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Community

EIT ICT Labs

# TARGET &FOCUS

## EIT ICT Labs Annual Report **2013**

# EIT ICT Labs
## DRIVING EUROPEAN LEADERSHIP IN ICT INNOVATION FOR ECONOMIC GROWTH AND QUALITY OF LIFE.

# CONTENT

# EIT ICT LABS 2013

- Management Committee was joined by Stephane Amarger, new French Node Director as well as Fabio Pianesi, new Research Director.
- CSO Martti Mäntylä stepped down, after having served EIT ICT Labs for five years.
- Spain was added as an Associate Partnership operating from Madrid.
- The X-Europe Outreach programme was launched to engage other EU-28 countries and the decision was taken to establish a connection with Silicon Valley.
- EIT ICT Labs partnership grew from around 70 partners in 2011 and 80 in 2012 to over 120 in 2013.
- Participation as exhibitor at the GSMA Mobile World Congress 2013 in Barcelona generated high visibility, among 1,700 exhibitors and over 72,000 attendees from 200 countries.
- The Annual Partner event was held in Paris under the motto "Target & Focus" with focus on Call 2014.
- The pan-European Business Development Accelerator was fully deployed with 3-5 business developers in each of the Co-location Centres.
- Collaboration with the European Investment Fund has been set-up.
- Professional claim validation of the stress and burnout prevention technology developed in the Health & Wellbeing Action Line in collaboration with an occupational health company and a secondary school.
- In the Future Cloud Action Line the European Big Data analytics platform Stratosphere (www.stratosphere.eu) has been taken up by several companies and new business cases are emerging. Business Development Accelerator has created the potential for the establishment of a new European start-up, which intends to commercialise and bring the Stratosphere technology to the market.
- Future Cloud Action Line contributed to a number of standards for Multi-Path real-time transfer protocols as a part of Internet Engineering Task Force (IETF).
- The Cyber-Physical Systems Action Line delivered via the "UrbanFlood Launching Validator" activity the successful launch of commercialised UrbanFlood technology via the implementation of a show case and demo centre for "Integrated Water Management" resulting in contracts with first customers for pilots.

- The Privacy, Security and Trust Action Line delivered a software suite for data protection and identity management for mobile devices, tested in operational environment and ready for the market.
- Smart Energy Systems, Cyber-Physical Systems, and Health & Wellbeing Action Lines organised summer schools that attracted many participants.
- Our Strategic Innovation Agenda was significantly updated with the help of the renowned consultancy firm PwC.

**EMPOWERING ICT TOP TALENTS FOR THE FUTURE**

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

- **820** Master School student applications for EIT-branded programmes
- **257** students in total are enrolled in EIT-branded programmes of the Master School
- **66** Doctoral School student applications for EIT-branded programmes
- **70** students in total are enrolled in EIT-branded programmes of the Doctoral School

**DRIVING EUROPEAN LEADERSHIP IN ICT INNOVATION**

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

- Incubation of **60** innovations
- **33** knowledge adoption cases and **10** knowledge transfer cases of KIC generated knowledge
- Creation of **15** new companies
- **24** top publications
- **269** experiments on EIT ICT Labs-enabled pan-European test beds

**BRINGING ICT INNOVATIONS TO LIFE**

The Business Development Accelerator supported a number of start-ups and spin-offs, such as SOWISO, Smart Signs, Cliris, UbiCast, RSens, SpazioDati, Dipos, Quuppa, Blaast, InnoRange, UXvibe, Mosync, Abellife, Corehab, Sensorfit, Inca technology, Squid, Medixine/Santech, and Machtfit.

# FOREWORD

**Henning Kagermann**
Chairman of the Executive Steering Board EIT ICT Labs

EIT ICT Labs has further matured in terms of eco-system, entrepreneurial ICT education and disruptive ICT innovation, resulting in more impactful results such as a growing number of students, increased value of technology transfers, and higher number of supported start-ups and SMEs in their European expansion. The eco-system has grown through new partners, the addition of Madrid as an Associate Partnership Group, and the development of our London operations into a full Node per 1st of January 2014.

In order to be well prepared for the coming years, a significant strategy update was performed through an intense dialogue with the partners and taking into account the lessons learned from the first years of operation. Key ingredients are a focused set of Action Lines with clear priorities and targets on societal and economic impact, a blended education approach delivering so-called T-shaped talents, vibrant Co-location Centres hosting High Impact Initiatives, and the development of close ties with other actors in the ICT innovation and education landscape.

The embedding of EIT in Horizon 2020 together with a budget of nearly 3 B € has clearly established EIT as an important European innovation instrument. The development of EIT will lead to new KICs to be added as well as a stronger support for the three existing KICs. As a result of this EIT ICT Labs is able to significantly increase its ambition and impact. The responsibility to deliver drives our continuous focus on quality both of execution as well as results. An important topic in the future development of the EIT will be how to turn KICs into sustainable organisations.

EIT ICT Labs has successfully developed in 2013 and will further scale-up in 2014. This is the result of the contribution of people at all levels in the organisation. Let me express a warm thanks to all of you for your efforts and commitment.



"I am very pleased to present with this third annual report the activities and results of EIT ICT Labs for the year 2013. A year in which the efforts are characterised through targeting innovation opportunities on clear societal and economic impact as well as focusing efforts in order to obtain critical mass."

# CEO STATEMENT

**Willem Jonker** CEO EIT ICT Labs

"Target and Focus" has been the theme for EIT ICT Labs in its third year of operation. After the initial years of building the organisation and developing the education and innovation methodologies EIT ICT Labs has moved to a phase of growth, which requires keeping the organisation focused in order to achieve critical mass behind the education and innovation initiatives.

The limited number of Action Lines and priorities within Action Lines greatly helps in focusing the activities. Portfolio management creates a balanced and targeted set of activities addressing opportunities with high societal and economic impact. A significant

update of the strategy has been carried out with the help of the renowned consultancy firm PwC. This midterm update builds on experiences collected over the first years of operation. The overarching theme for the 2014-2016 period is "Blended Life in a Connected World" expressing the deep integration of ICT into our daily life resulting in a seamless merger of the physical and virtual world.

In the Management Committee we welcomed Stephane Amarger, our new French Node Director as well as Fabio Pianesi, our new Research Director. At the same time 2013 has been the final year for our CSO Martti Mäntylä. Martti has served EIT ICT Labs for five years, showing unequalled commitment since its original set-up and made invaluable contributions to EIT ICT. Also, at the Action Line level several new Action Line leaders arrived. With the scaling up of EIT ICT Labs their role is pivotal in managing a portfolio of activities driving towards high impact, significant value creation as well as excellent execution.

In the EIT ICT Labs ecosystem Spain was added as an Associate Partnership operating from Madrid. To engage other EU-28 countries the X-Europe Outreach programme was launched and the decision was taken to establish a connection with Silicon Valley.

The student population in EIT ICT Labs is growing with the enrolment of 185 new Master School students as well as a total of 70 students in our Doctoral School, which brings our total student population at roughly 340. The first Master School students started in 2012 and have now made their move to the second year in a new environment.

Business development is one of the cornerstones of EIT ICT Labs and is driven via the full deployment of a pan-European Business Development Accelerator with 3-5 business developers in each of the Co-location Centres. Business developers work in close collaboration with the ecosystem partners on technology transfer, business growth for SMEs as well as scouting of start-ups. Innovation through bringing technologies to the market requires significant financial means to start and grow businesses. In order to mobilise these financial means around the EIT ICT Labs activities and Co-location Centres, a collaboration with the European Investment Fund has been set-up.

The Innovation Action Lines have increased their delivery significantly, illustrated by a number of selected highlights from various Action Lines (more details and results to be found in this Annual Report).

The professional claim validation of the stress and burnout prevention technology developed in the Health and Wellbeing Action Line of EIT ICT Labs in collaboration with an occupational health company and a secondary school is a crucial step towards the market introduction of this technology.

In the Future Cloud Action Line the European Big Data analytics platform, Stratosphere (www.stratosphere.eu), has been taken up by several companies and new business cases are emerging. The collaborative work and support by the EIT ICT Labs Business Development Accelerator has created the potential for the establishment of a new European start-up, which intends to commercialise and bring the Stratosphere technology to the market. In addition to the technology development, the EIT ICT Labs Future Cloud Action Line efforts have also contributed to a number of standards for Multi-Path real-time transfer protocols as a part of Internet Engineering Task Force (IETF).

The Cyber-Physical Systems Action Line delivered via the "Urban-Flood Launching Validator" activity in the successful launch of commercialised UrbanFlood technology via the implementation of a show case and demo centre for "Integrated Water Management" resulting in contracts with first customers for pilots.

The Privacy, Security and Trust Action Line delivered a software suite for data protection and identity management for mobile devices, tested in operational environment and ready for the

market, that provides policy enforcement, parental control, application blocker, intrusion detection, and access control based on biometric authentication and NFC e-passport reading.

Finally, several Action Lines (Smart Energy Systems, Cyber-Physical Systems, Health and Wellbeing) organised summer schools that attracted many participants. The success of these summer schools has led to the decision to organise them for all EIT ICT Labs Action Lines and make them also an integral part of the Master School, thus resulting in a deep integration of innovation and education.

The above is just a snapshot of the kind of innovations the EIT ICT Labs Action Lines are delivering. The emphasis on focusing efforts combined with clear targeting of markets makes EIT ICT Labs unique and effective in bringing research-based innovation to the market.

2013 showed that EIT ICT Labs is developing and learning fast and well on its way breeding entrepreneurial ICT talent and bringing ICT innovations to life.

These results are achieved through the thousands of people contributing to EIT ICT Labs all over Europe. On my many trips to the EIT ICT Labs Co-Locations and partner organisations I am always impressed by the drive and commitment of you that make EIT ICT Labs happen. Big thanks from my side to you for your efforts and impact which makes all of us proud of being part of EIT ICT Labs.

# STRATEGY

## BLENDED LIFE IN A CONNECTED WORLD

Today, we live a blended life. We experience a world where physical and virtual encounters seamlessly merge. We blend our private and professional lives due to the flexibility to work at any time from different locations. We see industry disruptions as a result of flexible production as well as personalised service and product offerings. We see a blending of work and education in life-long learning, facilitated by distance learning platforms, offering us a personalised approach to fulfil our life and career goals.

This blended life is a direct consequence of the deep penetration of ICT into our society through ubiquitous connectivity and information access. It enables disruptive innovative solutions to address societal megatrends like demographic changes, urbanisation, increased mobility and scarcity of natural resources.

EIT ICT Labs is at the heart of these developments and is committed to bring the best of blended life to European citizens and industries. Building on European strengths and values, EIT ICT Labs drives the opportunities of a blended life via a pan-European ecosystem that brings together key players from education, research and business to create a true open innovation environment. Mobility of talents, ideas, technologies and investments drives the necessary sharing of know-how in order to create a European network of vibrant ICT hotspots. With this network involving more than 120 leading European ICT companies, universities, research institutes, local innovation clusters and incubators, EIT ICT Labs drives European ICT innovation for economic growth and quality of life by: 1) accelerating the market introduction of research-based innovations, and 2) educating

highly talented students in top class ICT programmes with a strong focus on entrepreneurial skills.

## ACCELERATION OF RESEARCH-BASED INNOVATION BY ENFORCING FOCUS AND IMPACT OF INVESTMENTS

In order to have sufficient critical mass behind its innovation actions, EIT ICT Labs focuses on a limited number of areas. These areas have been selected based on a careful SWOT analysis of the European ICT position in a global perspective. With respect to core ICT developments, the focus areas are Future Networking, Future Cloud, and Privacy-Security-Trust. Blended Life is driven by the efficient handling of big and real-time data volumes and therefore needs a future generation of secure and trusted network and cloud infrastructures. It is of vital European interest to have a strong position in these key technologies.

With respect to ICT-enabled developments, five areas have been selected: Health & Wellbeing, Energy, Urban Life and Mobility, Smart Manufacturing and Critical Infrastructures, and Smart Spaces.

These areas offer clear opportunities for Europe due to the combination of European strengths and values when it comes to healthcare, sustainable energy production, manufacturing of high quality products, and quality of life in our cities and environment. During the coming years, we expect major breakthroughs in Trusted multi-Cloud Infrastructures and Services, Cyber-physical Systems for Production Systems, Preventive Healthcare Solutions based on the Quantified Self, and Smart Grids, to name a few.

## ENTREPRENEURIAL EDUCATION VIA BLENDED EDUCATION AND MOBILITY

EIT ICT Labs adheres to a systematic "Schools & Tools" approach to education and provides blended programmes that deliver T-shaped talents, who are able to combine deep technical ICT knowledge with broad entrepreneurial skills. The "T-shaped" metaphor refers to professionals with deep skills and expertise in a single technical field as well as a set of broadly applicable non-technical abilities, e.g. related to innovation and entrepreneurship or to collaboration and communication.

The Master-, Doctoral- and Professional Schools build their programmes on Tools, such as EIT ICT Labs partner university education programmes, Co-Location Centres and on-line learning platforms. The ambition is to inspire a structural change in the European education landscape by demonstrating excellence and by operating lighthouse initiatives that stimulate entrepreneurship and mobility. During the years to come, the Master- and Doctoral School will be upgraded in scale, the Professional School will be established and blended education will be fully integrated in all programmes. Integration of education activities within the Action Lines will be strengthened via thematic Summer Schools and via Master and doctoral student participation in Action Line activities.

EIT ICT Labs will be a recognised brand for ICT education, leading to privileged access to top ICT talent for employers and a wave of new entrepreneurs creating successful ICT ventures.

# NODES

# BERLIN
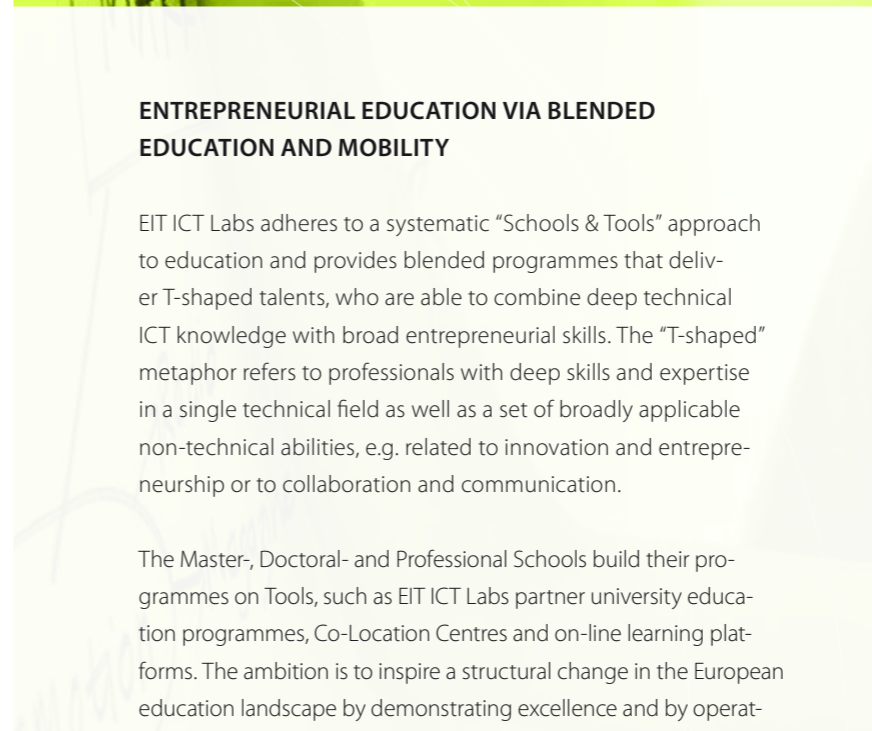
## THE EIT ICT LABS ECOSYSTEM AND ITS IMPACT

The current EIT ICT Labs ecosystem consists of seven core Nodes and two Associate Partnerships. London is now maturing as a full Node and the profiles of both Associate Partnerships (Madrid and Budapest) are being strengthened. EIT ICT Labs interacts with the EU-28 via its X-Europe Outreach programme and establishes a bi-directional link with Silicon Valley. Opportunities within the BRIC countries will be explored in the coming years.

Various initiatives are being taken to further stimulate the flourishing community of researchers, students, business developers, researchers, teachers and entrepreneurs in the EIT ICT Labs Co-Locations.

EIT ICT Labs continues to take strategic steps to enhance its effectiveness and to increase its impact for Europe. It actively contributes to further shifting the European ICT innovation culture towards "value creation" with new services, products and innovative solutions. It educates the future ICT entrepreneurs, who create new start-ups and drive the growth of companies towards European and global excellence.

The Berlin Node strengthens its central role in the innovation landscape. Even a second innovation hotspot has been opened: the Satellite Co-location Centre in Munich that has been up and running since early summer. Thus, EIT ICT Labs is gaining more and more visibility in those two major ICT hubs.

Many successful large-scale projects have been run in and around the Co-location Centre in Berlin in 2013, e.g. a novel start-up activation contest for start-ups in non-EIT ICT Labs countries, a three-day kick-off meeting for the newest cohort of Master School students and their coordinators, and a conference on security in IT, just to name a few newcomer formats added to our existing portfolio.

Further achievements include repeated Investor's Dinners for start-ups, entrepreneur's fora, round tables and meetings on Action Line-related topics, and several joint Master classes focusing on, e.g. business modelling or pitch trainings with international icons like Ken Morse, in cooperation with our local neighbours of the Climate KIC and other local parties. A growing number of regular meetings and workshops fills the co-working space with partners, students, and third-party stakeholders each day.

After a successful initial Outreach Programme in 2012, the Berlin Node in 2013 consolidated Outreach activities with the Helsinki Node and leveraged further synergies through the collaboration with colleagues in Budapest and Trento. With a new concept of a start-up activation idea contest as well as meeting stakeholders in scouting activities, we established inspiring contacts with innovators and thought leaders, particularly in the Czech Republic, Poland, Latvia, and other Central and Eastern European countries once more.

EIT ICT Labs Berlin strives to take a moderating role in bringing partners, innovators and top students together. It is our aim to establish EIT ICT Labs as a thought leadership epicentre across

organisational borders. Therefore, we will continue to identify and engage strategic local stakeholders.

The Berlin Node strives to be a gateway for soft-landing and partnering innovation. Due to its central location and good connections to the local start-up scene, innovators are easily identified and screened by the Berlin Node and the Berlin Business Development Accelerator team. One of the current success stories is Panono, a Berlin start-up whose proved throwable panoramic camera ball concept achieved international media attention.

EIT ICT Labs is management partner of the national project Software Campus - an initiative by the German government, industry and academic partners for the education of tomorrow's IT leaders to strengthen Germany as a location for leading edge technology innovation. Already 123 participants have attended Software Campus since its commencement in 2011.

The Berlin Node in 2014 will focus on further building the brand and strengthening the EIT ICT Labs wingspan in the region.

„With two innovation hubs in Berlin as well as Munich, close cooperation with Business Development Accelerator and activities within the Outreach Programme, we strengthen EIT ICT Labs' footprint and its innovation competence in Germany and Europe."

**Udo Bub** Node Director

# EINDHOVEN

The Eindhoven Node is a strong promoter of the integration of the Education, Research and Business (ERB) triangle 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 in EIT ICT Labs consists of Philips, Océ, 3TU Federation (TU Delft, TU Eindhoven and UTwente), Novay, CWI, and TNO. The Affiliate Partners are NXP, Holst Centre, University Utrecht, and High Tech NL. The Co-location Centre Eindhoven 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.

The Eindhoven Co-location Centre provides workplaces, meeting rooms and various video conferencing facilities suited for project meetings, informal meetings and event broadcasting. The Co-location Centre now houses staff members, business developers, and visiting residents. By the end of 2013, the Co-location accommodated four start-ups.  In 2013, the Eindhoven Node has managed to mature significantly. This is witnessed through the staff (on average 15 people) and visitors of the Co-location, but also in the central role that the Co-location takes in events, especially in the context of Health & Wellbeing.  The Eindhoven Node extended its education footprint with the participation in the Master School, the signing of the Doctoral School agreement by TU Eindhoven, the Health Postmaster

education, and the Summer Schools. The Eindhoven Node has been active in setting up Professional and Online Education. It also has been successful in providing business cases and internships from the industrial partners to Master School students, as an example that the ERB machinery is starting to work. The Eindhoven Node is becoming an attractive centre for Health & Wellbeing activities. The Node has now a clear portfolio of Health & Wellbeing-related events: the Health Tech Event, the Health Winter School, the Summer School, and the Health & Wellbeing End-of-Year Event.

Particular highlights of 2013 were the Health & Wellbeing Summer School, with 53 participating students working on industrial cases supplied by our industrial partners, the Investors' Dinner, where EIT ICT Labs-coached start-ups were connected to investors, and the Health & Wellbeing End-of-Year event, that brought together EIT ICT Labs projects results, the Health & Wellbeing SME community, and a business audience.

*In 2014, the focus will be on the national footprint and Outreach. The Node is also looking to change the Co-location to accommodate the increased Education, Research and Business activities.*

**Patrick Strating**
Node Director

# HELSINKI

**Marko Turpeinen** Node Director

The Helsinki Co-location Centre (CLC) is located in the Open Innovation House in Otaniemi, which is the prime ICT hotspot in Finland with a growing amount of international R&D centres and a booming start-up ecosystem. The core Helsinki Node partners – Aalto University, VTT, Nokia – are located within the same building or within a few minutes walking distance on the Otaniemi campus.

