

ITEA Magazine **20**

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# CO. SUMMIT 2015

SMART INDUSTRY: IMPACT OF  
SOFTWARE INNOVATION



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# Editorial



Dear members of the ITEA family,

In 2014 we successfully started ITEA 3. During the first half of 2014, the ITEA Office, in close cooperation with Public Authorities, planned several promotional activities in different countries (e.g. in Germany, Austria, Finland, Korea and Turkey) to kick-off the new programme.

The Project Outline (PO) Preparation Days 2014, held in Amsterdam on 23 and 24 September 2014, successfully kicked off the first ITEA 3 Call for projects, with 34 POs submitted representing 4619 person years coming from 22 different countries, including Canada and Taiwan as new participants this year. For this call, we observed:

- significant involvement from France and Turkey
- the Netherlands, Germany, Finland, Spain, Romania and Belgium also have an important share of involvement
- again the growing involvement of SMEs in manpower

The publication of this magazine coincides with preparations for our Co-summit 2015 on March 10 and 11 in Berlin. Please have a look at the article dedicated to the Co-summit.

Last year our joint vision 2030 publication focused on the impact of software innovation. This year's Co-summit on Smart Industry is a wonderful example to illustrate the impact of software innovation on global competitiveness. After the steam engine, the assembly line and the success of digital technology, we are observing the fourth Industrial Revolution: the merging of real and virtual worlds. The development and smart application of powerful industrial software is critical to the global competitiveness of the European manufacturing and process industry – and software innovation is the key to mastering many of the associated challenges.

As Herbert Zeisel points out in his article, software innovation is the key to Smart Industry. As a consequence, we have to strengthen our software innovation power:

- We need a more global approach to software innovation
- We have to include customers and end users into our software innovation projects
- We need a comprehensive approach addressing product and service innovation
- Smart industry needs smart people so we have to address talent development in our projects at company and country level
- We have to further shorten the time from PO Days to project kick-off.

This list exactly describes the ITEA 3 improvement plan 2015.

Of course, the future focus of ITEA is not only restricted to Smart Industry. As you can see from the articles on Smart Cities, together with our EUREKA Inter-Cluster colleagues we have started a Smart Cities initiative and with Guus Derks, our ITAC colleague from the Netherlands, we are preparing some dedicated Smart City workshops including customers and end users.

**As you can see, our future is full of exciting challenges. The high-level recommendation from our Co-summit 2013 in Stockholm is more valid than ever: companies and countries should double their investment in ITEA 3.**

So, dear members of the ITEA family, let us work hard and with happiness to achieve our ambitious goals: innovation, business impact, fast exploitation, seizing the high ground

With this in mind, I wish you a successful 2015.


Sincerely yours,

Rudolf Haggenmüller

# Focus on Germany

Software innovation  
- the key to Smart  
Industry





**“Huge parts of our industrial production and of our exports in particular depend on the application of modern information and communication technologies. Moreover, these technologies form the basis for a variety of services. In a nutshell, ICTs are the foundation of our economic capability.”**

Herbert Zeisel, Head of the Key Technologies for Growth Directorate at the German Federal Ministry of Education and Research is convinced of the central role of ICT in economic development and prosperity. “Today there are more than one million employees working in the German ICT industry, generating a turnover of about 224 billion euros. This industry contributes a 4.7% share to our gross value added in Germany. With this contribution to our economy, it has caught up with our traditional industries such as automotive or mechanical engineering. It has become an important part of the German economy. What

is more, the overall economic importance of information and communication technologies is many times higher due to synergies with other technologies – such as production, material or optical technologies – and their impact on other industries. ICTs, especially software and software intensive systems and services, have entered almost all areas of our economy. They are key technologies for innovation.”

Speaking about his forthcoming role in the ARTEMIS-ITEA Co-Summit on “Smart Industry” in Berlin in March, Zeisel stresses the importance of software innovation to Smart Industry. “With *Industrie 4.0* a priority topic in Germany, I am looking forward to a lot of interesting and inspiring talks and sessions. From my point of view, the Co-Summit is an important platform for exchange, communication and networking for all European partners in the fields of software-intensive systems, including embedded systems and CPS. I would like to encourage everyone to

take the opportunity to come to Berlin and to be part of the discussion on the future of European industry – Smart Industry.”

