follow-up discussions planned.

"We need top IT-talents to support us to work on highly interesting topics. Digitalisation is one of the growth drivers for Siemens. We see strong potential in the field of Industry 4.0 and data-analysis, for example, where we can develop marketable and secure technologies to get a stronger customer value. The Software Campus programme is ideal for us to get to know and to keep top IT-talents." – Prof. Dr. Siegfried Russwurm, Chief Technology Officer, Siemens AG

As a part of the EIT ICT Labs 2014 X-Europe Outreach Programme, the Berlin Node organised "Startup Activation 2014" to support early-stage start-ups in 21 EU-countries outside its established core network ("XEU region"). 23 contest-proven start-ups (e.g. participants of Idea Challenge, Telekom Innovation Contest) qualified for the activities of the business development and promotion programmes "Berlin Residency & Travel Grants". The network extension is key for creating visibility. In 2014, the scouting activities of the Berlin Node were conducted in Poland, Austria and Slovakia with the objective of establishing a network in those non-Node countries through, e.g. workshops on Business Modelling.

Another highlight of the year was the Smart Energy Community event in late October 2014 in Berlin. Organised jointly with Core Partner Telekom Innovation Laboratories it brought together cutting-edge European innovation, industrial players and successful start-ups. About 220 participants discussed recent developments in energy technology and business solutions. Likewise in the focus of the event were the 10 Smart Energy finalists of the Idea Challenge pitching for a total cash-prize of €80,000.

Furthermore, in 2014 the Berlin Node continued the long-standing success project Software Campus. The first graduates of this leadership qualification programme received their certificates at the National IT Summit from Prof. Johanna Wanka, Germany's Federal Minister of Education and Research.

Udo Bub Node Director



Patrick Strating
Node Director

Eindhoven NODE

The Eindhoven Node is a strong driver for new approaches in entrepreneurial Education and Innovation in the Netherlands. The Node and Co-location Centre has become a nucleation point for numerous innovation activities, leading to a hands-on, result-driven and people-centric approach to innovation.

The Eindhoven partnership consists of Philips, Océ, 3TU Federation (TU Delft, TU Eindhoven and UTwente), CWI, and TNO. Affiliate partners are NXP, Holst Centre, University Utrecht, and High Tech NL. iMinds (Belgium) contributes actively to the Node through its Associate partnership. The Co-location Centre (CLC) is situated at the High Tech Campus Eindhoven, a high-tech industrial R&D area. On the High Tech Campus there is innovation presence of, e.g. Philips, NXP Semiconductors, Holst Centre, High Tech NL and TU Eindhoven, and also other international partners such as STMicroelectronics, Intel and IBM.

2014 was an important year for the Eindhoven Node. This is witnessed through the growth of the staff and residents of the CLC, but also in the central role that the CLC takes in events. The Eindhoven Node has become an attractive centre for Health and Wellbeing activities.

New element is the early start of the High Impact Initiative Fit-to-perform executed in the Co-location: this initiative will drive wearable health technology to the market of truck drivers, providing a new approach to fleet management as well as to healthier work conditions for the drivers. The Node has also consolidated its portfolio of Health and Wellbeing-related events: the Health Tech Event, the Health Winter School, the Summer School, and the Health and Wellbeing End-of-Year Event.

The Eindhoven Node extended its education footprint with an increased participation in the Master School, i.a. through the new entrepreneurial Data Science Master, a strong role in Online Education (Blended educations and MOOCs), and the Summer Schools. It also has been successful in providing business cases and internships from the industrial partners to Master School students, as an example of the now established Education-Research-Business machinery.

On 11th December 2014, the new CLC at High Tech Campus 31 was opened by Prince Constantijn van Oranje. The inauguration event included an "Open House" with 24 demonstrations of Action Line activities and start-ups and partners showcased tangible results. The event welcomed 300+ guests.



The new CLC building has an increased floor space of 1,100m² with fully refurbished workplaces, meeting rooms and various video conferencing facilities suited for meetings and event broadcasting. It reflects the ambition of the Eindhoven Node, housing staff members, business developers, project activities, and master and doctoral students. During 2014, the CLC accommodated five start-ups.

Other highlights of 2014 were the Health and Wellbeing Summer School, with around 50 participating students working on industrial cases supplied by industrial partners and SMEs, the Investors' Dinner, where EIT ICT Labs-coached start-ups were connected to investors, and the Health and Wellbeing End-of-Year event that showcased projects results and brought together the Health and Wellbeing Business community.

In 2013-2014, the emphasis was on establishing the EIT ICT Labs way-of-working with a partnership of frontrunners. In 2015, focus will be on broadening the national footprint by connecting more partners, in particular in the industrial domain.

Helsinki **NODE**

During the year 2014, the EIT ICT Labs Helsinki Node significantly grew its volume of activities and its industrial footprint.

Helsinki Node partners are committed to providing high quality entrepreneurial engineering education, bringing ICT innovations to the market, and accelerating growth of the most promising start-ups.

The Helsinki Co-location Centre is recognised as one of the key innovation places on Otaniemi campus, which is the prime ICT hot spot in Finland. The Core Partners at the Helsinki Node – Aalto University, VTT, and Nokia – are located within the same building or within a few minutes walking distance from the Co-location Centre in the Open Innovation House in Otaniemi.

The number of students in Master and Doctoral School has grown and many EIT ICT Labs students have participated actively in the booming start-up scene in Helsinki. Regarding the innovation Action Lines, Helsinki Node partners have focused especially on Smart Spaces, Future Cloud, Future Networking Solutions, and Health and Wellbeing. F-Secure has taken the lead in the KIC's High Impact Initiative on European Trusted Cloud Ecosystem.

Further, two new industry partners have been welcomed to the Helsinki Node. KONE is one of the global leaders in the elevator and escalator industry, and Elektrobit is a specialist in demanding embedded software and hardware solutions for wireless and automotive industries. Both companies broaden the partnership beyond the core ICT industry and have excellent potential to increase impact and market penetration of KIC activities.

The Co-location Centre is a vibrant space where innovation and entrepreneurship are brought to life by daily presence of partners, students, researchers, entrepreneurs, and business experts. The amount of inspirational talks, hands-on workshops, innovation jams and hacking events, high-profile visits, and start-up-driven initiatives has increased dramatically. Helsinki's Co-location Centre has also provided early stage support for

Marko Turpeinen
Node Director

14 start-ups in the areas of the innovation Action Lines. High Impact Initiatives in Smart Spaces and Future Cloud have brought people from the partnership across Nodes to physically work together on key innovation activities. Special highlights have been the visits of Androulla Vassiliou, European Commissioner of Education, Culture, Multilingualism and Youth, and H.M. King of Sweden Carl XVI Gustaf.



The Helsinki Node has been able to significantly increase its general external visibility and the awareness for EIT ICT Labs. The Results Day 2014 focused on bringing forth EIT ICT Labs achievements, disruptive innovation, and key strengths of the partnership, especially in the Innovation Areas of Smart Spaces and Future Cloud.



In 2014, the Helsinki Node has also been one of the key partners of Slush, Europe's largest start-up event, and contributed significantly to its Health track, where EIT ICT Labs showcased 19 European Health and Wellbeing start-ups and two brand new ones that are spin-offs from innovation projects of the Helsinki Node.

London **NODE**

2014 saw the launch of London as a full Node of EIT ICT Labs. Its founding partners are several of the UK's leading university, industrial, and research organisations including University College London, Imperial College, the University of Edinburgh, BT, IBM, Intel, Vodafone, the Digital Catapult, and the Institute for Sustainability.

Celebrating the Node's launch, Kit Malthouse, Deputy Mayor of London, hosted the formal opening of the initial London Co-location Centre (CLC). The CLC is an anchor tenant in the major redevelopment project known as Imperial West, a new £3bn research quarter being delivered by Imperial College in West London. As work progresses into 2016, expectations are that the CLC will re-locate to the new £150m Imperial West Translation Hub which will focus on technology transfer and SME innovations.

The launch of the Node also saw the selection of its first permanent Node Director, Dennis Moynihan. Dennis assumes the role from Paul Jenkins, Head of Strategic Programmes at BT, who served as Interim Director and remains deeply engaged as the Chair of the London Node Steering Board. With more than 30 years' experience in ICT leadership roles, Dennis has served in the private, public, academic, and third sectors. Having worked on smart and sustainable city initiatives in London over the last several years, and serving as a member of the Smart London Board for the Mayor's office, Dennis is closely engaged in the UK's digital innovation community.

The London Node focus in 2014 has been to build momentum, partner engagement, and UK awareness of EIT ICT Labs. Solid strides have been made in each of these areas.

For example, significant innovation activities in 2014 included real-world testing of monitoring and control systems for urban critical infrastructures, and contributions to the standardisation of ultrafast broadband over copper. Also, with strong partner involvement, the London Node began hosting two High Impact Initiatives (HIIs). The first of these HIIs focuses on developing "Trusted Cloud services" while the second is developing "quantified self" monitoring for professionals in high-stress occupations (with long-haul commercial drivers serving as the initial use case).

Node staff have also deeply engaged with the vibrant entrepreneurial scene across the UK. As part of its Business Development



Accelerator efforts, the Node is coaching and hosting two SMEs at the Co-location Centre, the first of many. Node staff are also working closely with partner entrepreneurial initiatives, including Informatics Ventures in Edinburgh, Imperial Innovations at Imperial College, and University College London Business (UCLB). EIT ICT Labs has become a vibrant player in the "Silicon Roundabout" community in London and, looking forward, will further link UK entrepreneurial leaders with the pan-European EIT ICT Labs community.

Hosting numerous conferences, workshops, stakeholder events, VIP visits, and entrepreneurial meetings, the London Node Co-location Centre has already become a vibrant hub for collaboration and innovation.

In 2015, the Node will expand to host more SMEs, more innovation activities, and more collaboration – ensuring that the UK is a strong and exciting part of the EIT ICT Labs community.

Dennis Moynihan
Node Director

Paris **NODE**

In 2014, the French Node reinforced its strategy of anchoring its activities to the national and local French initiatives around innovation.

To realise this, it is taking profit not only from its main location in downtown Paris, but also from its two regional hubs located in Rennes in Brittany and Sophia-Antipolis, close to Nice that was officially inaugurated on May 28th, 2014.

Sophia-Antipolis CLC, inaugurated on May 28th, gives EIT ICT Labs full access to the innovation power of the biggest French Techno Park.



The Paris Co-location Centre (CLC) is at the frontier of Education, Research and Business being located within Inria premises, close to one major university (UPMC), a top Engineering School (IMT) and nearby the main incubators and investors of the Paris region. The Rennes CLC is located at the heart of the main telecommunications centre of competence in France, gathering major industrial and academics of the field. The Sophia-Antipolis CLC is placed within the Techno Park on the newly inaugurated Sophia Tech Campus. They both bring to the Node outstanding opportunities to have access to major industrial and academic actors as well as a huge local ecosystem of start-ups.

More than 650 meetings and events have been organised in the three French CLCs, gathering more than 5,500 participants.



Stéphane Amarger
Node Director

Altogether, the French Node is capturing the vast majority of the ICT innovation capacity in France. This is crystallised by the fact that the four main ICT clusters (Systematic, Cap Digital, SCS and Images & Réseaux) are active members of the French Node.

Based on the strong national and regional imprint developed in 2014, the French Node started to develop the very first actions toward sustainability. It is now getting closer to national and regional instruments with the objective to support their “go-to-Europe” strategy. As an example, the French Node is involved in the Rennes and Sophia Antipolis “La French Tech” initiatives aiming at developing the French ecosystem of start-ups.

The same way, the Rennes satellite is involved in the local PEPITE, the students cluster for innovation, technology transfer and entrepreneurship.

Finally, education is becoming an important activity for the French Node. A new Paris Doctoral Training Centre (DTC) Manager, Hakima Chaouchi (Professor at Institut Mines-Télécom), has been recruited and, as a first achievement, is heavily involved in closing a deal with the French ANRT (National Association for Research and Technology) to block five CIFRE grants per CLC in France to financially support industrial Ph.D. thesis.

A new DTC manager, Yvonnick David, was appointed in Rennes. Hakima and Yvonnick are working in close collaboration to disseminate best practises across all French Node DTCs.

On November 28th, in collaboration with UPMC, Paris Node organised the First Graduation Ceremony of the EIT ICT Labs Master School.

The climax of 2014 was realised with the first Master School graduation ceremony that took place in Paris in autumn. 46 students from 16 different nationalities have been awarded the EIT Certificate and the EIT ICT Labs Alumni Foundation has been officially launched.

Stockholm **NODE**

The Stockholm Node of EIT ICT Labs has consolidated its activities during 2014. Following previous years, the main content focus for the Node partners has been the Master School and the Action Line Future Networking Solutions. In addition, there has been significant involvement in Future Cloud, Cyber-Physical Systems, and Smart Spaces. The Node partners have been very active in the Business Development segment, resulting in tangible innovation outputs. The Master School has continued scaling up the number of students and KTH has maintained its position as a very attractive university within EIT ICT Labs, in part due to the positive attitude and support meeting the students at the Co-location Centre (CLC).



The Stockholm CLC is excellently located in the Electrum building in Kista Science City, the most innovative and ICT-dense area in Sweden. Most of the partners are located within the building or within few minutes walking distance. During 2014, partners KTH and STING have moved all their activities at the Kista Campus into the Electrum/CLC building, significantly enriching the immediate CLC environment with much larger dynamic student start-up populations.

The CLC boosted its activities both in terms of participations in meetings, visits, seminars and events. In total, more than 3,800 participants attended organised meetings, seminars and events in the CLC.

The master student presence has increased, also during evenings and weekends, and the students also arrange their own student-driven professional events in the CLC.

The successful “awareness raising” start-up course developed by STING was successfully repeated with 25 people attending, representing 18 potential business cases. As in the previous year, the Innovation and Entrepreneurship courses given as part of the Master and Doctoral Schools were all taught at the CLC.



In order to reach out to political, business, SME and entrepreneurial communities of the local innovation ecosystem the Stockholm Node co-arranged a number of events together with its local partners. In 2014, a thought leadership conference in the networking area and an outreach event targeting the growing datacentre business have been added. In total, more than 1,900 people visited STING Day, Johannesburg Summit, Cloudberry Day, SICS Software week and the “Mobilize your business” events. As a result of these and other actions, the general recognition and brand name of EIT ICT Labs is now well established in the Stockholm ICT Innovation community.

The largest event of the year was the joint arrangement of the “Stockholm Node Results Day”, the local finals of the Idea Challenge with its Internet of Things theme and the Future Networking Solutions dissemination workshop. Together these events attracted more than 200 unique visitors and filled the CLC with exciting demonstrations for two days.



Gunnar Landgren
Node Director

Trento NODE

2014 was a great year for the Italian Node. The success of Italian partners in the 2013 Call for Activities has led to a greater involvement both at national and local level. The CLC, located in Trento at the core of an ecosystem populated by research, education, industry and start-ups, has tripled its office space, getting ready to host the two High Impact Initiatives assigned to Trento, namely Street Smart Retail and Trusted Cloud, as well as the Doctoral Training Centre that further increases the presence of students on the premises. In addition, the Node has opened a Satellite in Milan at the CEFRIEL premises, a new partner with a strong history of innovation through ICT. The Satellite is the ideal outpost to work in the EXPO 2015 environment. And don't be misled by the year: In 2014 the Italian Node carried out several activities and the EIT ICT Labs name has made the heading of Italian newspaper covering the "Waiting for EXPO" event, where one application developed by the 3cixty activity was awarded as best innovative application for EXPO.

"Telecom Italia considers of great value to be part of the EIT ICT Labs ecosystem. This provides us with a unique opportunity to promote innovation at a European level, connecting with other points of excellence, in line with the European effort in ICT Innovation". – Lucy Lombardi, SVP, Head of Innovation & Industry Relations, Telecom Italia

By the end of the year the Node "stable" population has reached over 15 full time co-located people, almost doubling from the previous years. But this is just the tip of the iceberg. Some of the partners have started to co-locate their people, like Poste Italiane that opened up a cyber-security centre, and FBK that moved their team on security to the CLC premises bringing the total number people in the CLC ecosystem to over a hundred researchers and innovators. Most of the days saw the presence of many more people, be it for meetings, working on projects, or for demonstration of innovative products and services.

"EIT ICT Labs is a booster of innovative ideas and technological solutions for several market sectors. To be part of it is a pillar of our innovation strategy in that it enables reducing the time to market of our research results." – Dott. Orazio Viele, General Director Engineering Ingegneria Informatica S.p.A..



Roberto Saracco
Node Director



During 2014, the business developer team was able to bring several innovative companies to investors and to the market, including the US market in two cases. Last, but not least, the education team managed to boost the number of EIT ICT Labs students in Trento significantly.

Actions went beyond the CLC and the Satellite campuses. Significant efforts were devoted to engage the local ecosystem by being present in a number of initiatives, one of which resulted in Trento being selected as an IEEE Smart City. Likewise, at the national level, the EIT ICT Labs KIC was introduced to the top Italian institutions through a magazine "special issue" and a dedicated presentation at the Italian Parliament. This also resulted in the support of the Italian Government, through the Ministry of Industry and Innovation, to the San Francisco Hub initiative.

Plans for 2015, as the Italian Node steps into a maturity phase, are to improve the attractiveness of the Node by bringing more people to work on the premises – the High Impact Initiatives are a concrete step in this direction – and to leverage on students to create more start-ups out of the results from the innovation activities.

Clearly, 2015 will be dominated by the opportunity offered by the EXPO in Milan where the Italian Node is striving to be an important player. Moreover, Trento will host the 2015 edition of the EIT ICT Labs Partner Event, the flagship event of the KIC.

APG Budapest

The Budapest Associate Partner Group's (APG) mission is to give a boost to the development of an innovative ICT ecosystem in Hungary and in Central and Eastern Europe, being the only EIT ICT Labs centre located in this region. It is a consortium of two local universities, namely Eötvös Loránd University (ELTE) and Budapest University of Technology and Economics (BME), and their leading industrial partners (consortial partners: Ericsson Hungary, Magyar Telekom; cooperating partners: Nokia Solutions and Networks, Cisco Systems Hungary, and General Electric Healthcare). The group is supported by the cooperation with MTA-SZTAKI (Institute for Computer Science and Control of the Hungarian Academy of Sciences) and ELTE-Soft Non-profit Ltd.

A unique feature of the APG is that it builds on the innovative potential of the dynamically developing Hungarian SMEs and start-ups.

2014 was a very challenging and successful year for the APG. One of the biggest milestones was an all-day closing conference of an 18 months research programme. At the „ICT and Innovation” event, researchers of ELTE, BME, and Cisco Systems Ltd. presented the 18 different subprojects in four research areas of innovative solutions and developments in informatics carried out. More than 200 researchers and 60 students participated in the R&D&I projects coordinated by EIT ICT Labs in Budapest and financed by the Research and Technological Innovation Office.

In October, Budapest hosted the third opening of the EIT ICT Labs Master School. Almost 400 participants – and among them more than 250 first year students – met at the kick-off event co-organised by the Budapest team. Regarding the Master School in 2014, 10 students graduated from ELTE, and 14 students started their second year in Hungary.

Tibor Navracsics, the new European Commissioner for Education, Culture, Youth and Sport, visited both the EIT Headquarters and the EIT ICT Labs Budapest CLC in November. During the formal meeting the APG introduced to him success stories from each field of innovation activities run in Budapest. As the first Graduation Ceremony of EIT ICT Labs Master School took place at the same time in Paris, the locations were connected via a video-conferencing system, so Commissioner Navracsics directly greeted the 47 fresh graduates, Europe's future entrepreneurs.

In 2014, more than 140 events with more than 1,500 participants were organised by the Budapest team. One of the main goals was to invite well-known speakers to the Budapest CLC, among them Gary Whitehill, the founder of Entrepreneur Week and Rinus Plasemeijer,

well-known specialist of functional programming. These high prestigious speakers' presentations also helped the APG building its brand of a regional hotspot.

Zoltán Horváth
APG Director



In 2014, the APG was responsible for coordinating the Outreach programme. Presentations were given in several outreach countries, four Hackathons were organised in Hungary, Slovakia, Slovenia and Romania, and outstanding CEE researchers were invited to participate in thematic workshops at the CLC. Eight start-ups from five CEE countries participated in the 2nd edition of BrassTacks, a workshop co-organised with the Hungarian Mobility and Multimedia Cluster for early-stage tech start-ups.

The Budapest Doctoral Training Centre (DTC) had a sparkling year as well. The 15 PhD students benefited from events and training programmes organised at the DTC for offering them further opportunities to develop their skills. Various steps were taken to open up towards other doctoral schools in the region by organising creative workshops.

In 2014, a video-conferencing system was installed at the Budapest CLC to encourage international networking and collaboration activities, and at the end of year the interior design of the office was refreshed to create a feeling of the young and innovative environment.

In 2015, Budapest APG will strengthen its local ecosystem focusing even more on innovation related activities by empowering start-ups.

APG Madrid

The Madrid Associate Partner Group (APG) of EIT ICT Labs leverages the huge potential of the Spanish ICT innovation ecosystem and market by bringing on board leading actors in ICT entrepreneurship, research, and education in Spain. The APG started in 2013 and is coordinated by the IMDEA Software Institute. It includes the Technical University of Madrid (UPM), Telefónica, Indra, Atos, and the Barcelona Supercomputing Center (BSC).

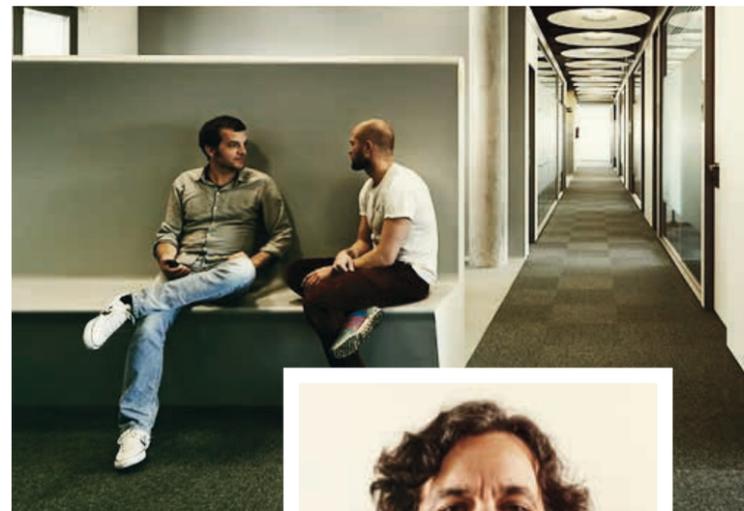
The APG is supported by the Madrid Co-location Centre, which can host a wide range of innovation, research, education, and entrepreneurship activities through its excellent infrastructure and facilities. It is located in the new building of the IMDEA Software Institute, within the UPM's Montegancedo Science and Technology Park.



In 2014, the Madrid CLC has been significantly expanded, increasing its surface from some 200 m² in 2013 to more than 800 m², and including an additional set of administration offices, office space for coached start-ups, additional video conferencing and meeting rooms, as well as work and collaboration areas for students of the doctoral and master programmes that start in 2015.

The Madrid APG has significantly evolved in 2014: Telefónica, Indra, Atos and UPM applied for Affiliate Membership in EIT ICT Labs and were accepted by the Executive Steering Board of the KIC. The new Affiliate Partners now play a direct role as participants in the EIT ICT Labs Business Plan activities from 2015 on and are eligible to receive EIT funding.

The main contributions of the Madrid APG in 2014 have included an increased participation of the Spanish actors in EIT ICT Labs activities, including the development of innovation activity proposals for 2015, preparations for the start of the EIT ICT Labs doctoral and master programmes in 2015, expansion of the Business Development Accelerator with a new business developer, and the organisation of a number of events that have increased the visibility of the KIC from the point of view of the public administration, businesses, and research communities.



Manuel Hermenegildo
APG Director

Some of the key public events (co-)organised by the Madrid APG in 2014 include the national info-day on innovation and entrepreneurship in H2020, presentation of EIT, the KIC, and the Madrid APG at the Royal Academy of Engineers, participation in the South Summit 2014, which is the major entrepreneurship event in Southern Europe, training to and prize awards to the best start-ups developing FI-WARE-based market solutions (as a part of FI-PPP Liaison), the UPM Innovatech Workshop, and the presentation of the I&E-labelled Master Programme in Spain and Portugal.

Outreach & Regional Innovation Scheme (RIS)



EIT ICT Labs started its X-Europe Outreach Programme in 2012-13 with the aim of a) disseminating and promoting its activities in the European countries that are not yet directly involved in EIT ICT Labs and b) providing growth opportunities to the corresponding regional ecosystems by linking them to EIT ICT Labs innovation and education activities. After its initial phase, the programme was brought to the attention of the wider public at the "ICT 2013 Conference and Exhibition" in Vilnius.

In 2014, the programme was provided with more focus and higher volume and was deployed by means of three activities: "Scouting, Mobility and Events", "Student Opportunities", and "Start-up Activation".