The partners of the Helsinki Node are committed to the open innovation principles of the KIC and bringing innovations to the market. In 2013, our partners focused especially on the Smart Spaces, Future Networking Solutions, Urban Life and Mobility, and Future Cloud Action Lines. We welcomed F-Secure, a company specialised in anti-malware and secure Cloud solutions, as our latest industry partner. New prominent industrial partners will be attracted in 2014, including partners from outside the core ICT industry to increase impact and market penetration.

The Helsinki CLC has become a vibrant space where innovation and entrepreneurship are brought to life by the 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.

Special efforts have also been made to increase the general external visibility and awareness of EIT and EIT ICT Labs. We held a successful EIT Results Day focusing on EIT ICT Labs achievements and disruptive innovation, and an EIT Awareness Day focusing on overall future

goals of EIT and the establishment of new KICs. A special highlight was the visit of Màire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science including a high-level roundtable discussion with Helsinki Node partners and stakeholders. The Helsinki Node has also played a significant role in developing the Outreach strategy for the KIC and actively participated in the X-Europe programme to involve regions where our KIC is currently not present.

The Helsinki Node has been successful in boosting entrepreneurial activities by providing a forum for students, researchers and seasoned IT professionals to innovate together, learn from each other, and to connect to the pan-European network.

*The most visible example was the Health & Wellbeing sector, where six start-ups (Netmedi, Health Puzzle, Framgo, Koru, Quattro Folia, Polqu) were hosted by the CLC.*

Together with EIT ICT Labs they also formed the Health SPA cluster that resulted in a significant boost for this booming sector, and co-ordination of the health track in Slush, the largest start-up event in Northern Europe, with more than 120 SMEs participating. The Helsinki Node also coordinated the KIC-wide Health & Wellbeing business community activity with 18 companies, resulting in valuable business development success stories.

**Stéphane Amarger** Node Director

# PARIS

French operations of EIT ICT Labs are organised around three vibrant locations, each with a Co-location Centre (CLC), covering the three main ICT innovation areas in France: the Paris Region with the CLC located in downtown Paris, easily reachable from the main airports and railway stations; Rennes in the North-West of France, only at two hours by hi-speed train from Paris; and Sophia-Antipolis on the Mediterranean coast, at one hour by airplane from Paris. The three CLCs are located within the premises of a core academic partner (Inria for Paris, Rennes 1 University for Rennes, and Nice Sophia-Antipolis University for Sophia-Antipolis). Being at the centre of the local ecosystems of innovation with the proximity of the Competitiveness Clusters (Systematic and Cap Digital in Paris, Images & Réseaux in Rennes, and Secured Communicating Solutions in Sophia-Antipolis), the Paris Node has access to a huge number of emerging start-ups and innovative SMEs in the field to nourish the Business Development activities.

The three CLCs, well equipped high-class communication means and organised to support informal encounters between parties from different cultures, are now recognised as a unique innovation hub for France in Europe.

> More than 300 meetings and events have been organised in the three French CLCs, gathering more than 3,000 participants.

Through the major meetings organised within the French CLCs, clear trends around business development, international exposure and KIC organisation are emerging. Indeed, a number of Action Lines workshops took place in the Paris CLC. The Paris Node was also present at major French events like RUE 2013 Congress in March, the official launch of the French H2020 initiative in May, Futur-en-Seine in June, and the Contest of Young Innovative Enterprises from the French Ministry of Higher Education and Research on July.

Regarding education, the Doctoral Training Centre established in the Rennes CLC is now considered as an example to follow. Master School students are coming to CLCs to follow I&E modules, Master classes, and to meet with entrepreneurs and industrials, demonstrating the pertinence of the model and the importance of the physical places to transform strategy into reality.

> From April 17th to 18th, the 2013 EIT ICT Labs Partner Event, organised with the help of the Paris CLC staff, took place in the International University Campus of Paris, gathering around 400 participants.

The CLC in Paris is, since the beginning of 2013, becoming an attractive hotspot where more and more innovative start-ups are willing to be hosted. So far, four of these are present on site with over twenty people working there full time.

Finally, more and more Action Lines activities are carried out from the CLCs, not only through regular meetings, but also via people detached from their original organisation to work full time for EIT ICT Labs and from a CLC. A good example is the arrival of Gilles Betis, the new Action Line leader of Future Urban Life and Mobility, who belongs to Thalès, one of the latest Core Partners to join the French Node. Gilles is working daily from the CLC of Paris and visiting frequently Rennes and Sophia-Antipolis.

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**Gunnar Landgren**
Node Director

# STOCKHOLM

The Stockholm Node of EIT ICT Labs experienced significant positive development and expanded the scale of its activities during 2013. Hosting the Master School Office, parts of the KIC central staff, and the newly opened Doctoral Training Centre has naturally contributed greatly to the vibrant atmosphere experienced at the Co-location Centre (CLC).

Content-wise, the main focus for the Stockholm Node partners has been the Master School and the Action Line Future Networking Solutions. Adhering to the "Target and Focus" theme of the KIC, also in the Networking area there has been a consolidation and focusing effort during 2013, resulting in a strong innovation agenda, well anchored among all KIC partners and where the Stockholm Node partners play a leading role. 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 CLC.

The Stockholm CLC is excellently located in the Electrum building in Kista Science City, the most innovative and ICT-dense area of all of Sweden. Most of the partners are located within the building or within a few minutes walking distance. During 2013 significant refurbishing of the building has started which will dramatically increase the presence of both KTH and STING in the CLC building during 2014, further enhancing the CLC as the preferred meeting place for our partners and project activities.

The Co-location Centre boosted its activities both in terms of participation in meetings, visits, seminars and events. In total we had over 3,300 participants at organised events in the CLC. Most prominent were the two visits by members of the EIT Governing Board, including EIT Chairman Alexander von Gabain. A qualitative difference in 2013 was the steady and increasing presence of Master students at the CLC premises. A new seminar series was introduced aiming at both our students and outside professionals and a new collaboration with the large network "Swedish Computer Science Association" has been initiated. A most positive trend is the increase of self-organised events and "hackathons" run by the student community.

> The successful "awareness raising" start-up course developed by STING for the Stockholm Node was successfully repeated with teams representing 18 potential business cases.

As already in the previous year the Innovation and Entrepreneurship courses given as part of the Master and Doctoral School were all taught at the CLC.

In order to reach out to political, business, SME and entrepreneurial communities of the local innovation ecosystem we co-arranged a number of events together with our local partners. In total over 1,100 people visited STING Day, SICS Day, SICS Software week and the Mobile Future event. 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. In the larger perspective, the Node partners were well represented at the successful EIT ICT Labs booth at Mobile World Congress in Barcelona.

The CLC has continued to develop its role as a test area for start-ups and has now a daily presence of business coaches catering to both student ideas and the needs of more developed start-ups.

**Paul Jenkins**
Node Director

# LONDON

The focus of the London Associate Partner Group during this year has been to establish an EIT ICT Labs core Node. The original London-based Associate Partners of EIT ICT Labs, Imperial College London and University College London were joined by BT, IBM, Intel, Institute for Sustainability, University of Edinburgh, and Vodafone to form a proposal to establish a core Node in London. The proposal to establish the new Node was approved by EIT ICT Labs and the Node is being operational from 1st January 2014. The London Co-location Centre (CLC) is located in the White City area of London and the early part of 2014 will see a focus on installing the facilities in the CLC to establish it as a fully functional part of EIT ICT Labs. The partners in the London Node are looking forward to supporting all the parts of the EIT ICT Labs business plan in 2014, including the business development and education activities.

# TRENTO

Based on a December 2013 study, Trento is ranked as number one in Italy for quality of life. We cannot claim that it is because of the EIT ICT Labs location but we surely have to live up to this ranking!

The Trento Node has expanded in 2013 to include three new partners: Federazione Trentina delle Cooperative, an aggregation of over 500 SMEs working on ICT and most importantly using ICT; Poste Italiane, a major European player with interests in mobile telecommunications, banking, brick and clicks customers interaction and with excellence in security; Reply, a European ICT company with presence also in the US and Brazil flanking our other partner, Engineering, with excellence in verticals and platforms.

Our vocation has been a focus on the territory and we have walked the talk by connecting with local institutions and leveraging territory opportunities, being them college students that can provide the pulse of expected innovation or events like Universiadi where innovation can be "tested". As an example, we have partnered with "innovation-oriented" teachers at the Istituto Buonarroti in Trento, helped them in winning a bid for funding for innovative teaching through ICT (and in 2014 we will be part of this initiative through teaching to teachers), organised an experience exchange through the Eindhoven Node, and connected to students offering them lectures in technology evolution and challenging them to work on its adoption (by developing apps to leverage territorial data). The Universiadi saw a worldwide participation and provided a good stage for disseminating and advertising innovations created by some of our coached companies (one of them being the winner of the EIT Awards 2013) and to make headlines in the Italian press.

Strongly connected to the territorial vocation to ICT Innovation, the TechPeaks programme was launched: it is about stimulating and coaching entrepreneurial capacity in young people.

The programme, opened by the Italian Prime Minister, was a great success, bringing to Trento over 40 young entrepreneurs who have been coached and whose innovation ideas grew into real business opportunities. This programme has been part of the 2013 EIT ICT Labs Business Plan and will continue in 2014. Our contribution to the X-Europe Outreach initiative has taken advantage of TechPeaks leading to the inclusion of three Eastern European start-ups.

In the last three months of the year, we have been able to triple the space of the Co-location Centre (CLC), a significant, though insufficient step to accommodate the hustling and bustling crowds of students, young entrepreneurs and coached companies.

This expansion will continue in 2014 to get ready for hosting CLC-based activities in the autumn of 2014 and the expanding support provided by the CLC, e.g. increasing from three to five business developers.

**Roberto Saracco**
Node Director

# BUDAPEST

The Budapest Associate Partner Group's mission is to give the boost for the development of an innovative ICT ecosystem in Hungary and in Central and Eastern Europe, as it is the only EIT ICT Labs location in the region. The EIT ICT Labs Budapest Associate Partner Group is a consortium of two local universities - namely, the Eötvös Loránd University (ELTE) and the Budapest University of Technology and Economics (BME) - and their leading industrial partners (Ericsson Hungary, Hungarian Telekom, Cisco Systems Hungary, Nokia Solutions and Networks and General Electric Healthcare). The CLC of the Budapest Associate Partner Group is located in the Infopark, close to the heart of the city, in the vicinity of the two partner universities and some of their industrial partners. The Budapest Associate Partner Group is active in all angles of the knowledge triangle: it provides a significant cohort of the European students of the Master School which has three majors available in Budapest, and the local Doctoral Training Centre is active since 2013; a robust R&D carrier project is running with a total budget of EUR 3 million funding; the start-up training programme of Budapest raised 33 applications from five countries and ten startups participated on the event in December 2013; EIT ICT Labs Budapest is also action line leader of the Outreach Programme.

# MADRID

In 2013, IMDEA Software Institute has become an Associate Partner of EIT ICT Labs, and has been leading the Spanish Associate Partner Group (APG), which includes some of the leading actors in the ICT innovation arena in Spain, such as Telefonica Research and Development (TID), Atos, Indra, the Barcelona Supercomputing Center (BSC), and the Technical University of Madrid (UPM).  At the same time, the Madrid CLC has become operational and is located in the IMDEA Software headquarters building.

# OUTREACH ✈

EIT ICT Labs has launched its X-Europe Outreach Programme in 2012-13 aiming to disseminate and promote the EIT ICT Labs activities in European countries, which are not yet directly involved in EIT.

The scope of the activities were those 22 member states of the European Union where the current EIT ICT Labs full-Nodes (Finland, France, Germany, Italy, Netherlands, Sweden) are not located. Special attention has been paid to the member states that at that time did not have any EIT KIC presence at all and the Central and Eastern European (CEE) countries.

The X-Europe programme is led by the Budapest Associate Partner Group with participation of the Berlin, Helsinki, and Trento Nodes and the Master School office of EIT ICT Labs. It was introduced to a wider audience at the ICT 2013 Conference and Exhibition in Vilnius during the EIT ICT Labs Networking session. The representatives of EIT ICT Labs gave an overview how the Outreach programme intends to involve ICT students, professors and start-ups.

Three areas of the initiative - Student Opportunities, Start-up Activation, and Scouting, Mobility and Events - focus on involving European talents in activities carried out by the EIT ICT Labs network.

The Student Opportunities activity consists of various scholarship schemes to support talented ICT students from the Outreach countries to join the EIT ICT Labs Master School which offers two-year Master programmes in 19 leading European universities. Thanks to the designated X-European scholarship programme 31 talented ICT students from the Outreach countries were supported to join the EIT ICT Labs Master School.

In Start-up Activation, EIT ICT Labs accelerates start-up activities by connecting the ICT entrepreneurs of the Outreach countries and the innovative ecosystems of the EIT ICT Labs locations with innovation programmes and contests. The goal of the activity is to build strong ties to on-going EIT ICT Labs Action Lines and other EIT-related innovation programmes and contests including AppCampus, Startup Sauna, TechPeaks, and Deutsche Telekom Innovation Contest.

Highlight of the activity in 2013 was that the Berlin Node gave out nine prize grants to X-European entrepreneurs and early-stage start-ups that participated in the Start-up Idea Contest in the areas of Cyber-Physical Systems and Future Cloud.

The Budapest Associate Partner Group recruited participants for a three-day-long start-up training programme called BrassTacks from all over CEE, pre-selecting the best ICT start-ups from the region, and

motivating their participation with offering them travel grants as well as a genuinely useful multiple-day coaching session.

As a result eight start-ups from Slovenia, Romania, Austria, Bulgaria, and Hungary participated on the programme.

In conjunction with TechPeaks and Startup Pirates organised by TrentoRise, EIT ICT Labs Trento supported start-ups based in South East Europe to experience the EIT ICT Labs innovation activities through participating in pitch training activities. The winners of the competition were awarded a subgrant for working in Trento for a period of 4-6 months, including training and access to the co-working spaces of the People Accelerator TechPeaks.

The Summer of Startups 2013 at Aalto University helped to boost new business creation in X-European countries. This nine-week entrepreneurship programme for early stage technology-based teams and business ideas resulted in one X-Europe team called 720° to found a company and incubate their business at the Helsinki Co-location Centre.

Enthusiastic entrepreneurship spokesmen from the Helsinki Node called the Travelling Salesman promoted the opportunities that EIT ICT Labs and its partners offer to X-European start-ups in their Eastern Europe Bloc expedition. This was a three-week trip during which the Travelling Salesman team visited 14 cities in Eastern Europe, covered 3,600 km and met entrepreneurs in Estonia, Latvia, Lithuania, Poland, Hungary, Slovakia and the Czech Republic. All in all, it reached 499 people and 139 start-ups through its events.

The overall goal of Scouting, Mobility and Events was to promote EIT ICT Labs knowledge and expertise outside the EIT ICT Labs countries by creating fruitful collaboration partnerships which span all EU countries outside the EIT ICT Labs network and all the three fields along the knowledge triangle model – namely, Education, Research and Business.

Excellence scouting involved the building of a network and putting the partnership model in practice, with realising the cooperative work leading to specific outcomes. Through these efforts, EIT ICT Labs aims to establish a working model for connecting with regional innovation clusters and representative organisations (companies, universities, research institutions, related start-ups, other innovation ecosystem actors) coming from these countries. As a result, 118 external meetings and 7 events have been organised where local universities, research institutions and entrepreneurs can get acquainted with EIT ICT Labs. Through the opportunity to welcome talents in its Co-location Centres, the mobility programme helped 38 local professors, researchers and students getting a deeper insight into EIT ICT Labs projects.

The above Outreach activities will continue in 2014 with larger volume and high ambitions. Moreover, EIT ICT Labs is planning to establish a Bay Area presence, i.e. Silicon Valley Outpost, driving vibrant two-way collaborations between EIT ICT Labs European Nodes and the Silicon Valley ecosystem.

## EDUCATION

# EMPOWERING ICT TOP TALENTS FOR THE FUTURE

Our way of living is undergoing a social revolution. A virtual world enabled by new technology is becoming as real as the physical one we are born to. Life has become blended. We mingle, study, work, are cared for and travel in both. Digitalisation of all available information, from ancient runes to today's patient records, simplifies and enriches our lives. We fear our personal integrity as databases with better and better search engines store what we perceive as personal, not only to our own benefit but increasingly for others. The skills to use ICT tools in daily life are as fundamental as to read and calculate. Education is changing in a disruptive way. Academic freedom, in the spirit of Humboldt, is true in the virtual world. A student can choose what, when and where to learn and who to learn from. Social media is not dependent on the state's benevolence and political priorities. Social media requires only workable business models to satisfy individuals' desires for an education that gives them fun and benefit. Stakeholders in learning such as individuals, companies, regions and nations must encompass the blended world where the global talent is both the predator and the prey. EIT ICT Labs through blended education will reach the objectives to become a role model for educating T-shaped students in the Master, Doctoral and Professional Schools.

In 2013, EIT ICT Labs created the Catalyst Disruptive Education as a way to improve the education and learning outcomes relevance, quality, and quantity in a non-continuous way.

Disruptive meaning that we will not only scale up the number of students and develop the content and skills taught to become more relevant, but we want to be a true game changer to create T-shaped students with a unique breadth in skills and a depth in knowledge. The two accreditations for the EIT Label during 2013 clearly showed that we are well under way and that EIT ICT Labs built two unique infrastructures for teaching innovation and entrepreneurship, the Master and Doctoral Schools.

**Anders Flodström** Education Director

The accreditations showed a potential for improvement in the I&E education. The highest quality should be more uniformly reached for all programmes and in all locations. It became clear that we do not use the Action Lines as a source for an integration of innovation and education. This is now pushed for the Master School by a new Summer School concept with the Action Lines as drivers for the students' learning activities. In 2014 the Doctoral School and its doctoral candidates will in an analogue way be tied to themes connected to Action Line activities. The DTCs (Doctoral Training Centres) will become the tool to create doctors with the technical and I&E skills industry asks for.

2013 was a crossroad year. We saw proof of concept. We saw success. We understood weaknesses to be remedied. And most important we saw the need for both continuous and disruptive moves to enhance the students' portfolios of skills and knowledge using new blended education.

In 2013 we realised the economic limitations in scaling up the Master and Doctoral Schools to the number of students needed to make impact. Even if our way of doing the new and right things is on track we need to educate enough students to impact the development, In scaling up of the Master School we depend critically on the availability of scholarships to non-European students and to recruit more European students. In scaling up of the Doctoral School, we must become more focused in creating collaborations with European industry in the context of Action Lines. This will boost the PhD candidates contribution to EIT ICTLabs innovation and entrepreneurship.

# EIT ICT Labs 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 seven 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
– To utilise EIT ICT Labs' Co-location Centres 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 are distributed on seven programmes: Human Computer Interaction Design, Digital Media Technology, Service Design & Engineering, Distributed Systems & Services, Internet Technology, Embedded Systems, Security & Privacy. Nineteen 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 offer 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 is a highly integrated and tightly structured education with mandatory organisational as well as geographical mobility.

**Carl-Gustaf Jansson**
Head of Master School

### THE STRONG I&E MINOR

All Master School programmes include a very substantial I&E minor currently implemented at ten 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 EIT ICT Labs business coaches and the local innovation ecosystems at all Nodes.

> Seven programmes institutionalised by formal agreements between 4-7 universities were all granted the EIT label for four years in 2013

### BRAND BUILDING, RECRUITMENT AND ADMISSION

In less than three years, the EIT ICT Labs Master School has managed to build a strong brand. In June 2013, all seven programmes acquired the EIT label for four years. The number of non-EU applicants has increased from 300 to 1,000 in this period. The number of registered students grew in the following sequence: 100 in 2012, 200 in 2013, and 300 are anticipated for 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 is also very successful in reaching a balance between EU and non-EU students; on average 45% EU students were recruited for the first two cohorts.

### THE STUDENTS

The students come from more than 40 countries and have bachelor backgrounds in computer science, electrical engineering and computer engineering. 20% are women. 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. Many students plan their own enterprises already after one year.

> Seven programmes running at 13 universities in 2013 and large scale participation of students in EIT events

### 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 by an evaluation in early spring as a prerequisite to the allocation of the exit point universities for year 2. The study results from the first year of studies are excellent and only a handful of students have left the programme for study-related reasons. The 2012 cohort´s average appreciation for their first year of studies exceeds 4 on a scale from 1 to 5.

### TEAM BUILDING ACTIVITIES

The Kick-off for the whole 2013 cohort of students was a great success. 350 students, faculty members and admins gathered in Berlin for this event, getting a kick start on business modelling for three days. During the summer all students in the 2012 cohort attended two-week Summer Schools in Trento and Eindhoven. The coming year, eight Summer Schools will be hosted by the EIT ICT Labs Action Lines. 50 of the students were invited to EIT in Budapest for their 2013 alumni and awards ceremony. One of our female students won a student award.

> 800 applicants and 200 registered students in 2013; 90% of the first cohort successfully transferred to their second year

### SECOND YEAR FOR THE 2012 COHORT OF STUDENTS

The first cohort of students has entered their second year. Out of the 94 students of the 2012 cohort 85 were transferred (a 90% performance ratio). A key issue has been to plan the final degree projects (internship + Master thesis + I&E thesis) for all these students. A majority of students have successfully initiated their internships in industry. All 2012 students who graduate in time will be invited to a graduation ceremony in Budapest co-located with the upcoming 2014 Kick-off. The second year students have contributed greatly in the planning of an EIT ICT Labs Alumni organisation.

### 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 to both welcome and farewell parties. The resources of the CLCs are freely available for the students. This includes material resources and other EIT ICT Labs-related events taking place in 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 during the team building events.