#### **A game changer for business**

Industrie 4.0 marks a significant shift in the way of manufacturing. In Germany it is referred to as the 4<sup>th</sup> industrial revolution. Driven by the Internet, the real and virtual worlds are growing closer together. Industrial production of the future will be characterised by the strong individualisation of products under the conditions of highly flexible production and the extensive integration of customers and business partners in business and value-added processes. Zeisel explains: “Production will be linked to high-quality services leading to so-called hybrid products. End-users and consumers will benefit directly from the changes lying ahead of us. Nonetheless, I have my feet on the ground: when we talk about the full potential of Industrie 4.0 we are talking in the



future tense. There is still a lot to be done before the industry is revolutionised. Nevertheless, I am convinced that Industrie 4.0 really has the potential to become a game changer for businesses as it picks up technology that is mature for widespread implementation in industry. It is vital for European competitiveness that Europe is the one changing the game and not other regions in the world.”

Research has played and will continue to play a vital role in ICT. The German monitoring report on the digital economy identified Industrie 4.0 and Smart Services as key growth areas in ICT. “Apparently, we will only make advances in these areas through research, and this also means research in software and software-intensive systems. Once again, software is the key driver for innovation in these fields.”

The German Federal Ministry of Education and Research (BMBF) stimulates innovation in Germany by creating a reliable framework for research and innovation activities in science and industry. “We are aiming to strengthen Germany as a competitive location for industry by introducing various measures,” Zeisel says.

“Supporting research and innovation in ICT is one of them. Moreover, our activities in the field of ICT are targeted on creating new employment in the key sectors of ICT as well as in its application sectors such as the automotive, machine engineering or logistics industries. Providing public funding for research projects is one way to achieve our goals. Funding software research is part of our programme *IKT 2020 – Research for Innovation*. However, I do not want to conceal the fact that research is not the only topic on our agenda: education as well as the development of international networks are at least equally important and receive intensive support from the BMBF.”

#### **Cross-border cooperation and research**

In a globalised world, industry is not limited to the traditional value-adding chain. To be competitive, industry has to deal with complex value-adding networks. “These networks are not restricted to one country, but span the whole of Europe and beyond,” Zeisel points out. “Hence, the importance of and necessity for cross-border cooperation and research are increasing steadily. It is essential to complement the value-adding production networks by means of European, even international, research and innovation networks in order to strengthen the position and the competitiveness of Europe – and Germany as part of Europe. EUREKA and Horizon 2020 are essential programmes to support these cross-border research and innovation networks. Furthermore, cross-border research is not only vital for innovation in value-adding networks but also for tackling major societal challenges like climate, demographic change, transport, etc.”

The German Federal Government sees the further development of the European Research Area as an important driver for strengthening Europe’s scientific performance as a whole and expanding its innovative capacity in all areas. Transnational cooperation and the coordination of research efforts are decisive for coping with the challenges our society is facing. “EUREKA and the EU Framework Programme are central elements to facilitate this cooperation. In particular, ITEA as a EUREKA cluster has many characteristics that make it extremely attractive for all parties, i.e. for industry – often together with research institutions or universities – as well as for public

funding authorities. Its advantages include flexibility and openness to all kinds of partners, including SMEs, and the bottom-up creation of projects, which ensures that they are close to actual market demand and business needs. ITEA also makes it possible to generate synergies with purely national projects. And, we must not forget, ITEA always aims to do even better – as the aspirations for ITEA 3 show.”