The Scouting, Mobility & Events mission was to create the conditions for the other two activities to operate by disseminating EIT ICT Labs best practices and know-how, getting in contact with and attracting relevant local actors (innovators, start-ups, universities, research centres, etc.) and establishing a working model for connecting them to EIT ICT Labs' ecosystem. To these ends, Scouting Mobility and Events co-organised more than 15 events in X-European countries with more than 550 participants. In addition, education fairs and students' conferences were attended, allowing EIT ICT Labs to reach out to more than 340 students and teachers.

Student Opportunities exploited the established network and contacts to stimulate excellent talents from X-Europe countries to apply to our Master School and/or to our eight Summer Schools. The selected ones were then provided specific support through scholarships or grants. By these means, 39 X-European students were granted travel and accommodation stipends for participating in the EIT ICT Labs Summer Schools and 36 new scholarships were awarded to X-European students enrolled in the EIT ICT Labs Master School, bringing the total number of X-Europe students participating in the Master School to 71 at the end of 2014.

Start-up Activation, in turn, took advantage of the established network by systematically linking X-European start-ups and entrepreneurs to the activation and to the entrepreneurial residential programmes and events at our Co-location Centres (CLC), providing them with coaching, access to investors, and pitching opportunities. Through these actions, seven start-ups were awarded grants to boost their business; four start-ups were invited to participate in the Berlin Node's Start-Up Accelerator Programme; more than 10 start-ups were able to participate in the two boot camps organised in Trento (in cooperation with TechPeaks) and in Budapest; 100 start-ups could take part in Helsinki's Slush event (<http://tech.eu/event/slush-2014-helsinki-finland/>). Besides attracting and involving X-European start-ups in its CLC-based activities, EIT ICT Labs organised several activation events and hackathons in X-European countries (e.g. in Maribor, Bratislava, Cluj, Gdansk, Patras, Vilnius, Sofia, Bucharest, Athens, Riga, Copenhagen) providing quick coaching and pitching opportunities to more than 500 participants.

Based on the extensive and successful experience of 2014, EIT ICT Labs' X-Europe Programme in 2015 will a) be further extended by implementing EIT's Regional Innovation Scheme and by targeting local Innovation Centres (accelerators, incubators, regional clusters, etc.) to broaden access to local ecosystems, and b) sharpen its operation by systematically connecting them to EIT ICT Labs' Business Development Accelerator, Business Communities, Access to Finance, and other supportive activities.

Silicon Valley **HUB**

ICT ecosystems are often compared against Silicon Valley and for a good reason. It continues to be the premier hotspot with highly innovative ICT companies, fast-moving and strong entrepreneurial culture, world-class universities, and a very rich set of financing tools and investors looking for “the next big venture”.

EIT ICT Labs Nodes and their partners are already tightly connected with the Silicon Valley ecosystem. Many EIT ICT Labs partner universities have collaborations with top universities such as Stanford or UC Berkeley. Large companies from the EIT ICT Labs network have their own facilities there as well as a focus on research collaboration and technology scouting. In addition, many European EIT-related SMEs and start-ups are expanding their operations to the USA. They may also be seeking for investors in Silicon Valley.

The EIT ICT Labs presence in the USA builds on these existing relationships of its partners and the interests of its entrepreneurs. The aim is to create a strong bilateral connection between the European EIT ICT Labs ecosystem and Silicon Valley.



The outpost represents the European ecosystem, but is also deeply embedded in the local US context of innovators, start-ups, educators and researchers.



During 2014, the first batch of initiatives for the Silicon Valley Hub was planned based on discussions with more than 80 stakeholders in the San Francisco Bay Area.

These collaborations are in the fields of

- ▶ Blended Master School education,
- ▶ Smart Urban Mobility solutions,
- ▶ Software Defined Networking technologies,
- ▶ Research-to-Innovation best practices,
- ▶ Undergraduate student exchange programme, and
- ▶ Business Acceleration for start-ups.

Some of these initiatives were already launched in autumn 2014 and all will be brought up to full speed in 2015. The Silicon Valley Hub was opened in September 2014. More than 120 participants gathered for the Grand Opening with presentations, interactive workshops, official opening ceremony and pitches by 12 European start-ups in the field of Health and Wellbeing.

The event was held in the premises of start-up accelerator RocketSpace, which is also the base for the EIT ICT Labs Silicon Valley Hub office. The opening event was an excellent start in making the Silicon Valley Hub a real bridge between the Bay Area and the EU ecosystem.



Empowering ICT Top Talents for the Future

Innovation drives the global economy and changes ICT professionals' roles very fast. In fact so fast that the higher education in Europe will change and soft (generic) skills will be given more emphasis to handle the dynamism. ICT innovations also both make certain jobs obsolete and create new ones and higher education plays a decisive role to make new graduates and all jobseekers employable.

A higher education revolution is needed where higher order cognitive skills, multidisciplinary thinking and learning by doing guide the design of educational programmes. Do we educate the right students in the right way to create the technically skilled, innovative and entrepreneurial workforce with a sense and spirit for new business that is needed to transform Europe's way of doing things in industry and in society? We work within a global and European infrastructure of universities and the students' success and legitimacy should be secured by national quality assurance and degree systems. These are created and adapted mainly to the faculty's view of a relevant and high quality education within a certain topic or area, not to the labour markets.

EIT ICT Labs was created to make new ICT educations happen: faster and with higher quality in Europe than anywhere else. This demands a certain urgency and at a systemic approach that is sustainable and can be scaled up. The EIT ICT Labs way of education should be a YES to the question posed above and the ways we validate the YES is through applying the EIT Label quality system and adhere to the learning outcomes that form the objectives of our educational programmes.

2014 is a year to celebrate and to remember for EIT ICT Labs: The first cohort of master students graduated. At the graduation ceremony in Paris, the community feeling to be an EIT ICT Labs graduate was strong. The discussions among graduates about future jobs or further studies showed that the graduates knew of their unique competence and its value for any job in any labour market. The first doctoral students did their Business Development Experiences (BDE) and hearing them talk on this makes you see the value of the EIT ICT Labs doctorate in the rejuvenation of European ICT and ICT-intense

sectors. Or simply, the combination of top-notch research and I&E and leadership skills will make them excellent innovators with a unique business sense. The first Professional Education modules were launched. Cyber security experts, healthcare ICT architects, and data analysts were given new perspectives on and provided with competencies within their fields.

2014 was a year when new future developments were becoming a reality. Online education in the shape of blended learning or as fully MOOCs (Massive Open Online Courses) will enhance learning quality and availability. The blended learning was introduced in professional learning and nine blended modules were delivered. Blended learning for the I&E modules in Master and Doctoral Schools was introduced. A production and dissemination team will see to that full-scale implementation in all master programmes will start with the 2015 master students. MOOCs are in production on Coursera and on an EIT European cross-KIC platform. An Embedded Systems MOOP (not course, but a full programme) will reach out to students anywhere and everywhere and give them the opportunity to study the 1st year online and then enter the Master School for 2nd year studies and graduate. This is a unique initiative that will have European and global impact and will be a way to sustainability for the EIT ICT Labs educational model.

In similar fashion, a cross-KIC MOOC on Data Science as a professional learning initiative will teach Europe the strength of ICT and Data Science to use digitalisation in almost all business and societal sectors.

Indeed, education and innovation feed each other to greater societal impact!

Anders Flodström
Education Director



Master School

The EIT ICT Labs Master School is a two-year programme (120 ECTS) at advanced level leading to a double master's degree (moving between partner universities in two countries), including a mandatory Innovation & Entrepreneurship (I&E) Minor (30 ECTS) embedded in eight ICT programmes.

Apart from the re-design of first-rate technical masters programmes at top European Technical Universities, so that they can be integrated with a standardised business minor, the main added values of the Master School are:

- ▶ To provide all students with a strong industrial connection (e.g. mandatory internships)
- ▶ To utilise EIT ICT Labs Co-location Centre resources to link to other EIT ICT Labs activities
- ▶ To facilitate interdisciplinary, inter-Node teambuilding amongst the students.

The programmes and the universities

The Master School students were distributed across seven programmes: Human Computer Interaction and Design, Digital Media Technology, Service Design and Engineering, Cloud Computing and Services, Internet Technology and Architecture, Embedded Systems, and Security and Privacy.

In 2014, a new programme in Data Science was launched that will host students from autumn 2015 on. 20 EIT ICT Labs partner universities have signed formal agreements to contribute to these programmes in constellations of 4-7 universities.

A subset of partner universities offers the first year of study (entry point). Depending on the interest from the students, all universities can possibly offer the second year. The Master School offers highly integrated and tightly structured education with mandatory organisational as well as geographical mobility.

The strong I&E minor

All Master School programmes include a very substantial I&E minor currently fully implemented at 12 universities. Common

learning outcomes are ensured across programmes and universities. Two basic courses in the first year lay the foundation for the Summer Schools and the I&E thesis in the second year. The I&E academic faculty is supported by the local innovation ecosystems at all Nodes. In 2014, the new role of an I&E coordinator for all EIT ICT Labs education was introduced. The focus in 2014 has been to prepare the conversion of the I&E basic courses into a blended on-line form with the purpose to increase quality and standardisation. The blended versions will be launched in 2015.

Brand building, recruitment and admission

In less than three years, the EIT ICT Labs Master School has managed to build a strong brand. The number of registered students has grown from 90 in 2012 and 170 in 2013 to 240 in 2014. The building of the brand is substantiated by the steep increase in applicants from overseas (from 500 in 2012 to 1,515 in 2014).

A unique EIT ICT Labs Master School application portal has been developed and incrementally enhanced aligned with the Master School recruitment website. Local recruitment teams have been established at each university with recruitment of European students as the primary goal. The Master School strives for a balance between EU and non-EU students and the figure for 2014 is 39% registered EU students.

The students

The students come from more than 50 countries and have bachelor backgrounds in computer science, electrical engineering, and computer engineering. In 2014, the share of women increased from 20% to 30%. Apart from a suitable academic background, many students have a serious work experience and a clear entrepreneurial spirit. A majority reflects about their studies in a very mature fashion and seems to have made a very conscious choice of study.



Carl-Gustaf Jansson
Head of Master School



Study performance and quality assurance

A student cannot afford to lose the grip on the examinations. Apart from the normal local monitoring of progress, an early smoke detection procedure is carried out at the end of the first term followed up by an evaluation in early spring as a prerequisite to the allocation of the exit point universities for year 2.

The study results of the first year of study are excellent (90 % performance ratio) and only a handful of students have left the programme for study-related reasons. 74 of the students in the first cohort completed their double degrees and obtained the EIT Label certificate. The two first cohort's average appreciation of their studies is 4 on a scale from 1 (poor) to 5 (excellent).

Team building activities

During the summer of 2014, all students of the 2013 cohort attended two-week Summer Schools organised in collaboration between the Master School and the eight EIT ICT Labs innovation Action Lines taking place in Nice, Eindhoven, Trento, Stockholm, Helsinki, Oulu, and Karlsruhe. This cross-fertilisation between the Master School and the eight innovation Action Lines was a great success.

The kick-off for the whole 2014 cohort of students in Budapest was very successful as well. 240 students plus faculty and admins gathered during three days and got a kick start on business modelling.

In the end of November, 54 students of the first cohort were awarded the EIT Label Certificate at our first Graduation Ceremony in Paris.

The alumni organisation

In 2014, an EIT ICT Labs Alumni organisation was formed well timed to receive the graduates from the first cohort. Students from the first cohort also function as the first generation of officers on the Alumni Board.

The Co-location Centres

The Co-location Centres (CLCs) have developed into valuable resources for the students at all Nodes. At each EIT ICT Labs CLC, the students are invited both to welcome and farewell events. The resources of the CLCs are freely available to the students. This includes both material resources and other EIT ICT Labs related events taking place at the CLC. Through the always open video cafes and other video conference facilities, the students can communicate with the fellow students at other Nodes who they got to know through the team building events.

EIT Label

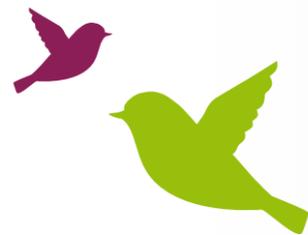
In May 2013, the seven original Master School programmes were granted the EIT Label for four years giving the guarantee that these programmes comply with the EIT Overarching Learning Outcomes, a requirement for keeping the EIT Label. In the autumn of 2014, preparations started for the upcoming midterm evaluation of the EIT Label in 2015.

The Master School Office and management

The Master School Office handles the student issues for all Master School programmes. It handles the admission process, the legal, economic and material issues for all students as well as it functions as a central study counselling resource. As a complement to the traditional forms of student counselling, a community portal has been launched which promotes easy communication among students, teachers and university administrators. The Master School office works in close contact with the administrative representatives from all participating universities. The Master School Management Group (Action Line lead, programme coordinators and I&E coordinator) have monthly face-to-face meetings to coordinate the Master School activities.

Three Main Achievements for the Master School

- ▶ Building a new brand by establishing a uniform education structure manifested in eight programmes
- ▶ Institutionalising this structure through formal agreements with 20 partner universities and showing that the machinery now already for three cohorts
- ▶ Having been able to attract enthusiastic students with the right attitude who also perform on an adequate level and are finalising their studies as complete EIT-Labelled graduates



Alumni Foundation

The goal of the EIT ICT Labs Alumni Foundation is to provide mutual value for EIT ICT Labs and its alumni through a community. The aim is to create a vibrant, active and successful alumni network – a centre of communication and a source of value for all parties involved in this community.

To achieve this, the foundation organises meet-ups and an active community and discussion forum. It also keeps track of alumni careers and supports students and alumni to get in contact with companies, public institutions, and academia. The Alumni Foundation also aims at providing guidance and mentoring for students and alumni.



The EIT ICT Labs Alumni Foundation was formally established in the early autumn of 2014. The first meeting of the Alumni Foundation took place on November 28th in Paris, within UPMC premises. It was co-located with the graduation ceremony for the first cohort of EIT ICT Labs Master School students.

A first Alumni Board with six members was elected including president, vice presidents, secretary, and treasurer.

The objectives that are essential to realising these goals are to:

- ▶ Organise regular meet-ups between alumni, create a vivid and active online community and discussion forum;
- ▶ Keep track of the careers of the alumni, and recognise and honour the outstanding alumni;
- ▶ Create trust, identity and pride within the network and cooperate with third parties with the same objectives;
- ▶ Support students to get in contact with companies and provide guidance and mentoring on study specific matters or when setting up their own venture;
- ▶ Promoting development and sustainability of EIT ICT Labs education and innovation activities.

THE COMMUNITY

To become part of EIT ICT Labs Alumni value community, one either has to have graduated from (or to be currently engaged into) any EIT ICT Labs Education Programme (initially Master School and Doctoral School programmes), or has to have had a formal function in EIT ICT Labs, such as – but not limited to – members of the Executive Steering Board, members of the Management Committee, Action Line Leaders, etc.

Summer Schools

Summer schools are prominent events within the KIC: they provide meeting places for students, researchers and business people, they offer opportunities to get inspired and to communicate new developments, and they are highly visible to the outside world.

The Summer Schools are prime examples of Education, Research and Business: the main focus is to get introduced to ICT innovation in a particular domain – through lectures, but especially through its featuring watermark of group work with hands-on work in Innovation and Entrepreneurship cases delivered by EIT ICT Labs industrial partners, start-ups and SMEs. For the EIT ICT Labs master students the Summer School is a mandatory two-week event where time is devoted to a business plan development project and to thematic presentations, company visits, and social activities.

Cyber-Physical Systems	Trento	30.06. – 11.07.
Urban Life and Mobility	Nice	29.06. – 12.07.
Privacy, Security & Trust	Trento	28.07. – 8.08.
Health and Wellbeing	Eindhoven	03.08. – 15.08.
Future Networking Systems	Stockholm	28.07. – 08.08.
Smart Spaces	Helsinki	10.08. – 22.08.
Future Cloud	Oulu/Helsinki/Oulu	11.08. – 22.08.
Smart Energy Systems	Stockholm/Karlsruhe	18.08. – 29.08.

Tab. 1 Summer Schools 2014



Results

All Summer Schools ran successfully and the participation satisfaction overall was very high, both for the thematic presentations, the hands-on business development projects, and the social activities.

In total, 291 people participated in the Summer Schools, with an average of 37 per Summer School. 167 were part of the EIT ICT Labs Master School. Other participants originated e.g. from regular masters, post-master education and PhD programmes. 39 students participated through the X-Europe Outreach programme. Some Summer Schools also held open sessions, which allowed open participation during selected days of the programme. For example, 110 extra people participated in the open seminar of the Future Cloud Summer School.

EIT ICT Labs intends to build on this success through a new series of Summer Schools in 2015. There will be more master students and more room to give the events an even bigger impact!



In 2013, two Summer Schools were organised in Trento and Eindhoven for the first generation of students of the EIT ICT Labs Master School. For 2014, eight Summer Schools were organised, one for each Action Line. These Summer Schools are listed in Table 1:

A MASTER SCHOOL SUCCESS STORY

SongArc

More than one million downloads!



The highly successful mobile application was developed by an EIT ICT Labs Master School student

The most popular music game app in the Windows Phone Store, SongArc, has been developed by the Hungarian Ádám Kapos, an EIT ICT Labs Master School student at the Faculty of Informatics, ELTE. The app was downloaded more than one million times since its launch in October 2013 and it has received praising feedback. The chief designer of the app, Ádám Kapos got the Software Development BSc programme of Eötvös Loránd University (ELTE). Adam started as EIT ICT Labs Master School student at Aalto University in Helsinki where he got acquainted with developing mobile phone game apps, and currently spends his second year in Budapest at ELTE.

The SongArc success story

"The EIT ICT Labs Master School boosted the development of the music game app considerably, since here I can get a high-level education both in service design and engineering as well as in business development from the best experts of Finland. It was particularly appealing for me that I could study at Aalto University, because Finland has a vibrant start-up scene."

In SongArc, one tries to touch the dropping geometric, colourful forms before they touch the bottom. The forms drop in accordance with the music the player has chosen, creating the illusion that he or she is actually playing the song. Ádám Kapos started studying game development at the ELTE Faculty of Informatics and his first app, RumRun was awarded 3rd price on Microsoft Imagine Cup in Australia, as a member of the Turtle Games team. Turtle Games has created the SongArc programme together with András Velvárt and it was finalised with the support of the Finnish app accelerator AppCampus.



"I always knew that I wanted to be involved in software development. Though every young boy plays with the idea of developing games, I never viewed that as a possibility, as there aren't many places to learn it."

"But I found a course in Hungary at Eötvös Loránd University, which focused on game development for Windows Phone. Joining the EIT ICT Labs Master School has boosted my career; it is surprising for me that I have achieved such a great success already as a student."

For more information go to www.songarc.net

Doctoral School

All the recent statistics show that the number of persons having a PhD title is increasing in Europe, while the number of PhD graduates who remain in the academy is dramatically decreasing. This means that "Universities should also do more to help their Ph.D. students to gain skills and contacts that will come in handy beyond academia"¹. This kind of skills, capacities and contacts are exactly those that the Innovation and Entrepreneurship (I&E) education of the EIT ICT Labs Doctoral School is providing to students since 2012.

Indeed, the Doctoral School produces doctors with an I&E mind-set who also understand current and future challenges and opportunities of the ICT industry. To this aim, The Doctoral School programme includes the following key distinguishing elements: Three I&E education modules to be successively attended during the doctoral studies; One period of six months of mobility; A six months period of Business Development Experience, where the future doctors work in an industrial environment on innovation projects. Specific for the programme is also the presence of the Doctoral Training Centres (DTC) which provides geographic and thematic focus and aim to create a critical mass of doctoral candidates and their supervisors in a single place, near a Co-location Centre, around a few single themes or technologies, and surrounded by an ecosystem of involved industries.



The activities of the Doctoral School are now coming to maturation, with 85 students involved in 2014, six DTCs approved, three DTCs currently being evaluated, 17 universities participating in the programme, and the first graduates expected in 2015.



The I&E education provided by all the DTCs was improved, with more I&E courses offered and their harmonisation and coordination, both in terms of contents and calendar, provided by the Doctoral School offices.

Several students completed the Business Development Experience and in some cases such an experience consisted in the creation of start-ups. It is also worth mentioning that students from the Doctoral School successfully participated in international innovation competitions: for example, a team composed of three students from Trento DTC and two students from Osnabrück won a prize at the Knowledge Works Global Partnership Week organised by Virginia Tech. University, in the USA.

The Doctoral School is currently working on the sustainability of the programme, trying to establish cooperation with companies and national and European funding schemes.

Having such cooperation would allow integrating the grant funding provided by other sources with I&E education, thus providing a sustainable, unique opportunity for industrial PhD education in Europe.

Maurizio Gabbrielli
Head of Doctoral School



¹ There is life after Academia, Nature, Editorial, 3 September 2014.

Professional School

The EIT ICT Labs Professional School keeps European professionals at the front of the quickly changing information & communications technologies. EIT ICT Labs is constantly working on an up-to-date portfolio of cutting-edge blended-learning courses for experts working in ICT-intensive industries or sectors highly influenced by emerging ICT. The blended format meets the demand for efficient learning and training for professionals, under the pressure of job duties. The offering is well aligned with the Innovation Action Lines of EIT ICT Labs.

Professional School Milestones

The Professional School kicked off in 2014 with the development of a set of pilot courses together with an online delivery platform based on the Sakai LMS. In 2015, the Professional School will be expanded to cover all Action Lines.

* Italics = Developed in 2014

Professional School Courses*

Cyber-Physical Systems	Architect of Cyber-Physical Systems; <i>Multicore Systems and programming</i>
Smart Energy Systems	Architect for Smart Energy Systems; <i>Data Scientist for Smart Energy Systems</i>
Smart Spaces	Architect for Smart Spaces; <i>Spatial Thinking</i>
Future Networking Solutions	Industry Expert for Future Networks; <i>Mobile Learning</i>
Future Cloud	Industry Expert for Cloud Business Opportunities; Industry Expert for Security for Big Data; Data Scientist for Big Data
Privacy, Security & Trust	Industry Expert for Cyber Security, Privacy and Trust; <i>Biometric ICT Security; Client Security; Data Mining; Applied Cryptography</i>
Health and Wellbeing	Industry Expert for General Concepts of e-Health and Big Data for e-Health; <i>Evidence Synthesis</i>
Urban Life & Mobility	Data Scientist for Smart Cities; Industry Expert for Urban Life & Mobility; <i>Gaming</i>

Cross-KIC MOOCs for cross-KIC Professional Learning

MOOCs have a massive outreach comparable to social media. Coursera, Udacity, edX and Future Learn have hundreds of thousands of students all over the world. For many reasons, many prospective students see MOOCs as a viable alternative to traditional university studies, especially as a primer for or in combination with on-campus studies. Lifelong learners see it as way to stay up-to-date within their professional fields.

There has been a discussion on MOOCs where it has been stated that Europe needs a European MOOC platform. The discussion is similar to what's been said for decades about that Europe needs a Stanford or a MIT to create the academic and industrial environments created by US Ivy League universities. Different blends of campus and cyber-campus infrastructures will in the future host and promote the activities and interactions among and between faculty, students, and labour market. The right blend for the specific education task enhances the students learning and creates the competencies asked for. The added value is still what the students learn and that the learning outcomes have been reached. In a global world there is no specific European learning. The important issue is that Europeans should learn better at all ages and all phases of (work) life than elsewhere. It is high time for Europe to create a policy for cyber-campus education and it is important and motivating for European educators that a European online quality system is introduced and a degree/diploma/certificate system is a part of it.

EIT ICT Labs, KIC InnoEnergy and ClimateKIC invest in Cross-KIC MOOCs to create an EIT (European) online platform that is based on frontline technical, pedagogical and educational science. There are already European MOOC platforms such as Future Learn, Open University and Iversity. KICs should be instrumental as content providers and demand motivators through partners to create a European eco system for online MOOC professional education. The European solution is not European platform per se. It is the European online professional education eco system.

A mobile learning platform that is developed in collaboration with iAcademy will give an extra dimension to learn while on the move. Together the platforms will allow for educate professionals in formats from short executive courses to full educational programmes for novel professional roles. The Vision is a Europe with the world's best-educated academic professionals.

EIT ICT Labs will use its Silicon Valley Hub to build networks with US online learning providers to learn and interact and use European strengths to compete when it is timely to do so. There will be many new generations of MOOCs and many new online ideas will surface. One can just observe what has happened on the social media arena and education has much more complexity and as a consequence more opportunities.

Bringing ICT Innovations to Life **Business**

The business activities of EIT ICT Labs provide a platform and network for entrepreneurs and SMEs embedded in the local innovation ecosystems of EIT ICT Labs Nodes in line with the goals of the Action Lines to increase their market access, their fund raising capabilities, and their European growth. The main outcome of these activities are European economic growth and creation of jobs through growth of SMEs, new companies creation, strategic alliances between SMEs and large companies, and successfully transferred technologies.

In 2014, the strategic shift from the heterogeneous and separated Catalyst activities towards an integrated European business development approach was successfully finished and the usage of the Business Catalysts within the Action Lines significantly increased.

With that an important milestone was reached towards the goal to establish a unique pan-European Entrepreneurial Ecosystem and Acceleration Programme, consisting of

- ▶ the best well-known European Idea Challenge
- ▶ the most efficient pan-European fundraising team
- ▶ the biggest pan-European accelerator

with an EIT ICT Labs "Coaching Certificate" as a unique well-recognised brand for entrepreneurs, ventures, SMEs and as well investors and large corporations.