### THE MASTER SCHOOL OFFICE

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.

### THREE MAIN ACHIEVEMENTS FOR THE MASTER SCHOOL

1. Establishing a uniform education structure and institutionalising it through formal agreements with partner universities
2. Setting the complex Master School machinery in motion and building a strong brand
3. Having been able to attract enthusiastic students with the right attitude who also perform on an adequate level

# EIT ICT Labs
## SUMMER SCHOOLS

### A perspective on the 2013 Summer Schools and the changes that will be introduced for the 2014 ones

Summer schools have a magic spell linked to them. They display a unique focus in time, location and subject of interest, of highly motivated students, professionals and scientists. A blend, that gives a very high concentration of positive human intellectual power. A power that develops you as an individual but also helps you to identify the power multiplication that can be achieved in team work. The multi-fold social interaction and the relaxed yet a bit competitive atmosphere enhances the personal experience and many have some of their best work life experiences from summer school participation.

The EIT ICT Labs summer schools are part of the Innovation and Entrepreneurship (I&E) education of the Master School – a European partnership of nineteen universities that offers two-year Master programmes. The I&E courses provide an introduction to business science, high technology marketing, and business model generation. All I&E courses are in the first year of the Master. The second year, a student does the technical major thesis in a company, and a concluding I&E thesis on business aspects related to the topic of the specialisation thesis. The summer school positioned between the first and second year establishes a community of students from the different universities and creates an interaction with companies and start-ups.

In 2013, the two summer schools were about two of the most important facets of human life and what role ICT plays in changing them in a positive way. In Trento the theme for the EIT ICT Labs summer school was Service Design for Quality of Life and in Eindhoven it was Health and Wellbeing. The first one focused on ways to "improve the quality of life", emphasising the role of ICT for improving the quality of life of seniors and youngsters to foster a likeable lifestyle. The second one focused on ways "to foster a healthy and secure lifestyle", emphasising the role of ICT in learning about yourself and your ways to live. 30 and 50 EIT ICT Labs students, respectively, and a number of academics and industrialists participated. EIT ICT Labs partner companies such as Telecom Italia, GPI, Novay and Philips engaged themselves in a very positive way by contributing expertise and case studies.

EIT ICT Labs academics and industrialists that have interests in the summer school themes should take a day and visit. It is better than a spa visit, much more revitalising. In 2014, EIT ICT Labs will expand the summer school concept and run 8 summer schools on themes related to all EIT ICT Labs Action Lines. In this way it will deepen the students' understanding and perspective on the research and business models being the basis for I&E and new products and services in the Action Line areas.

## EIT ICT Labs
## DOCTORAL SCHOOL

**Christian Queinnec**
Head of Doctoral School
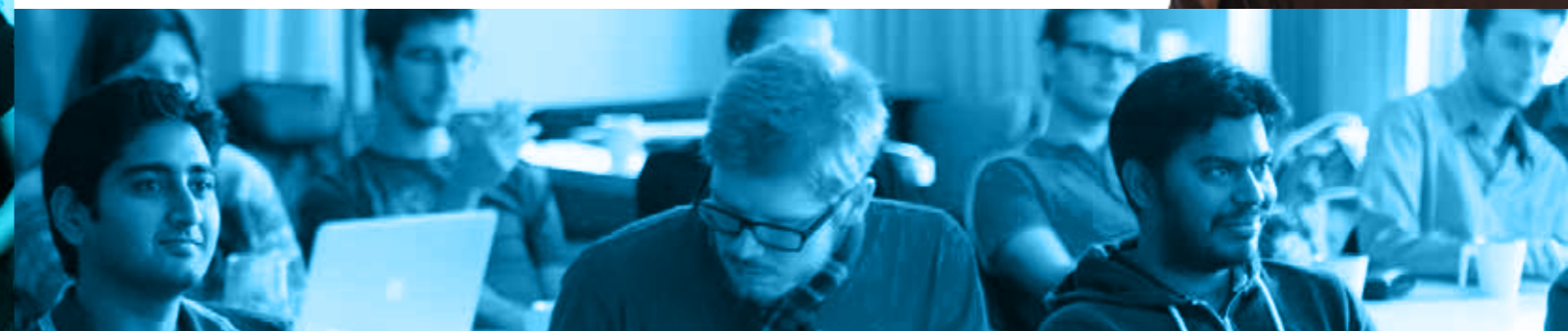
The main goal of the EIT ICT Labs Doctoral School is to produce young doctors with an Innovation and Entrepreneurship (I&E) mindset. Created at the end of 2012, the Doctoral School has completed its first year of existence with now 16 partnering Higher Educational Institutions and 70 enrolled doctoral candidates. These doctoral candidates are experiencing an I&E education concurrently to their doctoral studies.

### Within a year the Doctoral School has been growing from 40 to 70 doctoral candidates

In order to become an EIT ICT Labs doctor with an I&E mindset, the I&E education imposes three requirements in addition to the thesis itself:

– A series of hands-on courses and Summer Schools on I&E: More than a dozen of intensive weeks were organised by the partners favouring European networking among doctoral candidates. As a tangible output from these courses, several of the Ph.D. candidates are now seriously working towards establishing start-up companies based on their research.
– A six-month stay abroad during the doctoral studies: The first geographical mobilities begun in 2013 and were much appreciated by the doctoral candidates and the hosting partners.
– A six-month I&E postdoc: Given its short existence of the Doctoral School, these postdocs will only occur near the end of 2014 but

have to be prepared right now. Industrial partners may have a chance to get one of these highly talented and educated young I&E doctors.

### In 2013, 13 seminars or workshops have been organised in nearly every Node

The Doctoral School has also developed the Doctoral Training Centre (DTC) concept to further promote focused business-academia collaboration in the context of our Co-location Centres and local business ecosystems. A DTC links more intimately doctoral studies and industrial scientific challenges within the scope of EIT ICT Labs Action Lines. The DTCs are essential for the implementation of the I&E education. Six DTCs were previously created in Budapest, Helsinki, Paris, Rennes, Stockholm, and Trento and Madrid will probably be the seventh.

### In October 2013, the CEO granted the EIT Label to the Doctoral School for two years

A thesis is a long endeavour (3 to 5 years). While the world will still have to wait for EIT ICT Labs doctors until 2015, 2014 will be the year of scaling up the number of doctoral candidates and the number of geographical mobility, thus increasing the reputation of the EIT ICT Labs Doctoral School.

# BUSINESS

## BRINGING ICT INNOVATIONS TO LIFE

**Klaus Beetz** Business Director

In 2013, the main achievement has been the launch of the EIT ICT Labs Business Development Accelerator (BDA) that integrates the various Business Catalysts and creates a unique European deal flow on technologies, ideas, talents and investments by deploying the Business Catalysts for value creation from EIT ICT Labs innovation investment and ecosystem.

The BDA had a very successful first year and with 261 scouted ventures, 78 scouted technologies, 81 coached ventures and 8 coached technologies over exceeded its already ambitious goal.

This very successful start of the BDA is a big and important step towards the EIT ICT Labs mission to drive European leadership in ICT innovation for economic growth and quality of life.  The BDA is about connections. It links the Action Lines of EIT ICT Labs to customers, SME entrepreneurs, local venture communities, R&D centres, and major businesses and investors. And although there's a lot still to be done, this is the road to innovation. High-tech innovation is the result of novel technology put into a product or service that proves viable on the market. But it's the connection which makes for success. Innovation in ICT, as much as innovation in other fields, requires talent, technology, professional support, entrepreneurship and investors.

The second main achievement is the positioning of EIT ICT Labs as a serious and acknowledged partner in the European venture community. The signing of the Memorandum of Collaboration with the European Investment Fund (EIF) was a major milestone towards this goal not only for the KIC, but as well the whole EIT.

This achievement was supported by building local VC communities around the Nodes and start successfully actions like the EIT ICT Labs Investors' Dinner. As an example, the EIT ICT Labs Investors' Dinner at the Eindhoven CLC in 2013 resulted in a 1.6 M € investment in 4 SMEs of the EIT ICT Labs business community.

Third to mention is the preparation of the EIT ICT Labs Idea Challenges. Based on the very good experiences  made in 2012 and 2013 with focused idea challenges, e.g. for the Outreach to Southern and Eastern Europe, EIT ICT Labs will use this tool for stimulating entrepreneurship and new business creation within its Action Lines.

In 2014, EIT ICT Labs will execute 8 Idea Challenges and the three winners of each Idea Challenge will be integrated into the Action Line eco-system and will get a full package of support, including financial support, coaching by experienced business developers, and hosting in one of the Co-Location Centres.

All the achievements of 2013 are very important milestones for the whole KIC towards the main strategic goal of EIT ICT Labs building a comprehensive end-to-end platform for catalysing new ventures, growing existing SMEs to European and world-class scale, facilitating the renewal of established large industries, and last but not least support the commercialisation of technologies matured by the Action Lines of EIT ICT Labs.

**EIT ICT LABS INNOVATION BOOSTER AIMS AT CREATING EUROPEAN SUCCESS STORIES.**

Technologies at different levels of maturity

Innovative SMEs

Innovative start-ups

Talents

**Business Development Accelerator**

sensorfit

Quuppa

SQUID SOLUTIONS

SWITECH

Fraunhofer IIS

Iris Innorange

COREHAB

R-sens

MEDIXINE

MACHTfit

UBICAST

- Innovation Marketplaces
- Innovation Communities
- Innovation Toolkits
- Innovation Technologies
- Innovation Competition

Tools for Open Innovation

# SUCCESS STORIES

ICT is an international market and it will become even more so. The fast scaling is the biggest challenge for of European ventures and start-ups, we have to be aware of that. Therefore, an international mindset is very important. If we want to be really innovative in Europe, we need entrepreneurs who know how to connect all relevant sources.

That's what the EIT ICT Labs business activities are aiming at: providing hands-on intensive support to typical EIT ICT Labs start-ups, SMEs and great innovation opportunities to grow on a European level and beyond and finally reach outstanding European growth success stories.

To achieve this ambitious goal a systematic and structured scouting on innovation opportunities in the huge partner network was set up in 2013. The identified opportunities will be evaluated and the most promising further supported towards successful European success stories. In order to really focus on European success stories, one of the main criteria's for becoming member in the EIT ICT Labs business community is the support of the innovation opportunity by a business developer from another country. With this criterion it is ensured that EIT ICT Labs not only support the various local eco-systems, but are going for European growth success stories.

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

# ABELLIFE ADVENTURES
## The No. 1 App for hiking and cycling

AbelLife Adventures is the number 1 app for hiking and cycling in the Netherlands. It provides the most beautiful trails, sights, tips from locals and experience. No more endless searching for a nice cycling or hiking trail in the area where you are at that moment. Guaranteed the best trails to discover in the area with valuable content to make the hike even more special. Each trail is a guarantee for a nice day outdoors.

**Technology USPs**

– User friendly
– Works offline (important in hiking areas)
– Real navigation
– Better maps than Google or OpenStreetMap
– Free trails and paid trails via app stores, but also via voucher codes (outside app stores)
– Subscription model
– Strong business partners

The AbelLife App is a smart combination of online and offline functionality: independent of coverage of mobile operators, no telecom costs for the user (also suitable for foreign tourists), fast working and battery friendly. The AbelLife App provides detailed maps with extra information on specific points and attractions, trails, icons, sound signal notification and real navigation.

The AbelLife App got 50,000 users in the first six month of the roll-out. With 300 trails in the Netherlands, the app is a portal to nice hiking and cycling. AbelLife makes money with adding routes to their app, distributing free and paid trails. A couple of major Dutch companies already use the app and trails for their customer loyalty programmes. They promote AbelLife and sell their trails. Hotels, campsites, receptions, tourist information sell our trails. AbelLife won lots of awards.

AbelLife is one of the SMEs by coached EIT ICT Labs. They are part of the Business Development Accelerator. They have been coached on aspects like strategy, market roll-out, marketing and business growth. Because of their European ambitions they need a one million € investment. AbelLife participated in the Investors' Dinner Berlin (arranged by EIT ICT Labs) and also negotiated with VCs in the Netherlands. After a period of eight months they received a formal intention of a strategic investor for cooperation and the desired one million € investment for the European expansion.

For more information go to www.abellife.nl

# COREHAB
# & SENSORFIT

## The synergy between two European Startups

The number of surgical procedures carried out on a same-day basis, without any need for hospitalisation, has grown dramatically in European countries. Same-day basis surgery is a necessary trend in the situation in which the world will have almost 400 million people aged 80 years or older by 2050. Physical inactivity and obesity are the main cause for increased amount of back and next problems, which often lead to the orthopaedic injury or need for surgery.  Every time when a patient has experienced an orthopaedic injury or surgery, they need to perform specific and precise exercises to strengthen muscles and mobilise the joints. Time, range of motion and avoidance of physical compensations are among the most important things to take into account during the rehabilitation path. Additionally, daily physical activity helps the patients to recover faster and in more motivating manner. Serious games targeted for rehabilitation have shifted the focus from the pragmatic rehabilitation to entertainment during the long and often boring rehabilitation period. Gaming and social interaction are an important way to motivate people to play rehabilitation games over time. Sensor-fit is a Finnish start-up that is focusing on providing validated measuring and coaching physical activity via smart phones.  Sensorfit's main product is an accelerometer-based mobile app called Sensorfit Activity Tracker which indicates the user's physical activity level during the day on weekly and monthly bases and reports the situation to the healthcare professionals.

The second start-up, CoRehab mainly targets the rehabilitation centres and clinics whereas Sensorfit has been working in both B2C and B2B in the same customer segment.

CoRehab and Sensorfit found each other due to the EIT Business Development Accelerator (BDA) programme with its 30 business developers who are continuously working on accelerating start-ups

in finding funding, partners and customers from different European countries. In BDA, Minna Pikkarainen, business developer from the Helsinki Node and Fabio Carati, business developer from the Trento Node contacted first both companies in their own countries as a target to help them to focus their business model and detect potential connection to access new markets. After the discussion between the two business developers, the opportunity for collaboration between these companies was revealed.

As a result, both of the companies were invited to the several meetings to discuss more about the business model and collaboration approach in which the goal was to find a possible technology partnership and a market synergy. David Tacconi, CoRehab's CEO and Marko Kailasuo, Sensorfit's CEO found a common way of collaboration leveraging on their technological strengths and their different markets; they are building a CoRehab's mobile solutions that will detect the daily activity level useful in the rehabilitation process, completely integrated with CoRehab's platform and at the same time Sensorfit will be able to become a CoRehab's sales partner in Scandinavian countries. As a benefit of the collaboration both of the companies will get 1) a better motivating solution for the end users with improved user experience, 2) faster access to market due to the novel customer contacts in the other countries, 3) more resources to develop and sell the solution in the common market.

For more information go to www.corehab.it
and www.sensorfit.com

# INCA TECHNOLOGY
## An intelligent image processing platform

Researchers and Engineers from Fraunhofer IIS (Institute for Integrated Circuits) have been working on Digital Camera Systems since 2006. They specialise in the development of highly integrated camera electronics and realised several camera projects for the broadcasting industry. In 2010/11 was the start of the new INCA platform and the team around Wolfgang Thieme qualified for the internal business incubation programme (4D) at Fraunhofer-Gesellschaft in 2012.

INCA is a miniaturised video camera with interchangeable lenses and sensors that can stream and process video data in real-time and in "FullHD" quality. It works wireless and can be adjusted to any settings. In combination with a video production app it allows live editing of video signals of a multitude of cameras. INCA provides the quality which is needed for professional broadcasting, but is much smaller and costs about 10% of a professional camera. Due to its size it can be adjusted to moving objects and generate images never seen before.

**INCA targets three different markets:**

1. Live broadcasting, mainly temporary installations for events
   USP: lowering the break even for broadcast events -> new market
2. Surveillance static: intrusion detection, monitoring, identification etc. in fixed places
   USP: algorithm and data processing on camera; swarm function
3. Surveillance dynamic: camera on flying/moving objects
   USP: lightweight, resolution of video data

**History within EIT ICT Labs:**

In 2013 INCA has been brought to the BDA funnel as the first mature technology to be accelerated strategically. The BDA connected INCA to Thales which lead to a joint EIT ICT Labs project with Thales. A Thales detection algorithm will be merged with the INCA camera to demonstrate the use in a surveillance setting.

Contacts to start-ups in the BDA business community (e.g. Traxmeet, Wizzilab, Kinexon) were set up and opportunities for collaboration were discussed. INCA benefitted from EIT ICT Labs' education and training offers (Pitch Training, Patent Booster) and took part in various networking events. As a consequence of the Universiadi Event in Trento, Eurosport indicated interest in the camera system.

Intensive coaching regarding business modelling and strategy is done by EIT ICT Labs' BDA and INCA will make use of EIT ICT Labs' support in 2014 (Access to Finance) and 2015 (Soft Landing).

For more information go to www.iis.fraunhofer.de/en/bf/bsy/
fue/digicam/pov/inca.html
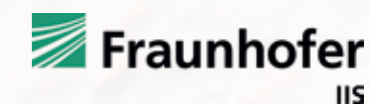
# RSENS

## The importance of designing a good market strategy for an innovative product

RSens designs, manufactures and sells innovative sensors for radon gas measurement. Radon is a natural radioactive gas; odorless, colorless and tasteless. It is present in minimal quantities everywhere, but it can pile up indoor, thus becoming a hazard for people's health. As a person inhales radon the alpha particles it releases may affect lung cells. Radon has been recognised by the World Health Organization as the second most important risk factor for the occurrence of lung cancer.

At the beginning of our collaboration, Rsens had an offer based on RStone, a very accurate and low cost measuring instrument. RStone proved to be a very good product, based on innovative ICT enabling the instrument to be very quick and reliable in measuring the quantity of radon gas inside a close environment like houses, offices and industrial plants. The product was targeted to the professional use, and proved to be a success thanks to the high performances and moderate cost. After several meetings it was decided to target the product to an emerging consumer market; this required a vision and new strategy to build a new product to measure air quality levels in a broad sense. New measurements were not exclusively focusing on radon gas concentrations, but began to look for additional indoor pollutants complementing these with environmental parameters (such as CO, CO2, temperature, humidity, VCO). The developed sensor combined high performance standards with an excellent price/

quality ratio, giving any kind of end-user the opportunity to have access to an affordable, although extremely accurate instrument.

RSens designed a new product with these features and the idea has been presented to big European companies; the feedback was very good, but the process to acquire the technology or to start a trial was not as fast as expected. At this point, to speed up the process, it has been decided to look at the US market. Through social media like LinkedIn and by email/phone, very good contacts have been established with entrepreneurs and big companies working in the home automation segment. After several meetings and conference calls two agreements have been closed, the first one with a local distributor to become a reseller and the second one with a big US company to test the consumer product prototype on its home automation platform for the US market. The intuition about the consumer market and the insight of Rsens' CEO and about this huge potential market seem to be right on spot.

The US market potential (currently being targeted as a starting point) and the worldwide one are huge: indeed, awareness on the radon detrimental effects on people's health and effective prevention through an innovative instrument such as RStone can result in improvement of everyone's quality of life, as well as in human health safeguard at a global scale. But what lies behind a success story? Success factors identified include mutual trust, a motivation to overcome difficulties, the willingness to look at the global market, and last but not least the capability to work like a team, integrating startups and business developers, leveraging on people and organisations within the EIT ICT Labs ecosystem.

For more information go to www.rsens.it

# SQUID SOLUTIONS

## Data Management Platform

Founded in 2004, SQUID has over 10 years' experience solving strategic data issues; one of the pioneer companies in France of what is now known as Big Data. Squid is now in a rapid growth, triggered by the opening of this promising market.

DMP (Data Management Platform) proposes to data owners a full set of functionalities:

- "Data Audit" explores data sets across various silos and prepares a roadmap to leverage the DMP.
- "Data Collection" gathers data from various sources: web tracking data, CRM, transactions, server-side logs and ad server data into the DMP.
- "Usage Analytics" generates dashboards according to business KPIs
- "Data activation" is a novel feature of the Squid DMP which allows web sites' content management systems to expose their audience (cookie pools) to demand-side platforms (DSP). DSPs are service providers that allow buyers of digital advertising inventory to optimise their targets using techniques such as "real time bidding"

The DMP offer is powered by state of the art multi-tenant data warehousing infrastructure based on EMC/Pivotal Greenplum HD appliance. The technology involved is known as MPP (Massively Parallel Processing), allowing queries to be executed in the historic SQL environment.

SQUID DMP has been one of the first "Big Data as a Service" offerings in France. The DMP platform runs a dozen of concurrent businesses among Fortune 400 companies, among other references:

SQUID had been coached by EIT ICT Labs' BDA since 2012. Early actions include contributions to "Big Data" initiatives with Trento and Orange early 2013.

Support included promotion of SQUID Solution in Europe, in particular "research as business development" in different projects such as the "CAP" ITEA2 project. This project targeted at porting SQUID solutions from High End proprietary MPP architectures to more accessible Hadoop open source, beyond SQL. The project includes POCs with several use cases ranging from Crisis Management, to M2M, as well as energy.

In 2014, links will be created with the Future Cloud Action Line, and the plan is to connect with the TU Berlin "Stratosphere" spinoff, capitalising on the French national TERALAB initiative.

Intensive coaching regarding business modelling and strategy is done by EIT ICT Labs' BDA as well as support with the US market approach.