#### **Pioneers of technological progress**

Small and medium sized enterprises are among the pioneers of technological progress in many sectors of German industry. The importance of small and medium sized enterprises for the German ICT industry is obvious when one considers that more than 90% of the companies operating in the ICT sector in Germany are SMEs and more than 60% of the jobs in the sector are to be found in these SMEs. For most of them, research and innovation are essential for holding their ground on the market. However, the risks involved in leading-edge research are often very difficult for SMEs to shoulder. “So,” Zeisel explains, “the BMBF has focused on providing a framework to support SMEs in overcoming this challenge and to facilitate research. We specifically encourage SMEs to participate in all our general funding programmes. In addition, our *KMU Innovativ* programme is especially aligned with the needs of SMEs. It provides public funding for SMEs for high-risk research and innovation projects. Additionally, a guiding service has been put in place, which assists SMEs in applying for these funds. The application procedures have been simplified and the time-span from submitting the project outline to the funding decision has been shortened. You see, the elements are quite similar to those in ITEA.

“I believe that, on a European level, SMEs are in good hands in ITEA. The ITEA framework and the ITEA family provide a good environment for SMEs to begin or to broaden their cross-border research cooperation. I would like to invite all interested SMEs to take a closer look at what ITEA can offer them. The Co-summit in March is a good opportunity to gain an impression of all the positive and successful examples of former and running ITEA projects and of what a joint European effort in research and innovation can achieve.”

# Steps towards Virtual Production Validation

By Thomas Bär - Daimler AG

The impact of innovative ICT on industrial process is becoming increasingly evident, especially in the automotive field. Daimler is a leading player in this respect and is currently involved in the ITEA 2 projects AVANTI and IDEaliSM, both of which aim to support the development of new software solutions to overcome existing weaknesses in the virtual production planning and validation process.

## **Challenges of production planning and validation**

Increasing competition for key market shares is driving premium car manufacturers into an innovation race characterised by a soaring number of new products with production plants all over the world, forcing production to be cost-effective and guarantee high product quality. Such intensified competitive conditions inevitably lead to a higher complexity in the overall production planning and validation process, resulting in a number of challenges such as limited investment for new production equipment based on modularisation and standardisation of production components as well as no increase in expensive physical prototypes. This is especially crucial in the early development phases when the validation of the product and production system has to take

place in the virtual world. With extremely high product quality vital, the ramp-up process must be accelerated and more robust with a high degree of software and hardware maturity.

Today's automation systems are made from a variety of mechanical, electronic and software components, and the trend is towards even closer fusion of these components. An appropriate model of mechatronic system behaviour will enable mechatronic components to be tested in all phases of component use. Furthermore, the creation of the required test cases will also reduce the costs of the test implementation within the virtual commissioning, shorten the mechatronic system ramp-up time and improve the quality of the processes. Daimler is coordinator of the AVANTI project (a test methodology for virtual

## DAIMLER

Daimler AG is one of the world's most successful automotive companies. With its divisions Mercedes-Benz Cars, Daimler Trucks, Mercedes-Benz Vans, Daimler Buses and Daimler Financial Services, the Daimler Group is one of the biggest producers of premium cars and the world's biggest manufacturer of commercial vehicles with a global reach. Daimler Financial Services provides financing, leasing, fleet management, insurance and innovative mobility services. The company's founders, Gottlieb Daimler and Carl Benz, made history with the invention of the automobile in the year 1886. As a pioneer of automotive engineering, Daimler continues to shape the future of mobility today. The group's focus is on innovative and green technologies as well as on safe and superior automobiles that appeal to and fascinate its customers. For many years now, Daimler has been investing continually in the development of alternative drive systems with the goal of making emission-free driving possible in the long term. So in addition to vehicles with hybrid drive, Daimler now has the broadest range of locally emission-free electric vehicles powered by batteries and fuel cells. This is just one example of how Daimler willingly accepts the challenge of meeting its responsibility towards society and the environment.

### Participation in ITEA

Daimler participated already in the first ITEA Call in 1999 and in total they participate(d) in 11 ITEA projects with 89.1 person years:

- DESS                   ITEA Call 1
- EAST-EEA            ITEA Call 3
- EMPRESS            ITEA Call 4
- 3DWorkbench        ITEA Call 4
- TT-Medal             ITEA Call 5
- EMODE                ITEA Call 7
- D-MINT               ITEA 2 Call 1
- ES\_PASS             ITEA 2 Call 1
- MODELISAR         ITEA 2 Call 2
- AVANTI               ITEA 2 Call 7
- IDEaliSM            ITEA 2 Call 8

Several of those projects have been awarded over the past years:

#### ITEA Achievement award

- |      |           |
|------|-----------|
| 2004 | EAST-EEA  |
| 2005 | TT-Medal  |
| 2012 | MODELISAR |

#### Co-summit Exhibition award

- |      |        |
|------|--------|
| 2009 | D-MINT |
|------|--------|

commissioning based on behaviour simulation of production systems) that will also develop methods for automatic test generation following a model-based test generation approach.