The EIT ICT Labs Business Development Accelerator (BDA) is the core of the EIT ICT Labs Business pillar. The heart of the BDA is the management of a funnel of innovation cases toward European success stories i.e. tangible growth evidences. It includes scouting and coaching which lead the global process toward these European success stories and all is about creating connections. It links the Action Lines of EIT ICT Labs to customers, SMEs, entrepreneurs, local venture communities, R&D centres, and major businesses and investors.

In 2013 – the first year – BDA scouted up to 261 start-ups and admitted 81 in the coaching programme. In 2014, these amounts doubled to 438 scouted and 163 admitted. The Funnel Impact Management system for monitoring and tracking the innovation cases is being implemented and filled.

The following indicators are tracked on a short- and long-term base i.e.:

- ▶ € Total revenue increase,
- ▶ # Employees increase
- ▶ € Valuation increase on a short- and long-term basis.

The BDA is flanked by the following two activities:

Access-to-Finance:

This activity is organised around deal-making support organising match-making processes up to one-to-one presentations of start-ups with the European VC community including EIF. It consists of a team of seven carefully picked fundraising experts in all Nodes, having previously worked in VC firms or fund-raiser companies, with a strong experience concerning fund-raising mechanisms, and a good local VC network. In 2014, The Access-to-Finance activity organised:

- ▶ 5 Financial Workshops
- ▶ 11 pitch training
- ▶ 7 Investors Dinners
- ▶ More than 90 ICT start-ups participated in 15 international events in Europe and have been supported by our team.



Finally, the closing of 41 deals for €21m (11 deals and €7m in 2013) was supported by the team. One of the main future tasks will be the connection to the Silicon Valley with the goal to make European start-ups attractive for US-based investors.

Idea Challenge

The EIT ICT Labs Idea Challenge is an EU-wide contest for start-ups with innovative ideas in ICT. In 2014 the contest took place in eight different events all over Europe with each event focusing on a different topic. This activity stimulates the entrepreneurial undertakings of the Action Lines and will further extend the pipeline of the BDA and strengthen the collaboration within the KIC between the Action Lines, the Nodes, and the BDA.



Klaus Beetz
Business Director



Business Ideation

- ▶ EIT ICT Labs Partner Network
 - ▶ Large industrial Academia Research institutes
 - ▶ Eco-Systems around the Nodes
 - ▶ VC Communities

Talent Identification

- ▶ Education
 - ▶ Master School
 - ▶ Professional School
 - ▶ ...

- ▶ Cyber-Physical Systems
- ▶ Future Cloud
- ▶ Future Networking Solutions
- ▶ Future Urban Life & Mobility
- ▶ Health and Wellbeing
- ▶ Privacy, Security & Trust
- ▶ Smart Energy Systems
- ▶ Smart Spaces

- ▶ European Growth Success Stories



EIT ICT Labs Idea Challenge

The EIT ICT Labs Idea Challenge, which was organised for the first time in 2014, is the latest initiative to strengthen EIT ICT Labs' ambition to reach out, identify and support the best start-ups and innovators in Europe. In a joint effort involving all Action Lines and Nodes, the Idea Challenge quickly became one of the most successful initiatives of EIT ICT Labs in 2014.

Every topic had its own final in another European city. The events attracted more than a thousand visitors, including investors, industry representatives, start-ups, and students. High profile juries consisting of members of the EIT ICT Labs management, the Action Lines and the BDA, as well as external experts and investors, had a hard time selecting the best three teams per category.

78 candidates were invited for the 8 final events, and 24 winners were selected by juries with prominent members from venture capital. The winning teams joined the EIT ICT Labs family and were awarded with cash prizes from €15,000 to €40,000, office space in the Co-location Centres, coaching and mentoring from the BDA as well as integration into the Action Lines and the partner network.



More than 1,500 start-ups and innovators from 27 EU countries Europe signed up for the contest. 790 applications were finally submitted in the following eight categories: Health and Wellbeing, Smart Spaces, Cyber-Physical Systems, Future Cloud, Cyber Security & Privacy, Internet of Things, Smart Energy Systems, and Urban Life & Mobility.



In a survey conducted after the contest, 100 percent of the winners indicated that the Idea Challenge helped them increase their international network. 87.5 percent stated that the Idea Challenge helped them grow their customer base.

In addition to integrating 24 amazing start-ups into EIT ICT Labs' network, the Idea Challenge also helped to raise the profile and strengthen the EIT ICT Labs brand.

In more than 50 start-up and technology-related events all over Europe, e.g. EYIF Unconvention, infoshare, Startup Night and CeBIT, EIT ICT Labs reached out to approx. 7,000 persons. Idea Challenge press releases were distributed to 17 European countries in four languages and were also picked up in Asia and the US. More than 1,000 on- & offline clippings reached approx. 20 million readers.

The Idea Challenge has also established a strong and vital social media community:

- ▶ more than 5,000 fans on Facebook with 700,000 page impressions
- ▶ Twitter account with close to 800 followers and over 520,000 impressions in a short period of time
- ▶ more than 6,500 video clicks on YouTube
- ▶ active f6s and meetup communities with approx. 550 subscribers

As additional proof for the success of the communication campaign, the Idea Challenge was short-listed for the European Excellence Awards, the leading Award in PR and communications across Europe.

In 2015, the Idea Challenge will focus on more mature start-ups, and once more try to find the best innovations out there.

The target of EIT ICT Labs is to transform research results into business. To ensure this target, EIT ICT Labs set up their Business Development Accelerator with the main goal of making business from Action Line-related technologies. In its second operational year the Business Development Accelerator continued with up to five full-time business developers per Node at work. These business developers form a team to collaborate on a pan-European level and are connecting the local eco-systems. The team of business developers helps start-ups and SMEs to grow on a European level and beyond with, e.g.

- ▶ **Strategic Coaching** – provisioning of expert coaching to accelerate growth strategies and go-to-market to commercialise mature technologies and innovative solutions.
- ▶ **Access to Market** – Defining and providing soft landing service to accelerate international expansion growth in select European countries and market segments. Supporting the finding of new international customers and partners whilst promoting mature technologies aligned with EIT ICT Labs' strategic Innovation Areas.
- ▶ **Access to Finance** – Providing platform to support access to capital and increase investment readiness with leading investors within EIT ICT Labs network ecosystem.
- ▶ **Office/work space** – Temporary use of office space at selected location in EIT ICT Labs Co-location Centres.
- ▶ **Business community** – Integration in the EIT ICT Labs network, building strategic alliances in the EIT ICT Labs network ecosystem.

The main activity of the BDP team in 2014 was to give intensive hands-on support to typical EIT ICT Labs start-ups and SMEs. During the year, more than 80 companies spread over all Nodes and the Action Lines of EIT ICT Labs received coaching and mentoring from the business developers.



The following success stories prove our ambitions to act as a funnel for both innovation and economic growth.

Greeniant

A start-up success leveraging the EIT ICT Labs pan-European network

Smart meters will play a dramatic role in the future developments of one of the most challenging infrastructure innovations: smart grids.

In several countries, such as Italy, there has been already a massive deployment of such components, but their potential has been used only for remote monitoring and billing. From 2016 on, in Italy, 32 million meters will be replaced and the key point of such a huge investment is to start leveraging this technology at end users' premises and get relevant knowledge on consumption.

This new approach to smart metering must undergo end-users acceptance both on privacy issues and on the presence of new hardware components at their households. According to several key players, such as Telecom Italia, end users – even though interested in accessing dashboards presenting in an easy way to understand their energy consumption – are not keen on having additional hardware.

Starting from these assumptions in the early 1980's George W. Hart, Ed Kern and Fred Schweppe at MIT invented the Nonintrusive Load Monitoring – known as NILM.

In June 2014, EIT ICT Labs Smart Energy Systems Business Developer (BD) Bram Spitzer met a European start-up having developed a NILM solution ready to market: Greeniant. The company was presented to the BDA community and the Italian BD Andrea Conti agreed to support the company and immediately presented Greeniant's solution to Telecom Italia managers. In less than a month the company was engaged in a blind test, which confirmed Greeniant as a promising start-up valuable to be engaged in a field trial for market validation.

In the meantime, Greeniant's cooperation with the BDA team stepped from the access-to-market to access-to-finance phase as the company was going to raise funds to let its research keep developing new features and at the same time consolidate the market approach in order to achieve a commercial impact till that time based mainly on the domestic market.

At the end of October 2014, during the Smart Energy Systems Idea Challenge final and the co-located Business Community launch event, the coaching BDs, Conti and Spitzer with the support of Alain Le Loux from the Eindhoven Node and Paolo Magni from the Trento Node, arranged a meeting between Greeniant and Breed Reply, the IoT Advanced Incubator of Reply spa (Trento Node partner) launched just a few weeks earlier.



After four months of intensive negotiations, where both Andrea and Bram continued playing a supportive role, Breed Reply announced to have chosen Greeniant along with two other ventures among over 130 companies.

This success story confirms the value of the EIT ICT Labs network, which has its roots in its presence throughout Europe with nine Co-location Centres: places where the students of the educational programmes live within an entrepreneurial flavour supported by the Business Developers network, a unique team of skilled and result-oriented professionals, interacting with all major European incubators; and, at the same time, confirms the pan-European value of the EIT ICT Labs ecosystem of investors & customers for high-potential start-ups.

For more information go to www.greeniant.net

greeniant

Konux

Your reliable partner for individual sensor solutions



KONUX has developed and patented a new opto-electronic measurement principle for the measurement of 11 different mechanical measurands, including torque, pressure and level sensors.

KONUX's technology offers many advantages over existing technologies, for instance a galvanic separation between measuring cell and electronic system, very high accuracy, electro-magnetic compatibility, quick reaction time, low complexity of the hardware design and an insensitivity in the face of external perturbations (temperature, vibrations, etc.).

As measurement data is instantly available, KONUX sensors are predestined for connected plant and manufacturing systems engineering as well as the automotive sector. With its technology, KONUX offers sensor solutions tailored to their customers' needs, allowing them to go the next step towards Industry 4.0.

In June 2014, KONUX won the EIC ICT Labs Idea Challenge in the category Cyber-Physical Systems receiving €40k and coaching from the EIT ICT Labs Business Development Accelerator. The Idea Challenge Final Event was co-organised with the Siemens New Ventures Forum, which supported KONUX in establishing first ties with Siemens. Shortly after this initial success, Silicon Valley entrepreneur and Idea Challenge jury member Michael Baum invested \$100k through FOUNDER.org.

Hosted by the EIT ICT Labs Silicon Valley Hub and supported by Business Developers, KONUX went to the US to evaluate market opportunities: Six weeks of intense fundraising and business development have led to an investment of \$1.5m and the hiring of two sales persons.

In October 2014, KONUX has started a three-month cooperation project with Siemens through intensive coaching by the EIT ICT Labs BDA and Siemens Technology to Business.

In less than a year, KONUX has grown from a five-person team to a 25-person operation. For 2015, KONUX is planning their US market entry through a customer roadshow and fundraising for Series A together with the support of the EIC ICT Labs BDA.

For more information go to www.konux.de



Athom Homey

Speech-controlled home automation

Athom is a technology start-up for smart automation at home. Since May 2014, Athom is part of the EIT ICT Labs Business Accelerator. In 2014, Athom turned its idea 'Homey' into a product and started bringing it to market.

Homey is speech-controlled home automation. The Athom solution is easy to use and has a broad connection spectrum; that makes the difference. In the EIT ICT Labs Business Accelerator, the founders got coaching, pitch training and support in access-to-finance that gave them the chance to perfect Homey and to grow their company. The Athom team increased from two founders to a team of nine in the second half of 2014.



From idea to market

To raise seed money the founders, Stefan Witkamp and Emile Nijssen (both then at age 22 and students at the University of Twente), decided to join Kickstarter. In parallel, they submitted Homey to the EIT ICT Labs Idea Challenge in the category Smart Spaces. Athom reached the finals and won the 1st prize which included coaching and seed money that enabled them to develop their product. Next to this, both entrepreneurs raised €203,918 via Kickstarter from 996 backers. The Homey product has already been sold to 361 backers and the first shipment will take place in April 2015.

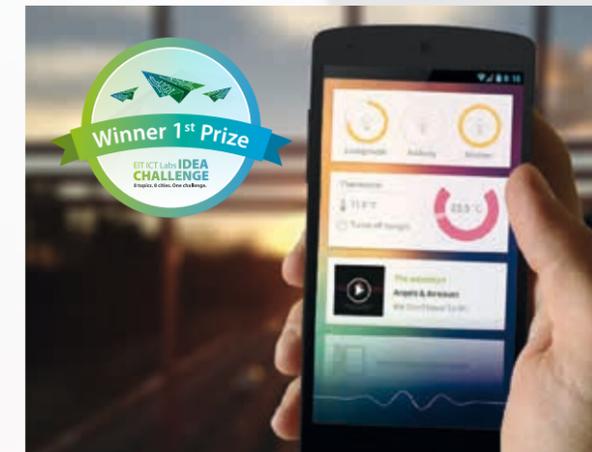
Business Development Accelerator programme

The Business Development Accelerator programme of EIT ICT Labs gives Athom access to investors (e.g. participation in Investors Dinners organised by EIT ICT Labs), feedback on their business plan, personal coaching by experienced entrepreneurs, feedback on the first customer agreements, feedback on the term sheet with the first investor, and last but not least an international network all over Europe.

Recognition: ING start-up of the year 2014

Athom, has been elected as ING Starter van het Jaar 2014 in the on-line election of the ING bank in the Netherlands. In December 2014, 3,768 persons voted for their favourite start-up. Athom won with 1,095 votes. The entrepreneurs and founders of Athom are proud that they may call themselves 'ING Starter of the year'.

For more information go to www.athom.nl



Talk to Homey

You can talk to homey to control every device in your home: from turning on the lights to listening your favourite music or lowering the heating, and much more. It is creating the most complete home automation device by combining a smartphone app for remote control with voice recognition and analytics for in-house interaction. This allows significantly reducing the time and steps needed to control devices. With the device placed at their home, users can control different types of consumer electronics, wireless or not, different brands all together from one central interface – their smartphone. Or, being next to the device, by giving voice instructions to Homey. Homey is the living hub that intelligently connects everything in your life.

Ugentec

The right DNA for a fast growing start-up!

UGENTEC Automated PCR-analysis
Ugentec is a tech start-up that delivers software to support clinical labs with DNA analysis including automated interpretation of the data. Before the existence of the Ugentec solution, the lab scientist had to do this manually.

Moreover, the Ugentec solution is faster and more efficient, more accurate and standardised. Ugentec is working under the assumption that PCR/DNA analysis will exponentially grow in the coming years and will evolve towards solutions closer to the end-user. The company's profile thus fits the focus of prevention that is put forward in the Health and Wellbeing Action Line and since July 2014, Ugentec is included as a tech start-up in the EIT ICT Labs Business Accelerator.



The given coaching that tremendously accelerated Ugentec's business consisted of intensive strategic hands-on coaching, B2B sales training, pitch training, and participation in Digital Health Days in Stockholm and Health 2.0 in San Francisco. Proof of the pudding was the Access to Finance participation in the EIT ICT Labs Investors Dinners in London and Eindhoven.

The coaching resulted in an overall strategy, IT roadmap, go-to-market strategy, pricing model, fundraising strategy, shareholder structure, company organisation, and access to talent. Furthermore, the first VC contacts were set abroad and in the Netherlands and Flanders region. Access to Finance paid off with a closed deal of €100k funds and a fundraising round of €1m that will officially be closed in March 2015. Commercial contacts with the Swedish Bio, Swedish Labtech, and Karolinska Institute were made and the first two customers contracts were signed.

Creating jobs

The acceleration of the Ugentec business is representative for a start-up that found its way from out of the garage into the market.

The founder (Wouter Uten, then age 22) started on his own during his study of ICT-Electronics. After attracting a co-founder and a team member, the business accelerated through the EIT ICT Labs Business Accelerator. At the end of 2014, the start-up had grown from three to five FTEs, and will continue to grow towards a team of 15 in 2015.

Recognition from society

Ugentec is one of the most promising companies in the region that has been recognised by society. Amongst others, Ugentec was selected as Belgian representative for the European Startup Olympics "Get in the Ring" and won the Bright and Young (Bryo) Award in the category Flanders' Future.

About the Ugentec Solution

The Ugentec solution "FastFinder 2.0 analysis software" helps lab technicians in their analysis of PCR data. The software reduces the occurrence of human errors by automatic control checking. Its' high tech core analytical algorithms provides far more accurate and reliable results than the current broadly accepted algorithm of threshold setting. In most cases, validation data is sufficient to efficiently train the algorithms, which allows for fast scaling of the Ugentec platform.

[For more information go to www.website.ugentec.com](http://www.website.ugentec.com)



Nordcloud, the automated Cloud

Cloud services planning, building and management



NORDCLOUD

Nordcloud is the leading Northern European Cloud broker. Large and mid-sized corporations use its planning, building and management services to automate the use of global Cloud platforms.

These include, e.g. Amazon Web Services, Microsoft Azure and Google Cloud Platform. The dedicated expertise of the company enables its customers to gain maximum benefit from these platforms. With the highest standard of security, reliability and service quality that Nordcloud provides, the customers achieve significant and measurable cost savings.

Since August 2014, Nordcloud is part of the EIT ICT Labs Business Accelerator. In 2014, Nordcloud expanded from its domestic Finnish markets to other Scandinavian countries and the UK. In 2015, the expansion has continued to Germany. In November 2014, Nordcloud received Premier Consulting Partner status from the leading platform provider Amazon Web Services. The EIT ICT Labs Business Accelerator has provided support for market expansion to UK by providing grants for customer meetings, assistance in developing a strategy for value-add services, and assistance in developing an application for Amazon Premier Consulting and for further financing.

Cloud automation

Nordcloud's Cloud automation services take into use and configure computing resources just-in-time for the exact needs of current demand. Cost savings are borne as there are no slack resources. Thanks to automation, configurations and patches can be updated to even hundreds of servers at the same time while minimising possibilities for errors. The users can enjoy integrated and flexible availability of IT infrastructure. The Cloud automation connects the different IT needs of corporate functions from the CIO to developers and business owners. Part of

Nordcloud's service is to manage the dialogue process between the functions to achieve such an IT environment that meets everyone's objectives.

From Finland to European wide

Nordcloud was started in 2012 by Fernando Herrera and Pyry Lehdonvirta (both graduates from Aalto University) and CEO Esa Kinnunen to replace the data centre of a corporate customer by flexible Cloud services. The customer needed a professional service provider to manage the use of the Cloud. The first two years of operations the company concentrated on the Finnish market, but started European expansion in 2014. The company has currently ca. 50 employees and its revenue run-rate has passed €10m per year.

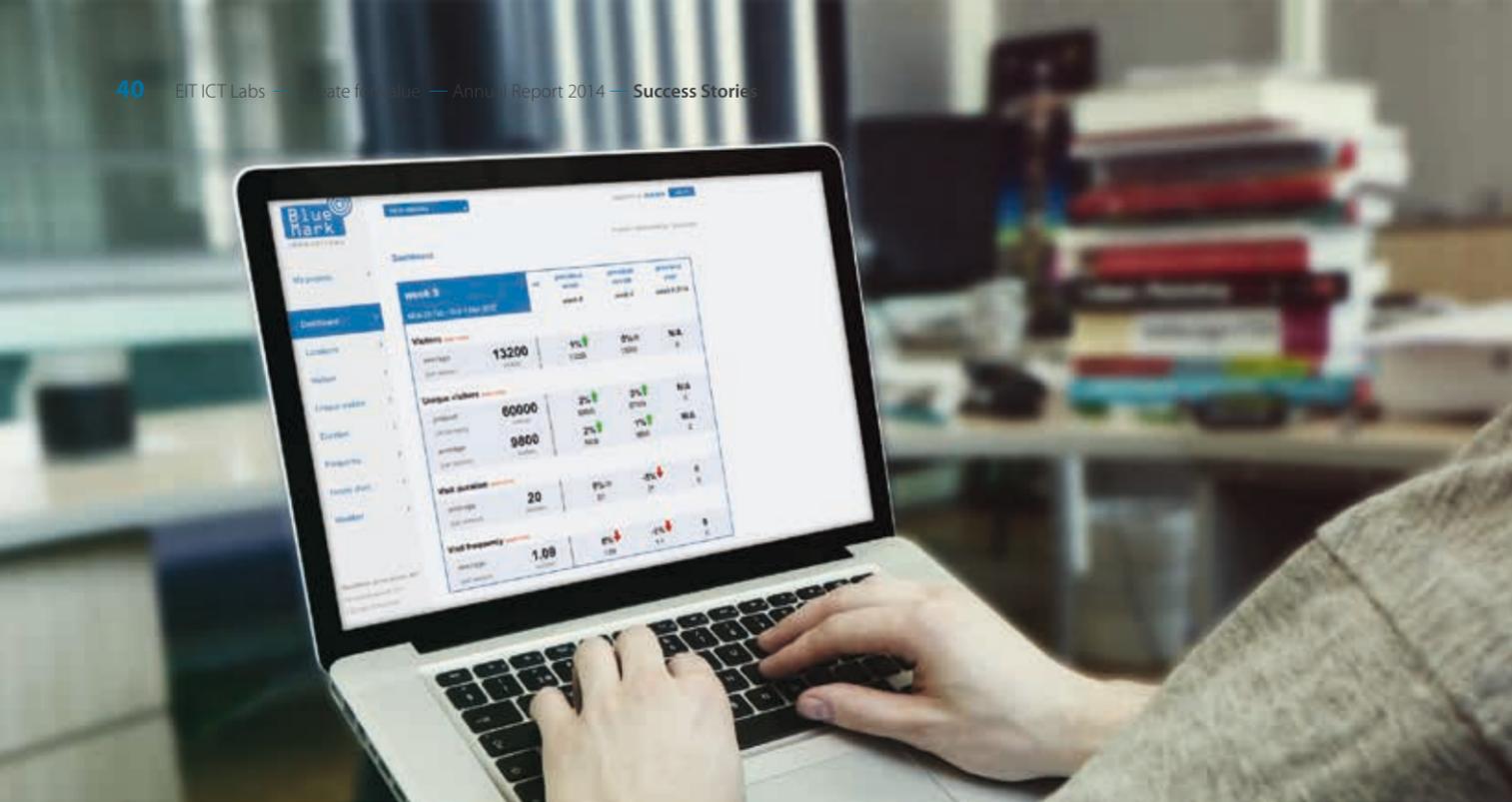
Business Development Accelerator programme

The Business Development Accelerator programme of EIT ICT Labs gives Nordcloud access to investors and business contacts in its European wide network, feedback on their business plan, personal coaching by experienced entrepreneurs, and taking responsibility of running the strategy process of the company. Dr. Jussi Autere, the Manager of the EIT ICT Labs Helsinki Doctoral Training Centre acts as the chairman of the board of the company.

Total funding raised over €3m

To support its fast expansion, Nordcloud has needed external funding. The company has received subsidies from Tekes – the Finnish Funding Agency for Innovation, loans from commercial banks and state-owned Finnvera, and equity investment from three angel investors and one VC fund. The total amount of funding surpasses €3m.

[For more information go to www.nordcloud.com](http://www.nordcloud.com)



Bluemark Innovations

Visitor analytics for the offline world



Bluemark Innovations is a spin-off of the University of Twente and is specialised in tracking people with smart sensors. The retail industry is constantly changing. The customer is changing and 'experience' is more and more the keyword.

Online shopping has a great impact on city centres and shopping malls. To give the best answer on these developments retail companies need valuable information. How many (unique) people are passing the shop, how many people are in the city centre right now, which routes do they choose and how long do they stay? How popular is a city and are the stores performing well?

Tracking of people

With the smart sensors of Bluemark Innovations it is possible to track individual people which are passing a specific point. The system counts the unique MAC-address of a specific smartphone. Every smartphone sends out a signal (=MAC address). This signal is unique to every device. The MAC address doesn't contain any personal information: no names, no phone number or any other personal information

The tracking gives enormous possibilities and answers to questions like:

- ▶ How many people are passing the store?
- ▶ And how many of them are visiting the store?
- ▶ How long do they stay in the store?

- ▶ How many loyal customers do you have?
- ▶ What are the hot zones in the store?
- ▶ What are the popular walking routes?

Business Development Accelerator programme EIT ICT Labs

The Business Development Accelerator programme of EIT ICT Labs gives Bluemark Innovations personal coaching by experienced entrepreneurs, feedback/coaching and fine-tuning their revenue and business model, a network for connecting technicians and potential partners, lots of leads by participating in two international exhibitions (organised by the Action Line Smart Spaces which has a focus on smart retail) and an international network all over Europe.

Huge customer roll-out and buy-in of Bluemark Innovations

In 2014, Bluemark Innovations, based in Enschede, the Netherlands, got an agreement from a big retail chain to place sensors in the surroundings of more than 35 shops all over France (from Paris to Marseille). This gives a lot of visibility of Bluemark Innovations and puts them in the spot-light of being the best technology provider for people tracking. At the end of 2014, a huge retail advisory company agreed with a buy-in of Bluemark Innovations and will roll-out the technology and the smart sensors of Bluemark Innovations in 10 European countries.