For more information go to www.squidsolutions.com
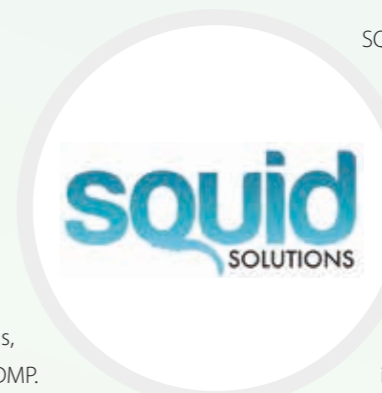
# MEDIXINE & SANTECH
## Health Platform

In healthcare the days of business as usual are over. Around the world the aging population and chronic diseases are requiring more resources and attention from the health care players while at the same time the governmental institutions have less money to use for the healthcare improvements. As a result home measurements and personalised home care services are rapidly picking up all over world, defining a market trend.  Medixine is a Finnish company that is making a (backend) platform solution for the communication between health care professionals and consumers. The platform has been developed, certified and validated during more than 10 years together with healthcare professionals. Currently, Medixine has 20 employees, close to 30 patents, and more than 50 customers in Europe, US, UK, and Australia.

Santech is a small start-up located in Paris, France, founded in 2011. They are providing their customers a personalised front-end solution – a portal that is designed in order to be a tool to support and to facilitate the end user's everyday life. Both Santech and Medixine are using a B2B strategy in order to develop and meet their market requirements. For Medixine, the interest is to integrate their platform as a part of the end user services that some other players are then taking into the market. The market strategy of Santech is to sell their portal solution in France, insurance companies being their main customers.

Santech and Medixine found each other via the EIT ICT Labs Business Development Accelerator (BDA) programme. Minna Pikkarainen,

business developer from the Helsinki Node and Denis Abraham, business developer from the Paris Node have been in contact with the individual start-ups locally and being part of a networked organisation, spotted the potential for a collaboration of these two as a result of their exchange. Both of the companies were accepted into the BDA programme and invited to discuss the collaboration approach in which the goal was to leverage one common offering for novel customers in France. As a result, the two companies found two potential French customers and agreed to deliver a common offering to them at Spring 2014. The official collaboration agreement was signed between the companies December 12, 2013 in the Health & Wellbeing Action Line End-of-Year event in Eindhoven. Benefits of the collaboration are the following:

– **Customers (e.g. insurance companies):** One single communication platform to answer to the needs of professionals & patients in preventive healthcare market
– **End user:** New access to the medical services
– **Medixine:** Access to French market together with Santech who is providing end user-driven front end solution & customer channels
– **Santech:** Reducing time to market investments & costs due to the validated & certified platform
– **Common:** More sales for both companies

For more information go to www.medixine.com and www.santech.fr

# CLIRIS & INNORANGE
## Foster innovation in Brick and Mortar Retail Analysis

Systems for consumer behaviour analysis are designed to recognise people walking around a point of sale and analyse their flows and trajectories. In some cases, those measurements can be biased by the presence of sales staff members, who can be identified as customers. A frequent request by subscribers to such a service is to be able to exclude their staff from the measurements, to get a better understanding of shoppers' behaviours only.

Cliris proposes to retailers innovative solutions with a high added value to steer and improve their points of sales' performance through shoppers' behavioural analysis, mainly based on computer vision.

When discussing Cliris' possibilities during the conferences of EIT ICT Labs, the business development team identified the small Finnish company InnoRange that offers business intelligence solutions involving various radio-based technologies, allowing for unique information retrieval, like customer feedback and loyalty. The company delivers real measured information and visually represents them in a format where results can be seen at a glance.

EIT ICT Labs made both companies meet and discuss about a potential cooperation. Both agreed on a common R&D project to accurate the analysis of retail networks performance. Cliris provided its solution based on advanced computer vision technology that allows tracking individuals and records their trajectories for further analysis, while InnoRange provides a dedicated identification system based on radio tags that are provided to staff members. For each detection of a vendor tag during a measurement session, its time and position is matched to record trajectories to exclude that data from analysis. The remaining trajectories, exclusive to shoppers, are then used to extract indicators like flows or density maps.

Also, the project was backed by the transfer of a mature technology of indoor geolocation from Institut Mines-Télécom, the French leading group of Engineering and Business schools in the sector of the Information Technology and Telecommunications. Later on, the project had the interest of Alcatel-Lucent and got funded by EIT ICT Labs for a one-year development project to create a proof-of-concept.

The joint measurement systems have been prototyped at a French pharmacy. In the scenario, the staff filtering was an important issue due to the relatively low flow of customers, and frequent presence of staff on the surface. The analysis focused on the generation of density maps and succeeded in providing a more reliable depiction of the surface occupation by customers.

In 2014, the two companies will benefit from the support of EIT ICT Labs to showcase this breakthrough solution in retail analytics at EuroShop, the largest exhibition in Europe of the trade industry for shop fitting, store equipment, store design and merchandising.

Without EIT ICT Labs, both companies would still be focusing on local markets and on internal technologies. The business development team helped them identify new opportunities by accessing new markets and new technologies, and worked with them side-by-side to create value with their unique solution.

For more information go to www.clirisgroup.com and www.innorange.fi

# UBICAST
## A professional Rich Media solution for non-specialists

UbiCast is the creator of EasyCast, a range of solutions for recording lectures, training sessions and seminars and publishing them to the Internet or an intranet in Rich Media format.

EasyCast is composed of fixed and mobile recording stations that are used to physically record the presentations, and of a WebTV platform for storing and streaming to content to the desired audience.

Its minimal and intuitive user interface for post-production combined with advanced automation tools such as a speaker tracking and an automatic capture and indexing system make EasyCast ideal for non-specialist users with professional-quality expectations.

The general setup is as follows: content is recording during the presentation and then made available on a dedicated platform. The content can of course be integrated with existing websites and infrastructures (Intranets, CMS, LMS, etc.).

EasyCast distinguishes itself as highly automated: indeed the above media had been created entirely automatically, from automatic camera framing on the presenter, automatic slide capture and chapterisation.

Created in 2007, UbiCast has over 100 users worldwide and include companies such as Total, Euronext, Alcatel-Lucent and leading French teaching institutions such as Parisian Universities of Dauphine,

La Sorbonne, Nanterre and Engineering schools such as Ecole Polytechnique and Telecom SudParis.

Since 2011, UbiCast has been expanding from France to the rest of Europe. The EIT ICT Labs business development team helped the company modelling its business development strategy in Europe including the best potential markets. As an agreement with the co-founders and the local business developers, Germany has been identified as a very first targeted country. And so the business development team started working with UbiCast for landing its activities across the Rhine. It started with identifying over 20 potential local partners and adapting EasyCast to the local German market. Then, EIT ICT Labs were the very first place to showcase the technology of UbiCast. Therefore, the founders were able to organise meeting locally and to make live demos.

In short, UbiCast benefit from EIT ICT Labs while the company was looking for expanding its activities abroad and it benefits from the support of the business development team to adapt its products to the local market, to meet potential clients and to welcome the team during the business trips in Berlin.

Today, deployed by over 20 partners in 7 countries, EasyCast is the only professional Rich Media solution for non-specialists.

For more information go to www.ubicast.eu

# MACHTFIT
## Staying healthy at the workplace



The Machtfit platform enables companies to offer their employees an easy and modern fitness and health programme and on the other hand gives activity providers a chance to acquire new customers. This works through a white-labelled online platform (market place) where fitness offers are placed and to which employees of participating companies get access to. They are subsidised by their employers in Germany under German Tax Legislation.

Machtfit creates a unique network of companies, employees and providers of health promoting activities. Machtfit carries out all the administration for the company, which makes it convenient for the company to offer health-promoting activities. Machtfit adds to the fitness of employees and reduces costs for employers through less sick days taken by the employees.

Machtfit was founded in 2011 by Gregor Bierhals, Philippe Bopp, Max Kazenwadel, Kristian Müller and Daniel Tunggull.

Machtfit is one of the SMEs participating in EIT ICT Labs' Business Development Accelerator programme and they have been coached on strategy, market roll out, marketing and business growth. They were supported with pitch trainings and invited to EIT ICT Labs' Investors' Dinner. They negotiated with VCs in the Netherlands and Berlin and received the first cross-border investment in June 2013 by PHS Capital Amsterdam and Public VC IBBBet.



For more information go to www.machtfit.de

# DRIVING EUROPEAN LEADERSHIP IN ICT INNOVATION

## ⚙ RESEARCH »

# QUUPPA
## High accuracy indoor positioning

Quuppa is a spin-off from Nokia founded in September 2012. Quuppa offers a unique location tracking technology solution for different markets like sport (providing real-time statistics for coaching & media), retail (in-shop analytics, targeting and guidance.) transport, and enterprises.

The main innovation is the complete HAIP (high accuracy indoor positioning) solution, including hardware, software and services for various location-based applications both outdoors and indoors. Quuppa's low power wireless technology enables a cost-efficient and highly accurate indoor positioning solution and achieves an unprecedented 0.3m-1m positioning accuracy.

With the BDA support Quuppa achieved an important success on access to market for European growth. They signed three deals at the European level: with U-Hopper (Trento), Libon (Trento), and DFKI (Berlin). The BDA further supported Quuppa by incubating the start-up in the Helsinki Co-location Centre. Antti Aarnio from Finland supported by his sub team of Fabio Carati (Trento), Julia Schmalenberg (Munich), Pierre Pleven (Paris), and Jerome Chifflet (Sofia Antipolis) coached Quuppa on a continuous way. They have been invited to many events organised by the BDA all over Europe and introduced to more than 15 European companies, all to the benefit of their success.

☙ For more information go to www.quuppa.com

# Quuppa

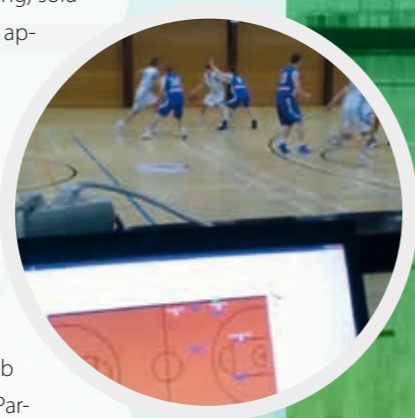In 2013 the Research pillar pursued greater focus, stronger impact and increased ERB integration. Action Lines were re-organised into those exploiting ICT-enabled innovation to address relevant societal challenges (Urban Life and Mobility, integrating the former Digital Cities of the Future and the Intelligent Mobility and Transport System; Health & Wellbeing; Smart Energy Systems) and those aiming at technology-driven innovation (Privacy, Security and Trust; Future Cloud; Cyber-Physical Systems; Future Networking Solutions; Smart Spaces). The activity portfolio led to the integration of a large number of researchers, an increased exploitation of the Co-location Centres, the production of world-class models, prototypes, services, testbeds, and integrated pan-European platforms and a stronger and more efficient network of Living Labs. Scientific dissemination has also been extremely efficient with multiple top-level publications as well as contributions to standards made in all scientific disciplines covered in our Action Lines.

EIT ICT Labs drives European innovation in ICT by: a) bringing together and involving Europe's best talents; b) setting increasingly high standards for research results (Carriers) to enter the KIC's activities; c) providing researchers and innovators with the right tools (Research Catalysts), the right conditions (ecosystem and partnership) and the appropriate focus to optimally pursue innovation and bring their research results to the market.

In 2013, a specific action was launched to systematically involve ERC laureates in innovation and educational activities, leading to the involvement of five ERC laureates in the EIT ICT Labs Business Plan 2014. They and other top-quality researchers and innovators can find an optimal environment in the KIC thanks to the continuous refinement and improvement of the tools designed to help them maturing

research results, speeding up the transition to the market and sharpening their entrepreneurial mindset. To these ends, the Research pillar performed targeted actions aiming to: 1) increase researchers' awareness of the exploitation potential of their work and stimulate the adoption of an entrepreneurial mindset by means of concrete hands-on experience on go-to-market activities; 2) motivate a positive and constructive attitude towards patenting; 3) address the need for advanced experimentation facilities by first fostering the adoption of a service-oriented approach by EIT ICT Labs' Living Labs and then having them directly support service/technology maturation and a true market approach. A further refinement of the user-centric experimentation tools was attained through the launch of a Quality Check and Support action addressing risk detection and impediment prevention. Because of its positive impact on the involved activities, the action will be extended to all the research and innovation tools.

*Besides the involvement of top talents and the provision of appropriate tools, the availability of high quality research results to feed our activities with is crucial. A major step in the pursuance of this goal is the establishment of strategic partnerships with relevant national and international agencies and organisations.*

A first important concrete result of this effort is the partnership with FI-PPP that has paved the way to our participation in FI-PPP Call 3, with one accepted proposal with EIT ICT Labs acting as coordinator and the Nodes as partners, and another proposal with EIT ICT Labs' participation.

**Fabio Pianesi** Research Director

# PRIVACY, SECURITY AND TRUST IN INFORMATION SOCIETY

**Jovan Golic**
Action Line Leader
Privacy, Security
and Trust

2013 was the first year of full engagement of the EIT ICT Labs in the area of Privacy, Security and Trust, since in 2012 only two privacy-related activities took place. Three areas were addressed in 2013: 1) mobile cyber security and privacy, 2) trustworthy Cloud computing, and 3) scalable security intelligence.

> ⏱ Software suite for data protection and identity management for mobile devices tested in operational environment and ready for the market

## MOBILE CYBER SECURITY AND PRIVACY

Protecting the mobile customer in terms of security and privacy when using a smart phone is an issue of growing importance, since the ever-increasing capabilities of smart phones lead to an increase of app downloads and usage, which opens a door to malicious attacks, including stealing of sensitive personal or business-related data resulting in a loss of privacy. This was addressed by two activities, one on secure and privacy-aware mobile identity management and the other on security and privacy for location-based services, which continued from 2012. The first activity resulted in a software suite for intrusion detection and parental control that is ready for the market and in a software tool for allowing companies to integrate several privacy-aware techniques to support access control and

authentication, including biometrics and NFC e-passport reading. These tools will be marketed with the support of our Business Developers. The second activity focused on protecting sensitive geolocation data of location-based services (LBS) on mobile devices. The results include a number of tools and platforms for raising the public awareness about LBS-related privacy issues and also for helping a user to prevent privacy leaks. In particular, an open-source Android application and a platform for the analysis of Android/iOS smartphones and applications, developed in cooperation with the French data protection authority, have made the headlines. The developed tools enable business modelling and commercialisation.

> ⏱ Scalable security intelligence services, tested in operational environment and already offered to the market

## TRUSTWORTHY CLOUD COMPUTING

Ensuring privacy when using Cloud services is an important area, since more and more users have a multi-terminal environment and the Cloud is used as a synchronisation tool. The main output of the activity on trust in the Cloud is a service that can be commercialised to support a privacy trusted environment for storing and management of sensitive data (e.g. health data).

This is achieved by using a variety of technologies integrating database encryption with sticky policy enforcement and trust services. The industrial partners Philips and SAP are heavily investing in Cloud-based platforms plan commercialisation of the service.

## SCALABLE SECURITY INTELLIGENCE

Providing a scalable security intelligence is important for meeting the needs of companies at different levels of service requirements, depending on their area of operation and the value and sensitivity of the data managed. The activity on scalable security intelligence considered the security intelligence aspects related to cyber-attacks, risks, vulnerabilities, and incidents and their potential impact on the business activities of medium to large enterprises or local governments.

This resulted in four new services of security intelligence related to security monitoring of large quantities of diversified data, a living lab for testing the privacy aspects of personal data store services, and a new technique and client/server software module for

multiuser searchable encrypted databases in the Cloud. These services have become part of the market offering of the industrial partner Reply and are in the process of being integrated in the security operations centre of another partner, Poste Italiane.

> ⏱ A Cloud service that supports a privacy trusted environment for storing and management of sensible data, tested in operational environment for health care data and soon ready for commercialisation

The 2013 activities and their results make for a strong foundation of the activities in 2014 with emphasis on both ensuring a better security and control of hosting new services in the mobile environment as well as privacy preserving measures. An additional focus in 2014 will be on the privacy-aware federated identity management of persons and things, a crucial aspect where Europe needs to take the lead.

# HEALTH & WELLBEING

**Jean Gelissen** Action Line
Leader Health & Wellbeing

**BOOSTING THE QUALITY OF LIFE BY ACCELERATING ICT INNOVATION FOR ACTIVE HEALTHY AGEING**

The Action Line Health & Wellbeing aims at the improvement of the quality of everyday life by providing affordable unobtrusive ICT-enabled mental, physical and social wellbeing services. Focus is on common or consumer-level devices. The collaborative innovation in the Action Line leverages on EIT ICT Labs partner-owned "quantified self" technology, market access and connected business communities.

⟳ Professional claim validation (with an occupational health company and a secondary school) of stress / burnout prevention

Global and societal trends, like the ageing population and growing consumer empowerment, demand an innovative and entrepreneurial ICT-enabled and -supported approach. Europe's annual healthcare expenditure has risen to 1,085 B €, a substantial share of which arises through costs for secondary prevention, long-term care and home-care. These costs are increasing towards 2020, while the available budget and the number of caretakers are shrinking. The Action Line acts on this challenge by offering ICT-based solutions that respond to the consumer demand for self-monitoring (quantified self), reducing the strain on the healthcare system. Effectiveness is ensured by focusing on primary prevention areas, where regulation barriers are less strict, allowing a more diverse set of ICT-enabled solutions and consequently encouraging entrepreneurship.

**ACHIEVEMENTS**

In 2013 the focus has been on the physical, mental and social wellbeing. In each category solutions have been developed and evaluated

/ validated in settings with the stakeholders. In the domain of Physical Wellbeing a virtual social gym is being developed for keeping the elderly socially and physically active. In Mental Wellbeing an application for detecting and delaying the symptoms of cognitive decline has been developed via lifestyle monitoring; the application supports an independent and active lifestyle. The Stress@Work technology has been matured towards a 'Turn-out Burn-out' service; the tests are finishing and the device is ready for commercialisation. In the area of Social Wellbeing, a bio-feedback system with a unique algorithm for visualising bio-data has been matured and a spin-off company, Biosync Technology, is bringing it into the market. To integrate Education, Research and Business (ERB) and to tackle fragmentation, the Action Line also included various ERB activities:

– the Active Healthy Ageing Platform (AHA Platform)
– the Post-Master Education and the (WIC) Summer School of the EIT ICT Labs Master School
– the Innovation Radar
– the establishment of the Health & Wellbeing Business Community
– Health & Wellbeing Business Modelling

⟳ Health & Wellbeing Summer School, the Wellbeing Innovation Camp (two week programme with 53 Master School Students)

**IMPLEMENTING THE ACTIVE HEALTHY AGEING PLATFORM**

This platform actively supports the application-oriented services of the Action Line. It can be used by service-developers and will lower barriers for market-entry. The platform allows both SMEs and larger companies to focus on their own added value. Functionalities of the AHA platform are: data-store (Philips), AppStore (FHG), Heart-rate

detection & visualisation (Philips), Specific verticals (LTU, Novay, DFKI), and Activity Detection (ABO University).

**RESULTS 2013**

– 110 end-users in validation experiments
– 6 top publications
– proven mature technology DT12 bracelet
– 19 SMEs in the Health & Wellbeing Business community
– 2 Postmaster Summer Camps
– Health & Wellbeing Summer School
– 4 foresight technical reports
– 1 spin-off
– 8 technology transfers with establised companies

⟳ Health & Wellbeing End of Year Event (9 activities, 10 SMEs, 18 presentations, 2 keynotes, around 100 guests)

**OUTLOOK 2014**

The Action Line in 2014 will focus on three major innovation activities within two priority areas: early detection and treatment of physical anomalies, and early detection and treatment of mental deterioration with a focus on stress and dementia.

**Main activities for 2014:**

– **Personal health & wellbeing self-management services:** Integrated demonstrator of cardio fitness services (B2C), and the cardiovascular monitoring solution (B2B2C)

'It is important to reduce the demands for expensive healthcare by the early detecting of physical and mental health issues. Suitable lifestyle interventions now can avoid larger health problems later: prevention is better than cure'.

– **Cognitive Endurance:** Development of a low-cost, non-intrusive service for early detection of mild cognitive impairments. Life logs will be used to visualise and identify problems (physical, social, stress and sleep related) and potential improvements.
– **Virtual Social Gym:** Virtual environment for keeping the elderly socially and physically active. The combination of social and physical activity is the differentiator; elderly at different levels of capabilities can train independently at home, but still get the social incentives of training with others.

**Follow-up activities in 2014:**

– Commercialisation of the 'Turn-out Burn-out' activity results
– Enlarging the Business Community of European innovative Health & Wellbeing SMEs and start-ups.
– Acceleration and integration of Education through the Health Post Master programme, and the Health & Wellbeing Summer Schools and Winter Camps

# FUTURE CLOUD

**Tua Huomo** Action Line
Leader Future Cloud

## The future of Cloud in Europe – Successful adoption requires trusted Clouds and Big Data

Cloud is a game changer for the European economy. Many services and applications have already become Cloud-based with businesses and key infrastructures becoming increasingly dependent on it. Cloud technologies enable the creation of new innovations thus supporting the development of business and digital service ecosystems in Europe. Overall, the speed of change in Cloud technologies and services continues to be impressive and the main transformation is being led by the Cloud and Big Data integration.