### Virtual engineering of automated production

During production planning the manufacturer specifies the main aspects of the automated production system to be designed and then the production system supplier starts working on a mechanical CAD model which is validated together with the car manufacturer's production planner.

Using a physics-based simulation approach generates many opportunities to enrich the significance and increase the level of maturity of the mechanical validation. Physics-based simulation capabilities based on game engine technology enable dynamic multi-body simulation entailing a more realistic representation of the production system in a virtual simulation environment. The production system's 3D-CAD model is integrated into the physics-based simulation environment by supplementing additional parameters (e.g. mass, inertias) to individual component models and defining kinematic conditions (joints, process sequences, etc.). Dynamic multi-body simulation is then executed using a physics engine and a pre-compiled software library provides efficient calculation procedures for Newtonian mechanics. Initial attempts to implement physics-based simulation capabilities into the mechanical validation of automated assembly systems are auspicious and will be conceptually implemented into state-of-the-art virtual validation processes.

### Virtual commissioning of automated production

In the virtual commissioning phase, the control software of automated production systems is validated by connecting the mechanical model of the production system with the real control programmes. The core of virtual commissioning is a realistic, true-functional behavioural model composed of many sub-models of the individual components interacting with each other by means of defined interfaces. From the perspective of manufacturers, virtual commissioning offers significant potential and is regarded as a fundamental aspect of project calls and mandatory for system integrators and system builder quotations. By consensus





The recently started ITEA 2 project IDEaliSM (Integrated & Distributed Engineering Services framework for MDO) will deliver a new distributed flexible and service-oriented development framework for multidisciplinary design and optimisation that is capable of integrating people, process and technology, relying on software solutions for knowledge management and engineering.

### Three-week cockpit

The ‘three-week cockpit’ use case was defined to help achieve this. Among the global challenges for the design and development of a cockpit module is the resolution of design conflicts due to the heavy coupling between several disciplines (i.e. geometry handling, electric and electronic architecture development, 3D packaging and 3D routing, 3D cable simulation and wire harness validation, integration of air conditioning and structural and thermal design). The cockpit represents a challenging system-of-systems design task with multidisciplinary interdependencies and frequent design changes, often more than 4000 between concept and start of production. Automotive OEMs usually provide the geometry definition of the cockpit as a digital mock-up in a specific CAD-data format (i.e. CATIA V5). This includes the geometry definition of the car body in which the cockpit module needs to be integrated and this digital mock-up serves as a part of the pre-set design requirements and the selection of a specific human-machine interface.

manufacturers will have to provide the necessary behavioural models for virtual commissioning in the future, since those companies that heed these requirements and combine them with a holistic approach towards process control at an early stage will foster and strengthen their market position. Not only that but the integration of these goals into the life cycle of the production system will help to reduce the efforts and misunderstanding between different partners in the life cycle phases and enable different components up to the whole production system to be simulated, detailed and tested. AVANTI will derive a method to generate test cases and to define the test procedures necessary for the specific production system, which will enhance the quality management of the whole supply chain.

Given the huge amount of design changes, process automation, detection of the most influential design parameters and decisions, bottlenecks and potential development, intelligent search and optimisation techniques empower design conflict resolution and the development of a graph-based design language allows the automated re-execution and reuse of know-how. Automated design language compilation techniques and model generation technologies will yield shorter time-to-market and many fewer errors, if not first-time-right, zero-error designs. This novel design language technology will provide a computer-assisted possibility to systematically explore, simulate and evaluate the design of novel cockpits and their wire harnesses at less cost in less time. The overall goal is the reduction of development

**The AVANTI project will develop methods for automatic test generation following a model-based test generation approach.**

time from several months to a ‘three-week cockpit’ timescale with at least equivalent if not even better quality of design and product.