▶ For more information go to www.bluemark-innovations.com

SpazioDati

Smart data visualisation



SpazioDati started its activity in 2012 with the support of partner TrentoRise and took its first steps in the Trento Co-location Centre. SpazioDati is a company focused on solutions that allow developers and software houses to easily access data as a service, specialised in managing Big Data and semantic analysis of open and proprietary data from the web and social media.

Their main targets are:

- ▶ company data and economic data – more than 5 million companies and 20 million related company officials managed;
- ▶ common knowledge facts: geo location data, brands, movies, actors, musicians, historical events, politicians, works of arts, monuments, famous products; with more than 50 million facts about approximately 4 million entities.

For instance, one of the disruptive solutions provided by SpazioDati allows the extractions of structured information from short and malformed texts (e.g. tweets, SMS, payment descriptions) seamlessly despite of the language.

The collaboration with EIT ICT labs started in late 2012 – it was one of the first companies to join the network of start-ups of the Trento Node. The year 2013 was spent to analyse the international offer and the appeal of the business proposition abroad with international trips to dedicated events and meetings. 2014 was the year of acceleration in terms of customers, revenues, new markets opening and above all, the round A investment.

With the support of the Access to Finance team of EIT ICT Labs, SpazioDati finalised a €1.3m investment for equity from Cerved Group (a company listed at Milano Stock Exchange), a company leader in the analysis of enterprises and in the development of assessment models for credit risks.

Thanks to the resources provided by the investor, SpazioDati increased the company resources, approached sample customers abroad, and accelerated the development of customised solutions for banks, insurances, Telcos, and media publishers as well as a specific solution on the Business Intelligence vertical.

SpazioDati closed 2014 with a team of 23 people, most of them data scientists and developers and inaugurated the new head-quarter offices in Trento.

Thanks to the current partnership with data providers, during 2014 SpazioDati has proved the validity of the value proposition in Italy with some big clients as well as in some other countries. However, the outstanding growth rate of users coming from abroad, especially the US and UK, points out the business appeal of SpazioDati's value proposition. Therefore, the next strategic actions are all projected towards the internationalisation of SpazioDati's business. The 2015 participation in the Business Community of Urban Life & Mobility will be a privileged channel to accomplish this target.



In October and November 2014, SpazioDati met potential investors, partners, start-ups and clients during a business trip to the Silicon Valley and New York, supported by EIT ICT Labs: they gathered key information about the US market as well as several requests for quotations. Most importantly, they successfully tested their value proposition in a highly competitive environment such as the Silicon Valley where they expect to start a continuous activity in 2015 also leveraging the Silicon Valley Hub of EIT ICT Labs.

▶ For more information go to www.spaziodati.eu and dandelion.eu



Driving European Leadership in ICT Innovation

Research

EIT ICT Labs drives European leadership in ICT innovation through the design and execution of activities allowing its partners to extract value from existing research results. EIT ICT Labs provides orchestration, mobilisation of the needed critical mass of resources, and the active support to maturation, large-scale validation and market launch for new products and services.

The place where these objectives are pursued are our Action Lines, portfolios of innovation opportunities focusing either on sectors with expected high-return and high societal impact – “Urban Life & Mobility”, “Health and Wellbeing”, “Smart Energy Systems”, “Smart Spaces” – or on technology-driven innovation – “Cyber-Physical Systems”, “Future Networking Solutions”, “Privacy, Security & Trust”, “Future Cloud”.

The strong focus and the mobilisation of the needed critical mass produced many value creation opportunities in the course of 2014 that EIT ICT Labs carefully harvested and transformed into new products, technology transfers, successful go-to-market stories, and new start-ups. For instance, focusing on primary prevention, the Health and Wellbeing Action Line delivered two new applications: a mobile system for the early detection of mental decline and the promotion of an active lifestyle, now being marketed by a new spinoff, “Memorizon” (<http://www.memorizon.com/>); a generic software platform, “Personal Fitness Club” for health-related applications, along with the “Personal Fitness Coach” application (nutrition and lifestyle advice), licensed to the spinoff “Gymcentral” (<http://gymcentral.net/>). The Future Cloud Action Line, in turn, invested significant resources in speeding up the development of “Apache Flink™” (flink.apache.org), a European open source distributed Big Data analytics system for expressive, declarative and efficient batch and streaming data processing and analysis. The Apache Flink™ was given “Top-Level Project” status by the Apache Software Foundation and a new start-up, “Data Artisans”

(<http://data-artisans.com/>), was set up in 2014 to support companies in exploiting Flink for Big Data analytics. The Privacy, Security & Trust Action Line has delivered “Freedom”, a service provided through an app users can install on their phones to enjoy several privacy features: anonymous browsing, a virtual location, protection against tracking from advertisers, and protection against phishing. “Freedom” is now part of the commercial offer of “F-Secure” (https://www.f-secure.com/en/web/home_global/freedom). The Smart Spaces Action Line licensed the “ALVAR Tracker” to “Inglobe” (<http://www.inglobetechnologies.com/>) and the “RetailerIN” platform for the real-time tracking and analysis of customers and their interactions with products in stores – now being commercialised by UhoPPer (<http://www.retailer.in.com/>). The “3cixty” app produced by the Urban Life & Mobility Action Line has been officially endorsed by the EXPO 2015 organisation, thus providing a high visibility during the course of the whole event.

As we build our innovations from research results, our activities need to be continuously fed with the best and our ecosystem must stay connected and involve the best researchers from all over Europe.



Fabio Pianesi
Research Director

For these reasons, since 2013 EIT ICT Labs is running a specific programme aimed at systematically involving laureates of the European Research Council in its innovation and educational activities. In 2014, our efforts have made it possible to continue securing their active involvement in our innovation activities and their active participation in our Summer Schools as lecturers.

Not satisfied with the excellent results obtained in 2014, EIT ICT Labs has taken further actions towards increasing critical mass and focus by launching its High Impact Initiatives.

Building on the strong technical skills of many of its partners and Nodes in the Future Internet arena, EIT ICT Labs is contributing to develop and implement sustainability strategies for the Future Internet Public-Private Partnership by a) supporting the penetration of the FIWARE platform in the European innovation ecosystems and b) participating in the definition of the open source legal entity that will maintain and support FIWARE. Our “Incubating Internet Innovation Hubs (I3H)” project (<http://www.fi-ppp.eu/i3h/>) pursues the first objective by setting up a network of Innovation Hubs from all over Europe committed to disseminate and support FIWARE adoption in their ecosystems.

At the end of 2014, the first bunch of 13 accelerators, incubators and innovation clusters was selected and included in our Internet Innovation Hub Incubation Programme.

We are contributing to the second objective by making our extensive (legal and organisational) expertise in setting up and managing a large international partnership available to the FI-CORE FI-PPP project.

High Impact Initiatives (HII)

A High Impact Initiative (HII) is a top-down, strategic, impactful activity that is fully executed at our Co-location Centres by a group of partners as one team – and addressing a grand challenge in an Innovation Action Line. HIIs were launched in 2014 at the occasion of the Call for Activities 2015. In 2015, the four High Impact Initiatives that have been chosen after a careful selection process will further strengthen the role of EIT ICT Labs in the European ecosystem:

- ▶ Street Smart Retail, the HII of the Smart Spaces Action Line, has the goal of bridging electronic and physical commerce in retail and public spaces, applying the benefits of e-commerce also to brick-and-mortar shops and other digital services in public places.
- ▶ Industry 4.0 Powering Europe, the HII of the Cyber-Physical Systems Action Line, will push the rollout of Industry 4.0 concepts successful in Germany to the European space, preparing European manufacturers for disruptive changes in their business.
- ▶ Trusted Personal Data Management with Service Ecosystem, the HII of the Future Cloud Action Line, will accelerate European Trusted Cloud business and ecosystems by allowing greater control over the use of sensitive data.
- ▶ Professionals Fit to Perform, the HII of the Health and Wellbeing Action Line, will concentrate on the economic benefits of ensuring wellbeing and safety for risk-prone professional workers based on cardio-respiratory and motion sensing.

The HIIs show strong commitment from the partnership, reflected amongst others by the high level of co-funding and at the same time exploit the unique characteristics of EIT ICT Labs, amongst other through the complete execution of the activities at the physical EIT ICT Labs Co-location Centres.

Privacy, Security & Trust

In 2014, the EIT ICT Action Line for Privacy, Security & Trust (PST AL) addressed the growing challenges of data security and privacy in cyberspace by five innovation activities, by the summer school "Security & Privacy in Digital Life" under the Innovation & Entrepreneurship education, by the Idea Challenge contest in "Cyber security and privacy", and by versatile outreach and dissemination activities and events.

It is encouraging that the summer school programme attracted a large number of external students and that the Idea Challenge contest received a relatively large number of good quality business proposals by fresh start-ups and young innovators in the field.

Privacy-aware federated digital ID management & strong authentication is the priority 1 of the PST AL. Widely adopted and deployed innovative solutions for secure and privacy-aware federated e-authentication and e-identification of persons, organisations, things, services, etc. will create a basis for more secure, authentic and trustworthy products and services, cross-nationally and nationally, a springboard for trusted personal data management and more trust among people and organisations in Europe.

This priority was addressed by two innovation activities, one related to federated identification of persons and the other to identity and access management of things in the Internet of Things (IoT).

The former resulted in a STORK-based platform for federated identity management which facilitates the creation of new services and business opportunities European wide. It was tested and validated for

the use cases including smart university, e-government, e-passport, smart data sharing, and personal data store. Advanced SIM card technology is used for storing the credentials for strong remote authentication. The topic continues to be addressed in 2015 by another activity concentrating on legal and business aspects, in addition to technological ones.



The latter resulted in the maturation of the so-called TERO-PUF technology for remote identification of embedded chips, contributions to IETF standards on the authentication and authorization in constrained environments, contributions to GSMA on the security analysis of embedded SIM authentication techniques, a proposal of several use cases, as well as the related technology adoptions and transfers.



Data privacy in online/mobile applications, services and communications is the priority 2 of the PST AL. Data privacy is the user's control and the security of sensitive data during their whole life cycle, where the data can be personal, financial, industrial, etc. Losing control of sensitive data in cyberspace may put at risk property, industrial and financial assets, public safety, jobs, liberty, and even life of citizens. If there is no data privacy, then cyberspace will be vulnerable to cyber-attacks, even by less sophisticated attackers. This priority was addressed within the activity focusing on the priority 3 considered in the sequel. It is also specifically addressed by two new innovation activities in 2015, which have the potential to disruptively improve privacy protection in cloud-based ICT applications.

Protection of mobile computing devices against malicious software and intrusions is the priority 3 of the PST AL. Smart mobile devices contain all kinds of sensitive data, including application data, phone

numbers, contacts, location data, credentials for m-authentication as well as industrial secrets and other business data. Mobile devices require timely solutions for strong remote authentication, due to pervasive applications and mobility. They also require urgent solutions for real-time protection against rapidly evolving malicious apps and intrusions that need to be adapted to battery and connectivity constraints. The solutions typically extend to desktop endpoint computing devices. This priority was addressed by the real-time mobile shield activity, which combines three different approaches in two new services and one innovative technology for privacy and security protection on mobile devices. One is the F-Secure Freedom Cloud service for privacy and security on mobile devices, which achieved a great market success in less than ten months in 2014 with more than 1.5M downloads of the client app. The other is the Reply SOG-based anti-fraud service for real-time mobile traffic monitoring, enriched with the mobile device usage profiling client/server software developed by University of Trento. The new, market-ready technology is the TU Berlin high-security virtualisation platform based on a formally verified hypervisor, with secure monitoring of the insecure virtual machine able to detecting and removing Advanced Persistent Threats (APT). The activity continues in 2015, with emphasis on anti-malware protection and market deployment.

Reactive approach to cyber defences was addressed by activity CADENCE, which resulted in SOC-based service performing offline network traffic monitoring and malware detection by statistical anomaly detection tools based on Netflow-level packet inspection.

Jovan Golic
Action Line Leader Privacy,
Security and Trust



In 2015, the activity continues with adaptation to mobile platforms to reflect the priority 3.

Proactive approach to cyber defences was addressed by activity STIATE, which resulted in a matured methodology and an industrial-strength software toolkit for in-depth formal security evaluation of cryptographic communication protocols, mainly targeting government and enterprise sectors. Its market potential increases by broadening the scope to conducting static formal security analysis of any software expressed in terms of sequence diagrams. The achievements also include a highly-rated doctoral-level course and related technology adoptions.



KEY ACHIEVEMENTS 2014

- ▶ **F-Secure Freedom Cloud service for privacy and security on mobile devices, which achieved a great market success in less than ten months in 2014, with more than 1.5M downloads of the client app. It includes anti-tracking, anti-SPAM, IP masking, VPN to cloud, secured public Wi-Fi, etc. Tested by living lab. Improved commercial offering. Developed before, but put to market and enhanced/improved in 2014.**
- ▶ **TU Berlin high-security virtualisation platform SiMKo3, based on a formally verified hypervisor, with secure monitoring of the insecure virtual machine able of detecting and removing Advanced Persistent Threats (APT). Tested by living lab. A mobile solutions provider interested in the technology already found.**
- ▶ **Platform for federated identity management built around STORK 2.0 infrastructure and software toolkit for mobile ID management on advanced SIM card. Implemented and tested for the use cases of smart university, e-government (cadastre), e-passport, smart data sharing and personal data store. Creation of new commercial services in progress. (Telecom Italia, STMicroelectronics, PoliTO, Poste Italiane, Reply)**

Future Networking Solutions

Networking is a core ICT element providing infrastructural support to almost all applied ICT services, and a pre-requisite for executing the applications.

Within the area Future Networking, priority areas relating to key global business trends were selected as prioritised research and innovation activities: Mobile and Wireless Networks, Content Distribution, Software Defined Networks and User friendly generic Internet of Things (IoT). The current mission of Future Networking Solutions (FNS) Action Line is to “Address cost-effective and energy efficient networking solutions to support the increasing traffic, new traffic types, patterns and devices as well improving flexibility to support large demands for instantaneous traffic”.

KEY ACHIEVEMENTS DURING 2014 WERE:

Achievements in 2014 included a start-up creation, e.g. in the SDN activity Cumucore, a number of products being commercialised, e.g. in Adaptive streaming and Backhaul, as well as patent(s) being filed in Mobile Backhaul. Furthermore, a number of technical transfers of knowledge have occurred in most of the activities as well as over 60 standards contributions to different standards bodies, e.g. ITU, ETSI, IETF, etc.

A number of open source software modules have been provided, e.g. in Information Centric Networking.

ETSI – EIT ICT Labs Letter of Intent

We concluded a Lol between EIT ICT Labs and ETSI on the cooperation regarding standards and education, signed on May 28, 2014 in Sophia Antipolis at ETSI's premises. It has already resulted in participation of ETSI lecturers in the FNS summer school and we are pursuing further potential collaboration on SDN test-beds.



5G PPP Liaison

Informal contacts with 5G PPP infra and the Network ETP has been ongoing to foster potential collaboration in future.

Dissemination and Outreach

There was a major dissemination event in Stockholm November 13 and 14, 2014 where we presented most of the results achieved during the year. More than 200 persons were registered and attended the three events during the course of the two days.

Some of the FNS achievements were presented during the Stockholm Results day and the two other events were specific towards FNS, i.e. the Idea Challenge and the FNS seminar.

HIGHLIGHTS FROM SOME OF THE ACTIVITIES

Mobile Backhaul in Heterogeneous Networks addresses the urgent need to efficiently reuse existing infrastructure to cope with the increasing capacity demand. The activity has resulted in numerous standards contributions to different standards bodies and important technology adoptions and knowledge transfers as well as patent but also commercial products.

Technologies and services have been developed for the new dense mobile networks with small cells that are delivering the bulk of the traffic. Backhaul solutions using optical access and the hybrid fibre-copper G.fast technology, both delivering Gigabit rates to base stations and customers have been developed. Services that lower cost and improve the quality of network maintenance have also been developed.

The Backhaul solutions like hybrid FTTH/G.fast can for instance offer savings (compared to full Fibre to the Home) of around €0.5-1.0bn for a city like Amsterdam, over a three years' period.

5grEEen- Towards green mobile networks is about providing energy efficiency to mobile networks and is working on energy metrics in order to be able to assess energy efficiency from a service point of view. A lot of the work has resulted in standards contributions, creating awareness by dissemination activities in various fora. Moreover, a number of knowledge adoptions and technical transfer of knowledge have taken place.

Henrik Abramowicz Action Line
Leader Future Networking Solutions

One major finding is that by using modern base stations and small cells following the traffic a reduction of nearly 90% of energy consumption can be achieved compared to 2010 figures.

Adaptive Streaming's main goal was to develop novel adaptive and network-aware healthcare and entertainment applications and services utilising open-source MPEGDASH framework. The following prototypes were developed and also demonstrated at the EIT ICT Labs Stockholm, Node Results Day and FNS workshop in Stockholm and at Helsinki Node Results Day:

On server side:

- ▶ Hybrid broadcast/broadband scalable video:
- ▶ Hybrid broadcast/broadband sign language video: the player successfully presents the sign language as an overlay of the video with frame accurate synchronization for presentation.
- ▶ Hybrid broadcast/broadband time shifting video

On mobile device:

- ▶ The multipath streaming prototype

Verification of usefulness for health applications was done.

The **M2M RISE** project has produced two demonstrators, 10 KPIs, four Deliverables, 13 scientific papers (nine already published and four submitted), one book chapter, seven master theses, and several workshops and other dissemination events. The activity has demonstrated the M2M communication with actual hardware and software.

Two demos were considered:

1) D2D communication vs. IEEE 802.15.4 where a small lightweight robot has been controlled through Network-Assisted D2D link on a LTE system and IEEE 802.15.4 link where it was observed that D2D has better reliability. A practical application for this use case scenario is in mission-critical systems.



2) Capillary Network: real-time sensing using IEEE 802.15.4-controlled capillary network is done where many sensor nodes are connected to a gateway (GTW). The GTW is connected to the measurement control centre through an LTE network. Those measurements are controlled over the LTE network and sensing is synchronised with defined sampling intervals. A few practical applications for this use case scenario are machine condition monitoring, structural health monitoring and environmental monitoring.

MOSES

The MOSES Activity has successfully created a prototype of an experience sharing application by combining software contributions from research institutions with a commercial communication platform for mobile and embedded (stand-alone) infrastructure devices and designing and implementing – from scratch – an experience sharing application on top, called Here and Now. It is planned to make a field trial of the prototype at the Milan Expo 2015.

The objective of the **SDN** activity is to provide an LTE virtualised prototype which is fully compliant with 3GPP standards and run in both real hardware on the cloud and in virtual environment. This activity has led to a start-up company **CUMUCORE** that developed a Virtualised EPC for mobile networks.

FNS Summer School

The topic of the FNS Summer School 2014 was Internet of Things. The summer school trains students in analysing the implication that a new technology area might have on society, individuals and businesses and teach them to identify emerging business roles and opportunities. The overall ambition is to give the students an understanding for how the FNS technology areas may impact and enlarge the market and industry for communication systems and services.

The main task for the students is to make a business plan. One of the submitted business plans made it to the Idea Challenge on IoT and became one of the finalists.

KEY ACHIEVEMENTS 2014

- ▶ **Mobile Backhaul in Heterogeneous Networks solutions such as hybrid FttH/G.fast can offer savings (compared to full FttH) of around €0.5-1.0bn for a city like Amsterdam over a 3 years' period.**
- ▶ **5grEEen - Towards green mobile networks: by using e.g. modern base stations and densification through small cells and adapting the access network bandwidth to the traffic a reduction of nearly 90% of energy consumption can be achieved compared to 2010 figures.**
- ▶ **Signing of ETSI - EIT ICT Labs Letter of Intent**

Future Cloud

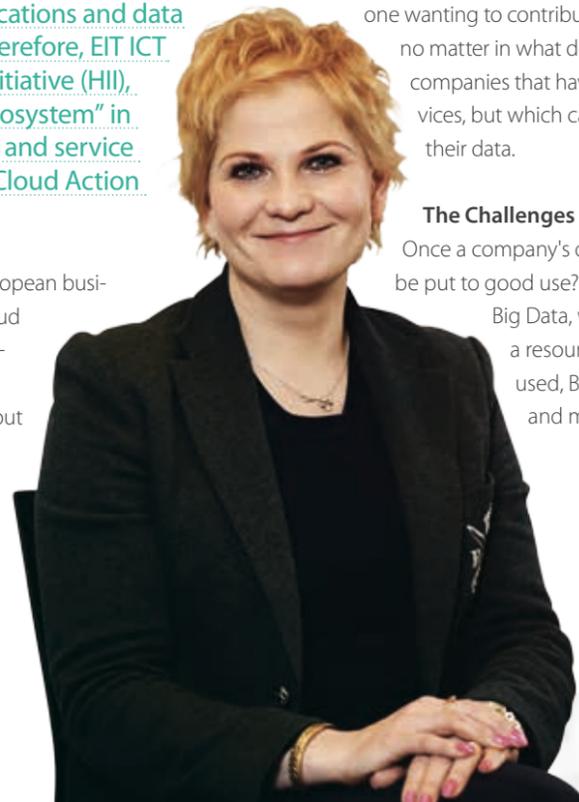
HII European Trusted Cloud Ecosystem

Making the Future Cloud the Present Reality: Cloud computing is not the future, it is the present: it is already vital to a large and growing number of businesses. The cloud drives applications, products and services, and is a key enabler for the fast-expanding world of Big Data-based solutions. It offers greater accessibility and convenience of use, as well as creating an exponential increase in personal and business data, especially with the growth of the Internet of Things (IoT).

However, the astonishing emergence of the cloud has created the need to rethink its impact, especially on security and privacy.

The need to build trust in the cloud – and how this trust can be established within the context of different infrastructures, platforms, applications and data sets – is obvious and urgent. Therefore, EIT ICT Labs launched a High Impact Initiative (HII), the “European Trusted Cloud Ecosystem” in 2014 to develop a trusted cloud and service ecosystem as part of its Future Cloud Action Line.

The project will create a platform for European businesses of all sizes to make use of the cloud without fear of unwanted and unauthorised access to their digital data and content. The HII will be led by EIT ICT Labs, but will see a wide variety of different partners working together to create this trusted European Cloud. Participants include core industrial partners such as F-Secure, Telecom Italia, BT and Ericsson, leading research institutions,



Tua Huomo Action Line
Leader Future Cloud

SMEs and EIT ICT Labs itself, which will put its business development network to good use. Together, these partners will work together to develop a trusted cloud ecosystem and create the tools and services needed to maintain better control over sensitive online data. Once it has been created, this ecosystem will be made available to anyone wanting to contribute to the services on offer in Europe, no matter in what domain – but will be especially useful to companies that have an idea of their need for cloud services, but which cannot yet ensure the reliable storage of their data.

The Challenges of Big Data

Once a company's data is secure in the cloud, how can it be put to good use? The answer, increasingly, is through Big Data, which contains incredible potential as a resource. If proper analytical techniques are used, Big Data can help bring about better and more innovative products and services.



With the growing trend towards cloud-based services, digital data is inexpensive to store, easy to acquire and simple to use in sophisticated analysis to produce valuable business insights. But mining, handling and making sense of vast amounts of unstructured real-time data still represents a significant challenge.

This challenge has been a focus for the Future Cloud Action Line, which has been involved in a number of activities to address it, including the development of novel graph partitioning, clustering, community detection, and gossip learning algorithms to extract structured and valid information from highly unstructured data. These algorithms are now in production by European companies. In addition, the Future Cloud Action Line's work in 2014 has also included:

- ▶ Accelerating the development of Apache Flink™ (flink.apache.org), a European open source distributed Big Data analytics system for expressive, declarative and efficient batch and streaming data processing and analysis. The number of Apache Flink™ contributors is close to 100, including several universities and companies, and interest is growing. Additionally, the Apache Software Foundation has given Apache Flink™ top-level project status.

- ▶ Developing real-time cloud activity: The vast majority of data transferred over the cloud today takes the form of video content. An increasing number of services use video with real-time user interaction such as web video communication, surveillance, virtual set-top boxes and interactive gaming. The success of such services is highly dependent on very low end-to-end latencies. The Future Cloud Action Line has therefore been working to build a unique cloud-based scalable and reliable video analytics and communication system for fast real-time media processing. This technology enables real-time media content visualisation and analysis, thus allowing businesses of all sizes to create rich, high-quality, real-time cloud services without major infrastructure investment. This activity has also contributed to the WebRTC (webrtc.org) work at IETF and W3C.

Working towards multi-cloud environments

As the proliferation of mobile devices continues, so grows the need to serve mobile users in diverse contexts. The convergence of cloud and Big Data has served to promote the growth of data-intensive applications that can be delivered to any device. Low latency is absolutely crucial to these applications, and to this end, the Future Cloud Action Line's activity in multi-cloud data management has developed a complete mobile edge cloud model (based on the ConPaaS stack, www.conpaas.eu) and the flexible migration of lightweight service containers. Potential use cases for this model include data-intensive, low-latency applications in which data is managed across multiple clouds. The work has also supported the creation of the ETSI Mobile-Edge Computing (MEC) group that includes all the major stakeholders in the mobile edge computing space, and forms a basis for the definition of European cross-operator standards. This collaboration between different players in the value chain will enable a myriad of new business opportunities across multiple sectors in the coming years.