Although Europe does not hold a specific competitive advantage in Cloud technology, due to its importance to business and society Europe cannot afford to rely on technology and services bought from elsewhere. There are gains to be achieved in European competitiveness in the area of Cloud services and Big Data. In 2013 the focus of the EIT ICT Labs Future Cloud Action Line was on the following key areas:

1. Big Data analytics platform
2. Cloud infrastructures and platforms

Cloud combined with Big Data makes it possible to create new European start-ups that will play a role in growing the European economy. Several market studies estimate that Big Data analytics has the potential to create a huge economic impact. Some of the most promising use cases are in health care, critical infrastructures and public sector services – helping society to tackle some of its greatest challenges. In particular business analytics is a rapidly growing market in Europe.

**Contributions to the European solution ConPaaS (www.conpaas.eu), which is an open source-based runtime environment for Cloud applications**

For EIT ICT Labs, the goal has been to accelerate the development of an innovative, open source-based, Big Data data-analytics stack, which can be used by different companies as part of their solutions or business development. The resulting system, Stratosphere (www.stratosphere.eu), is the only advanced analytics system that combines three essential features for wider adoption: 1) ease of use for all, including data analysts, not just systems programmers; 2) a fast and scalable engine tailored for advanced analytics; and 3) runs on a Hadoop cluster using Hadoop-stored data out of the box. Stratosphere is already being used by several companies and new business cases are emerging. The collaborative work and business development support by EIT ICT Labs has also created a big potential for the establishment of a new European start-up, which intends to commercialise and bring the Stratosphere open source platform to the market.

The implementation of future Cloud solutions and services requires new technology and approaches for Cloud infrastructures and

platforms. In 2013 the main work was related to the multi-Cloud data management and the multi-media Clouds in real-time environments. The goal of the multi-Cloud data management activity has been to support development, deployment and management of applications that run across multiple Clouds with different Cloud providers or across private and public Clouds. The work has contributed to the development of the open source platform called ConPaaS (www.conpaas.eu). The participating companies are now planning pilots for deploying services in a multi-Cloud environment near to base stations. This Cloud opportunity, combined with telecom networks, will provide a platform for operators and other services providers to realise new revenues and improve bottom lines.

**An end-to-end media chain platform for media-based service development within real-time environments has been developed contributions have been made to standards for Multi-Path real-time transfer protocols as a part of Internet Engineering Task Force (IETF).**

The increasing amount of data, along with the massive amount of end-users, provides businesses with new opportunities to develop new services and solutions. However, the explosion of data brings new challenges with respect to content understanding, presentation, organisation, distribution, transformation and processing. The multi-media Clouds work by EIT ICT Labs involves developing an end-to-end media chain platform to support media-based service development within real-time environments. In addition to the technology development, EIT ICT Labs efforts have also contributed to the number of standards for Multi-Path real-time transfer protocols

as a part of the Internet Engineering Task Force (IETF).

Content management and Big Data analytics in the Cloud provide the technical basis for two innovations supported by EIT ICT Labs. AllYours develops solutions which bring a more intuitive social network to the users. The system was further developed in 2013 and a start-up company is planning to take the concept further and to offer comprehensive and genuinely useful personalisation in notification systems. Winner of the EIT ICT Labs 2013 Future Cloud Outreach Idea competition, Transmetrics (www.transmetrics.eu) brings Big Data to the cargo industry to improve capacity optimisation.

**European Big Data analytics platform, Stratosphere (www.stratosphere.eu) is being used by several companies; a new start-up is about to be established for commercializing Stratosphere**

Made-in-Europe solutions such as Stratosphere, AllYours, Transmetrics and others are examples of innovative new services and solutions being deployed by European companies for global markets. These are important showcases of European Cloud innovation which should be recognised, trusted and applied globally.

In 2014 and going forward the EIT ICT Labs Future Cloud Action Line will enhance mainstream Cloud adoption and European leadership on a global scale by leveraging Europe's strong position as a trusted Cloud service and solutions provider, and by facilitating the establishment of cross-technology communities through a European value-driven ecosystem and user community for Big Data in the Cloud.

# CYBER-PHYSICAL SYSTEMS

Cyber-Physical Systems (CPS) address the integration of physical objects and the Internet via sensors and actuators. Hardware and software systems are deeply embedded into vehicles, aircrafts, medical equipment, production plants, and household appliances, and crucially expand their functionality and competitiveness. Connecting these systems to a virtual environment of globally networked services and information systems opens completely new areas of innovation and novel business platforms.

### Successful launch of commercialisation of UrbanFlood technology

In 2013, CPS innovation activities were carried out by 14 partners from six EIT ICT Labs countries, including industry partners Siemens AG and Ericsson, the research institutions SICS, fortiss, DFKI, FBK, VTT, and TNO, and the academic partners TU Berlin, TU Munich, KTH Stockholm, ELTE Budapest, Trento University, and University of Bologna.

The availability of concrete testbeds fosters the CPS application development and boosts the creation of new companies in this area. In a continuation of the 2012 testbed activity two large-scale sensor-net testbeds of partners have been further extended with CPS-specific functionality to facilitate the development, testing and evaluation of CPS applications. The developments addressed challenges in localisation, mobility, and energy control in buildings. A cloud-based emulation platform for the evaluation of crowd-sensing applications based on mobile phones has been developed, as well as a complete

energy harvesting system and its functionality has been tested in the tunnel living lab in Trento.

One of the core challenges in the development of cyber-physical systems is to master the engineering of such complex system. In the CPS Engineering activity a reference framework for the engineering of cyber-physical systems has been described, which particularly addresses the openness, portability, heterogeneity, and self-evolvability of CPS. Validation case studies were carried out in the Smart Grid and in the Automotive domains.

Moreover, an integration framework for open-source modelling and analysis tools has been worked on and the market potential for start-ups based on this tool integration framework has been evaluated. Moreover, the activity contributed to the new standards development Open Services for Lifecycle Collaboration (OSLC) for such integrated engineering environments, and promoted its transition to the open standards organisation OASIS.

### KIC partner DFKI creates spin-off "DigiPen" to commercialise technology for integrated usage of digitalised medical patient data and sensory data

Two activities addressed the transfer of technology in typical CPS domains. The goal of the UrbanFlood Launching Validator activity was to boost the full commercialisation of a sensor technology platform for environmental monitoring that was developed in the UrbanFlood project. Part of the UrbanFlood infrastructure was integrated into

an automation system provided by industrial partner Siemens. A show case of a management cockpit for the integrated management of the full water cycle has been developed. Together with potential customers in-depth investigations about expected customer value have been performed. As for business results, three service offerings out of the activity have been accepted by different customers, including one for a pilot implementation for levee monitoring.

The goal of the Medical CPS activity was to integrate technical components for aggregating digitised patient information into a medical CPS reference architecture. The focus was on combining manual data acquisition with sources of data generated by various sensors, e.g. for monitoring of humans by mobile sensors on smartphones, or sensors integrated in the patient's bed. The data acquisition technology was integrated into a clinical testbed environment and is an enabling technology for real-time clinical decision support.

EIT ICT Labs partner DFKI created the spin-off DigiPen that commercialises technology for the digitalisation of medical patient data; the integration of sensory data as supported by the EIT ICT Labs activity will augment the company's product portfolio.

The Cyber-Physical Systems Summer School has been established to educate students and practitioners on fundamental and applied aspects of the multi-disciplinary field of CPS. The first edition of the Summer School was held in Grenoble in July 2013, where more than 50 participants from 18 countries attended the lectures given by 17

invited speakers from both industry and academia. Participants experienced the relevant technologies during hands-on courses and also had the opportunity to present their own work. The classes ranged from basics of sensors to experience from real-world deployments, security and privacy, cyber-physical Internet, online data mining, virtual reality, rigorous CPS engineering, and applications such as smart energy and smart healthcare.

### Successfully established first edition of Cyber-Physical Systems Summer School

In 2014, CPS will be focusing on efforts on two important domains: In CPS for production systems the importance of manufacturing for the European economy is being recognised, and the 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, the aim is at enabling the creation of novel, efficient mechanisms for urban authorities to interact with their infrastructures and to provide ICT-based solutions for the Intelligent Transportation Systems and Connected Car markets.

**Holger Pfeiffer**
Action Line Leader
Cyber-Physical Systems

# SMART ENERGY SYSTEMS

**Ariane Sutor**
Action Line Leader
Smart Energy Systems

Meeting EU's climate change and energy policy objectives for 2020 and beyond will require a major transformation of our electricity infrastructure. Large-scale renewable energy generation has an inherent variability and weather dependence while at the same time there is limited capacity for energy storage. The deployment of distributed energy resources can mitigate the uncertainties and exploit the potential of dispersed resources. However, the integration of distributed energy resources is extremely challenging both from a market and a technical point of view. One key is the introduction of Smart Grids; thereby physical infrastructures are needed as well as the creation of an open European market. Moreover, it is imperative that consumers understand and trust the process and receive clear benefits. The Action Line Smart Energy Systems supports this transition by innovating on decentralised ICT infrastructures and user-centric services as key challenges towards a sustainable electricity supply for Europe. By mobilising a strong network of industrial partners, research institutes and technical Universities EIT ICT Labs develops the ICT energy infrastructure of tomorrow.

## SMART GRID LAB AND EXPERIENCE LAB

Therefore, two research labs with different focus are being deployed. On the one hand the European Virtual Smart Gird Lab, which focuses on the hard facts of Smart Grids like the ICT interconnection of decentralised electricity generation and the balancing between demand and supply of electricity. Different Labs across European countries are connected by ICT infrastructure with the goal to establish one

European testbed for Smart Grid technologies. Within the lab prototypes (e.g. Smart Grid over LTE or electricity market concepts) can be tested before a real world deployment. Thereby the lab focuses on an open approach, so that in the future every interested party can perform experiments within the lab. This will be a service which focuses on start-ups and SMEs that naturally cannot deploy their own lab infrastructure due to a lack of resources. On the other hand an Experience Lab is being deployed were mainly the user interaction with Smart Grid technologies is tested. Mobile Apps for the so called "prosumers" – active participants in the generation and usage of electricity, are being developed and tested. The Action Line is testing how prosumers react on prize changes for electricity and how the usage of electricity can be made more efficient and comfortable for the end user.

> Four intensive Round Table events with key stakeholders from industry, academia, and politics took place in three EIT ICT Labs countries

### MULTI-COMMODITY ENERGY MANAGEMENT

To further broaden our capabilities we started an activity in 2013 that is not only taking electricity into account, but broadening the scope to multi-commodity management. We are convinced that only a holistic approach of primary energy use can increase the efficiency, flexibility and stability of energy grids for electricity, heat and gas, to target the achievement of Europe's climate goals. Consequently, we are developing a multi-commodity energy management framework as it

is expected to become an indispensable tool in the near future of Europe's energy security.

> Two pan-European testbeds fully deployed and three Smart Energy SMEs have been involved through the Outreach Programme

### SECURE NETWORKS

The recent awareness for security in ICT networks is especially present when it comes to critical infrastructures like the electricity grid. Thus we put together a security activity with members from different universities and companies to make ICT for energy more secure. First outcomes have been the implementation of a secure communication protocol between a smart home gateway and a smart meter to avoid hacking and enhancing privacy. Next to that a honeypot for programmable logic controllers, a classic ICT component in the energy domain, attracts hackers since a while on the Internet. While these are trying to hack the honeypot, a distributed detection and localisation tool has been developed for securing distributed energy management systems by the observation of the used hacking schemes.

### UNIQUE SUMMER SCHOOL

While the topic of Smart Energy Systems is a quite new theme, we invented a pan-European summer school to bring brand new research

results directly back to the students. The unique Smart Energy Summer School educates the innovators of tomorrow in most important topics of ICT and fosters excellence on the real-time technical management of Smart Grids, from control systems to computer science and telecommunication. Over 40 excellent European PhD students and industry participants from several universities, countries and fields participated in lectures and project work in a two week summer school this year in Berlin and Paris and visited among others the Virtual Smart Grid Lab at TU Berlin. Participants of our summer schools build a whole new network and a future community in Europe.

> 3rd Smart Energy Summer School performed with 44 PhD and Master students

The Action Line Smart Energy Systems contributes to the creation of an open European energy market, supports the effective implementation of EU energy policies and supports the transformation of the electricity infrastructure and de-centralization to strengthen the end user in the system. For 2014 it is our goal to exploit research results even more for creating new products and start-ups and thereby strengthening Europe's economy.

Starting mid-March 2014, Heiko Lehmann will take up the Action Line Lead for Smart Energy Systems.

# FUTURE NETWORKING SOLUTIONS

**Henrik Abramowicz** Action Line
Leader Future Networking Solutions

The Future Networking Solutions (FNS) Action Line is a merger of the previous Action Lines Networking Solutions for Future Media (NSM) and Internet Technology and Architecture (ITA) and is from 2014 on solely focusing on networking aspects. The current mission of FNS 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". During 2013, the Action Line had 15 activities focusing on the three priority areas Green mobile access, Software Defined Networks, and Internet of Things, but also including activities related to general networking testbeds and relations to FI-PPP as well as media processing.

> More than 20 standards contributed to 3GPP and ITU on Green Mobile Access Networks

Key achievements during 2013 were:

– More than 20 standards contribution to 3GPP and ITU on Green Mobile Access
– The company Motionspell has been started around the GPAC (Project on Advanced Content) open-source framework to provide commercial licensing and support to companies working with Dynamic Adaptive Streaming over HTTP
– Establishing a clear strategic agenda within Future Networking Solutions focusing on Green Mobile Access , Software Networks and Internet of Things

Achievements in 2013 include spin-off companies, e.g. in the Adaptive Streaming activity, a number of products being commercialised, e.g. in Smart and Green Stadiums, as well as several patents being filed in Mobile Media Services Lab and Smart Content Delivery, Smart and Green Stadiums and Mobile Backhaul.  Furthermore, a number of technical transfers of knowledge has occurred in most of the activities as well as over 30 standards contributions to 3GPP, ITU, ETSI and IETF/IRTF. A number of open source software modules have been provided, e.g. in Information Centric Networking and Mobile Visual Content Analysis.

> Smart Green Stadiums generated 3 new products /services together with 3 SMEs working with massive local connectivity demands occurring at big events

Highlights from some of the Activities during 2013 Include:

– 5grEEn- 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 (in total, 14 standards contributions to 3GPP and ETSI), creating awareness by dissemination activities in various fora. Moreover, a number of knowledge adoptions and technical transfer of knowledge have taken place.
– 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 (ITU) and important technology adoptions and knowledge transfers as well as patents. As a result of the knowledge transfer to one the industry partners has been substantially increased annual revenue.
– Mobile Visual Content Analysis has been working on automatic processing of images. As an example, EIT ICT Labs partner INRIA has developed a demonstrator video showing a virtual tour of an architectural site (Notre Dame de Paris) transitioning between viewpoints of different paintings automatically aligned to the 3D model. Another example is software for indexing images captured in the museum into a digital catalogue of the museum photography's, allowing for automatic augmentation of the museum experience by providing the user with verbal descriptions of the attended item. Josef Sivic and Ivan Laptev from INRIA have also been awarded ERC laureates.
– Mobile Media Services Lab (MMSL) has as one of the main objectives during 2013 the opening of a collective API allowing external users to control specific functionalities of the MMSL testbeds collection. Different testbeds are operating at different layers (OSI model), here grouped as a Radio Layer, a Network Layer and an Apps layer. A knowledge adoption has been completed within Ericsson to use a service layer agreement based topology mapping for smart placement of distributed service virtual machines within an operator infrastructure and this is now in product development.
– Smart and Green Stadiums (SGS) has the objective to provide a framework for wireless coverage and an application development platform at stadiums offering at least 1 Mps for 50,000 users across 50,000 m$^2$. Such capacity is frequently requested in event context but not yet readily available on a commercial basis. The activity has successfully addressed important bottlenecks which have resulted in a number of new products that the SMEs involved are now pursuing commercially.

> New company Motionspell has been launched around GPAC open-source framework to provide commercial licensing and support to companies working with MPEG-DASH (Dynamic Adaptive Streaming over HTTP),  specifically addressing the needs of medical applications

**Petri Liuha**
Action Line Leader
Smart Spaces
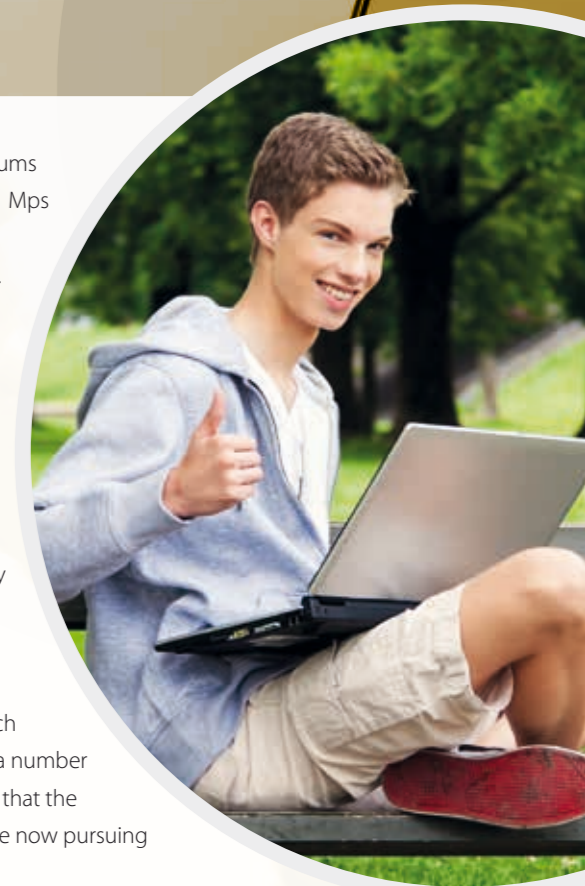
# SMART SPACES

Smart Spaces are everyday working and living environments that are enriched with digital services. The services help people to find relevant items, information and places.  Accessing information in a smart space should be as easy as checking the time on a watch. The business areas and markets addressed by the Action Line for smart space solutions include digital signage, lighting, mobile local search, indoor and urban navigation, indoor analytics, mobile and out-of-home advertising, information services in public buildings and at events, and convenience solutions in smart offices and homes. In 2013, the target was to create digital services to public spaces like exhibition areas, travel and waiting areas, retail environments, office environments, and also education spaces and homes. Concrete outcomes targeted were real products and services, the creation of new companies, and large end-user tests.

> 🕐 A set of highly customisable tools developed and evaluated for education and therapy of children with severe cognitive, neurological and motor disability; two start-up companies were created supported by the findings

Five start-ups were created or technology was contributed to their creation:

- **Fifth Element** (www.fifthelementproject.com) provides touchless gesture-based games for healthcare and education with Cloud-based remote assistance. This new interaction paradigm can be combined to create new ways of therapy and rehabilitation.

- **Colleyeder**  (www.colleyeder.com) is providing educational tools (for desktop and mobile devices) to estimate motivations, emotions and cognitive capabilities of learners. The solution was ported both on browser and mobile as a serious game and it is targeting rehabilitation training of children with cerebral palsy.
- **Multisense** (www.multisense.fi) specialises in user interface solutions and mobile software. Multisense created light-based physical exercise games as a result of lighting concepts developed this year.
- **iDipity** (www.idipity.com) is an online community of video chat discussion forums.
- **Evothings**  (www.evothings.com)  is a software company offering a modular platform, consisting of time-saving tools, and solutions. Developers can assemble services and applications with environmental sensors and create smartphone applications using the sensor data.

> 🕐 Extensive Living Labs test conducted for new services based on large public interactive screens leading to development of an interactive shop window product and technology transfer to spin-off company MotionLogic

The **Public Living Labs** activity has been working on large public interactive screens. The activity conducted an extensive living lab test with five different concepts and with altogether 225,000 viewers. Approximately 10,000 of these were direct interactions with screen-based systems, 45,000 were more subtle interactions. These tests

have helped in starting the development of an interactive shop window product. Also, an audience measurement technology developed in the activity was transferred to the spin-off company **MotionLogic** (www.linkedin.com/company/motionlogic-gmbh).

The activities helped in many cases proving the concepts and organising proper testing with real users in real environments. In two cases this resulted in technology transfer or licensing.

Swedish VindIn windmill manufacturer and FCG Finnish Consulting Group tested VTT's visualisation of windmill construction. FCG adopted the technology to augment construction sites. A fingerprinting robot was developed to model and map indoor spaces for the purpose of providing augmented reality guidance in retail. The technology was licensed for Inglobe Technologies in Italy for commercialisation.

> 🕐 Advanced presence technologies for remote collaboration were developed and two start-ups were created based on the results

In 2014, Smart Spaces will focus on smart retail environments and ICT solutions for changing retail business and e-commerce. Secondly, the work will focus on interfacing digital services to urban environments and on solutions for smart buildings that increase productivity and comfort of workers, tenants and visitors.

# URBAN LIFE AND MOBILITY

**Gilles Betis** Action Line Leader
Urban Life and Mobility

## Urban Life and Mobility, empowering cities and citizens

During only two decades, the rise of the Internet has brought a huge communications revolution. Ubiquity is now a reality for people, and the Internet of Things will complete the global connectivity paradigm. Powered by these new capabilities, new citizen behaviours and new expectations are raising up. Social networking, collaborative interacting, live information sharing, or crowdsourcing, led to expecting more online services, 24/7 available, should it be mobility, commerce, business or governmental services. New forms of bottom-up initiatives become visible as a marker of a revitalised citizen empowerment. This is obviously a new challenge for cities and regional governments, and a great opportunity for innovative business.

🕐 Connected cars technologies, with standardisation contribution in ETSI TS 102 636-4-2 and ETSI TR 103 110, and the definition of a new standard for Android

The Urban Life and Mobility (ULM) Action Line, created in September 2013 from the existing Action Lines Digital Cities of the Future and Intelligent Mobility Systems, will turn ICT breakthroughs into new upscaled urban services to develop new behaviours and citizen empowerment, and will validate new business models in the context of Smart Cities.