### Benefits

Daimler as well as the industrial partners involved will profit from the projects by improving their competence and gain powerful tools in the field of virtual production validation. Service providers and software producers will be able to enhance their software tools and services by investigating new methodologies for the cost- and time-efficient integration of advanced described devices in existing and future infrastructures. In that way these two projects and their innovative software solutions will improve the power of virtual production validation.

# CO • SUMMIT

## 2015

SMART INDUSTRY: IMPACT OF  
SOFTWARE INNOVATION

10-11 MARCH 2015 / BERLIN, GERMANY

The 2015 Co-summit will be held on 10 & 11 March in the bcc Berlin Congress Center in Berlin, Germany. The 7th edition of the Co-summit will feature international keynote speakers from industry and Public Authorities, a panel session on the theme with European high-level panellists, an exhibition showcasing around 75 European leading R&D&I projects, Speakers corners fuelled by the project teams themselves and the presentations of the ITEA Excellence Award winners. This year's theme will be *'Smart Industry: impact of software innovation'*.

The fourth industrial revolution is already on its way. This revolution is driven by giant leaps in software innovation and promises to radically alter the face of industry in the coming decades. Automated production systems using advanced robotics increasingly communicate with each other on detailed aspects of production, connecting previously fragmented manufacturing processes.

Smart industry challenges for industry are to:

- Increase productivity
- Reduce energy and resource consumption

- Increase flexibility
- Decrease costs
- Reduce time to market
- Satisfy demand for higher product variety and product individualisation

The development and smart application of powerful, industrial software becomes the critical success factor in global competition in the manufacturing and process industry. Software innovation is the key to mastering these challenges.

#### **Witness the impact of software innovation**

During the entire Co-summit, visitors will be able to roam around the project exhibition of around 75 European leading R&D&I projects and witness the impact of software innovation. Both ITEA and ARTEMIS projects and their results will be showcased in terms of innovation, business impact and exploitation. Be sure to expect exciting stories and state-of-the-art live demos!

#### **Programme Tuesday 10 March - Day 1**

ITEA's Chairman, Rudolf Hagenmüller, and President of ARTEMIS Industry Association,

Heinrich Daembkes, will officially open the Co-summit. The opening will be followed by welcome speeches from:

- Dr-ing Herbert Zeisel , Head of the Directorate Key Technologies for Growth, Federal Ministry of Education and Research (BMBF)
- Khalil Rouhana, Director for ‘Components & Systems’ in DG Connect, European Commission
- Bruno H. Moor, Chairman EUREKA High Level Group, Delegate of the Swiss Ministry of Economic Affairs, Education and Research.

This year’s keynote will then be given by:

- Dr. Jutta Schneider, Director eDrive & Software Technologies, Daimler AG

The plenary session in the morning will be concluded with a joint speech by Rudolf Haggemüller and Heinrich Daembkes. They will elaborate on Smart Industry as an excellent example to demonstrate the impact of software innovation on global industry and how this is the key to mastering the Smart Industry challenges for industry and Europe.

**The projects in the spotlight**

Following the success of last year’s speakers’ corners, ITEA and ARTEMIS projects are again offered a similar platform during the afternoon of the first Co-summit day. Project representatives will have the opportunity to give a presentation or organise a project debate, to stimulate internal and external discussions on formulating and harmonising the project’s results across some major challenges of its domain. Furthermore, featured projects will also be highlighted in guided tours of the exhibition.

**Programme Wednesday 11 March - Day 2**

The second Co-summit day will start with a plenary panel session on the Co-summit theme: ‘Smart Industry: impact of software innovation’, with high level speakers from industry, including Tomas Lagerberg (Manager automation technologies ABB) and Carsten Rossbach (Partner Roland Berger Strategy Consultants), Egbert-Jan Sol (CTO TNO Industry) and Mürsel Yildiz (Project Coordinator KaTron). The panel will be moderated by Cathy Smith, co-director of SpeakEasy.