Trusted cloud services development requires SLA-aware open standards and solutions to automate the management of multiple

heterogeneous clouds. EIT ICT Labs has accelerated this work, contributing to an open source platform for application deployment under SLA constraints. The results have included new virtual execution platform components and an extension proposal to the SLA OCCI (open cloud computing interface) core model. Benefits of this work for businesses include increased interoperability and customer-focused, SLA-driven dependability across multiple heterogeneous clouds. The technology and standards open new business opportunities in particular for SMEs, which can now utilise a wider range of cloud offerings as part of their solution offerings.

Collaborating in the cloud and beyond

The cloud has become far more prevalent in Europe's business landscape, with its transformational effects spreading into different sectors of the economy and society through innovations and services as well as the emergence of new companies. To integrate the different aspects of this broad spectrum and bring together key players from different fields, the Future Cloud Action Line organised two main Future Cloud symposiums in 2014 which attracted well over 300 participants including students, business experts, venture capitalists, academics and EU policy makers. In addition, the Action Line presented key results at several other events during the year. The Future Cloud Summer School brought together students from across the globe, who in turn evaluated the event as an outstanding experience. The Future Cloud section of the pan-European Idea Challenge start-up contest attracted nearly 80 proposals and produced a high-quality and competitive final, with the winners now hard at work on developing their cloud businesses with the support of the EIT ICT Labs business development team.

With a highly successful 2014 behind it, the Future Cloud Action Line can look forward to an equally productive 2015 in which it will focus on two priority areas: Trusted cloud infrastructures and services, and Big Data and Cloud integration. With its activities, the Future Cloud Action Line will develop and enhance a European trusted cloud platform and ecosystem, and will continue to facilitate Big Data-intensive cloud business development including Big Data analytics, architecture and technology maturation and deployment.

KEY ACHIEVEMENTS 2014

- ▶ **Accelerating the development of Apache Flink™ (flink.apache.org), a European open source distributed Big Data analytics system for expressive, declarative and efficient batch and streaming data processing and analysis.** The number of Apache Flink™ contributors is close to 100, including several universities and companies, and interest is growing. Additionally, the Apache Software Foundation has given Apache Flink™ top-level project status.
- ▶ **The Future Cloud Action Line has been working to build a unique cloud-based scalable and reliable video analytics and communication system for fast real-time media processing.** This technology enables real-time media content visualisation and analysis, thus allowing businesses of all sizes to create rich, high-quality, real-time cloud services without major infrastructure investment.
- ▶ **Multi-cloud data management activity has developed a complete mobile edge cloud model (based on the ConPaaS stack, www.conpaas.eu) and the flexible migration of lightweight service containers.** Potential use cases for this model include data-intensive, low-latency applications in which data is managed across multiple clouds. The work has also supported the creation of the ETSI Mobile-Edge Computing (MEC) group that includes all the major stakeholders in the mobile edge computing space and forms a basis for the definition of European cross-operator standards. This collaboration between different players in the value chain will enable a myriad of new business opportunities across multiple sectors in the coming years.

Urban Life & Mobility

Urban Life & Mobility (ULM) deals with Smart Cities... but there will be no Smart Cities if there are no smart citizens. Emergence of new behaviours – the way people move, work, entertain and socialise – will be at the origin of new upcoming business models. It is not just a matter of technology, but primarily a matter of people. With the use of smartphones and mobile applications, ubiquity is now a reality and instantaneity is a strong daily expectation.

More and more, we become both services consumers and services producers. With social networking, crowdsourcing, and live information we have the chance to turn from passive and consumer-minded individuals to active, collaborative and sharing-oriented citizens.

Enabling a sustainable mobility, improving urban information management, preserving privacy and addressing trust issues, these are the main Urban Life & Mobility Action Line challenges.

In 2014, six innovation activities were conducted, creating opportunities for innovative businesses and leveraging mass deployment of societal innovations, resulting in value creation and renewed city governance.

Connecting Digital Cities

The purpose of the Connecting Digital Cities (CDC) activity is to create a platform for providing citizens with an easy and customised access to mobility-related real-time information and services. The platform gathers real-time data from multiple transportation-related sources (bus, trams, metros, taxis), and enriches it with crowd-sourced data (user's mobile phones, ticketing events, Twitter analytics). In this way, CDC enables the creation of smart city ecosystems using Big Data generated by various sensors, devices and citizens. This information is then processed by suitable building blocks of smart mobility services. As an example, a Park & Ride service was developed allowing drivers to be guided to the most suitable parking and to use public transport services in case of road congestion ahead.



To enhance interoperability and expandability of the product, it was deployed in Helsinki as the initial core of a City Service Ecosystem, based on the E015 Digital Ecosystem already deployed in Milan, including processes, technical guidelines, best practices and core software components.

In 2015, the Connected Digital Cities solution will continue its deployment in Helsinki, and will also be deployed in Lisbon.

FlashPoll

Beside classical means of representative democracy, hundreds of cities, regions, and countries involve citizens and stakeholders in political decision-making through innovative approaches.

Public participation is becoming a central concern for the future of public governance. In the future, every public participation strategy will include a component for mobile and contextualised participation. Furthermore, other economic actors are much interested to get an immediate and live feedback on the services people are currently experiencing.

Knowing what the citizens think of new public infrastructure in their city or region, knowing what the crowd thinks of the organisation or of the performance during a festival, knowing what the customers expect of the new release of a product, are some of the possible applications of FlashPoll. This is a mobile app with geolocation functionality that allows pushing polls at defined moments and places ("right now, right here!"). It is an interactive, two-way system of communication between citizens and decision makers that meets high standards in terms of quality of public participation ("inclusion and non-manipulation"). It can be combined with other forms of public participation and is very flexible ("multiple uses").

Mobile data for Control Room

In the scope of city planning, participatory simulation using gaming simulation is able to change governance of modern Digital Cities, shifting from top-down methods to participatory and interactive decision-making. The combination of Big Data and simulation will become the standard for a collaborative planning to modernise cities, allowing communication and understanding between governing bodies, citizens, experts, etc.

Mobile data for Control Room was tested on three different use cases. The scenario for the city of Stockholm is to change the scheduling of three major universities of the city to reduce congestion in traffic and public transport. In Paris, it has been provided to the Police forces as a



tool to anticipate their deployment, to support their tactical set-up with their shareholders, and to train their officers. In Delft, the product simulated the flow of passengers in a new underground railway station to validate different flow management options.

Smart Cities

In so-called "Smart Cities" activities, the developed application is a public safety crowdsourcing application. It aims to provide better interaction between the users and the system in different mobile scenarios. The system primarily aims at four markets: organisers of large-scale events, theme parks, city administrations, and emergency forces.

Citizen Safety

For similar Citizen Safety use cases, autonomous Internet networks technologies were used, processing locally the data and providing local safety service in emergency situations. This leads to better scalability of the system, and allows availability of safety management even without an available mobile network infrastructure.

3cixty

3cixty is an EIT ICT Labs project developing a platform for applications and services offering a comprehensive views for city visitors.

The 3cixty platform supports the development of (mobile or web-based) applications that exploit a comprehensive urban knowledge base in innovative ways, offering a 360° view of a city. Apps using the platform will enable people to instantaneously access rich and combined information about a city from wherever they are, as it had never been possible before.

Gilles Betis Action Line Leader
Urban Life and Mobility

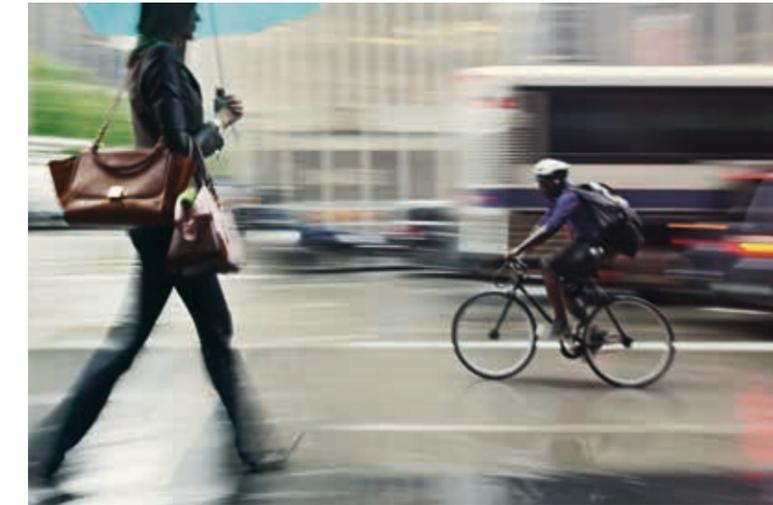
The 3cixty platform was awarded as a finalist at the Smart Communities Award ceremony that was held in Milan on October 23rd at SMAU, the most important Italian event dedicated to Information and Communication Technologies.

The 3cixty services have been made available in October and November 2014 for a Students Apps Challenge, which included several categories of entries, ranging from implemented apps that use one or more of the 3cixty services to design ideas for novel and ambitious 3cixty apps. The winner in the Design Contest was "Hear & Walk", submitted by Marco Spadafora (Politecnico di Milano, School of Design), who proposed an app that integrates the 3cixty platform with social data coming from social networks and enables users to identify the most interesting places to visit according to the "voice of the crowd". This design was found sufficiently promising by the Telecom Italia team within 3cixty to serve as the basis for the development of a commercial product.

The added value of these services is being showcased in the application "ExplorMI 360", which has a web-based and a smartphone component and which will be extended in early 2015 to include content specific to Milan's EXPO 2015. In 2015, the platform will be deployed on London, allowing the development of innovative exploration services at Queen Elizabeth Olympic Park.

During two weeks in Sophia Antipolis, 44 students originating from 18 universities and representing 27 different nationalities attended the Urban Life & Mobility Summer School. 25 prestigious lecturers were invited to speak and share their experience, and the students worked during one week on eight business cases, provided by academics, industry, and start-ups.

Some of the Summer School use cases resulted in proposals to the ULM Idea Challenge, and amongst the 189 submissions to this innovation contest, one was part of the ten finalists who pitched their idea in London on November 20th, 2014.



In 2015, one of the major challenges for the ULM portfolio will be the launch of the ULM Business Community, materialising the final step of the transition from technological innovation to societal and business innovation for innovation activities and coached start-ups.

KEY ACHIEVEMENTS 2014

- ▶ A new intermodal application for real time management of Park & Ride in Helsinki
- ▶ Crowd Prediction, a start-up created to develop FlashPoll market
- ▶ ExplorMI 360 will be the ideal e-companion to help visitors organising their time in Milan during the Expo 2015.

Cyber-Physical Systems

HII Industrie 4.0 Powering Europe

In 2014, the Action Line Cyber-Physical Systems (CPS) launched a number of new innovation activities to focus on its two new priority areas. In “CPS for Smart Production” we are recognising the importance of manufacturing for the European economy, and our goal is to improve production system efficiency and robustness.

In “CPS for Critical Infrastructures”, where the added benefit of CPS is most relevant for society, we aim at enabling the creation of novel, efficient mechanisms for urban authorities to interact with their infrastructures, and provide ICT-based solutions for the Intelligent Transportation Systems and Connected Car markets.

Towards smarter factories and production systems

Addressing the “Smart Production” priority theme, the activity “CPS for Smart Factories” implemented software/hardware controllers that can detect anomalous behaviour of CPS in various application domains: industrial robot arms, car manufacturing, steel industry, and assembly lines in general. The over-arching challenge tackled by the DFKI-led activity is to combine CPS safety and performance. This is particularly relevant in settings where humans become an essential part of the cyber-physical system, such as in the interaction with a robot. Because humans are unpredictable, anomaly detection has to account for humans as producing such anomalies. The technology developed by activity partners will be further exploited commercially through a new spin-off company. Based on semantic web tools for ontology creation, manipulation, and exploitation, the activity has developed a smart factories knowledge portal infrastructure as a basis for providing various instances of anomaly detection components. In the context of steel production in a hot rolling mill new business scenarios and models have been analysed that will help to successfully position the new technology on the market by incorporating potential changes in the production processes.

[The activity “cPAS – Cyber-physical Production Assistance System”, led by our partner Siemens, contributed to a better information transparency in logistics and production networks.](#)

Recent technological innovations in the field of smart products and cross-enterprise eventing mechanisms were combined to a cyber-physical Production Assistance System for increased robustness in production planning. The activity developed a dedicated cPAS platform that uniquely combines cross-enterprise eventing with digital product memory technology as well as a smart object virtualisation component that allows for the Cloud-based virtualisation of product memory data. The technologies were tested and demonstrated in a concrete setting of factory hardware, and possible vendor business models and exploitation plans were analysed based on the technological grounds of the cPAS platform with a focus on the automotive industry. Supported by the team of the Business Development Accelerator, a survey was conducted with major players in the automotive industry,

Holger Pfeifer

Action Line Leader
Cyber-Physical Systems



such as Daimler, BMW, Volvo, Fiat, and others. In 2015, the cPAS activity will merge with “CPS for Smart Factories” to combine the cPAS platform with the detection of anomalies and unforeseen events.

The overall goals of the KTH-led activity “CPS Integrated Information Engineering (IIE)” activity have been to create business opportunities through information integration across CPS development and production. In order to enhance the understanding of integration needs, drivers and barriers, IIE has developed an Innovation Roadmap for information integration. To overcome integration barriers, IIE has developed support tools, pursued industrial case studies with industrial partner Ericsson and a Swedish SME partner, and promoted open standards and best practices. The activity has been maturing methods and techniques for defining how to access distributed information, across the CPS product lifecycle, in order to stimulate a wealth of opportunities to visualise data, create reports, perform analysis and reuse data. The approach builds on open standards building on proven Internet technology, in particular OASIS OSLC. By the creation of dedicated adaptors integration becomes possible even, if individual tools and data sources are not directly compatible. IIE has added to new business for the SME partner by empowering it to contribute solutions for CPS development. OSLC developments and related support tools have been adopted beyond the activity by one other SME and collaboration has been initiated with several large CPS companies including ABB, Scania, Thales, and Volvo.

For more reliable and better managed critical infrastructures

The activities in the priority area “CPS for Critical Infrastructures” contribute to reliable operation and intelligent management of large-scale infrastructure systems for improved service delivery and resource efficiency, including highly reliable Wireless Sensor and Actuator Networks (WSAN). Federating disparate, heterogeneous Cyber-Physical Systems will enable the creation of novel, efficient mechanisms for infrastructure monitoring and control, leading to improved efficiency across the services and utilities sectors in future cities.

[Addressing these goals, Imperial College London has led the activity “Intelligent Integrated critical Infrastructures for smarter future Cities \(I3C\)” to develop new solutions for intelligent \(remote and federated\) monitoring and control of natural and built environments.](#)

Building on the results of two existing research projects I3C developed two demonstration cases: methods for the autonomous adaptive control of lighting systems in tunnels were deployed in the Trento “smart tunnel” (an established EIT Living Lab); in collaboration with a partner SME, heterogeneous, networked, energy-autonomous wireless sensors were applied to monitor the structural integrity of the Pont de la Poya, a cable-stayed bridge in Freiburg, Switzerland. Sensor data from these monitoring systems were interfaced with an “Information Spine” system developed by the industry partner BT, which can be used to visualise and interpret various aspects of the sensor data.

The objective of “RICH – Reliable IP for time synchronised channel hopping networks” is to enable reliable IP-based communication from Swarm to Cloud for critical infrastructures. RICH developed and matured technology to accelerate the availability as a product of an integrated communication network stack that provides increased reliability, low power usage, and deterministic behaviour. The open-source developments were ported to a microcontroller provided by the activity lead partner NXP, and the technologies have been demonstrated in a Smart Grid application scenario. The silicon developed was also shared with the I3C activity for adoption in their prototype development.

Through the activity “Reference Communication & Application Platform”, NXP and its partners pioneer the field of connected and cooperative traffic services, a domain in which significant sales can be expected during the coming years. The activity developed a small form-factor secure communication platform for car and roadside connectivity combining cellular and short range communication technology and applied it in both a roadside infrastructure platform and in-vehicle.

The market-readiness was demonstrated by a set of EU-prioritised “Day-1” use-cases, such as preventive safety, traffic efficiency, and emergency. The developed technology is fully standards-based and supports decision-makers in the trade-offs on technology choices, especially regarding the choice of communication technology and standards.

In addition to the innovation activities covering the CPS priority fields, the Action Line also carried out activities with a focus on entrepreneurship and education.



The “Technology Acceleration Platform” activity, led by fortiss, designed and prototyped a platform for matching start-ups and SMEs with industrial technology leaders. Moreover, a training programme for young entrepreneurial teams was developed to evaluate technological results from research projects for their business potential, identify real business cases, and guide the teams towards developing a roadmap for commercialisation,

start-up creation, or licensing. The programme integrates proven innovation instruments from Fraunhofer, UnternehmerTUM, TU Munich/CDTM, and Siemens (Technology to Business) for developing novel business and growth opportunities. Two cycles of the programme have been bootstrapped with several teams, one of which subsequently won a German start-up prize (“IKT Gründerpreis”).

The Technology Acceleration Platform also contributed to the CPS edition of the EIT ICT Labs Idea Challenge, an idea competition for early-stage start-ups. 57 submitted ideas were reviewed and nine finalist were invited to Munich to pitch their business ideas. In addition to receiving prize money, the 3 winning teams, KONUX, Kinexon, and 3YourMind, were integrated into the BDA programme and the CPS activities. The CPS finals of the Idea Challenge took place as a joint event with the “Siemens New Ventures Forum”. The bridging element between the events was a start-up fair. A total of 22 European start-ups presented their business ideas, prototypes and products on stands throughout the day. 162 guests (industry experts, VCs, business angels, members of the EIT ICT Labs and the Munich entrepreneurship ecosystem) visited the fair and discussed potential collaborations with the start-ups.

The theme of the “CPS Summer School” was about ways of applying the currently available CPS techniques in design, analysis and deployment of CPS in everyday life and business activities.

The school aimed at giving participants the basic knowledge about the technological state of the art and trends in the CPS domain together with the Innovation & Entrepreneurship skills needed to perform customer and business development on their own innovative ideas in a CPS context applied to a societal relevant thematic area. The CPS Summer School was organised by our partners Fondazione Bruno Kessler and Trento University. During two weeks, the students gathered in teams, generated and refined their own ideas, pivot when needed, and developed their own

seminal ideas until becoming well contextualised business ideas. The teams developed clear descriptions of their innovative idea and the problem they were supposed to solve, the relevant market, competitors and unique sales proposition, business model, cash flow and needed competences to execute the plan. On the last day the teams presented their ideas in front a business panel.

Finally, an “end-of-year” event was organised to disseminate the achievements of the Action Line’s innovation activities to both to internal and external participants.

One of the main objectives of the event was to enhance the take-up of the results by various stakeholders in and out of EIT ICT Labs, and also to support the formulation of the Action Line strategy by interaction with key stakeholders.

The event took place at the Fraunhofer headquarters in Munich, and the programme consisted of keynotes and presentation by innovation activity leaders, a start-up panel and fair, as well as workshops dedicated to the priority areas of CPS for Smart Production and CPS for Critical Infrastructures. 67 participants from both EIT ICT Labs partner organisations and external institutions came together to discuss how production processes can become more interconnected and more intelligent and what it takes to enhance the intelligent monitoring of critical infrastructures and how large industrial players, research institutes and SMEs can collaborate in this setting.

Investing in a High Impact Initiative on Industrie 4.0

In September 2014, the CPS Innovation Area started a new High Impact Initiative (HII) “**Industie 4.0** powering Europe”. The activity will push the rollout of successful **Industie 4.0** (I4.0) Cyber-Physical Production System concepts to the European space, connecting embedded system production technologies and smart production processes. The High Impact Initiative will thus make the first steps towards seizing the opportunity to increase productivity, flexibility and quality in many different economic regions of Europe. In

2015, the HII will implement first pilot modules in real-world production plants in France and Italy, and corresponding new business model application cases will be developed. In preparation for these technology transfer steps, an inventory of experiences and results created by relevant I4.0 projects and initiatives has been collected, resulting in a consolidated overview and clustering of generic I4.0 technologies. An existing production cell has been enabled regarding cyber-physical capabilities as a touchable core of the HII. The technical state of the art, the localised surrounding conditions in France and Italy as first transfer partners have been analysed. The HII activity is led by Siemens and is chiefly executed from our two Co-location Centres in Paris and Munich.

The challenge of this High Impact Initiative is to develop a true European (business-oriented) approach based on the Industrie 4.0 concept and able to adapt and encompass the national particularities across Europe.

KEY ACHIEVEMENTS 2014

- ▶ **Developed a secure communication platform for connected and cooperative traffic services;**
- ▶ **demonstrated a sensor-based monitoring system for critical infrastructures together with a visualisation tool for data analytics as a solution for decision makers and city planners;**
- ▶ **implemented a Cyber-Physical Production Assistance System contributing to improved information transparency in logistics and production networks.**

Health and Wellbeing

EIT ICT Labs' Action Line of Health and Wellbeing supports the EU 2020 challenge to increase labour participation and independent living by two years. We believe that accelerating ICT-enabled breakthroughs into the Health and Wellbeing market is one of the paths to overcome this EU 2020 challenge. The focus of the EIT ICT Labs Action Line Health and Wellbeing is on primary prevention areas where regulation barriers are less strict.



Jean Gelissen Action Line
Leader Health and Wellbeing

"ICT-based solutions have to improve the quality of life by giving people the chance to live an uncompromised, comfortable, safe, and active life including independent living and avoiding social exclusion at an advanced age."

An ounce of prevention is worth a pound of cure

Never smoking, maintaining a healthy weight, exercising regularly, a healthy diet, are lifestyle factors associated with as much as an 80 percent reduction in the risk of developing the most common and deadly chronic diseases. Apparently the risk factors of the leading health conditions are highly behaviour-related. Reducing the demand for expensive healthcare by detecting small physical and mental health issues by suitable lifestyle interventions early avoids larger health problems at a later stage in life. In other words: investments to accelerate ICT innovation in Health and Wellbeing will pay handsome dividends not only in generating very viable and worthwhile opportunities, but also in creating more affordable and quality of life preserving healthy ageing.

Achievements 2014

The Cognitive Endurance activity delivered value through a new attractive mobile application for detection of mental decline at a very

early stage and reducing the progression of mental decline via promotion of an active lifestyle. EIT ICT Labs supported the go-to market of the activity. As a result the spinoff 'Memorizon' will bring the 'bwell' product to the market in Q1 of 2015. (<http://www.memorizon.com>)



The Virtual Social Gym activity developed into the Personal Fitness Club, a fully functional generic software platform for health-related applications. A Personal Fitness Coach application, nutrition and lifestyle advice is included. Targeted on are elderly people, living in nursing homes or at home.

A successful pilot has been conducted and the concept of the technology has been licensed to the spinoff 'Gymcentral.net' with a market potential of €150m in EU/US/Russia and an expected yearly turnover of about €30m. (<http://gymcentral.net>)

The PHASER activity delivered a new personal health cardio monitoring solution that was offered to professional services providers. A pilot has been conducted in the transportation sector, with a

validated new business model. Next to this, the PHASER activity is the basis of the High Impact Initiative that started with an early bird collaboration in September 2014. While PHASER initially focused on a general target group working in high prone risk occupations, the High Impact Initiative will mainly focus on professional (truck & bus) drivers & individual lease car drivers.

The Health and Wellbeing Business Community has been enlarged by the establishment of the Health and Wellbeing Business Community 2014 with 19 start-ups and the three winners of the Idea Challenge in the category Health and Wellbeing. The community participated in five lead-generating events. At the end of 2014, 150+ business/investor leads were created and one deal has been closed in the US.

The Idea Challenge in Health and Wellbeing received 113 submissions out of which nine contestants were selected. The final three winners Tinnitracks, Soma Analytics and Horus became member of the Health and Wellbeing Business Community 2014 and get coaching from the EIT ICT Labs Business Development Accelerator for up-scaling their business.

Education, Research and Business integration was anchored in the EIT ICT Labs Summer School and post-master education. The Summer School has been joined by 47 students. They were challenged to bring up innovative ICT solutions for real life business cases as delivered by the start-ups Enwake, Health-i, Evalan and the partners Philips and Holst Centre.

Outlook 2015

EIT ICT Labs' Innovation Area Health and Wellbeing will focus on two primary prevention areas: Mental- and Social Wellbeing, and Physical Wellbeing. In these areas, six innovation activities will be deployed in 2015. As may be expected, business acceleration and empowering of ICT talent stay clearly in the range of the Health and Wellbeing actions 2015.



Mental- and Social Wellbeing area:

- ▶ Gamebus is a platform that offers social health games encouraging families to stay active socially, mentally and physically in a personalised gaming experience.
- ▶ Better nights, fresh days is an ICT solution to prevent sleep deprivation of young parents by monitoring baby's sleeping patterns and giving recommendations based on these.