It was shown how the next generation of connected cars could improve the driver and passengers experience and safety. At the Researchers' Night 2013 in Trento, the "Next generation Car2X" activity showed how cooperative networking among vehicles and infrastructure enables applications for a safer, more efficient and cleaner mobility. The project resulted in ETSI standardisation contributions ETSI TS 102 636-4-2 and ETSI TR 103 110. The "Car and the Internet" activity addressed the new 4G capabilities offered by in-car connectivity. One patent was submitted and an open source hypervisor platform was released. "Apps for your Car" was addressing the question of developing and transferring to industry best practices, standards, and tools concerning in-car mobile apps. The SME standard (Sensor Mobile Enablement), based on a Java Library for Android, was proposed for communication. In other domains of mobility, to help users of public transports, "Travel Dashboard" developed a self-adaptive data collection middleware to gather both sensor information (e.g. bus location from GPS) and active user-generated content (e.g. road hazard reports, crowdedness of journey). The information is then disseminated to travellers using a mobile application. Two apps and a data visualisation for the Paris and London public transport network were developed.

🕐 Creation of Flash Poll, a geolocalised polling tool, running on smartphones, to enhance interaction between municipalities and citizens

However, the most disruptive evolution is probably about crowd participation in the collection of urban data and information. "Emergent Social Mobility" integrated the results achieved by the activity in a single scenario to show how the mobility situation of an urban commuter can be improved in the future. Mobility logging tools were demonstrated, as well as interaction with smart urban furniture from a car, or detection of events using tweets analysis. "City Crowd Source" developed and experimented five real crowdsourcing platforms at real-scale and essentials services for trust and privacy have been proposed. Crowd participation was also used in the context of urban safety. The "Citizen Safety" activity developed dedicated apps to sense citizens' perception of safety or to automatically detect events like gunshot noise. Communication and mobile network resilience have been improved with crowd-based and hybrid communication networks. "Flash Poll" is a geolocalised polling tool. Real-life tests done in Berlin, Paris, Nantes and Kista raised a strong interest from municipalities to use it to build a closer interaction with citizens.

🕐 Creation of a pan-European test bed, brought in two FP7 projects, for a gaming simulation environment for cities mobility governance

The management of the huge and unstructured amount of data generated within cities led to activities to consider different aspects of the question. "City Data Fusion for Event Management" used information issued by a telecom operator and geolocalised tweets to demonstrate the capability to highlight occurrence of unexpected events in city activity. A gaming simulation environment was delivered by "Mobile Data for Control Room" to test ideas about the value of various new data feeds that digital cities generate for the robustness and resilience of multimodal infrastructure operation (rail and traffic). It resulted in a pan-European testbed, reused by other European projects (FABRIC and PETRA).

Last but not least, a Summer School was held in Trento one week in September. Thirty students attended, two panels shared their knowledge, and six experts were mobilised to coach student teams. Six demonstrator projects were presented, and the two winners invited to pitch in Berlin in November.

In 2014 and beyond, the ULM Action Line will focus its effort in two complementary directions. The Mobility Market Place will help the transition from an individual car-centred transport paradigm to a seamless daily mobility, where any kind of transportation means will be integrated according to personal preferences or needs (public transport, vehicle sharing, vehicles pooling, biking and walking, including a reasonable use of private cars), but also where alternatives to people transport will be developed, integrating goods mobility solutions as well as physical mobility limitation thanks to the use of new third places. The Urban Data and Information Platform will be the cornerstone of a city's or region's data services repository. Express simply and in a natural language what you are searching for or requesting, avoiding you any hassle to access and connect to the right services. Be certain that your personal data is protected and managed by a trusted third-party, but moreover, get much from the data that you are disseminating, helping you to optimise your behaviour or your expenses. Imagine a city where the data and the information will become multi-purpose, coming from sensors, databases, connected objects, crowd sensing, social networks, etc. Imagine a city dashboard sensing in real-time the pulse of the city, helping governance bodies to monitor and analyse performance, and feed planification and prospective. Imagine the value created by all the economic actors, and by the citizens involved as real actors of the place they live.

# COLLABORATIONS
## with European Programmes and Initiatives

In 2013, the collaborations and the partnerships with external organisations were importantly increased in number and operationally strengthened, 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 emphasise the synergies and take mutual advantage of 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 ITEA2 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 ventures 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 specifically contribute to boost our impact in the area of security and privacy; the partnership with EuroCIO targets the specific sector of professional education for emerging ICT-stimulated professional figures.

### 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 through:

– the establishment of an EIT ICT Labs activity (FI-PPP Liaison) that focuses on small and medium size enterprises (SMEs);
– our participation in the FI-PPP call 3, resulting in two accepted proposals: I3H (EIT ICT Labs as coordinator and its Nodes as partners), addressing the scouting and establishment of Internet Innovation Hubs, and I-CORE, a technology platform project to which EIT ICT Labs contributes for the sustainability part.

### ITEA2

ITEA2 is a Eureka R&D programme dedicated to software-intensive systems and services, with a focus on innovation and business impact. ITEA2 stimulates and coordinates industry-driven, business-oriented, pre-competitive R&D by bringing together partners from industry, universities and research institutes in strategic projects. In 2013, the collaboration with ITEA2 showed both partners that EIT ICT Labs can improve ITEA2's business impact by speeding up research results exploitation. For instance, we applied the Technology Maturation catalyst to the ITEA project SPY, resulting in the extension of mobile surveillance to automated robots. In another case, our Technology Experimentation Catalyst was used to port and experimentally validate OPC UA from ITEA's OpenProd project as an interface between energy management systems and the testbed simulator. Having shown the benefit of the collaboration on a project basis, EIT ICT Labs and ITEA2 are now planning to intensify and scale it up towards more strategic goals, e.g. a joint roadmap for IT in Europe.

### 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

### 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 and 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. EIT ICT Labs is actively involved in the organisation of the 2014 ATTPS summer school on trustworthy ICT solutions and in fostering the exploitation of its Experience and Living Labs within ATTPS.

### 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.

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.

# TARGET & FOCUS

**Johanna Gavefalk**
Marketing & Communications Director

## Building trust by actively promoting results and achievements

In 2013 it became evident that in order to build our brand we need to actively promote our results and achievements through value-for-money external communication, using channels relevant to the target audience. Internal communications had to be strengthened to facilitate community building. Timely announcements, easy access to information on the intranet portal, and sharing of information and ideas were identified as key areas for improvements. Furthermore, we needed to create support for the vision and mission within the community, making people enact upon EIT ICT Labs' core values. We had to target and focus. Hence, a number of communication activities were launched; quarterly community newsletters, frequent local newsflashes, extensive web communication, more videos, increased social media presence, participation at international events, more user-friendly intranet portal including a brand toolkit, and facelifts of websites with new features implemented.

The GSMA Mobile World Congress 2013 showcased the New Mobile Horizon and EIT ICT Labs was one of the 1,700 exhibitors. More than 72,000 attendees from 200 countries enjoyed learning and networking opportunities, product showcases and announcements, as well as inspiration and innovation. Visiting the exhibition halls and

hospitality spaces of 94,000 square meters provided glimpses of exciting new phones, tablets, devices, back-end solutions, technologies, applications, accessories, and more. 4 out of 5 attendees rated the Mobile World Congress as the most important and relevant mobile industry event.

EIT ICT Labs' 2nd Annual Report, covering the year 2012, provided not only our extensive community with a good overview of on-going activities and achievements, but also proved to be an important document to promote the organisation.

> The community was very active, which could be recognised by an extensive amount of events, conferences, and workshops where EIT ICT Labs representatives participated as exhibitors, organisers and speakers.

At the 3-day much appreciated Master School Kick-off more than 170 new ICT top talents gathered at Technische Universität Berlin to celebrate the start of the programme. Freshly arrived students got to know each other and the EIT ICT Labs ecosystem of industry, research, and academia. In a Students' Challenge they all elaborated on business ideas with the goal to bring them to the market.

> Under the theme "Target & Focus to Boost ICT Innovation", the 2-day EIT ICT Labs Partner Event in Paris gathered some 400 participants.

The aim of the Partner Event was to launch the Call 2014, prepare for the Business Plan 2014, and to meet and match the best solutions to

address societal challenges and to network. An extra to this all was the start-up pitching for the EIT Entrepreneurship Award 2013.

In November EIT ICT Labs took part in the "ICT 2013 Conference and Exhibition" in Vilnius organised by the European Commission. The Vice President of the European Commission, Neelie Kroes and the President of the Republic of Lithuania, Dalia Grybauskaitė opened the conference. EIT ICT Labs were among the speakers from across the ICT sector that addressed a range of issues, from Cloud Computing, broadband, ICT infrastructures, skills, cyber security, visions on the future and much more. The event gathered more than 4,000 researchers, innovators, entrepreneurs, industry representatives, young people and politicians and focussed on Horizon 2020 - the EU's Framework Programme for Research and Innovation for 2014-2020.

> We continued to build media relationship and increase awareness and reached on average some 4,000 viewers per month via our newsroom.

The use of social media channels supported our efforts to link education, business and innovation and 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.

> Twitter has become an accelerator for contacts with political decision makers as well as journalists and trend setters.

Facebook on the other hand is often used as a platform for reflection, sharing of opinions and visuals, such as photos and videos.

Our visibility also increased thanks to the Outreach programme towards EU countries outside the EIT ICT Labs network, with focus on Poland, Czech Republic, Latvia, Slovenia, Slovakia, Croatia, Romania, Bulgaria, and Estonia.

> In 2014 we will "Create for Value" and further strengthen and improve marketing and communications activities and tools to showcase innovation achievements and start-ups, thereby promoting the organisation and its people.

In March 10-14, 2014 EIT ICT Labs will participate for the 2nd time at CeBIT in Hannover. About 3,500 exhibitors from 70 countries and more than 1,000 international speakers are expected for this event, described as the world's leading event for the digital economy. Apple co-founder Steve Wozniak, among the IT industry's most iconic figures, will give a keynote address at the CeBIT Global Conferences. The UK is partner country of CeBIT 2014; this provides not only an excellent opportunity to promote EIT ICT Labs and to network, but also presenting London as the 7th Node. The Partner Event 2014 will be hosted in Berlin on April 9-10 with several pre and post-workshops to kick-off the preparation for the Call 2015.

Let's continue to build the reputation and brand of EIT ICT Labs.

# FINANCIAL REVIEW

For the EIT 2013 KIC Report the cost and performance report have been integrated. This integration, while generating some overhead, will guarantee that each cost statement is supported by a deliverable that has been approved by the Activity Leader. This will significantly reduce the risk for Cost Reporting errors.

The Grant Agreement 2013 and associated Business Plan were signed on February 15th 2013 for the total budget (Catalyst and Carrier) of € 200,210,217. The Catalyst budget was estimated at € 50,567,024 with a maximum EIT contribution of € 41,129,171.

During 2012, two amendments to the Partner Grant Agreements (PGA) have been approved, one in October and one in December.

> The October Amendment mainly addressed an additional budget of € 850,000 to support the EIT "Outreach, Collaboration and Support" initiative and a number of Activity Change requests. The December Amendment solely contained Activity Change requests.

The budgets contained in the Amendment 2 against which the reporting has taken place were € 201,672,113 for the total budget, € 51,432,024 for the Catalysts with a maximum EIT contribution of € 41,979,171.

The actuals reported by the partners are € 187,399,545 or 93% of the overall budget, € 45,994,165 or 89% of the Catalyst budget and an EIT Request of 39,247,052 or 93% of the EIT Budget.

> In general, the actuals in the Action Lines are well aligned with the EIT budgets. The exceptions are the Doctoral School being 25% and the Education Catalyst Developments being 37% below budget.

The Certificates on the Financial Statements were 63% below budget due to the fact that the KCA CFS has been postponed by a year and the Outreach programme was 37% below budget due to a late start. Marketing was 15% above budget due to costs for both 2013 GSMA Mobile World Congress exhibit and actual costs incurred for CeBIT 2014.

**Stan Smits** COO EIT ICT Labs

| Action Lines | EIT Contribution Catalyst | Co-funding Catalyst | Total Cost Catalyst | EIT budget Catalyst | Total budget Catalyst | Carrier Cost | Carrier Budget |
|---|---|---|---|---|---|---|---|
| **Action Lines Education** | **€ 5,906,638** | **€ 839,941** | **€ 6,746,579** | **€ 6,650,000** | **€ 8,220,800** | **€ 7,813,930** | **€ 12,470,745** |
| Doctoral School | € 1,656,185 | € 67,785 | € 1,723,970 | € 2,200,000 | € 2,230,800 | € 4,041,564 | € 5,908,745 |
| Master School | € 4,250,453 | € 772,157 | € 5,022,610 | € 4,450,000 | € 5,990,000 | € 3,772,366 | € 6,562,000 |
| | | | | | | | |
| **Action Lines Innovation in ICT** | **€ 11,875,848** | **€ 2,261,444** | **€ 14,137,292** | **€ 12,163,499** | **€ 14,127,999** | **€ 69,902,083** | **€ 70,040,871** |
| Computing in the Cloud | € 1,923,787 | € 278,557 | € 2,202,344 | € 1,947,500 | € 1,950,000 | € 8,472,221 | € 9,168,438 |
| Cyber Physical Systems | € 1,122,042 | € 123,986 | € 1,246,028 | € 1,200,000 | € 1,200,000 | € 11,660,229 | € 11,174,000 |
| Future Networking Solutions | € 4,691,971 | € 1,131,763 | € 5,823,734 | € 4,807,000 | € 6,195,000 | € 24,368,923 | € 25,775,755 |
| Privacy, Security and Trust | € 890,157 | € 364,436 | € 1,254,593 | € 900,000 | € 1,084,000 | € 4,556,593 | € 5,105,200 |
| Smart Spaces | € 3,247,892 | € 362,702 | € 3,610,594 | € 3,308,999 | € 3,698,999 | € 20,844,117 | € 18,817,478 |
| | | | | | | | |
| **Action Lines Innovation with ICT** | **€ 9,002,949** | **€ 2,119,479** | **€ 11,122,428** | **€ 9,435,939** | **€ 12,990,939** | **€ 50,273,205** | **€ 52,900,973** |
| Future Urban Life and Mobility | € 4,092,381 | € 946,175 | € 5,038,556 | € 4,267,439 | € 5,000,439 | € 22,769,805 | € 24,980,123 |
| Health and Wellbeing | € 2,438,246 | € 682,882 | € 3,121,128 | € 2,600,000 | € 5,029,000 | € 14,636,992 | € 14,007,024 |
| Smart Energy Systems | € 2,472,322 | € 490,422 | € 2,962,744 | € 2,568,500 | € 2,961,500 | € 12,866,407 | € 13,913,826 |
| | | | | | | | |
| **Catalyst Development** | **€ 4,544,281** | **€ 590,297** | **€ 5,134,578** | **€ 5,281,667** | **€ 6,827,220** | **€ 12,050,704** | **€ 12,627,500** |
| Business Catalyst Development | € 3,782,379 | € 510,599 | € 4,292,978 | € 4,335,000 | € 5,880,553 | € 9,394,829 | € 10,652,500 |
| Education Catalyst Development | € 285,535 | € 21,188 | € 306,723 | € 450,000 | € 450,000 | € 1,249,966 | € 920,000 |
| Research Catalyst Development | € 476,368 | € 58,510 | € 534,878 | € 496,667 | € 496,667 | € 1,405,909 | € 1,055,000 |
| | | | | | | | |
| **Co-location Centres** | **€ 4,308,663** | **€ 573,991** | **€ 4,882,654** | **€ 4,350,000** | **€ 5,167,000** | **€ 1,365,458** | **€ 2,200,000** |
| Co-Location Centres | € 4,308,663 | € 573,991 | € 4,882,654 | € 4,350,000 | € 5,167,000 | € 1,365,458 | € 2,200,000 |
| | | | | | | | |
| **Management** | **€ 2,904,783** | **€ 353,505** | **€ 3,258,288** | **€ 2,800,000** | **€ 2,800,000** | **-** | **-** |
| Management | € 1,984,555 | € 288,036 | € 2,272,591 | € 2,000,000 | € 2,000,000 | - | - |
| Marketing | € 920,227 | € 65,469 | € 985,696 | € 800,000 | € 800,000 | - | - |
| | | | | | | | |
| **Certificates on the Financial Statements** | **€ 167,878** | **€ 5,230** | **€ 173,108** | **€ 448,066** | **€ 448,066** | **-** | **-** |
| Management Certificates on the Financial Statements | € 167,878 | € 5,230 | € 173,108 | € 448,066 | € 448,066 | - | - |
| | | | | | | | |
| **Outreach Collaboration and Policy** | **€ 536,012** | **€ 3,224** | **€ 539,236** | **€ 850,000** | **€ 850,000** | **-** | **-** |
| Outreach, Collaboration and Policy& Strategy | € 536,012 | € 3,224 | € 539,236 | € 850,000 | € 850,000 | - | - |
| | | | | | | | |
| **Grand Total** | **€ 39,247,052** | **€ 6,747,113** | **€ 45,994,165** | **€ 41,979,171** | **€ 51,432,024** | **€ 141,405,380** | **€ 150,240,089** |

# OUTLOOK 2014

**Willem Jonker** CEO EIT ICT Labs
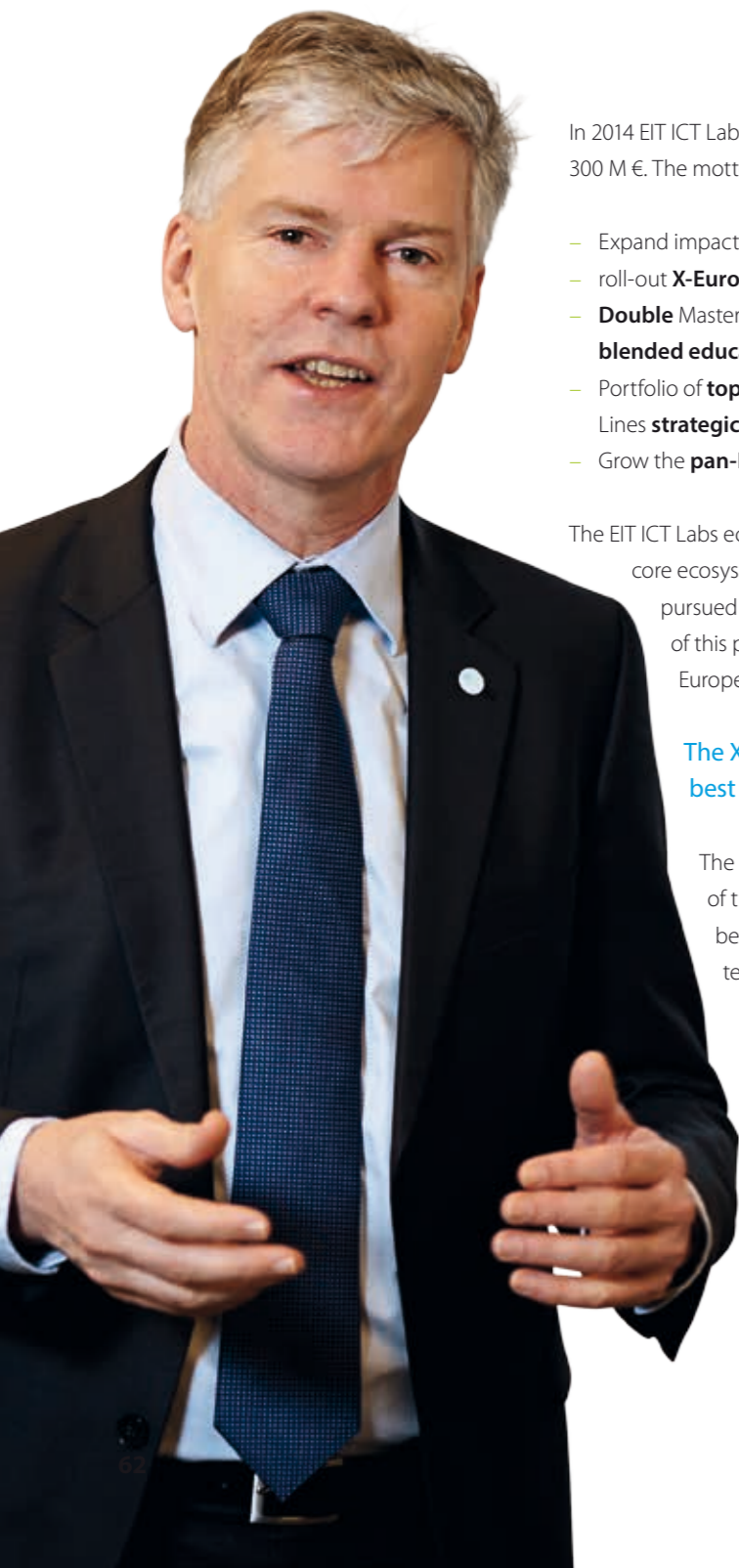
In 2014 EIT ICT Labs will again significantly scale up its activities with a total budget of over 300 M €. The motto is 'Create for Value' and the goals are ambitious and precise:

– Expand impact through **London** as full Node,
– roll-out **X-Europe EU-28** and connect to **Silicon Valley**
– **Double** Master and Doctoral School **admission**; build Professional School; deploy **blended education** by injecting **online platform**s
– Portfolio of **top-down High Impact Initiatives** and **bottom-up activities** in Action Lines **strategic for Europe**
– Grow the **pan-European BDA** and drive **entrepreneurship** via, e.g. **idea competitions**.