The panel session will be followed by the community session of ITEA, including a presentation by ITEA Vice-chairman Philippe Letellier on the programme status and highlights. A high spot of this session will also be the presentation of the ITEA Awards of Excellence that highlight very successful projects with outstanding contributions to the programme. This year’s winners are:

- EASI-CLOUDS: Extendable Architecture and Service Infrastructure for Cloud-Aware Software - winner in the category ‘Business impact’;
- MEDIATE: Patient Friendly Medical Intervention - winner in the category ‘Business impact’;
- SAFE: Safe automotive software architecture - winner in the category ‘Standardisation’.

The afternoon plenary programme will start with the ARTEMIS Community session, containing an introduction, an update on the ECSEL JU, a panel session and the ARTEMIS Recognition award ceremony.



**Do not miss this opportunity and register now!**

For more information and online registration, visit our Co-summit website: <https://itea3.org/co-summit-2015/index.html>

As usual, the Co-summit will end with the Exhibition Awards ceremony highlighting the 2 project teams that communicate its ambition, goals, and - if already possible - achievements in the most comprehensible and vivid way during the exhibition.

# GEODES

## Powering success in complex distributed communication systems a success story

The ITEA 2 GEODES project addressed power-consumption issues – namely, power reduction – in complex distributed communication systems, from handheld devices to wireless sensor networks. At the end of the project in 2011, the review pointed a number of highly promising exploitation prospects. So, three years on, has this promise been fulfilled?

The simple answer is a resounding yes. Low-power technologies and energy-efficient protocols investigated and developed in GEODES have been further optimised to improve product power consumption or to propose new features. In some cases they have been already integrated into products while in other cases technologies are still undergoing evaluation before they can be applied on an industrial scale. In short, the results of the project continue to spawn a series of successful spin-

offs, services and products in all kinds of areas, including wireless network communication, TV set-top boxes and video-surveillance systems.

### **Low-power distributed switch**

A typical highlight of the success generated by the GEODES project results is *FIGO*, an independent, self-funded spin-off company. FIGO basically acts as a distributed switch, enabling every device that connects to the FIGO network to communicate with every other device in this network. The network is very transparent so can be easily deployed through plug and play for end-user applications. The result is reliable, secure and easy-to-manage networks. FIGO is applied successfully in diverse use cases, such as investigating car travel time, or pedestrian mobility, and as an efficient solution for tool

tracking. While FIGO applications are very diverse, there is a common denominator in that customers want not only to measure but also to interpret and communicate. This is all part and parcel of the solution that each FIGO application provides, and recent examples include the Bad Boys Buster and Low Cost Tool Tracking. In terms of the power efficiency requirements, FIGO was able to use the results of the consumption for its first version of the FIGO product line whose solution consumed roughly 20W. This consumption level has now been brought down to a level of roughly 12W, for very similar functionality, and the product line was recently extended in the direction of lower-power sensor solutions. The FIGO team of eleven highly-qualified personnel has already achieved sales of nearly 1500 systems to around 20 customers.

### Minus 30%

The SME, *Sensaris*, was able to employ part of the GEODES methodology to optimise microcontroller power consumption in a variety of power modes and the project results facilitated the migration to Bluetooth Low Energy within the *Sensaris* product range. Ambitions for 20-30% power consumption savings are realistic, there is the promise that energy-scavenging techniques can be implemented, for example in solar cells (for powering iBeacons), and take low-power consumption from microcontroller to sensor level.

*Thales* Netherlands benefited from the energy-saving technologies researched in GEODES for the SOTAS communications product line. The technological innovations have been of particular value in terms of the reduction of the SWAP (Size, Weight and Power) requirements of these robust and adaptive versatile vehicle communication systems. Over all, more than 21,000 of these systems are deployed in more than 30 countries. In addition, the personal communication system MOOVE is now entering the market with as particular characteristic its long operational lifetime -- due to its energy efficient operations -- as required for police forces, fire departments, ambulance services and other organisations active in emergency situations. Combining local equipment energy reduction techniques and smart routing aspects a significant increase (100% and more) in network lifetime can be obtained. For the French

parent company, GEODES contributed to an increase in the technology readiness level (TRL) of these techniques for radio-communication and video-surveillance products. The GEODES demonstrator represented a full end-to-end deployable security/disaster management solution that can be applied in many segments such as the protection of critical infrastructures like nuclear plants or for border surveillance. Thales also used the work of the project to improve autonomy and energy efficiency at both node and network level while sensing capabilities and processing have been extended to cater to customer needs and the identification of new threats. Finally, Thales C&S is also making significant progress in thermal dissipation reduction whereby, in some cases, a temperature reduction of 15°C could reduce the mean time between failures by some 30%.