Physical Wellbeing area:

- ▶ Fit to perform is a High Impact Initiative and will run till 2016/2017. It will create an ICT solution to make professional driving a healthier and safer occupation by means of a product service combination building on sleep and stress measurement in combination with truck and environment data.



KEY ACHIEVEMENTS 2014

- ▶ **Cognitive Endurance:** slow down the progression of Dementia.
- ▶ **Virtual Social Gym:** keep elderly fit in a social context.
- ▶ **PHASER:** Personal Health and Wellbeing self-management services protecting risk prone workers.

- ▶ Primary PRevention of cardiovascular diseases including early prediction of Atrial Fibrillation (PRAF) will bring an existing and proven professional method for the detection and monitoring of atrial fibrillation to the end-users with a 92.7% precision.
- ▶ Contiguous unobtrusive blood sensing is an unobtrusive device that will be developed to a tool for contiguous validated blood pressure management and coaching to enhance a healthy lifestyle behaviour.
- ▶ A generic platform for movement training will accelerate and support the rehabilitation in clinics and at home.

Business

The Health and Wellbeing Business Community 2015 will bring 28 partners, consisting of 22 start-ups / SMEs and the six innovation activities, together. The EIT ICT Labs Idea Challenge for start-ups in Health and Wellbeing will add, in a later stage, the three winners of the 2015 Idea Challenge to the Health and Wellbeing Business Community.

Education

The 2015 Health and Wellbeing Summer School will offer a two-week programme to EIT ICT Labs Master School students and master school students from partner universities and so-called Outreach countries.

Improving the quality of life with ICT based solutions.

Smart Spaces

HII Street Smart Retail

The goal of the Smart Spaces (SSP) Action Line is to create innovations for every-day working and living environments, and to bring them to market via new start-ups and other companies. The priority areas of the Action Line are smart retail, smart buildings and smart urban experiences.

The Smart Spaces Action Line activities have gathered partners and external SMEs to work on the innovation in the selected priority areas of Smart Spaces. These actions have created already a number of start-ups, new products on the market and technology transfer to 3rd parties, as well as several adoptions of new technologies inside the partnership.

Highlights

The key outcomes of the Action Line in 2014 are:

- ▶ RetailerIn product by U-Hopper, which does business intelligence through in-store customer tracking (Data Analytics for Retail Business Intelligence). This is also an EIT Award candidate.
- ▶ Semantic Light concept was incorporated in the start-up SELITERA. It connects spotlighting to mobile purchasing app to enable



Petri Liuha

Action Line Leader Smart Spaces

easy window-shopping. The company targets major retailers and brands and expects to make first sales in 2015.

- ▶ Extending the product of start-up SmartSigns to new application areas and environments, e.g. unsupervised work areas & safety-critical environments. This will be brought to market in 2015.
- ▶ Further development of the dynamic digital way finding solution based on marker-based augmented reality – BitSigns pilot in a shopping mall in Helsinki, a new start-up in 2015.
- ▶ Mediating Presence activity had collaboration with five SMEs generating five new products, one already on the market. One new company was created: Bollen Labs.

Overall progress and outputs

The activities have created several products, technology transfers and a number of start-ups that address the business opportunities in the physical spaces, which are in the scope of the Smart Spaces Action Line. Some of the business outcomes represent advanced solutions to highly growing areas like analytics and business intelligence for retail industry or intelligent solutions for workplace management. Some of them represent completely new innovations that are among the first comers to market like augmented reality-based solutions for retail space or products addressing specific needs of office workers.

Other actions

The Action Line leader activity for Smart Spaces included the leading of the innovation activities, specifically dissemination and outreach of the activity results, Smart Spaces Summer School, and collecting the expert panel for the Call 2016.

The Action Line leader and activity leaders met on a regular bi-weekly basis in a teleconference meeting, and four times during the year in face-to-face meetings. These meetings took place in Helsinki, with the exception of the second meeting in Berlin in conjunction with the EIT ICT Labs partner event in April, 2014. During these meetings all administrative issues, reporting and KPIs preparation was instructed, reviewed and checked.

The call preparation was done during the first quarter of 2014 with updates to the Strategic Innovation Agenda and the specific call for the High Impact Initiative (HII). The review of new proposals was done in June with an outcome of seven proposals (including the HII Street Smart Retail) included in the preliminary business plan. In September, the HII Street Smart Retail was kicked off.

For dissemination and outreach, the following efforts were undertaken: Smart Spaces participated at EuroShop 2014 trade fair together with four SMEs at a joint stand in Düsseldorf on Feb 16-20. EuroShop is the world largest retail event and it is organised in the full size every third year. Different sectors of retail investments were presented – shop fitting, store design, lighting, store furniture, visual marketing and merchandising, point-of-sales marketing, and retail technology.

The companies Bluemark Innovations (The Netherlands), Cliris (France), Innorange (Finland), and U-Hopper (Italy) presented their retail technology solutions for in-store analytics and retail business intelligence. The SMEs got hundreds of international leads and turned to several reseller deals.

[The Smart Spaces Innovation Tournament was organised in Copenhagen on November 4th, 2014 together with Copenhagen School of Design and Technology, Connectors Network incubator, and Bang & Olufsen.](#)

The launch of the PrivacySIG, a special interest group to promote consumer privacy, took place in June. PrivacySIG will publish and enforce a strict code-of-conduct among its members. The code-of-conduct transparently regulates how to implement the privacy as specified by the law and beyond. The SIG is open for others to join. It is set up by five SMEs from Finland, Germany, and The Netherlands operating in the customer measurement and intelligence field; the Smart Spaces Action Line supported the preparation.

The end of year event was organised on December 4th in Helsinki with 20 demonstrations from the activities describing the technical results, concepts and business plans and opportunities.



High Impact Initiative Street Smart Retail

High Impact Initiative Street Smart Retail started in September 2014, with the intention to drive the hybrid online and in-store retail model, which increase sales, improve customer loyalty, leverage “showrooming”, and keep physical stores competitive against pure online offerings.

The main objective of the HII Street Smart Retail is to provide new services and shopping experiences based on disruptive technologies, which can enable the creation, hosting and delivering of smart contents throughout the whole retail value chain. Thus, allowing the bridging of different physical and online sites that together form compelling service experiences for consumers.

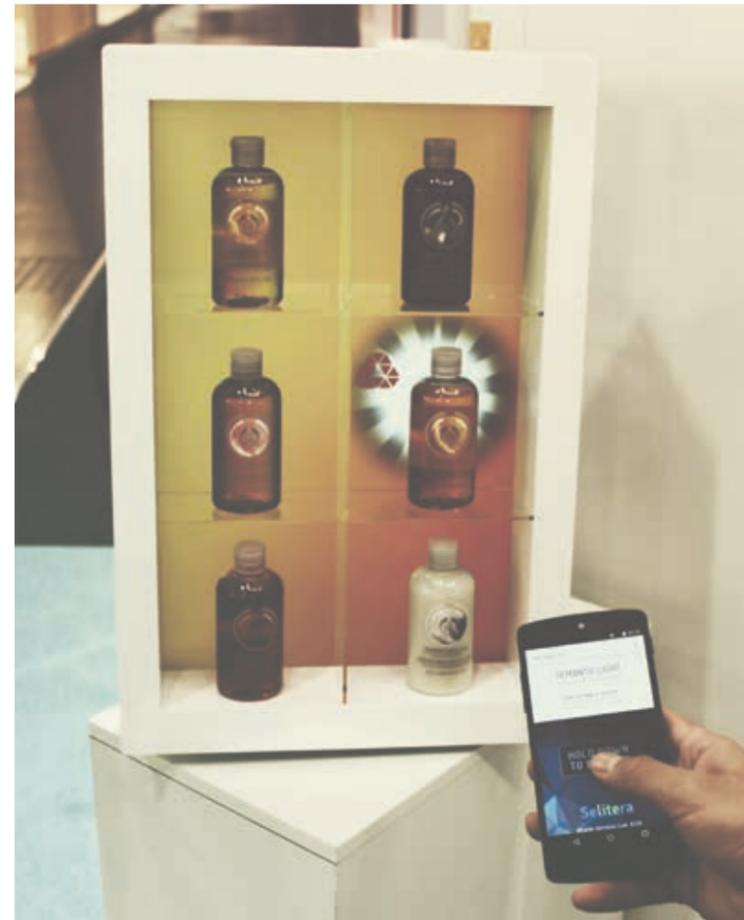
In this context, e-commerce is the primary driver that characterises the emerging changes in the retail landscape. The market share of e-commerce is still relatively low comparing to the physical retailing, but it is increasing rapidly. E-commerce affects all retail aggressively by increasing more transparency in terms of prices of products and customer reviews and provides new alternatives for customers, thus increasing the competition of companies for selling more and better. Physical stores will still be important as also IT companies are entering their traditional field.

HII Street Smart Retail Impact

The expected high impact of Street Smart Retail will come up with the combination of business and societal factors. From the business perspective, our solutions and services will make it affordable for small and medium-sized retailers to provide their products in multiple channels and to differentiate. With our solutions, the bigger European retailers will win on the global markets. Furthermore, from the societal perspective, we believe that understanding customers’ hidden and future needs is crucial for achieving the societal impact in Europe. We are supporting SMEs in the current hypercompetitive retail landscape, thus creating jobs and increasing the quality of life of people.

HII Street Smart Retail 2014

During autumn 2014, the HII started to work by applying agile methodologies to manage the development process of disruptive innovations and bring to the marketplace products and services that really can cope with customer needs. The work first concentrated on two major enablers: customer analytics solutions and content delivery solutions to different interfaces in the retail space, including customers’ own devices. A new shopping experience will be trailed and build around these platforms.



KEY ACHIEVEMENTS 2014

- ▶ **RetailerIn product by U-Hopper, which does business intelligence through in-store customer tracking. This is also an EIT Award candidate.**
- ▶ **Semantic Light concept was incorporated in the start-up SELITERA. It connects spotlighting to mobile purchasing app to enable easy window-shopping. The company targets major retailers and brands and expects to make first sales in 2015.**
- ▶ **Extending the product of start-up SmartSigns to new application areas and environments, e.g. unsupervised work areas & safety-critical environments. This will be brought to market in 2015.**

Outlook

The retail industry is in the midst of big changes. E-commerce is challenging traditional brick-and-mortar retail via new user experience, different kinds of services, and a wide assortment of products. The industry is actively looking for innovations to better serve the customers in physical stores by providing new services and user experience. This has already opened opportunities for SMEs with technical innovations in analytics and in the creation of customer experience. It is expected that major changes in the retail value chain will happen and new entrants will flourish with innovative solutions.

Technically, there are opportunities to create digital services to any kind of physical space. The main challenges lie on the creation of business models and deployment on the market. Other interesting areas besides retail are in large buildings in general with several user groups and businesses with their special needs. The partners in the KIC active in the Smart Spaces Action Line possess key technologies in making differentiation. Moreover, some of the larger companies are in key positions on the market to act as channels for new innovative companies to enter the market.



Smart Energy Systems



2014 has been a captivating year for Europe's energy provisioning landscape: international conflicts close to home, investment stop decisions for large pipeline projects, a remarkable price slide for crude oil and natural resources in general, new legislation in different member states as well as new Internet-borne security risks have altered the scene drastically.

The EU's answer to this must be to decouple as far as possible from external factors which cannot be controlled, to develop the internal delivery capability relying on wind, sunshine and hydro and to harden the provisioning systems with respect to resilience and operational security. Furthermore, the long-running strive to increase the efficiency of energy consumption in every domain remains firmly on the agenda. Several DGs of the EC have announced measures in this vein.



Heiko Lehmann
Action Line Leader
Smart Energy Systems

The EIT ICT Labs Action Line Smart Energy Systems supports the ICT-centred innovation spectrum that is required to achieve this strategic goal. One of the key assumptions in building the Action Line's activity portfolio is the increasing role of decentralised provisioning solutions.

As the local management of distributed multi-commodity energy generation, consumption and storage must be reliably organised and harmonised with the backbone system, it is immediately clear that this is a crucial area for ICT innovation. Taking the cue from the EC DG Energy, a further focus topic of the Action Line is energy efficiency. As recent project history has shown, mass market efficiency solutions face severe difficulties due to both, basic economic rationale and a missing standardised approach. For industrial consumption, however, the situation is much more promising – the 2015 project portfolio will reflect this.

decentralised world. As different as application cases may be – varying from the charging infrastructure for electric vehicles to real estate-based micro grids or extended wind parks – the principal functionality of the local controller remains the same. In every case it has the principal task to aggregate the power functionalities of the respective local equipment and to couple it to the embedding grid. The configuration wizard, which has been put at the core of our development activity, adapts a pre-existent generic controller solution reliably and efficiently to the actual application conditions.

MOBILE BROAD BAND SMART GRID ASSISTANCE

Leaving the particulars of the power grid aside, the digitisation wave of the low and medium voltage layer may be compared to the broader industrial trend labelled machine-to-machine communication. Generating massive data volumes, distributed resources

SMART POWER CONTROLLERS

In line with the reasoning above, a core activity of the Action Line has set itself the goal to create an easy-to-figure controller solution for the



need to be rendered addressable, communicable and remotely controllable in a secure and resilient fashion. Telecommunication networks play an indispensable enabling role in these developments. However, no "one-size-fits-all" telecommunication solution is available today for the specifics of the Smart Grid. Therefore, one of our activities has developed a fit-for-purpose cellular communication solution for Smart Energy Grids. Especially the LTE network enhancements (in comparison to 2G and 3G mobile communication) have been shown to be able to turn the mobile network into a cost-efficient Smart Grid communication solution if the requirements are set right. While LTE does not meet the general demands of the IEC 61850 protocol, a meaningful subset of use cases has been shown to be covered. A prioritisation connectivity solution with guaranteed latencies has prototypically been developed.

As a general learning, the competing optimality criteria of bandwidth maximisation versus geographical coverage and latency service levels need to be acknowledged when designing connectivity solutions for the industrial Internet.

SES COMMUNITY EVENT

At the end of October, the Action Line brought together different communities for interaction in a large event: the Action Line's innovation community was to meet the professional stakeholders of the core partner Deutsche Telekom. Additionally, the European Smart Energy start-up scene was involved by hosting the final of the 2014

EIT ICT Labs Idea Challenge. In a densely packed two-day crucible, topical keynotes, investor pitches, a large start-up exhibition and numerous informal exchanges over drinks and food provided the backdrop for fostering the community spirit among the 220 attendees. The overwhelming positive feedback encourages us to continue this format in the years to come. It should be mentioned, though, that the Action Line in its outreach activities did not restrict itself to the mature expert community – in our pan-European Summer School we cared about tomorrow's experts for the cross-domain world of Smart Energy.

To conclude, our 2014 activity portfolio firmly resides in the innovation triangle of Education, Research and Business. In 2015, we will continue with the focus topics mentioned above. Decentralisation solutions, security and industrial efficiency will set the tune, strengthening European business will be a still stronger driver.

KEY ACHIEVEMENTS 2014

- ▶ **SES Community Event:** Bringing together start-ups, partners and the grown Action Line community, a powerful new exchange format has been established in this two-day crucible.
- ▶ **Smart Power Controllers:** The decentralised energy world demands new control paradigms and hardware – EIT ICT Labs contributed with a dedicated activity.
- ▶ **Mobile Broad Band Smart Grid Assistance:** Connecting a multitude of newly IP-based smart energy equipment demands new communication solutions – EIT ICT Labs have studied requirements and solution options.

Collaborations with European Programmes and Initiatives

In 2014, the collaborations and the partnerships with external organisations were not only increased in number, but also considerably strengthened operationally, aiming at a few general objectives:

- ▶ [Reinforce the role of EIT ICT Labs as one of the major players in the European ICT arena.](#)
- ▶ [Individuate and exploit synergies and complementarities through strategy alignment.](#)
- ▶ [Plan and execute joint actions for pursuing the common strategy, increasing the chances of success and of impact of the two parties](#)

Keeping those as guiding principles, specific objectives are attached to each collaboration depending on the player we interact with. Hence, our partnerships with ITEA and with FI-PPP have the important additional objective of updating the stock of high quality research results that our association takes up and helps advancing towards the market; the cooperation with the European Investment Fund aims to increase the chances for start-ups, SMEs and entrepreneurs within EIT ICT Labs' ecosystem to get access to needed capital; our involvement in the Trust in Digital Life organisation is meant to contribute to boost our impact in the area of security and privacy while the agreement aims to boost the synergies with our Future Networking Solutions Action Line; the partnership with EuroCIO targets the specific sector of professional education for emerging ICT-stimulated professional figures.

The Future Internet Public-Private Partnership (FI-PPP)

The Future Internet Public-Private Partnership (FI-PPP) is a European programme for Internet-enabled innovation. The FI-PPP aims at accelerating the development and adoption of Future Internet technologies in Europe, advancing the European market for smart infrastructures, and increasing the effectiveness of business processes through the Internet. Formally signed during 2013, our collaboration with FI-PPP made concrete operational steps in 2014 through:

- ▶ the establishment of an EIT ICT Labs activity (FI-PPP Liaison) that focuses on small and medium-sized enterprises (SMEs);
- ▶ our participation in FI-PPP Phase 3 projects. In particular, EIT ICT Labs coordinates the Incubating Internet Innovation Hubs (I3H – <http://www.fi-ppp.eu/i3h/>) project, aiming at supporting the penetration of the FIWARE platform in the European innovation ecosystems by setting up a network of Innovation Hubs from all over Europe committed to disseminate and support FIWARE adoption in their ecosystems. At the end of 2014, the first bunch of 13 accelerators, incubators and innovation clusters was selected and included in our Internet Innovation Hub Incubation Programme. A second bunch of Internet Innovation Hubs will be selected in 2015 and integrated towards a fully fledged I3H network. Through its participation in the FI-CORE project, EIT ICT Labs is contributing to the definition of the open source legal entity that will maintain and support FIWARE, making available our extensive (legal and organisational) expertise in setting up and managing large international partnerships.

▶ [For more information go to \[www.fi-ppp.eu\]\(http://www.fi-ppp.eu\)](#)

European Investment Fund (EIF)

The collaboration between the European Investment Fund (EIF) and EIT ICT Labs started in 2012 with high level strategic meetings, and was formalised in July 2013 through the signing of a Memorandum of Collaboration (MoC) between the two organisations. The MoC strategically commits the two organisations to jointly improve the prospects for European ventures and entrepreneurs in access to capital and identifies the following five priorities:

- ▶ Access to the EIF network by EIT ICT Labs-coached start-ups and SMEs
- ▶ Access to the EIT ICT Labs network and services for EIF portfolio funds
- ▶ Interaction between VC managers and EIT ICT Labs Business Developers for due diligence of investment opportunities
- ▶ EIT ICT Labs supports the EIF Corporate Innovation Platform (CorIP) by connecting EIF to core industrial partners of the KIC

- ▶ Cooperation on future funding vehicles

In 2014, EIT ICT Labs and the EIF have started working towards the establishment the "European Innovation Co-Investment Fund" aimed to provide the best European companies coached by EIT ICT Labs – those that have convinced VCs to inject money – with additional funding, making sure that total financing they receive can really enable them to become global leaders.

▶ [For more information go to \[www.eif.org\]\(http://www.eif.org\)](#)

Trust in Digital Life (TDL)

The Trust in Digital Life (TDL) organisation promotes the usage of trustworthy ICT solutions in cyberspace by: raising awareness about the need for and value of security and privacy; defining interoperable and testable frameworks for e-authentication, end-to-end technology platforms for user-controlled data lifecycle management, and end-to-end technology platforms for mobile service integrity. Through its Privacy, Security & Trust Action Line, EIT ICT Labs is participating in ATTPS (Achieving the Trust Paradigm Shift), an EU-funded project of the TDL which promotes the trust paradigm shift by increasing the 'preparedness to pay for trustworthy ICT' along with the 'perceived need for and value of trustworthy ICT', boosting law regulations and decreasing the cost of trustworthy ICT. In 2014, EIT ICT Labs was actively involved in the organisation of the CySeP Winter School in Stockholm on "Cyber Security and Privacy" and contributed to an ATTPS document about awareness/publicity.

▶ [For more information go to \[www.trustindigitallife.eu\]\(http://www.trustindigitallife.eu\)](#)

EuroCIO and Empirica

Rapidly changing professional roles emerge when ICT becomes a management and business model tool of equal strategic importance as understanding economics. The development of digitalisation and Big Data analysis create new professional roles. Hence, EIT ICT Labs have established collaboration with The European Association of Chief Information Officers (EuroCIO), a network that organises the Chief Information Officers (CIOs) in Europe. EuroCIO plays a very important role when new ICT professional roles appear and are promoted and is the only European, independent, non-profit representative of large IT users (demand side of IT), both private and public. Its main objectives are sharing and developing a vision and exchanging experiences at a European level for a better usage of information technology, and to externally representing the larger user communities towards the main IT suppliers as well as European authorities. EIT ICT Labs' collaboration with EuroCIO is functional to the implementation of our strategy concerning professional learning modules

and targets the very important role that this organisation plays when new professional roles stimulated by ICT appear.

▶ [For more information go to \[www.eurocio.org\]\(http://www.eurocio.org\)](#)

Empirica is a consulting company working for the EU to develop concepts on new MBA/ICT education and on European certificates and accreditations for new educational programmes where ICT plays an important role. The understanding of and participation in this development is of fundamental importance for EIT ICT Labs' success with the Professional School.

▶ [For more information go to \[www.empirica.com\]\(http://www.empirica.com\)](#)

ETSI

ETSI is a European Standardisation Organisation, but it works through working groups that attract a worldwide constituency. The fast pace of evolution and innovation deployment have made it necessary to establish connection with such leading edge innovators and standardisation organisation. Hence, in 2014 EIT ICT Labs and ETSI signed an Letter of Intent to share information and align part of their activities. The agreement builds on the major role played by ETSI in setting up operational standards and on the role played by EIT ICT Labs in deploying technologies and products that have to live up to those standards and/or are pressing for standard evolution. Our cooperation in 2014 focused on radio aspects and on the impact of low energy requirements on standardisation solutions through our Green ICT Activity. We also laid the foundation for a strong cooperation in 2015 in the area of SDN where EIT ICT Labs will create a federated distributed test bed that ETSI can use for trying out, and developing, its test suites.

▶ [For more information go to <http://www.etsi.org/>](#)

ERC

As EIT ICT Labs builds innovations from research results, our activities need to be continuously fed with the best ones and our ecosystem must stay connected and involve the best researchers for all over Europe. For these reasons, since 2013 EIT ICT Labs is running a specific programme aimed at systematically involving laureates of the European Research Council in its innovation and educational activities. In 2014, our efforts have made it possible to secure their active involvement in our Summer Schools as lecturers. Discussion with ERC governance aimed at pursuing deeper and sharper synergies are ongoing and will be finalised in 2015.

▶ [For more information: <http://erc.europa.eu/>](#)

Create for Value

Building a strong reputation and sharing common values

The strategic communication goal is to establish EIT ICT Labs as a recognised innovation brand in education and business development – understanding our stakeholders' needs and demands – building trust. To develop the EIT ICT Labs brand – we need to build a strong reputation.

We promote results and achievements of the EIT ICT Labs innovation, business and education areas through external communication using channels relevant to the target audience. Under the motto "Create for Value" the EIT ICT Labs' 4th Annual Report provides a good overview of activities and achievements in 2014.

We want to convey that EIT ICT Labs is an innovation community that develops innovative products and services, fosters new business, encourages growth and fosters young entrepreneurial talent. Our community is an integral part of the EIT community.

And we share common values: to be inspiring, passionate, engaging, open, excellent and dynamic.

We need to explain how our community integrates business, higher education and research, and in what way we focus on innovation topics of societal relevance. Driven by excellence we should showcase how we react to new challenges and changing environments in an effective and flexible way.

Johanna Gavafalk

Marketing & Communications Director

2014 was definitely a busy year with an extensive amount of events, conferences, and workshops where EIT ICT Labs representatives participated as exhibitors, organisers and speakers. Participation at larger international events not only creates awareness around EIT ICT Labs, but provides an excellent opportunity for our coached start-ups to network, generate leads, sign deals and grow business.

One of the key events in 2014 was the Euroshop in Düsseldorf in February with participation of several SMEs with focus on Smart Spaces innovations. CeBIT in Hannover in March defined the latest IT trends and presented talks by high-calibre speakers and forward-looking panel discussions. This was the 2nd time for EIT ICT Labs to showcase product innovations among over 3,500 exhibitors from over 70 countries. With 210,000 trade professionals, journalist and delegates attending it was the perfect time to launch our Idea Challenge.

Thanks to a well-executed communications campaign the first Idea Challenge generated 790 submissions from all 28 EU countries. The campaign was well recognised and EIT ICT Labs was shortlisted for The European Excellence Awards. The European Excellence Awards honour outstanding performance in a wide range of categories. Covering everything from internal communications to public relations, as well as a wide range of industries from all across Europe, the Awards explore the full range of the profession, and provide a comprehensive look at the most exceptional example of communication in Europe.

Under the theme "Create for Value", the 3-day highly appreciated EIT ICT Labs Partner Event in Berlin held in April gathered some 400 participants.

End of September we celebrated the opening of EIT ICT Labs' Silicon Valley Hub that will act as a bridge between the Silicon Valley and our European ecosystem.