The EIT ICT Labs ecosystem is growing, with the establishment of a full Node in London the core ecosystem is consolidated. At the same time the European and global impact is pursued through the newly established Outreach programme. For 2014 the focus of this programme is on EU-28 via X-Europe activity when it comes to engaging European partners that are based outside our core ecosystem.

*The X-Europe activity is key to our mission of sharing expertise and best practices as well as to having a true European impact.*

The connection to Silicon Valley will link EIT ICT Labs in a structural way to one of the most vibrant IT ecosystems word-wide and aims to establish a bridge between the two ecosystems that supports the exchange of talents, ideas, technologies and investments.

For EIT ICT Labs the Co-location Centres play a pivotal role. They are the physical places where actors from the knowledge triangle meet and work together. The Co-location-based activities will be further strengthened in 2014 by making it the home for our business developers, Master and doctoral students, as well as several of our High Impact Initiatives. As such they more and more get established as the learning and innovation centres that are driven by the exchange of ideas and as such breeding places for innovation and talent development.

*The strategy update that took place in 2013 has led to a concise formulation of our Education strategy: deliver T-shape talents though a blended education approach.*

The blended education approach has two aspects: blending of technical knowledge and entrepreneurial skills as well as blending of classroom education and e-learning. The blended education is implemented through a collection of schools supported by tools. The existing Master and Doctoral Schools will be scaled up further in 2014 by doubling the admission with respect to 2013, and a new school will be established: the Professional School. In 2014 also introducing e-learning platforms that will support both the Master and the Professional School will extend the tool set.

When it comes to innovation activities, the Action Lines are leading. Towards 2014 a further focusing and sharpening of the vision, mission, objectives, and pursued societal and economic impact of the Action Lines has taken place. The introduction of portfolio management in 2013 will be further deepened in 2014, amongst others with the addition of scenario building. High Impact Initiatives have been introduced in the 2014 Business Plan to target activities and drive value creation. As a result in 2014 EIT ICT Labs will execute a focused set of eight Action Lines with each of them a balanced portfolio of activities addressing both impactful continuous and disruptive innovations.

The EIT ICT Labs pan-European Business Development Accelerator (BDA) has been firmly established in 2013 and will be further expanded in 2014 to include London, Budapest and Madrid. The BDA will drive the value extraction and entrepreneurship in the Action Lines. It will do so via business modelling, technology transfer, opportunity scouting, facilitating access to finance, talent attraction via idea competitions and mentoring of start-ups and SMEs with global growth ambitions.

Sustainability will remain an important theme in 2014. Developing a sustainable way of operating is a key ingredient for the future of EIT ICT Labs. Sustainability touches many aspects amongst others financial and organisational. After initial pilots around financial sustainability of some of the EIT ICT Labs activities in 2013, in 2014 further development and experimentation will take place including principles of mid- and long-term return on investment. In addition, together with the EIT and the other KICs, EIT ICT Labs will further develop the notion of sustainability and exchange best practices.

The embedding in Horizon 2020 gives the EIT a clear position in the European landscape of Research and Innovation instruments. This embedding and the steep increase in budget allow both the EIT and EIT ICT Labs to significantly scale up its operations. For EIT ICT Labs the 2014 financial support from EIT will almost double compared to 2013. This trust expressed by the European citizens in the EIT and EIT ICT Labs comes with the responsibility to drive our activities to high societal and economic impact.

*During the interactions I am having with many of you I always sense the enthusiasm and strong motivation to contribute to the successes of EIT ICT Labs. This gives me the strong confidence that in 2014 we will again seriously step up our impact and I look forward to meet many of in the various events and activities during this year. Thanks in advance to all of you for your continuous contribution to Create for Value.*

# MANAGEMENT COMMITTEE 2013

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 of developing the KIC activities in their respective areas, in particular new catalyst development.

The Marketing and Communications Director leads the marketing and communications operations of the KIC.



Left to right: **Paul Jenkins** London Node Director, **Patrick Strating** Eindhoven Node Director, **Stéphane Amarger** Paris Node Director, **Marko Turpeinen** Helsinki Node Director, **Johanna Gavefalk** Marketing & Communications Director, **Roberto Saracco** Trento Node Director, **Stan Smits** COO, **Udo Bub** Berlin Node Director, **Fabio Pianesi** Research Director, **Gunnar Landgren** Stockholm Node Director, **Willem Jonker** CEO, **Klaus Beetz** Business Director, **Anders Flodström** Education Director

# ABOUT EIT ICT LABS

EIT ICT Labs is a pan-European research-based innovation and education organisation founded on excellence. The mission is to drive European leadership in ICT innovation for economic growth and quality of life. EIT ICT Labs is a Knowledge and Innovation Community of the European Institute of Innovation and Technology.

By linking education, research and business, EIT ICT Labs empowers ICT top talents for the future and brings ICT innovations to life. The ecosystem is characterised by an open and collaborative way of working with partners representing global companies, leading research centres, and top ranked universities in the field of ICT.

Since 2010, EIT ICT Labs has consistently mobilised talents, ideas, technologies, investments as well as business across Europe and beyond.



European Institute of Innovation & Technology

**Climate KIC**    **EIT ICT Labs**    **KIC InnoEnergy**

## 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 General Assembly 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 |

# Annexe 1: EIT ICT Labs **News 2013**

**07.01.2013**
Anders Flodström – new Education Director for EIT ICT Labs

**11.01.2013**
Raising entrepreneurial spirit among doctoral students

**14.01.2013**
EIT ICT Labs members represented at the Future Direction Committee of the IEEE

**18.01.2013**
Toward Green 5G Mobile Networks (5GrEEn) - new project launched

**21.01.2013**
Application Deadline for Investors' Dinner goes Europe

**22.01.2013**
ERCIM News Special Edition on Smart Energy Systems

**24.01.2013**
New way of learning through ICT

**28.01.2013**
HitSeed rebooting HW ecosystem in Europe

**30.01.2013**
Action Line Health & Wellbeing 2013 took off!

**31.01.2013**
Live Stream: Business Conference in Berlin

**31.01.2013**
Business-savvy ICT Doctoral students with a mind for innovation

**31.01.2013**
Success stories and challenges. First Business Conference

**01.02.2013**
The first HealthSpa kick-started the health and wellbeing clustering in Finland



**04.02.2013**
Health Tech Event @ High Tech Campus Eindhoven

**06.02.2013**
Kick-off workshop Professional Learning in CLC Eindhoven

**06.02.2013**
EIT Awareness Day in Slovenia

**06.02.2013**
Holland High Tech: combining strength

**08.02.2013**
Competence and skill supersede knowledge

**18.02.2013**
Prof. Turpeinen spoke about sustainable resource management at ICT4S

**19.02.2013**
EIT ICT Labs and EIT have signed the 2013 Grant Agreement

**20.02.2013**
Apply now for EIT ICT Labs Doctoral School!

**20.02.2013**
EIT ICT Labs Winter School racks brains

**25.02.2013**
EIT ICT Labs present smart e-bike innovation at MWC 2013

**26.02.2013**
In France, Green Communications raising funds up to €600K

**26.02.2013**
EIT ICT Labs present new technology to recognise stress at MWC 2013

**28.02.2013**
EIT ICT Labs presents Semantic Mobile Interaction technology at MWC

**01.03.2013**
Stéphane Amarger appointed as Paris Node Director

**05.03.2013**
Academy Cube launched at CeBIT 2013

**08.03.2013**
Startup Weekend Eindhoven powered by EIT ICT Labs

**13.03.2013**
Athens, "EIT: New Opportunities for Talented People"

**14.03.2013**
Fresh ideas come together in Open Innovation House

**14.03.2013**
CHI 2013 awards Smart Spaces researchers with the best paper award

**22.03.2013**
Roberto Saracco gives a keynote speech at the IEEE Conference in Kerala

**22.03.2013**
March 22: DTC Rennes Advisory Group Kick-off meeting

**22.03.2013**
Munich Startup KisiBox No. 1 in NYC Next Idea

**26.03.2013**
KTH Innovation Idea Competition 2013 ICT in collaboration with EIT ICT Labs



**26.03.2013**
Last Call for Ideas: International Telekom Innovation Contest

**26.03.2013**
EIT ICT Labs Annual Report 2012

**02.04.2013**
EIT ICT Labs Doctoral School inaugurated at UPMC on March 27

**10.04.2013**
The Director of Enel Foundation visits the research ecosystem of Trentino

**12.04.2013**
HealthSPA amplifies open innovation

**16.04.2013**
Reminder: Application Deadline for Software Campus 19 April

**23.04.2013**
EIT ICT Labs Partner Event 2013 Read all about it!

**25.04.2013**
Start-ups from EIT ICT Labs for the EIT Entrepreneurship Award 2013 are selected

**29.04.2013**
CELTIC Excellence award to project that will support solutions for future mobile backhaul

**03.05.2013**
Business ideas complement research results at the new Budapest DTC

**06.05.2013**
Roberto Saracco represents ICT Labs at the India Global ICT Forum 2013

**14.05.2013**
Apply to the STARTUP Programme in Stockholm

**14.05.2013**
EIT ICT Labs at the GTTI for the Knowledge Capital event in Florence

**14.05.2013**
EIT ICT Labs has received the 7th NTA ICT World Communications Award

**14.05.2013**
Startup crash course by Raoul Stubbe

**14.05.2013**

Alain le Loux most inspiring speaker at screening Startup kids

**16.05.2013**

Fostering Innovation and Strengthening Synergies across the EU

**20.05.2013**

Volumental won "Rookie of the Year" prize at STING Day 2013

**21.05.2013**

Gamification as a game changer for Finland

**23.05.2013**

Future Internet PPP Meeting in Berlin

**26.05.2013**

EIT ICT Labs' startups pitched on Dutch Business News Radio

**28.05.2013**

Ferrero visits EIT ICT Labs in Italy

**31.05.2013**

Stockholm students ended the year with a Labs Day unconference

**03.06.2013**

Italian Premier Letta Inaugurated TechPeaks – International Talent Accelerator

**05.06.2013**

Apply now for EIT ICT Labs Doctoral School

**05.06.2013**

G-phone - winner of KTH and EIT ICT Labs Idea Competition ICT 2013

**06.06.2013**

Roberto Saracco gave a talk on Innovation and Territory

**10.06.2013**

AppCampus celebrated 1st year anniversary

**11.06.2013**

Team Excalibur wins Telekom Innovation Contest

**12.06.2013**

Future of EIT discussed at Awareness Day in Helsinki

**12.06.2013**

The European Youth Award 2013 competition is open

**13.06.2013**

Digital World Festival FUTUR EN SEINE Paris June 13-14

**13.06.2013**

Raising I&E Awareness course for EIT ICT Labs Doctoral Students

**14.06.2013**

Erwin van Eijden new Co-location Centre Manager Eindhoven



**14.06.2013**

Stockholm startup scanned participants at Digital Horizons

**17.06.2013**

Opportunity Recognition for EIT ICT Labs Doctoral School

**18.06.2013**

Detectify - stay secure - go hack yourself!

**19.06.2013**

Jean Gelissen gives keynote at ICOST'2013 Singapore

**19.06.2013**

FlashPoll, Digital Cities action line activity at Futur en Seine

**19.06.2013**

Roberto Saracco participated at the discussion on Digital Cities

**19.06.2013**

The competition for the EIT CH.A.N.G.E. Award is open!

**19.06.2013**

Startup Fair in Milan - Business Development Accelerator Presentation

**20.06.2013**

Roberto Saracco participated at the discussion of the FET-Open project

**26.06.2013**

Students innovating cloud services at the Summer School

**02.07.2013**

Green Communications now hosted by EIT ICT Labs Paris

**05.07.2013**

Director of the EIT ICT Labs Budapest Associate Partner Group held talks in Silicon Valley



**09.07.2013**

EIT ICT Labs students develop business solution for action line

**10.07.2013**

Jovan Golic nominated as Privacy, Security and Trust Action Line Leader

**12.07.2013**

AI Mashup Challenge: 3rd prize for dbTrento group

**13.07.2013**

EIF and EIT ICT Labs team up to support ICT SMEs and start-ups

**22.07.2013**

Paris Students Young European Enterprise of the Year!

**22.07.2013**

STING ranked #9 in global University Business Incubator index

**23.07.2013**

EIT ICT Labs at the Confcommercio Trentino

**19.08.2013**

Successful Start of Third Summer School by Smart Energy Systems

**21.08.2013**

Jovan Golic giving a keynote speech at the 2013 ISC International Conference

**21.08.2013**

A Swiss hospital group to deploy netMedi's patient follow-up and communication solution

**22.08.2013**

Dr Tua Huomo, New Action Line Leader of "Future Cloud" from 1st Sept

**23.08.2013**

The CLC is where the action is…

**23.08.2013**

EIT ICT Labs Summer School students pitching business solutions for Philips

**26.08.2013**

Looking into the Future, one day at a time

**26.08.2013**

Honour from Hungarian President for EIT ICT Labs Budapest

**27.08.2013**

Nicola Doppio presents Experience & Living Labs at the4th ENoLL Summer School

**02.09.2013**

Great welcome reception for 60 students at Stockholm CLC

**03.09.2013**

Gilles Betis - New action line leader for FUTURE URBAN LIFE & MOBILITY

**04.09.2013**

KTH presented innovative research to Barack Obama

**04.09.2013**

Digital Cities: Making it happen!

**05.09.2013**
Valuable pitch training for 18 European start-ups, in Berlin

**05.09.2013**
Fred Boekhorst – New Chairman of the Dutch Node Executive Committee

**06.09.2013**
Political Prominence dropped by at Berlin Co-Location

**09.09.2013**
Summer School on Intelligent Services for Digital Cities

**09.09.2013**
The third HealthSPA focused on the US market

**11.09.2013**
Roberto Saracco gave a keynote to the IEEE P2P Conference

**12.09.2013**
Marco Senigalliesi presenting BDA opportunities to TechPeaks

**17.09.2013**
Roberto Saracco invited to addend Science Technology and Society Forum in Kyoto

**18.09.2013**
First place to the "Predicting Next Month Crime" at the Datathon for Social Good competition in London

**19.09.2013**
1st place for team from EIT ICT Labs

**27.09.2013**
Friday Afternoon Lecture by Yvan Sutherland is available

**27.09.2013**
TU/e signs agreement for the EIT ICT Labs Doctoral School

**27.09.2013**
1st EIT ICT Labs Investors' Dinner well received in Eindhoven



**28.09.2013**
CLC Eindhoven welcomed Master School students

**29.09.2013**
EIT ICT Labs' Health & Wellbeing Business Community goes Silicon Valley

**30.09.2013**
Can standards for usability support innovation?

**01.10.2013**
Apply now!



**01.10.2013**
Fabio Pianesi new Research Director of the EIT ICT Labs

**04.10.2013**
Car that talks to the road... at the Researchers' Night 2013 in Trento

**04.10.2013**
Keynote at the European Conference on "Tackling societal challenges with Social Collective Intelligence and ICT!"