### From energy-saving to energy-scavenging

*Philips* activities in low-power wireless lighting control have benefited from the lower weight and increased lifetime of battery-powered sensors in medical, lighting and other areas while off-grid lighting (wireless communication with energy storage/generation systems) and medical sensors on the body have been enabled through the technology and innovation developed within the GEODES project. In the consumer market, in 2012, Philips launched the Hue system, based on the low-power ZigBee Light Link standard, for wirelessly controlled consumer LED lamps. A couple of years later, in 2014, Philips began the introduction of the Hue Tap, an energy-scavenging light switch, again based on the open ZigBee standard.

*Technicolor* brought strong expertise in smart energy management, which is a real differentiator compared with companies simply acting as integrators, and new features such as remote control (on/off) that have been incorporated in their new Set Top Box products. Equally important to Technicolor was the creation of new perspectives, with a new openness and 'culture' related to energy management that can lead to better low-power products and the retention of technological leadership and employment within the EU.

*Enea* learned from the project how to handle major power-related issues in low-level software. A new product derived from work in the GEODES project, the Spartan Scheduler, offers an advanced scheduling component that simplifies the design of advanced and complex hard embedded systems, dynamically scheduling online any activity/task in real-time and saving significant amounts of energy. Furthermore, QoS management provides a system for the optimum management of resources (especially energy resources) within a system, enabling the ability to trade performance with power consumption.

### A spring of technological innovation

All the knowledge and expertise gained in GEODES continue to be used not only to extend R&D in this field of power-consumption in complex distributed communication systems but also in other related issues or topics such as energy scavenging or the low-power wireless control needs of the energy saving LED retrofit market and for large buildings. The success of the project is clearly measurable by the business successes, new products and a number of patents that can be traced back to this spring of technological innovation.

# Community Talk with: Medur Sridharan

The community talk series continues in this issue with Medur Sridharan, a Master of Mathematics (Chennai) and Post Graduate Research Degree in Information Technology (Paris). His working career to date has been spent at Bull, an ATOS company, beginning as a software developer. He then became responsible for a software development team and also became involved in a number of European Framework Programme projects geared to topics such as technology for intelligent information selection and delivery, including a multimedia dialogue management and technology for business distance learning. He then became Certification programme manager within Bull software group that specialises in the security domain before taking on his current role leading the coordination of R&D cooperation projects at national and international level.

“My first contact with ITEA came in 2003 when I was asked to become part of the ITEA Steering Group at the time as the Bull representative, and so I have been part of the ITEA make-up, you could say, for a dozen years or so. As a member of the Steering Group I do play an active role in many of the phases of a project, like preparation and screening before the submission of a full project proposal. While my company, Bull, has been very active in a number of ITEA and EUREKA projects, helping to create ecosystems of business partners and being at the heart of the community, I have never been a direct member in any of these projects myself as such. However, as an observer I do monitor all the projects, looking in from the outside as it were, and occasionally mentor if this is required by the project partners during the very important preparation phase.

“I must say that since 2003 I have witnessed quite a few changes, especially in the organisation of the ITEA programme, which is now much more professional than it was twelve years ago. We have had many discussions about how the projects can best be organised

and monitored so that the project goals can be better targeted and achieved. One of the keys to this is simplification, which certainly cuts down the amount of bureaucracy that projects have to deal with and, in turn, accelerates the whole process from start to finish. Of course, I have witnessed considerable growth and expansion. There are now more projects than ever before, breaking new ground and exploring different areas but also this expansion is evident geographically. Companies and organisations from countries like Canada, Israel and South Korea are now becoming increasingly more involved in ITEA projects. This is a very good development not just for ITEA but it creates benefits all round, in terms of knowledge and expertise as well as in respect of business contacts and markets. Also the number of SMEs that are now active and becoming more and more key players within projects represents a pronounced increase compared to twelve years ago.