The Master School Kick-off gathered more than 240 new students from 35 countries. The 3-day opening ceremony took place in October at the Faculty of Informatics, Eötvös Loránd University, in Budapest. Later in November, our Master School delivered the first graduates of our EIT-labelled master programmes; they received their EIT ICT Labs certificates during an inspiring ceremony at our partner university UPMC in Paris.



All of these events, contests, results and achievements provide great opportunities for marketing and communications. Some 160 events were promoted on our website and some 220 articles published. In 2014 we gained more visibility in the media. We continued to build media relationship and increased awareness and growth by 180% to 7,765 viewers on our press & media newsroom and also made it to the TV evening news.

The use of social media channels significantly supported our efforts to showcase the power of the ecosystem. Communication via Facebook and Twitter provided not only instant news from exhibitions and conferences, but also showed daily work at the Co-location Centres. The growth rate in 2014 for Facebook was 128% during the last year and for Twitter 215% with 196,000 impressions from September to December. Our LinkedIn member group has now almost a thousand members. Idea Challenge channels generated in less than a year more than 5,200 likes on Facebook, and on Twitter we grew from 0 to 650 followers with 136,000 impressions.

In 2015, under the theme "Sustain our Vision" we will further strengthen and improve marketing and communications activities.

In February, 2015 EIT ICT Labs will be showcasing smart retail at the EuroCIS fair in Düsseldorf. In March EIT ICT Labs participates for the 2nd time at the GSMA Mobile World Congress in Barcelona with speakers and start-ups, and for the 3rd time at CeBIT in Hannover.

The Partner Event 2015 will be hosted by our Node in Trento, Italy. The 3-day event April 15-17 is expected to bring together some 400 participants. Focus is on networking and sharing of experience, results and achievements. This is a great opportunity for collaboration and preparation for the Call 2016.

From May to October, 2015 we will be very visible at Milano EXPO 2015 where we will showcase EIT ICT Labs solutions to a huge audience from all around the world.

To generate increased interest in EIT ICT Labs operations and to create stronger confidence, our strategy is to build communication on existing relationships in our community and to identify and educate ambassadors to convey the EIT ICT Labs message and personality.

We want to enable everyone at EIT ICT Labs to strengthen the brand.



2014 Financial Review

For the EIT 2014 KIC Report, the cost and performance report have been integrated. A major improvement was made in the reporting systems to synchronise the cost reporting per KIC Partner and performance reporting per Activity.

The Grant Agreement 2014 and associated Business Plan were signed on February 12th 2014 for the total budget (Catalyst and Carrier) of €249,351,771. The Catalyst budget was estimated at €64,266,404 with a maximum EIT contribution of €60,077,000.

During 2014, two amendments to the PGA have been approved, one in March and one in December. The March Amendment mainly addressed an additional budget of €13,323,000. The December Amendment solely contained Activity Change requests and the budget was reduced by €1,914,195, mainly due to the late signing of Amendment 1.

The budgets contained in the Amendment 2 against which the reporting has taken place were €289,276,779 for the total budget, €76,842,861 for the Catalysts with a maximum EIT contribution of €71,845,805.

The actuals reported by the partners are €271,946,954 or 94% of the overall budget, €69,100,877 or 90% of the Catalyst budget and an EIT Request of €61,336,883 or 85% of the EIT budget.

In general, the actuals in the Action Lines are about 15% below the EIT budgets. The exceptions are the Doctoral School being 38% and the Education and Research Catalyst Developments being 21% resp. 36% below budget.

Stan Smits
COO EIT ICT Labs

Action Lines	EIT Contribution actual	Co-funding actual	KAVA actual	EIT Contribution budget	KAVA budget	KCA Actual	KCA Budget
Strategy and ERB Development	€8,330,119	€658,466	€8,988,585	€9,869,300	€9,892,300	€18,247,635	€21,381,937
Business Catalyst Development	€1,562,940	€105,390	€1,668,331	€1,982,500	€1,982,500	€2,492,693	€4,266,500
Education Catalyst Development	€155,681	€19,730	€175,411	€242,000	€242,000	€171,696	€170,000
Research Catalyst Development	€802,083	€71,866	€873,949	€938,000	€956,000	€1,615,514	€1,790,937
Strategy Support							
Action Lines	€43,216,432	€5,762,101	€48,978,533	€50,566,005	€54,596,136	€183,634,077	€189,851,981
Cyber-Physical Systems	€4,356,565	€558,543	€4,915,108	€5,055,491	€5,258,491	€29,128,440	€28,609,151
Doctoral School	€2,078,975	€44,351	€2,123,326	€3,375,000	€3,719,180	€3,838,082	€8,666,747
Future Cloud	€3,805,767	€790,257	€4,596,024	€4,060,000	€4,581,000	€15,213,057	€13,548,691
Future Networking Solutions	€5,930,732	€409,441	€6,340,173	€6,855,893	€6,975,893	€29,237,642	€32,867,811
Future Urban Life and Mobility	€5,025,178	€1,042,527	€6,067,706	€5,412,513	€6,225,913	€19,960,445	€18,970,739
Health and Wellbeing	€4,359,769	€482,447	€4,842,216	€4,920,507	€5,151,815	€22,292,065	€16,753,462
Master School	€6,244,354	€976,007	€7,220,361	€7,680,000	€8,990,000	€7,044,828	€5,640,000
Privacy, Security & Trust	€2,949,059	€679,066	€3,628,125	€3,265,451	€3,564,451	€15,347,251	€19,480,735
Smart Energy Systems	€3,749,765	€407,217	€4,156,981	€4,559,695	€4,559,695	€19,180,938	€22,533,865
Smart Spaces	€4,716,269	€372,245	€5,088,514	€5,381,455	€5,569,698	€22,391,331	€22,780,780
CLC and Eco-systems	€6,360,187	€1,003,061	€7,363,248	€7,475,500	€8,344,425	€964,365	€1,200,000
Co-location Centres	€4,417,009	€955,011	€5,372,020	€4,635,500	€5,504,425	€684,808	€700,000
Cross Europe	€1,675,446	€14,729	€1,690,174	€2,340,000	€2,340,000	€279,557	€500,000
Silicon Valley Outpost	€267,733	€33,321	€301,053	€500,000	€500,000	-	-
Management	€2,904,783	€353,505	€3,258,288	€2,800,000	€2,800,000	-	-
Certificate Financial Statements	€310,283	€8,920	€319,203	€400,000	€400,000	-	-
Management	€2,289,152	€223,650	2,512,802	€2,500,000	€2,500,000	-	-
Marketing	€830,710	€107,796	€938,507	€1,035,000	€1,110,000	-	-
Grand Total	€61,336,883	€7,763,994	€69,100,877	€71,845,805	€76,842,861	€202,846,077	€212,433,918

Outlook 2015

With a total business plan in 2015 of just under €350m EIT ICT Labs has significant investment power to further drive its ICT education and innovation mission for Europe. Our investments can roughly be divided into three categories: ecosystem, research-based innovation and entrepreneurship, and entrepreneurial education. Investment opportunities are selected based on their quality, their team, and their economic and/or societal impact potential.

Willem Jonker
CEO EIT ICT Labs



Concerning our ecosystem in 2015 we will invest further in building a strong set of core Nodes while at the same time we invest in expanding our impact in Europe and beyond via our newly established hub in San Francisco.

Our San Francisco hub is currently being fully staffed and drives the flow of talent, know-how, technology and investments from the US towards our European EIT ICT Labs ecosystem. The initial focus will be on on-line education, start-up support to acquire investments, and two innovation programmes around future

networks and smart cities. We work closely together with the consulates of our member countries via our consulate-liaison programme.

Our X-Europe programme expands our impact in the EU-28 aimed at growing digital innovation in Europe while leveraging regional innovation schemes. The approach is Action Line-centred and stimulates the development of regional digital innovation centres. Via an open call, candidate centres will be identified with the ambition to support three to four of such centres in 2015.

When it comes to research-based innovation and entrepreneurship, in 2015 we will make a significant investment in our Action Line-driven innovation funnel that delivers research results, technology and start-ups into world markets.

The investments are geared towards opportunities that are strategic for Europe and have clear potential to support Europe's comeback as a leader in digital innovation. The funnel contains a strong portfolio of research-based innovation activities with a strong emphasis on growth and market impact.

The funnel is supported by our unique pan-European Business Development Accelerator that now deploys an integrated approach towards start-ups and innovation activities, thus bringing together start-ups, SMEs and large corporates in a true European open innovation environment. Opportunity scouting is performed both through our Node ecosystems as well as through the 2015 edition of our EIT ICT Labs Idea Challenge. Our Access to Finance team has been strengthened and will step up in 2015 to the next level of larger pan-European investment deals for our start-ups. To further facilitate market uptake in 2015 we will deploy business communities in all Action Lines with the aim to bring innovation providers and innovation buyers together.

Finally, in 2015 we will make a significant investment in four High Impact Initiatives in the

areas of Secure Cloud, Smart Retail, Smart Industries, and Preventive Health. These High Impact Initiatives represent a complete new way of open innovation at European level. They are executed in a scrum-like manner in our Co-location Centres by highly committed and focused teams consisting of researchers, business developers, entrepreneurs, and students from our partnership ecosystem.

Entrepreneurial education is an essential part of the mission of EIT ICT Labs with a simple and effective strategy: blended education. Blended by deeply integrating knowledge and skill, and blended by seamlessly merging education in classrooms, Co-location Centres, business environments and e-learning environments.

Our Master School will scale up to 600 students in 2015 through ambitious recruitment targets at worldwide, European, and national levels. The Action Line-focused Summer Schools started in 2014 were a great success in this year and will be continued in 2015 and opened up to external participants.

Our Doctoral School will scale up to 135 students in 2015. In 2015, our Doctoral School will be fully based on Doctoral Training Centres aligned with our Action Lines and residing in our Co-location Centres. Three new Doctoral Training Centres are planned to open in 2015.

After an experimental and piloting phase, our Professional School will deliver its first full-fledged set of professional training courses in 2015. These courses focus on our Action Lines and will be offered in blended format: on-line, in classrooms, and in Co-location Centres. Entrepreneurship education in 2015 will be further enhanced and harmonised within and between our various schools.

Our on-line education will get a significant boost in 2015 through various initiatives. Together with Coursera, our Master School will offer a MOOC version of one of its programmes and several courses of our Professional School will be offered on-line. Together with InnoEnergy and the Climate KIC, we will bring the EIT into the world of on-line education via the development of a set of courses on an EIT-KIC MOOC platform.

In 2015, EIT ICT Labs will provide a broad entrepreneurial education offering targeting master students that want to acquire

entrepreneurial skills next to high quality ICT knowledge, PhD students that have the ambition to become ICT industry leaders of the future, as well as professionals that want to stay at the frontier of ICT innovation through cutting-edge ICT courses.

During 2015, EIT ICT Labs will be visible at various events and conferences in Europe, both through targeted presence from Action Lines at key area specific events such as the Mobile World Congress in Barcelona, EuroCIS Retail in Dusseldorf, Net Futures in Brussels, Slush in Helsinki, but also at more general fairs like CeBIT in Hannover and Expo 2015 in Milano. Our dedicated 3cixty team is working from our satellite location in Milano on a collection of 'smart city experience' innovations that will be deployed during Expo 2015. EIT will organise its first big conference INNOVEIT in May 2015 in Budapest where EIT ICT Labs together with EIT and the other KICs will showcase results and impact. And of course in April 2015 we will have our partner event, this year in Trento, where I am looking forward to meet many of you.

The above shows that we are delivering on our vision and our impact on the European ICT Innovation and Education landscape is growing. This is a significant accomplishment in relatively short time (EIT ICT Labs IVZW 'dies natalis' is October 21, 2010, which makes 2015 our first 'lustrum'). What we achieved is definitely something to be proud of and it is good to see that our added value is clearly recognised by our stakeholders. For 2015, we envisage to sign a new framework partnership agreement with EIT, which will be the backbone of the fruitful EIT – EIT ICT Labs collaboration and which will assure us for the coming seven years of EIT financial support. It will also give us the possibility to develop EIT ICT Labs into a sustainable organisation through diversification of our sources of income. Although sustainability is often associated with finance, it also covers identity, strategy, positioning, and organisation. Supported by an external party we are taking the next steps in further developing a future-proof EIT ICT Labs. Key is a strong EIT ICT Labs brand building on excellence, operating a unique approach, delivering high quality results, and achieving far-reaching impact.

During Node visits and at other occasions I am always impressed by your commitment, creativity, motivation and drive as individuals and teams to contribute to the success of our organisation. I will meet many of you in the coming year and I look forward to our interactions. Together we will sustain our vision.

Management Committee 2014



Left to right – Back row: **Klaus Beetz** Business Director, **Gunnar Landgren** Stockholm Node Director; Mid row: **Stéphane Amarger** Paris Node Director, **Stan Smits** COO (Chief Operating Officer), **Anders Flodström** Education Director, **Johanna Gavelfalk** Marketing & Communications Director, **Dennis Moynihan** London Node Director, **Patrick Strating** Eindhoven Node Director, **Chahab Nastar** CSO (Chief Strategy Officer), **Marko Turpeinen** Helsinki Node Director, **Udo Bub** Berlin Node Director; Front row: **Willem Jonker** CEO (Chief Executive Officer), **Fabio Pianesi** Research Director, **Roberto Saracco** Trento Node Director

The Management Committee (MC) includes the Chief Executive Officer, Chief Strategy Officer, the Chief Operations Officer, the Marketing and Communications Director, the Research Director, the Business Director, the Education Director, and the six Node Directors responsible for the Nodes in Berlin, Eindhoven, Helsinki, Paris, Stockholm, and Trento.

Each Node is governed by a Node Executive Committee (NEC) elected by the Core Partners associated with that Node. The NEC appoints the Node Director who is responsible for the daily operations and who is a member of the KIC Management Team.

The Chief Executive Officer (CEO) leads EIT ICT Labs daily operations and ensures achievement of the goals according to the business plan. The CEO is appointed by and works under the supervision of the Executive Steering Board (ESB).

The Chief Strategy Officer (CSO) liaises with the Education, Research, and Business Directors and prepares the Strategic Innovation Agenda (SIA) and the annual Business Plan.

The Chief Operating Officer (COO) is responsible for the planning, record-keeping and reporting towards EIT and prepares the annual

update of the Business Plan. The COO is also responsible for distributing the EIT funds to the Nodes and KIC Partners according to the ESB decisions.

The Education, Research, and Business Directors are each responsible for developing the KIC activities in their respective areas. The Marketing and Communications Director leads and is responsible for the marketing and communications operations of the KIC.



ABOUT EIT ICT Labs

EIT ICT Labs is a leading European organisation for Innovation and Education in the field of Information and Communications Technologies (ICT).

Our mission is to foster innovative technology and entrepreneurial talent for economic growth and quality of life in Europe.

EIT ICT Labs was established in 2010 as one of the first Knowledge and Innovation Communities (KIC) of the European Institute of Innovation and Technology (EIT), at the initiative of the European Union.

EIT ICT Labs invests human and financial resources in key high-potential activities for the development of ICT business and talent in Europe. The investments are clustered in pan-European Education and Innovation portfolios of thematic activities targeting impactful outcomes.



Governance Structure

The EIT ICT Labs management structure is light, transparent and efficient. The General Assembly (GA) consisting of Core Partners and Associate Partners is the highest strategic decision-making body.

The Executive Steering Board (ESB) is formed by two representatives per Node, one from an industry Core Partner and one from an academia/research institute Core Partner, elected by the GA on presentation by each Node of a list of candidates. The ESB appoints its chairman, the Chief Executive Officer (CEO) and other main officers. The ESB provides guidance to the CEO in strategic tasks, decides on specific funded actions, evaluates and validates the progress of these actions, approves co-funding eligibility, and makes recommendations on the admission and exit of partners. The Chairman will be responsible for the strategic external positioning of EIT ICT Labs and for securing long-term increases in private funding.

Members of the Executive Steering Board

Chairman	Henning Kagermann, Acatech
Berlin	Heinrich Arnold, Deutsche Telekom AG Wolfgang Wahlster, DFKI
Eindhoven	Fred Boekhorst, Philips Peter Apers, 3TU / NIRICT
Helsinki	Tatu Koljonen, VTT Jukka Rantala, Nokia
London	Chris Hankin, Imperial College London Jonathan Legh-Smith, British Telecom
Paris	Jean-Luc Beylat, Alcatel- Lucent Michel Cosnard, INRIA
Stockholm	Magnus Madfors, Ericsson Peter Gudmundson, KTH
Trento	Fulvio Faraci, Telecom Italia Oliviero Stock, Trento Rise

EIT ICT Labs **News 2014**

08.01.14

Apply now to be part of the TechPeaks 2014!

09.01.14

Swedish Startup Partners With World Leader in 3D Vision To Offer Cloud-Based 3D Scanning

09.01.14

Roberto Saracco gives a talk on how to convert research into commercial success

09.01.14

Are you ready for the challenge?

13.01.14

EIT ICT Labs welcomes Dr.Gian Mario Maggio as the new Co-Location Centre Manager in Italy

16.01.14

EIT ICT Labs opens a new Node in London

17.01.14

Head of Google Research, Corinna Cortes, met with students, researchers and entrepreneurs

22.01.14

Call for SMEs to participate in the Health and Wellbeing Business Community 2014.

23.01.14

EIT ICT Labs Call 2014 for SMEs

30.01.14

Great startup support leads to partnership between KTH and Founder.org



07.02.14

Fabio Carati invited speaker at Startup Pirates in Budapest

12.02.14

Concrete results of the first BMD course in Stockholm: Three emerging ICT startups

14.02.14

Key innovation and entrepreneurship conference in Madrid co-organized by EIT with Madrid EIT ICT Labs CLC participation

16.02.14

iBoot Camp to turn your ICT idea into Business

17.02.14

Have you already read the post of today?

17.02.14

EIT ICT Labs Madrid CLC hosts information day on ICT entrepreneurship

19.02.14

A call for papers on M2M workshop in May

21.02.14

Success for Business in Paris on February 18

25.02.14

EIT ICT Labs with Consuls General in the Bay Area - San Francisco

26.02.14

Italian national football team will use high-tech sensors developed by the "Beast Technologies"

26.02.14

EuroShop 2014 exceeds expectations! - Smart Retail Solutions



03.03.14

Willem Jonker presents SIA to the Node Steering Committee of the Italian Node

10.03.14

INNOVATION RADAR: 2013 ANNUAL TREND REPORT

17.03.14

Matchmaking ideas for social impact in Europe

19.03.14

EIT ICT Labs London Node Appoints New Node Director

24.03.14

New Spanish High-speed Research Network Backbone Node

24.03.14

Opportunity & Recognition Workshop in CLC Eindhoven

24.03.14

Music game developed by EIT ICT Labs Master student ranked top in Windows Phone Store

25.03.14

EIT ICT Labs Strategic Innovation Agenda 2014-2016

26.03.14

EIT ICT Labs Annual Report 2013 - Target and Focus

28.03.14

Izooble Demo Day in the CLC Eindhoven

28.03.14

EC forum on The Entrepreneurial University visited EIT ICT Labs Stockholm

28.03.14

X-Europe Outreach Programme

31.03.14

Call for ideas: Deutsche Telekom is looking for smart innovators

31.03.14

Kick-off Professional Online Education in Brussels last 10-11 March

01.04.14

Chahab Nastar - new Chief Strategy Officer of EIT ICT Labs

03.04.14

Software Campus is looking for IT talents with entrepreneurial spirit

04.04.14

Medicine and CoRehab among winners of the EU SME eHealth Competition

05.04.14

Awarded winners of the Telecom Italia Big Data Challenge

11.04.14

EIT ICT Labs Master School students meet up with students of InnoEnergy and Climate KIC

23.04.14

First Idea Challenge wave results in over 300 submissions

23.04.14

NSN Open Innovation Challenge

23.04.14

Dolf Wittkamper - new BDA Manager of EIT ICT Labs

24.04.14

Stratosphere accepted as Apache Incubator Project

24.04.14

New interactive book by Roberto Saracco about future technologies in now available

24.04.14

Prestigious Twitter DataGrant awarded to Dutch EIT ICT Labs partners

05.05.14

Open call: Startup Activation 2014

08.05.14

EIT ICT Labs opens new satellite for innovation in Milan

12.05.14

EIT ICT Labs Summer Schools gearing up... scholarships available!

12.05.14

EIT ICT Labs Associate Partner IMDEA Software Chosen by Microsoft for Joint Research Center

12.05.14

Prominent speakers at the Summer School "Security and Privacy in Digital Life"

13.05.14

Only 2 min to present your idea!

15.05.14

36 teams shortlisted for EIT ICT Labs Ideas challenge finals

15.05.14

Roberto Saracco representing EIT ICT Labs at the Innovation and Technology Conference in Bulgaria

15.05.14

Startups met with Investors representing 20 billion euros at STING Day 14

18.05.14

Fabio Carati invited speaker at Imola Rotary Club

18.05.14

Stockholm students final presentations and farewell party

19.05.14

Willem Jonker and Jose Manuel Leceta visit Spanish Associate Partner Group

19.05.14

Technology adventure for school kids in Helsinki city center

20.05.14

Innovative hack teams accelerated by top resources at Health Hackathon in Stockholm

21.05.14

Health and Wellbeing: Tinnitracks wins first Idea Challenge finals

21.05.14

Washington DC: Plugsurfing wins Challenge Cup for Energy

22.05.14

Welcome and goodbye: Heiko Lehmann and Ariane Sutor, Action Line Leads

22.05.14

"Think like a child" was the message at Google Innovation Jam

22.05.14

Cyber security and entrepreneurship

22.05.14

Innovations faster to market using the sprint model

23.05.14

Read online the latest digital book published by Roberto Saracco

25.05.14

Swedish- French collaboration on ICT for Smarter Cities

**26.05.14**

Outreach event took place in Athens

26.05.14

Meet the 2014 Health and Wellbeing Business Community

26.05.14

5G at the horizon?

27.05.14

Outreach Programme reached Bucharest, Romania

28.05.14

Dutch Technology Week 2014

28.05.14

ETSI and EIT ICT Labs join forces to boost ICT innovation in Europe by signing a Letter of Intent

28.05.14

EIT ICT Labs opens a new Satellite in Sophia Antipolis

30.05.14

New Business Developer in Co-location Centre Eindhoven

30.05.14

Beast Technologies has launched crowd-sourcing campaign on Indiegogo

03.06.14

Six winners in EIT ICT Labs Idea Challenge

03.06.14

Special interest group founded on privacy of retail customers

03.06.14

Roberto Saracco participated in the panel "The Future of Europe: Beyond the Euro Crises, Beyond the EU?"

04.06.14

Startup Activation presents: Berlin Residency Program and Travel Grants

06.06.14

The Economist expert article on the impact of Cloud with Dr. Tua Huomo

10.06.14

Serious hacking at the Helsinki CLC

10.06.14

Fabrizio Antonelli - one of the ten most promising young innovators selected by MIT's Technology Review

**11.06.14**

GraviTalent hosted at the Trento Co-Location Centre

12.06.14

Biohackers and quantified self pioneers filled the Otaniemi campus

12.06.14

ICT and Innovation closing conference organized by EIT ICT Labs Budapest Associate Partner Group

13.06.14

Commissioner Vassiliou met students at EIT ICT Labs Helsinki

16.06.14

BDA coached company PlugSurfing at Champions Pitch of Telekom Innovation Contest

16.06.14

Master School farewell event in Trento

18.06.14

Watch the video from Idea Challenge Smart Spaces Final and see the interviews with the winners

18.06.14

Gilles Betis: Building Smarter Cities

20.06.14

Challenge for SMEs interested in experimenting with FI-WARE technology is open!

23.06.14

Intelligent Outdoor Lighting Shines on Midsummer Night

23.06.14

Idea Challenge for Internet of Things pre-launched in Stockholm

24.06.14

EIT ICT Labs Supports AppCampus Alumni with StartUp Activation Prize

26.06.14

Call for Papers: CPS in 2014 Embedded Systems Week, in Delhi

27.06.14

Event Series: Founders' Pit Stop, by Idea Challenge

29.06.14

EIT ICT Labs challenges startups to shape the Future of the Cloud

30.06.14

EIT ICT Labs Idea Challenge - 12 Startups gain injection to boost their businesses

01.07.14

Prof. Rajiv Lal: "Marketing is difficult - there are too many good answers!"

01.07.14

EIT ICT Labs @ BVF 2014

01.07.14

EIT ICT Labs Summer Schools kicked off!

**02.07.14**

EIT ICT Labs' partner iMinds recognised as one of the best University Business Incubators worldwide

02.07.14

Atooma wins Second Telekom Innovation Contest, in Krakow

07.07.14

Nearly twenty doctoral students from twelve different scientific fields attended the first creative workshop

07.07.14

Call for start-ups and SME for FIWARE based demonstrators: €25,000 support per company

08.07.14

EIT ICT Labs Future Cloud Symposium gathered over 200 people!