**06.10.2013**
Opportunity Recognition blog

**09.10.2013**
Roberto Saracco at Kyoto forum about MOOCs as a tool for fostering education

**09.10.2013**
Digital glasses, spyware and logic games in Budapest on Researchers' Night

**10.10.2013**
EIT ICT Labs France meets & greets its new Master Students

**10.10.2013**
Future Cloud and Big Data opportunities presented in Kista

**10.10.2013**
"Innovations start from vision, not technology"

**11.10.2013**
Stockholm Master students matchmake with Industry and Research

**11.10.2013**
EIT ICT Labs Meets & Greets 285 Master School students

**11.10.2013**
Dreaming together with the EU Innovation Commissioner

**11.10.2013**
EIT ICT Labs' Health & Wellbeing Business Community returns from successful Silicon Valley trip

**14.10.2013**
Students from Corvinus University visiting EIT ICT Labs in Italy

**14.10.2013**
Ericsson CEO, royalty and heads of state get 3D-scan by Volumental

**22.10.2013**
Leverage an Innovating Enterprises Forum on European Scale

**22.10.2013**
Wireless@KTH Friday seminar on 5GrEEN and METIS project

**24.10.2013**
E&LL workshop: Users do IT the Living Lab way

**25.10.2013**
The "Magic Lamp" wins the innovation award "Nostalgia of the Future 2013"

**30.10.2013**
Italian ICT teacher visit to Eindhoven CLC

**04.11.2013**
Student Inc. @ the Stockholm CLC every second Tuesday

**06.11.2013**
EIT ICT Labs nominees for EIT CHANGE and Venture Awards teaser videos

**06.11.2013**
VideoCaf3 creates a social space between ICT 2013 and EIT ICT Labs nodes

**11.11.2013**
Reaching out at the ICT 2013 in Vilnius

**12.11.2013**
CoReHab and Dorottya Maksay EIT ICT Labs winners of EIT Awards 2013

**15.11.2013**
Jean Gelissen, EIT ICT Labs' HWB Action Line Leader, gives keynote @ health seminar in Kent

**15.11.2013**
Outreach: open application for start-ups

**15.11.2013**
Innovation Relay 2013 & launch event Horizon2020 in Amsterdam

**18.11.2013**
Health and wellness companies booming at SLUSH start-up conference



**19.11.2013**
Alain le Loux, Business Accelerator EIT ICT Labs speaks in European Parliament

# Annexe 2: EIT ICT Labs **EVENTS 2013**

**22.11.2013**
EIT plans for 2014 to 2020 adopted by European Parliament

**25.11.2013**
Innovative ideas at TEDxTrento

**25.11.2013**
Two startups win 30.000 euro in Startup Activation idea contest in Berlin

**02.12.2013**
Top Nordic ICT startups in Munich to make business

**03.12.2013**
About Cloud and Urban Life: Rennes, France, the place to be on Nov 28

**03.12.2013**
Crowdfunding: Panoramic Ball Camera Panono aims product launch for big audience

**04.12.2013**
Patent Booster Workshop Eindhoven; Follow up desirable

**04.12.2013**
First Innovation & Entrepreneurship Award 2013 won by M.W. Rousstia

**06.12.2013**
Big data for the energy sector

**08.12.2013**
Republic of China Delegation in Paris Centre of Co-Location



**12.12.2013**
Jovan Golic speaking at the Cyber Security Energy workshop

**12.12.2013**
Reaching out in Bulgaria, Croatia and Slovenia

**12.12.2013**
Sport boosts innovation at the Winter Universiade Conference 2013

**13.12.2013**
The Next Big Thing - SIG ICT

**13.12.2013**
Success full End-of-Year Event of EIT ICT Labs' Action Line Health & Wellbeing

**15.12.2013**
eGovLab launches open data Apps4eGov competition in January 2014

**16.12.2013**
Swedish startup Degoo ready to take off from incubator STING

**16.12.2013**
CEO Willem Jonker speaking at iMinds Conference

**17.12.2013**
First pitch session of the one-year-old DTC in Budapest

**17.12.2013**
Artemis-ITEA2 Vision 2030 - double the investments!

**18.12.2013**
Future is in a Trusted Cloud

**08.01.2013**
Meet EIT ICT Labs Master School at the major student fair trade in Paris

**15.01.2013**
5GrEEN - Towards Green Mobile Networks, Stockholm

**15.01.2013**
Big Data Seminar Series

**22.01.2013**
Experience & Living Labs Catalyst Kick-off workshop

**23.01.2013**
HW start-up accelerator HitSeed's launch event in Helsinki

**23.01.2013**
Meet BEST and enter the engineering challenge!

**29.01.2013**
Big Data Seminar Series

**29.01.2013**
Health Tech Event 2013 at High Tech Campus

**30.01.2013**
House warming party for the Helsinki Co-location Centre

**30.01.2013**
Health Spa - networking event for health cluster in Finland

**31.01.2013**
Business Conference: Accelerating European Growth through Innovation (in Berlin)

**31.01.2013**
Professional Learning in EIT ICT Labs

**31.01.2013**
Business-savvy ICT Doctoral students with a mind for innovation

**01.02.2013**
Presentation of 2013 Master School Programmes at TU Berlin

**06.02.2013**
Lunch talk with Jon Back presenting Codename Heroes and Play Spaces



**08.02.2013**
Meet EIT ICT Master School in major student fair trade in Paris

**12.02.2013**
Innovation & Entrepreneurship Winter School 2013



**13.02.2013**
Patenting in Europe: Patent Booster Workshop in Berlin

**13.02.2013**
Lunch Presentation on Patenting in Europe (in Berlin)

**15.02.2013**
Welcome to EIT ICT Labs Doctoral School at KTH February 15th

**15.02.2013**
Innovative minds will rub off onto their advisors

**18.02.2013**
2013 PARTNER EVENT: Target & Focus

**19.02.2013**
Big Data Seminar Series

**19.02.2013**
Smart Ubiquitous Content (TFMC AL) Kick-Off

**20.02.2013**
Kick Off Workshop Cyber-Physical Systems (in Berlin)

**20.02.2013**
Digital Cities kick-off workshop

**20.02.2013**
Next Generation Car2X Kick-off workshop

**21.02.2013**
Telekom Innovation Contest brings smart ideas to life

**25.02.2013**
EIT ICT Labs @ GSMA MOBILE WORLD CONGRESS 2013

**26.02.2013**
Investors Dinner goes Europe. Matching Event for startups in Berlin

**01.03.2013**
Startup Weekend Eindhoven: 1-3 March 2013

**03.03.2013**
Local innovation hotspots for entrepreneurial PhDs

**06.03.2013**
EIT ICT Labs Stockholm lunch talks - Xavier Aubry, Appear and ZAZ Ventures

**06.03.2013**
Inauguration of EIT ICT Labs Doctoral School and DTC Paris

**07.03.2013**
Call for Proposals Workshop - Privacy, Security & Trust Action Line

**11.03.2013**
Networking Solutions for Future Media workshop, March 11-12

**12.03.2013**
Big Data Seminar Series

**13.03.2013**
Doctoral Training Center Helsinki Kick-off

**15.03.2013**
Startup Weekend Enschede: 15-17 March 2013

**19.03.2013**
Presentation of Experience and Living Lab Catalyst Program

**20.03.2013**
ICT DAYS - ORIZZONTI 2015

**20.03.2013**
Braille Touch - the Entrepreneurial Story of an Accessibility app

**20.03.2013**
Innovation & Entrepreneurship Training for Doctoral School Teachers

**22.03.2013**
Workshop - Secure and privacy-aware mobile identity management

**22.03.2013**
March 22: DTC Rennes Advisory Group Kick-off meeting

**26.03.2013**
Smart Spaces Workshop



**27.03.2013**
Call for Proposals Workshop - Intelligent Mobility Solutions Action Line

**27.03.2013**
Inauguration of EIT ICT Labs Doctoral School and DTC Paris on March 27

**27.03.2013**
Summer school « Business game and leadership », July 22 – 26 Paris – France

**28.03.2013**
Opportunity Recognition – April 15-19 in Paris

**04.04.2013**
Raising Awareness in I&E, April 4-5 Rennes

**05.04.2013**
TechPeaks - people accelerator

**08.04.2013**
Mediating Presence Workshop in Helsinki

**08.04.2013**
Urban Prototyping Festival - From Digital Technology to Digital Economy

**10.04.2013**
Smart Energy enabled by Future Internet. Two-day Workshop with Finseny in Berlin

**10.04.2013**
HealthSPA 0.2

**10.04.2013**
Born Global Entrepreneur - EIT ICT Labs Stockholm Wednesday Lunch Talk

**15.04.2013**
Futur en Seine Paris: SMART CITY Apply to Pitch before April 15!

**16.04.2013**
Pitch Training: Start-up Workshop with Beth Susanne in Berlin



**17.04.2013**
EIT ICT Labs PARTNER EVENT 2013, 17-18 April

**19.04.2013**
Future Networking Solutions Workshop for Call 2014

**22.04.2013**
"5Green" Workshop

**23.04.2013**
Big Data Seminar Series

**24.04.2013**
Call for Proposals Workshop for Smart Energy Systems

**24.04.2013**
Starting your own company – crash course!

**25.04.2013**
"The Startup Kids" at the High Tech Campus, Eindhoven

**26.04.2013**
Inauguration of the EIT ICT Labs Budapest Doctoral Training Centre

**27.04.2013**
Paris CHI 2013 premier international conference on human-computer interaction

**29.04.2013**
'Wine & Cheese': Forum for Entrepreneurs, Start-Ups and Founders

**29.04.2013**
Fostering Innovation & Strengthening Synergies within the European Union

**29.04.2013**
Open Doors at the Helsinki Co-location Centre

**30.04.2013**
Call 2014: Local Road Show in Berlin

**03.05.2013**
Sharing Knowledge: Patent Booster Meeting in the CLC Eindhoven

**07.05.2013**
Fifth Investors' Dinner in Berlin. For Start-ups and Founders.

**07.05.2013**
Call for Proposals Workshop for Cyber-Physical Systems in Munich

**07.05.2013**
STING Day 2013 on May 7 - the #1 startup event in Sweden

**08.05.2013**
Industry Coffee

**08.05.2013**
Stockholm CLC - LabsDay unconference on 8th May

**13.05.2013**
Industry Coffee

**14.05.2013**
Big Data Seminar Series

**14.05.2013**
Gamify Finland!

**20.05.2013**
KTH Innovation Idea Competition 2013 ICT in collaboration with EIT ICT Labs

**20.05.2013**
Watch live streams from Johannesberg Summit on Future of Wireless and Mobile industry

**21.05.2013**
Open IT Summit Networking Event with UBI-FRANCE in Berlin

**22.05.2013**
SAP Startup Forum, Dublin - May 22th

**22.05.2013**
Linnar Viik, EIT Governing Board, visits Stockholm CLC on May 22

**24.05.2013**
EIT ICT Labs at Gründer- und Unternehmerforum 2013 in Berlin

**24.05.2013**
Workshop on Cyber-Physical Systems Engineering

**27.05.2013**
From Idea to Value: workshop for students and friends with an entrepreneurial heart, TU/e in Eindhoven

**29.05.2013**
SAP Startup Forum, Paris - May 29th

**30.05.2013**
Inn@Aqua - Innovation Day in Como, Milan

**01.06.2013**
Dutch Technology Week in Eindhoven, 31 May - 7 June

**03.06.2013**
Cloud Computing Summer School 2013

**03.06.2013**
Smart Spaces Summer School and Doctoral Colloquium

**05.06.2013**
Presentation of BMBF: German Software Champions DESC in Berlin

**10.06.2013**
Finals of Telekom Innovation Contest in Berlin

**11.06.2013**
EIT Awareness Day

**12.06.2013**
Digital Horizons - the Economist conference at KTH, 12-13 June

**12.06.2013**
Start-up Day "Get Inspired - Get Started" in Berlin



**17.06.2013**
Innovation & Entrepreneurship Training for Doctoral School Teachers

**17.06.2013**
Mediating Presence Midnight Sun Workshop

**17.06.2013**
Startup Fair in Milan, June 17th

**20.06.2013**
Business developer Paolo Magni presents Business Development Accelerator at the DITECFER

**05.07.2013**
Grand Opening of Satellite Co-Location Centre in Munich

**08.07.2013**
Cyber-Physical Systems Summer School

**08.07.2013**
First Round Table on Smart Energy Systems



**08.07.2013**
IMDEA Software Institute new Associate Partner of EIT ICT Labs in Spain

**18.07.2013**
Students' Seminar Venture Campus at CLC Berlin

**22.07.2013**
EIT ICT Labs Master School presents Summer School 2013 in Trento

**22.07.2013**
Business game and leadership - Doctoral Summer School July 22-26 in Paris

**11.08.2013**
EIT ICT Labs Master School presents Summer School 2013 in Eindhoven

**19.08.2013**
Summer School for Smart Energy Systems in Berlin and Paris

**22.08.2013**
Dr Tua Huomo, New Action Line Leader of "Future Cloud" from 1st Sept

**27.08.2013**
Visiting Doctoral students welcome to EIT ICT Labs Stockholm

**28.08.2013**
HealthSPA Goes America

**28.08.2013**
Computer as Social Actor (CASA) Workshop 2013

**29.08.2013**
8th SIKS/Twente Seminar on Searching and Ranking

**02.09.2013**
Summer School on Intelligent Services for Digital Cities in Trento

**02.09.2013**
Digital Cities of the Future, September 2-3, Trento

**03.09.2013**
Perfecting Your Pitch: Intensive Coaching for Startups, in Berlin

**09.09.2013**
Pervasive Healthcare Summer School 2013

**10.09.2013**
FI-PPP Innovation Event, by Future Internet Smart Utility Services

**16.09.2013**
Patent Booster training in Stockholm September 16!

**16.09.2013**
CHItaly 2013
Building Social Innovation

**17.09.2013**
After work seminar on Usability on September 17, Stockholm

**19.09.2013**
ICT-Security Conference on Big Data, Cloud Computing and Cyber Security in Berlin

**19.09.2013**
Patent Booster Training in Helsinki on 19 Sept

**19.09.2013**

Skill-building Patent Booster training 2013

**20.09.2013**

Back to the Future of Natlab: Computers Yet to Come

**23.09.2013**

Cloud and Big Data Day at SICS Software Week September 23-25



**24.09.2013**

Investors' Dinner Eindhoven 24 September

**25.09.2013**

Mediating Presence - Autumnal Equinox Workshop

**25.09.2013**

Kista Science City – the creation of Europe's largest ICT cluster!

**27.09.2013**

Roberto Saracco - invited speaker at TEDx Transmedia 2013

**27.09.2013**

Meet EIT ICT Labs at the Researchers' Night 2013

**27.09.2013**

Seminar on Horizon 2020 for ICT entrepreneurs on 10 October 2013

**28.09.2013**

Innovatie Estafette 2013

**07.10.2013**

Master students meet Future Networking Solutions and Business partners

**08.10.2013**

Telcred at Tuesday Tea time talk

**09.10.2013**

Welcome to Results Day 9 October in Helsinki

**09.10.2013**

Raising I&E Awareness, Budapest, Hungary

**10.10.2013**

Security Early On, a Hot Topic Workshop by TU Darmstadt

**14.10.2013**

Kick-Off Event of Second EIT ICT Labs Master School Cohort in Berlin

**15.10.2013**

Users do IT the Living Lab way

**17.10.2013**

Privacy-aware management of Electronic Health Records

**21.10.2013**

Business Modelling & Development Part 1

**21.10.2013**

Business matching meeting at the PoliHub

**21.10.2013**

EIT ICT Labs @ The Pioneers Festival

**21.10.2013**

Business Model & Development course in Stockholm

**22.10.2013**

BrailleTouch: The Human, Academic, and Entrepreneurial Story of an Accessibility App

**22.10.2013**

EIT ICT Labs to participate in shaping Future Internet Research and Experimentation

**23.10.2013**

Networking for startups: 6th Investors Dinner in Potsdam (Berlin)

**23.10.2013**

Skill-building Patent Booster training in Trento

**24.10.2013**

EIT ICT Labs Patent Booster Training in Eindhoven

**24.10.2013**

Raising I&E Awareness - Doctoral School course

**26.10.2013**

First OpenDS User Convention in Eindhoven

**28.10.2013**

Master Class. Turning Green Ideas into Commercial Successes, by Ken Morse

**28.10.2013**

4th Global Information Infrastructure and Networking Symposium (GIIS 2013)

**29.10.2013**

Quick Posture: innovation does not always require invention

**30.10.2013**

Innovation & Entrepreneurship training for Doctoral School teachers Part II

**31.10.2013**

Skill-building Patent Booster training in Berlin

**31.10.2013**

Save the Date: Patent Booster Training - Paris October 31

**01.11.2013**

Martin Ouwerkerk represents action line Health & Wellbeing on Wireless Health 2013 in Baltimore

**01.11.2013**

Conference Mediating Justice - 4 December 2013 @ TU Delft

**04.11.2013**

ACM CSS 2013: 20th Conference on Computer and Communications Security in Berlin

**04.11.2013**

Future Networking Solution WS in Stockholm

**04.11.2013**

EIT ICT Labs' Outreach Programme: Slovenia

**06.11.2013**

ICT 2013 Create Connect Grow

**07.11.2013**

'Turn out Burn out' hits the floor at Bits&Chips 2013 Embedded Systems

**07.11.2013**

Mobile Future 2013 Conference on November 7, Stockholm

**11.11.2013**

IEEE Software Defined Networks for Future Networks and Services 2013 (SDN4FNS 2013)

**11.11.2013**

Raising I&E Awareness course

**12.11.2013**

Google style Innovation Jam for students and start-ups

**12.11.2013**

EIT Awards 2013

**13.11.2013**

SLUSH start-up conference

**14.11.2013**

Stratosphere Big Data Analytics Research Summit in Berlin

**15.11.2013**

SILICON VALLEY PITCH TRAINING in the Co-location Centre Eindhoven

**15.11.2013**

CEO Willem Jonker invited as speaker at iMinds Conference DRIVING DIGITAL INNOVATION IN EUROPE

**18.11.2013**

Join Smart Spaces Winter Camp 2013!

**19.11.2013**

Smart Spaces Workshop

**19.11.2013**

Ideation and Business Planning Workshop in Berlin

## Annexe 3: EIT ICT Labs **PARTNERS 2013**

The EIT ICT Labs partners represent some of Europe's and the world's leading organisations, universities, research institutes and companies in the field of ICT. Three different, hence complementary categories of partners are brought together within the EIT ICT Labs KIC. Decision powers of these partners, i.e. formal voting rights, are based on their contributions to KIC activities.

**19.11.2013**
Betting it all... From lean startup to world domination

**20.11.2013**
EIT ICT Labs' Outreach Programme: Bulgaria

**20.11.2013**
Trento CLC hosts BioBash event

**20.11.2013**
ALVAR Tutorial

**22.11.2013**
Entrepreneurial Innovation Culture Workshop, in Kreuzberg (Berlin)

**23.11.2013**
TedxTrento



**25.11.2013**
Startup Activation Berlin: Final Pitches in Berlin

**25.11.2013**
Welcome to Digi Cocktails

**25.11.2013**
Opportunity Recognition training for EIT ICT Labs Doctoral School

**27.11.2013**
Top Nordic Tech Start-up Showcase in Munich

**27.11.2013**
ICT.OPEN 2013: The Interface for Dutch ICT-Research.

**27.11.2013**
Top Nordic Tech Start-up Showcase in Munich

**28.11.2013**
Users do IT the Living Lab way

**28.11.2013**
EIT ICT Labs' Outreach Programme: Croatia

**02.12.2013**
Data Science Center Eindhoven launched by TU/e: Turning Data into Value

**04.12.2013**
ITEA & ARTEMIS Co-summit 2013, December 4-5, Stockholm

**04.12.2013**
Round Table on Smart Energy Systems

**05.12.2013**
Workshop on security and privacy for location-based services

**05.12.2013**
"Electric Vehicles and the Smart Grid" - presentation of the results

**09.12.2013**
Winter Universiade Conference 2013 Business Session

**10.12.2013**
The eGovlab - not just in theory but also in practice

**12.12.2013**
Future Cloud Action Line Workshop in Helsinki

**12.12.2013**
Action Line Health & Wellbeing End-of-Year Event 2013, 12 December

**17.12.2013**
Winter School - Paris

**18.12.2013**
EIT ICT Labs Italy, Partner Event 2013

**29.12.2013**
Action Line Health & Wellbeing @ Health Tech Event 2014, 28 January

**CORE PARTNERS**

Core Partners include the initial partners of the first application and Core Partners of the first Framework Partnership Agreement signed with EIT. The Core Partners are members of the KIC Association. They represent world-class excellence, are fully committed to the KIC application and will raise the necessary co-funding for the EIT ICT Labs execution. Core Partners control and manage EIT ICT Labs through their membership in the Association and the Executive Steering Board (ESB) elected by the Association's General Assembly (GA). They have equal voting rights at the GA, can participate in activities at any Co-location Centre and are organised through the Nodes and responsible for the operation of their respective Node. They must fulfil minimum criteria regarding contributions to EIT ICT Labs to remain Core Partners.

## AFFILIATE PARTNERS

Affiliate Partners are other organisations participating in and contributing to the activities of EIT ICT Labs. They are usually active on Node level and are typically universities, SMEs or venture capital funds and companies. They have a contract with the EIT ICT Labs KIC Association and a mandate with a specific Node through which they supply competence and human resources to its Co-location Centre. Affiliate Partners obtain general information from EIT ICT Labs and have access to all activities of EIT ICT Labs, but are not members of the Association and have no voting rights in the GA.



## ASSOCIATE PARTNERS

EIT ICT Labs have selected a small number of partners located outside the co-location sites' countries as Associate Partners having a direct mission from central EIT ICT Labs management, though they are also connected through the Nodes and, of course, expected to contribute significantly to co-location activities.

Initial examples of such missions are Outreach programmes to enhance ICT competence (ELTE), monitoring the performance of EIT ICT Labs from a business school perspective (Imperial College), and promoting citizen confidence in ICT (IMDEA Software Institute).

The two associate partners are listed with the companies, institutes and universities linked to them:

### ELTE (Budapest)
– The ELTE, Eötvös Lorand University of Sciences
  (Leading actor)
– Budapest University of Technology and Economics
– Cisco
– GE Healthcare

### IMDEA Software (Madrid)
– IMDEA Software Institute (Leading actor)
– Atos
– Barcelona Supercomputing Center
– Indra
– Technical University of Madrid (UPM)
– Telefonica

## Annexe 4: **Glossary**

| | |
|---|---|
| **3GPP** | 3rd Generation Partnership Project |
| **4G** | Fourth generation (mobile telecommunication standards) |
| **5G** | Fifth generation (mobile telecommunication standards) |
| **APG** | Associate Partner Group |
| **ATTPS** | Achieving the Trust Paradigm Shift |
| **B2B** | Business-to-business |
| **B2C** | Business-to-customer |
| **BDA** | Business Development Accelerator |
| **BSC** | Barcelona Supercomputing Center |
| **BT** | British Telecommunications |
| **CEE** | Central and Eastern Europe |
| **CEO** | Chief executive officer |
| **CFS** | Certificate on the Financial Statements |
| **CLC** | Co-location Centre |
| **CMS** | Content Management System |
| **COO** | Chief operating officer |
| **CorIP** | EIF Corporate Innovation Platform |
| **CPS** | Cyber-Physical Systems |
| **CSO** | Chief strategy officer |
| **CWI** | Center Wiskunde & Informatica |
| **DFKI** | Deutsches Forschungszentrum für Künstliche Intelligenz (German Research Center for Artificial Intelligence) |
| **DMP** | Data Management Platform |
| **DS** | Doctoral School |
| **DSP** | Demand-side Platform |
| **DTC** | Doctoral Training Centre |
| **ECTS** | European Credit Transfer and Accumulation System |
| **EIF** | European Investment Fund |
| **EIT** | European Institute of Innovation & Technology |
| **ELTE** | Eötvös Loránd University |
| **ERB** | Education, Research and Business |
| **ERC** | European Research Council |
| **ERCIM** | European Research Consortium for Informatics and Mathematics |
| **ESB** | Executive Steering Board |
| **ETSI** | European Telecommunications Standards Institute |
| **EU** | European Union |

| | |
|---|---|
| **EuroCIO** | European Association of Chief Information Officers |
| **FBK** | Fondazione Bruno Kessler |
| **FCG** | Finnish Consulting Group |
| **FNS** | Future Networking Solutions |
| **FI-PPP** | Future Internet Public Private Partnership |
| **GA** | General Assembly |
| **GPAC** | GPAC Project on Advanced Content |
| **GSMA** | Global System for Mobile Communications Association |
| **H2020** | Horizon 2020 |
| **HTTP** | Hypertext Transfer Protocol |
| **I&E** | Innovation & Entrepreneurship |
| **IBM** | International Business Machines Corporation |
| **ICT** | Information and communications technology |
| **IETF** | Internet Engineering Task Force |
| **IEEE** | Institute of Electrical and Electronics Engineers |
| **Inria** | Inventeurs du monde numérique |
| **IRTF** | Internet Research Task Force |
| **IT** | Information technology |
| **ITA** | Internet Technology and Architecture |
| **ITEA** | Information Technology for European Advancement |
| **ITU** | International Telecommunication Union |
| **IVZW** | Internationale Vereniging Zonder Winstoogmerk (International Non-Profit Organisation) |
| **KCA** | KIC Complementary Activities |
| **KIC** | Knowledge and Innovation Community |
| **KPI** | Key Performance Indicator |
| **KTH** | Kungliga Tekniska högskolan (Royal Institute of Technology) |
| **LBS** | Location-based services |
| **LMS** | Learning Management System |
| **LTE** | Long-term Evolution |
| **MBA** | Master of Business Administration |
| **MC** | Management Committee |
| **MMSL** | Mobile Media Services Lab |
| **MPP** | Massive Parallel Processing |
| **MoC** | Memorandum of Collaboration |
| **NEC** | Node Executive Committee |

| | |
|---|---|
| **NFC** | Near field communication |
| **NSM** | Networking Solutions for Future Media |
| **OPC** | Object Linking and Embedding for Process Control |
| **OSI** | Open Systems Interconnection |
| **OSLC** | Open Services for Lifecycle Collaboration |
| **PGA** | Partner Grant Agreements |
| **PwC** | PricewaterhouseCoopers |
| **R&D** | Research and development |
| **SGS** | Smart and Green Stadiums |
| **SIA** | Strategic Innovation Agenda |
| **SICS** | Swedish Institute of Computer Science |
| **SME** | Small and medium enterprises |
| **STING** | Stockholm Innovation & Growth |
| **SWOT** | Strengths, weaknesses, opportunities, and threats |
| **TID** | Telefonica Research and Development |
| **TDL** | Trust in Digital Life |
| **TNO** | Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek (Dutch Organization for Applied Scientific Research) |
| **UA** | Unified Architecture |
| **ULM** | Urban Life and Mobility |
| **UPM** | Technical University of Madrid |
| **UPMC** | Université Pierre et Marie Curie |
| **VAT** | Value added tax |
| **VC** | Venture Capital |
| **VTT** | Technical Research Centre of Finland |

# THE STRENGTH OF EIT ICT Labs RESTS ON OUR PARTNERS.

**Top Technical Universities**
3TU / NIRICT
Aalto University
Institut Mines-Télécom
The Royal Institute of Technology, KTH
Trento RISE, University of Trento
TU Berlin
Université Paris-Sud 11
UPMC - Université Pierre et Marie Curie

**Excellent Research Centres**
CEA
CWI
DFKI
Fraunhofer
INRIA
Novay
SICS
TNO
Trento RISE, FBK
VTT

**Leading Companies**
Alcatel-Lucent
Deutsche Telekom Laboratories
Engineering
Ericsson
Nokia
Océ
Orange-France Telecom
Philips
SAP
Siemens
Telecom Italia
Thales

**and many more**