09.07.14

Hear what our students say on their internships

09.07.14

Selected Startups to reside in Berlin, in Outreach Program

10.07.14

Smart Energy Prize for "What's my Carbon" at The Other Hackathon

14.07.14

Co-location Centres say Farewell to Master School students

14.07.14

Ten MSc students graduated in Budapest

14.07.14

German T-Labs celebrate ten year anniversary

21.07.14

A summer school on the French Riviera!

23.07.14

Presentation of DraftTrade: innovative software for designers

24.07.14

New business ideas created at the summer school in Italian Alps!

28.07.14

TechPeaks: 5 teams awarded with €50k

31.07.14

IEEE selects Trento to engage in Smart Cities Initiative

05.08.14

PlugSurfing: "People call our service revolutionary"

06.08.14

Travel Grants to support startups in outreach

06.08.14

Vodafone Full-time Angel from the Faculty of Informatics, ELTE, Hungary

**15.08.14**

Future Cloud Symposium: Trust is the Key for Future Enterprises @Cloud

19.08.14

Hot topics at the EIT ICT Labs Summer School on Internet of Things

20.08.14

Graduation ceremony for our first generation EIT ICT Labs MSc students

22.08.14

Joint EIT ICT Labs and KIC InnoEnergy summer school on Smart Energy Systems at KTH and KIT

25.08.14

Building new businesses at the Future Cloud Summer School

26.08.14

FeelSpace won Virginia Tech Global Student Business Concept

26.08.14

Marko Turpeinen spoke on sustainability at ICT4S

26.08.14

#Snapshot exhibition - alliance between a museum, academics and SW company

27.08.14

Warming up Smart Spaces in the home of Startup Sauna

27.08.14

Telepresence for People with Communication Impairment

29.08.14

Bridging the gap between online and physical world

29.08.14

EIT ICT Labs is getting ready for Expo Milano 2015

29.08.14

Summer School HWB: Business solutions for body, mind and soul!

01.09.14

Stockholm students welcome to the Co-location Centre and ecosystem in Kista

02.09.14

Welcome week in Budapest

02.09.14

Positive startup feedback @ Digital Health Days 2014

03.09.14

Virtual Social Gym - Move your body!

**04.09.14**

High Impact Initiative on Health and Wellbeing is fit to perform!

10.09.14

Pre-Announcement: Inauguration New Co-location Centre Eindhoven

11.09.14

Business Modelling and Development course in Budapest

15.09.14

EIT ICT Labs Master School students in the Netherlands: a big hit!

15.09.14

Swedish ICT open spinoff cluster Level-6

16.09.14

Startup ICT - a crash course to jumpstart your business idea

16.09.14

First Doctoral School course in Growth & Harvest in Stockholm and Turku

16.09.14

Maurizio Gabbrielli - new Doctoral School Head

17.09.14

Appointment of a new manager for the EIT ICT Labs Doctoral Training Centre in Rennes

17.09.14

Grants available for the Doctoral Course on Security Threat Identification and Testing

18.09.14

Students at the Security and Privacy Summer School learned to transform their ideas into business

19.09.14

Smart Retail brings new shopping experiences

23.09.14

Take action - Don't miss the last chance to submit your idea!

24.09.14

Telefónica I+D, Atos, Indra and UPM Become New EIT ICT Labs Affiliate Partners

24.09.14

Matching students and companies in Finland

25.09.14

Health for all: understanding the ageing process

29.09.14

EIT ICT Labs hosts IT Security Conference in Berlin

30.09.14

Summer ending grill party was organised for Master School students studying in Budapest

30.09.14

Jovan Golic, Keynote speaker at Chip-to-Cloud Security Forum

01.10.14

Student experiences from the Summer Schools - watch the videos!

01.10.14

Application still open for the Cybersecurity and Privacy Winter School!

02.10.14

The Education Director of EIT ICT Labs met doctoral students of Budapest Doctoral Training Centre

03.10.14

EIT ICT Labs Silicon Valley hub - bridging Bay Area and EU eco-system!

08.10.14

Working on synergies to strengthen European startup ecosystem

10.10.14

Great start at EIT ICT Labs Master School in Berlin

10.10.14

Berlin event series Founders' Pit Stop attracts 50 startups and Master School students

**10.10.14**

EIT ICT Labs Idea Challenge draws 790 applications from 27 countries

17.10.14

Idea Challenge reaches out for young innovators and startups in Poland

17.10.14

Cloud Day in Stockholm: Things are really taking off...

**17.10.14**

Busy matchmaking in Kista for master thesis projects

20.10.14

The new cohort of Master School students in Trento

21.10.14

Roberto Saracco gave a talk at AU SED Annual Meeting 2014

22.10.14

HEALTH-i, startup signed exclusive worldwide license and is ready for the take off!

22.10.14

3cixty App Challenge for students is now open until December 15!

24.10.14

New inauguration of Electrum - a place for world class research and education

27.10.14

My day at the National IT-Summit in Hamburg - recap of the Idea Challenge Winner "Tinnitracks"

27.10.14

EIT ICT Labs managed Software Campus' first graduates meet industry and politics at German national IT summit

28.10.14

3cixty platform recognized with SMAU Smart Communities Award

05.11.14

EIT ICT Labs' Business Developer Filip Coenen chosen in Jury of 'Building Global Innovators' contest.

05.11.14

Joint event: Rejuvenation for the economy with startups

05.11.14

Smart Energy Community Conference with Ideas, Innovation and Industry

06.11.14

Four teams finish first edition of 'Berlin Residency Programme'

06.11.14

EIT ICT Labs presented at the Italian Parliament: Innovation, Territory, Entrepreneurs

07.11.14

EIT CHANGE Award

10.11.14

10 finalists selected in the category Cyber Security & Privacy: Idea Challenge!

11.11.14

Great 3rd EIT ICT Labs Master School Kick-Off in Budapest, Hungary

11.11.14

On Cybersecurity and Privacy in "Horizon 2020 Projects: Portal" by Jovan Golic

13.11.14

Marinus Jakobus Plasemeijer, well-known specialist of functional programming visited Budapest CLC

18.11.14

Idea Challenge winners for Cyber Security & Privacy

21.11.14

Maurizio Gabbrielli gave a talk at ENGRES 2014

24.11.14

Digital health a hot topic at Slush

25.11.14

FABtotum, Negentis and SpazioDati participate at Unbound Digital

26.11.14

Undagrid wins the Internet of Things Idea Challenge 2014

28.11.14

H.M. King Carl XVI Gustaf visited EIT ICT Labs Helsinki

30.11.14

First Graduation Ceremony EIT ICT Labs Master School

30.11.14

EIT ICT Labs Eindhoven organised successful Investors' Dinner

01.12.14

EIT ICT Labs is shortlisted for The European Excellence Awards for Idea Challenge communication campaign

02.12.14

Europe can become a byword for trust in the cloud

02.12.14

Stockholm Results Day shared the ecosystem success stories

02.12.14

Augmented reality enables citizens to explore future plans for their neighbourhood

04.12.14

EIT ICT Labs hosts signing of IDBB agreement in Berlin

04.12.14

FNS seminar disclosed impressive speed of commercial results

08.12.14

How to finance my startup business

09.12.14

Start-ups receive 100 000 Euros from EIT ICT Labs

09.12.14

Concrete results ready for market at Results Day Helsinki

10.12.14

First EIT ICT Labs Master School students to be graduated!

11.12.14

Trento as an IEEE Smart City

11.12.14

EIT announced the new KICs for Health and Raw Materials

12.12.14

Students meet startupper @ Trento CLC

12.12.14

Startup ICT winner helps improve communications within families with children with autism, ADHD and Down syndrome

12.12.14

Future!City!Now! Innovative ways of getting to know a city

16.12.14

Top national and international experts at the conference on Cyber Security & Privacy

16.12.14

The new European Commissioner visited the EIT ICT Labs Budapest CLC

17.12.14

EIT ICT Labs, a mission @work! CLC Eindhoven opened by royalty

17.12.14

Results announced for the Outreach call "Via Trento to London or Berlin"

17.12.14

Gary Whitehill, the founder of Entrepreneur Week gave a speech at EIT ICT Labs Budapest CLC

18.12.14

EIT ICT Labs and FIWARE selected 13 new Internet Innovation Hubs to boost open source business

18.12.14

ICT innovation of Action Line Health and Wellbeing at successful Health Tech Event

23.12.14

Final event of the professional course on Applied Cryptography

29.12.14

First Cybersecurity and Privacy (CySeP) Winter School very successful

EIT ICT Labs **EVENTS 2014**

22.01.14

ELL-i Hackathon Helsinki – Build an Internet for Your Things

23.01.14

Kick-off Health and Wellbeing 2014 @ CLC Eindhoven

24.01.14

Where is your soma? Designing for Somaesthetics

04.02.14

Kickoff 2014 workshop Future Networking Solutions

05.02.14

Smart Spaces Kick-off 2014 in Helsinki

10.02.14

Social Entrepreneurship Inspiration and Pitching Afternoon February 10, 2014

10.02.14

Winter School on Secure Design (10-14 February, Trento)

16.02.14

Smart Retail Solutions showcased at EuroShop fair

18.02.14

From Innovation to Business 18 Feb Paris

20.02.14

HWB Pre-call workshop on Activities 2015, 20 February

20.02.14

TTTTT @Stockholm CLC: Sasan Shaba about KTH partnership with FOUNDER.org

25.02.14

Raising I&E Awareness doctoral course in Espoo, Finland

03.03.14

INVITATION - Partner Event 2014, April 9-10, Berlin

03.03.14

EIT ICT Labs Stockholm welcome King.com on March 6

06.03.14

Workshop on Urban life and mobility

**09.03.14**

EIT ICT Labs participates in ICT Days 2014, Trento, 2-4 April

11.03.14

EIT ICT Labs at CeBIT 2014

11.03.14

At CeBIT we launched EIT ICT Labs Idea Challenge

17.03.14

Opportunity Recognition Workshop 17, 18, 19 March @ CLC Eindhoven

17.03.14

For Startups & Investors: Pitch Training, Angels Bootcamp and Investors' Dinner

18.03.14

Outreach programme in Croatia

20.03.14

Virtual Grasp TTTT

24.03.14

Presentation of the project "Pervasive Stress Recognition for Sustainable Living" at the IEEE workshop

24.03.14

RUE2014

24.03.14

KIC INFODAY on March 28th organized by the French Ministry of Higher Education and Research

25.03.14

EIT ICT Labs Italy Info Day

26.03.14

Second Wine & Cheese Entrepreneurs Forum in Berlin

26.03.14

Stockholm Node event on March 26

27.03.14

SICS Open House 27 March

02.04.14

Outreach Event for Polish startups, in Gdansk

03.04.14

INVITATION - 'Raising Awareness in I&E' - Rennes, April 3-4 2014

03.04.14

CLC Eindhoven meets Burton Lee, Expert on Entrepreneurship & European - Silicon Valley innovation ecosystems

08.04.14

8 April: Future Cloud Workshop for Call 2015 preparation

08.04.14

8 April: Financial Workshop

09.04.14

Partner Event 2014, April 9-10, Berlin

11.04.14

11 April: Health and Wellbeing Workshop

11.04.14

11 April: Urban Life and Mobility Workshop

11.04.14

11 April: Cyber-Physical Systems Workshop

11.04.14

11 April: Smart Spaces Workshop

11.04.14

11 April: Future Networking Solutions Workshop

11.04.14

11 April: Privacy, Security & Trust Workshop

11.04.14

11 April: Smart Energy Systems Workshop

13.04.14

8-13 April: City Sensing presented at Milano Design Week 2014

14.04.14

EITEC14: Emerging Ideas & Trends in Engineering of CPS, Workshop at CPS Week in Berlin

14.04.14

Outreach event in Bucharest, Romania

15.04.14

Business Modelling Module for Doctoral Students

15.04.14

Co-location Centre Eindhoven hosts APPril Festival workshop 15-4-2014

15.04.14

Webinar: How to successfully apply & pitch for funding

17.04.14

Idea Challenge Twitter real-time interview

22.04.14

EIT ICT Labs Open Online Education Workshop in Co-location Centre Eindhoven

**23.04.14**

Happy Hour: Information on EIT ICT Labs Master School, by TU Berlin

28.04.14

Professor Millennium's lost laboratory engages youth to technology

28.04.14

Health and Wellbeing Business Community kick-off, in Berlin

07.05.14

Prolongation of Investors Dinner, Edition Germany

08.05.14

STING Day 2014

09.05.14

Pizza session in the CLC Eindhoven: get cash for your startup!

09.05.14

Friday Afternoon Lecture with Dr. Sara Diamond

12.05.14

Watch Johannesberg Summit talks by leaders in Wireless and Mobile ICT

13.05.14

Outreach Programme: opportunities for start-ups in Romania

15.05.14

ICT for Smarter Cities - Swedish-French partnership event in Kista

15.05.14

EIT ICT Labs at the conference PODIM 2014 in Maribor

16.05.14

Hacking for better healthcare 16-18 May

16.05.14

Opportunity Recognition course in Stockholm June 16-19

21.05.14

Idea Challenge Finals for Health and Wellbeing on stage at Cordian symposium

21.05.14

Google Innovation Jam II for students and start-ups Helsinki

22.05.14

Outreach Programme in Greece, Athens

23.05.14

Brainport Venture Day, 23 May in Eindhoven

26.05.14

Outreach Programme in Romania, Bucharest

29.05.14

Access to excellent research and business opportunities in ICT - Opportunities to cooperate with the EIT ICT Labs

30.05.14

Outreach Programme in Bulgaria, Sofia

31.05.14

Roberto Saracco is giving a talk at the INET forum in Trento

03.06.14

Idea Challenge Finals for Cyber-Physical Systems, in Munich

03.06.14

Idea Challenge Final: Smart Spaces

04.06.14

EIT ICT Labs and Cloudberry Science & Innovation days

06.06.14

Upgraded Life Festival

10.06.14

Stockholm DTC seminar: Developing inclusive teamwork

17.06.14

Data for Mobility at NUMA in Paris

18.06.14

International Investors Meet Top Entrepreneurs from the Benelux Region!

19.06.14

Delft Data Science Center Seminar: Data Science for Finance

20.06.14

Meet us at the Expo of Startups

23.06.14

Symposium on Future Cloud Computing 23-24 June, 2014 in Rennes

24.06.14

EIT ICT Labs Round Table Discussion

25.06.14

Training Camp for startups at TechPeaks in Trento

27.06.14

fanTaaStic co-presents CI-FIRE Industry Workshop: Connecting European innovators to ICT test facilities

30.06.14

Entrepreneurial Marketing with Rajiv Lal, a Master Class in Berlin

30.06.14

Cyber-Physical Systems summer school in Trento

04.07.14

THE OTHER HACKATHON: an Environment for Innovation, by the Berlin Geekettes

17.07.14

Perfecting your Pitch, presentation training by Beth Susanne

18.07.14

TechPeaks Demo Day

23.07.14

FI-PPP Day Berlin: Call for Submissions in FI-WARE Challenge

24.07.14

Founders' Pit Stop: Marketing & Communications 101, by Idea Challenge

28.07.14

Security & Privacy in Digital Life summer school in Trento

03.08.14

Health and Wellbeing Summer School @ High Tech Campus Eindhoven

07.08.14

Founders' Pit Stop: How to Build a Kick-Ass Crowdfunding Campaign

13.08.14

EIT ICT Labs Symposium on Trusted Cloud and Future Enterprises

25.08.14

EIT ICT Labs HWB Business Community @ Digital Health Days

26.08.14

Some seats open at 5GrEen Summer School in Stockholm!

28.08.14

Roadshow Startup Support KONKRET, in Darmstadt

15.09.14

TNO-ESI Symposium, Design challenges for tomorrow's high-tech systems

16.09.14

Matchmaking event for student internships @ Helsinki

**18.09.14**

Raising I&E Awareness -course for PhDs in Budapest, 18-19 Sept

18.09.14

Hill Street Smart Retail kick off meeting in Helsinki CLC on Sep 18-19

23.09.14

Founders' Pit Stop - How to pitch to investors

24.09.14

How to finance your startup!

25.09.14

EIT ICT Labs SILICON VALLEY Grand Opening September 25

25.09.14

Shaping tomorrow's society - Workshop to explore new smart opportunities

25.09.14

StartUp SPRITZ! Autumn Opportunities

29.09.14

Investors Dinner London

29.09.14

New Curricula for e-Leadership Delivering Skills for an innovative and competitive Europe

03.10.14

HACKATHON-IN-A-BOX Innovation Contest

03.10.14

WAITING FOR EXPO: Join EIT ICT Labs at Move.App Expo in Milan

07.10.14

Time to register for SICS software week

08.10.14

EIT ICT Labs at South Summit

09.10.14

Interoperability Conference for Embedded Systems Development Environments

10.10.14

Green Hackfest for Green Urban Living

10.10.14

Friday Morning Talk: Carlo Pompili, Telcred

10.10.14

Paris FI-WARE / EIT ICT Labs challenge for SMEs: Apply up to October 10th!

10.10.14

Growth Capital - open seminar 17/10 at Stockholm CLC

13.10.14

Sales Hacking & Deal Closing with Steli Efti

14.10.14

Black Hat Europe 2014

15.10.14

Meetup on the Apache Flink Big Data Analytics Platform

15.10.14

Berlin Usability Meetup @ Berlin CLC

21.10.14

Investors' Dinner in Milan

21.10.14

EIT ICT Labs at the German IT-Summit in Hamburg

22.10.14

WAITING FOR EXPO: 3cixty at SMAU in Milan

22.10.14

KIVI Engineering Society organises an evening session in the Co-location Centre Eindhoven: 25 November 2014

23.10.14

iMinds The Conference 2014, Digital Research that matters.

23.10.14

Kick-off Event of the third EIT ICT Labs Master School in Budapest, Hungary

27.10.14

Cybersecurity and Privacy (CySeP) Winter School

28.10.14

FIWARE Tech Camp @EIT ICT Labs Stockholm

29.10.14

EIT ICT Labs Investors' Dinner Eindhoven: Create for Value

30.10.14

Smart Energy Community - Ideas-Innovations-Industry

03.11.14

From Idea to Start Up - Key Factors of Successful Early Stage Entrepreneurship

06.11.14

1st Meteor meetup on Meteor Day at EIT ICT Labs Budapest CLC

06.11.14

Mobilise your Business on November 6th in Kista

06.11.14

FINODEX open call presentation: funding for SMEs and Entrepreneurs

**13.11.14**

Stockholm Results Day 2014

13.11.14

Cyber Security & Privacy: ideas, investors and innovators

13.11.14

Idea Challenge Internet of Things finals in Stockholm

**14.11.14**

Future Networking Solutions Seminar 2014

18.11.14

Health and Wellbeing Business Community at SLUSH start-up conference

19.11.14

Budapest APG organises BrassTacks training programme for early-stage tech startups from Central-Eastern Europe

21.11.14

How to finance my startup business?

24.11.14

Gary Whitehill, the founder of Entrepreneur Week gives a speech at EIT ICT Labs Budapest CLC

**25.11.14**

EIT ICT Labs Master School First Graduation Ceremony

26.11.14

B2B sales training for start-ups

27.11.14

EIT ICT Labs organises Business-2-Business Sales workshop

29.11.14

FIWARE Hackathon at EIT ICT Labs Budapest CLC

02.12.14

Opportunity Recognition Workshop: give research impact on society!

**04.12.14**

Results Day Helsinki 2014

05.12.14

WAITING FOR EXPO: Future! City! Now!

05.12.14

Budapest APG organises a Hackaton-in-a-box at Cluj-Napoca!

09.12.14

Health Tech Event 2014 by EIT ICT Labs and Jakajima

11.12.14

EIT ICT Labs Eindhoven opens new Co-location Centre on 11-12-2014

11.12.14

Learn how to use the FIWARE platform, sign up for FIWARE training workshop in Paris on December 11-12

11.12.14

How to guarantee security without losing privacy?

**12.12.14**

Join the Hackathon of EIT ICT Labs Budapest Associate Partner Group at Bratislava!

12.12.14

Activity leader of 5GrEEn project chairs panel at IEEE Globecom 2014

12.12.14

Swedish Lucia celebration and "lussefika" at Stockholm CLC

17.12.14

Cyber Physical Systems Community

18.12.14

Urban Life and Mobility - EIT ICT Labs Results Day

EIT ICT Labs **Glossary**

3GPP	3rd Generation Partnership Project	ERC	European Research Council
5G	Fifth Generation (mobile telecommunication standards)	ESB	Executive Steering Board
AL	Action Line	ETP	European technology platform
ANRT	Association Nationale de la Recherche et de la Technologie	ETSI	European Telecommunications Standards Institute
APG	Associate Partner Group	EU	European Union
APT	Advanced persistent threats	EuroCIO	European Association of Chief Information Officers
ATTPS	Achieving the Trust Paradigm Shift	FBK	Fondazione Bruno Kessler
B2B	Business-to-business	FI-PPP	Future Internet Public Private Partnership
BD	Business Developer	FNS	Future Networking Solutions
BDA	Business Development Accelerator	FTE	Full-time equivalent
BDE	Business Development Experience	FTTH	Fibre to the home
BME	Budapest University of Technology and Economics	GA	General Assembly
BSC	Barcelona Supercomputing Center	GSMA	Global System for Mobile Communications Association
BSc	Bachelor of Science	GTW	Gateway
BT	British Telecommunications	H2020	Horizon 2020
CADENCE	Cyber Attack Detector Engineering for Commercial Exploitation	HII	High Impact Initiative
CDC	Connecting Digital Cities	HWB	Health and Wellbeing
CDTM	Center for Digital Technology & Management	I&E	Innovation and Entrepreneurship
CEFRIEL	ICT Center of Excellence For Research, Innovation, Education and industrial Labs partnerships	I3C	Intelligent Integrated critical Infrastructures for smarter future Cities
CEE	Central and Eastern Europe	I3H	Incubating Internet Innovation Hubs
CEO	Chief executive officer	I4.0	Industry 4.0
CIFRE	Industrial Agreement of Training through Research	ICT	Information and communications technology
CIO	Chief information officer	ID	Identity
CLC	Co-location Centre	IEC	International Electrotechnical Commission
COO	Chief operating officer	IEEE	Institute of Electrical and Electronics Engineers
cPAS	Cyber-physical Production Assistance System	IETF	Internet Engineering Task Force
CPS	Cyber-Physical Systems	IIE	Integrated Information Engineering
CSO	Chief strategy officer	IMT	Institut Mines-Télécom
CWI	Center Wiskunde & Informatica	INRIA	Inventeurs du monde numérique
D2D	Device-to-device	IoT	Internet of Things
DFKI	Deutsches Forschungszentrum für Künstliche Intelligenz (German Research Center for Artificial Intelligence)	IP	Internet protocol
DG	Directorate-General	ITEA	Information Technology for European Advancement
DNA	Deoxyribonucleic acid	ITU	International Telecommunication Union
DTC	Doctoral Training Centre	KIC	Knowledge and Innovation Community
EC	European Commission	KPI	Key Performance Indicator
ECTS	European Credit Transfer and Accumulation System	KTH	Kungliga Tekniska högskolan (Royal Institute of Technology)
EIF	European Investment Fund	LTE	Long-Term Evolution
EIT	European Institute of Innovation and Technology	M2M	Machine-to-machine
ELTE	Eötvös Loránd University	MAC	Media access control
EPC	Evolved Packet Core	MBA	Master of Business Administration
		MC	Management Committee
		MEC	Mobile-Edge Computing
		MoC	Memorandum of Collaboration
		MOOC	Massive Open Online Course
		MOOP	Massive Open Online Programme
		MOSES	Mobile Opportunistic Services for Experience Sharing
		MTA-SZTAKI	Magyar Tudományos Akadémia Számítástechnikai és Automatizálási Kutatóintézete
		NEC	Node Executive Committee

NILM	Nonintrusive Load Monitoring
OASIS	Organization for the Advancement of Structured Information Standards
OCCI	Open Cloud Computing Interface
OSLC	Open Services for Lifecycle Collaboration
PCR	Polymerase chain reaction
PGA	Partner Grant Agreements
PPP	Public-private partnership
PR	Public relations
PST	Privacy, Security & Trust
PUF	Physical unclonable function
R&D	Research and development
R&D&I	Research, development and innovation
RICH	Reliable IP for time synchronized channel hopping networks
RIS	Regional Innovation Scheme
RTC	Real-time communications
SCS	Secured Communicating Solutions
SDN	Software-defined networking
SES	Smart Energy Systems
SIA	Strategic Innovation Agenda
SICS	Swedish Institute of Computer Science
SIG	Special interest group
SIM	subscriber identity module
SLA	Service-level agreement
SME	Small and medium-sized enterprises
SOC	Security operations center
SSP	Smart Spaces
STIATE	Security Threat Identification and Testing
STING	Stockholm Innovation & Growth
STORK	Secure Identity Across Borders
TDL	Trust in Digital Life
TERO	Transient effect ring oscillator
TNO	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek (Dutch Organization for Applied Scientific Research)
UCLB	University College London Business
ULM	Urban Life & Mobility
UPM	Technical University of Madrid
UPMC	Université Pierre et Marie Curie
UK	United Kingdom
US	United States
VC	Venture capital
VIP	Very important person
VPN	Virtual private network
VTT	Technical Research Centre of Finland
W3C	World Wide Web Consortium
WSAN	Wireless Sensor and Actuator Networks

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