“Regarding my role, I would not say that this has changed to any significant degree since 2003 but I would say that it has improved. I have had



the opportunity to participate in various quality discussion groups and meet people from many different companies and organisations, often bringing new perspectives, insights and cultures to the table. All this has enriched me in my role. I have also seen three chairmen at the helm, and I'm still here! I seem to be a bit of a permanent fixture. And in this permanent state, I have seen how important the bottom-up approach is in the success of ITEA, with companies – the market and the users of the technology – actually driving demand and project targets. After all, there has to be a market for innovation. It's this that ensures the projects maintain a clear focus on results.

“And I see the concept of seizing the high ground related to this last point. It is the innovation that is developed in projects that enables companies to gain more market share and in that way also stand out above the others ... on the high ground. The ITEA impact in this sense is clearly evident in a number of areas, such as setting standards that will be crucial to the next generation. As for the

next decade, I think ITEA will continue to be important in a number of ways : (i) addressing developments in mobility (wherever and whenever), extreme computing (allow industry and academia to develop world class products and inventions), smart software (run and manage servers, networks, storage), wearables (health monitoring devices), growing digital natives (both younger and older generation) and safety and security (protecting sensitive data), (ii) updating the technological roadmap and supporting the implementation of the roadmap and (iii) facilitating coordination between the ecosystem and public authorities.

“Happiness? Well, I am certainly very happy when I am in the ITEA community. It's always like meeting your extended family again every time we get together. And being in ITEA has brought me a lot of contacts. I get to meet many very different and interesting people, which is very fulfilling and makes me very happy. But for the projects I think the happiness can be found in the results getting to the actual users of the work produced – children, the elderly, anyone

who benefits from the results, whether that is a very safe car or a medical monitoring device. And, of course, it makes me happy to see all the SMEs that take part in ITEA projects getting a real competitive advantage through their participation.

“So, with my final task to choose someone to pick up the story for the next Community Talk, a number of people spring to mind. One of these is Erik Abenius from Efield, a company developing and selling a comprehensive suite of simulation software for large scale Computational Electromagnetics with a focus on high-frequency electromagnetic wave propagation. He is involved in the ITEA projects H4H and COLOC and might have some interesting things to say from within the project experience as an ‘insider’. So, Erik, I hope you accept my invitation and give us the benefit of your insight.”

# ITEA project results enhancing people's lives

## Polar

Polar joined the Bluetooth SIG (Special Interest Group) in 2007, the world's largest wireless standards industry consortium with more than 19000 member companies globally (2014). Most Polar devices have Bluetooth to connect to other Bluetooth devices. This greatly benefits Polar users, as Bluetooth is an open and secure technology, simple to use and compatible with a number of everyday devices such as sensors, watches and mobile phones and tablets as well as apps. Over the past years Polar has contributed significantly to the creation of the Bluetooth ecosystem. Polar has authored numerous standards, founded and chaired a number of sports and fitness working groups and helped significantly in developing the core standard further. This will greatly benefit the world of sports and fitness for many years to come.

ITEA 2 project A2Nets





# SME in the spotlight

## How 3E has gained an extra business dimension from ENERFICIENCY

With growth in global building energy management systems expected to be strong, the ITEA 2 ENERFICIENCY project set out to enable companies to establish effective business models that are attractive to the market and boost the European ambition to excel in the energy efficiency domain. Among the project's partners to benefit is 3E, a Brussels-based supplier of advisory services and software solutions for sustainable energy project development and operations worldwide. One of the project's standout demonstrations was this SME's predictive heating control based on grey-box models.

### Grey-box

3E's reference expert, Roel de Coninck, explains 3E's role in the project. "Our involvement was in the computational intelligence aspect, deriving algorithms and rules from the monitoring data to create grey-box models that help predict how buildings react to all kinds of weather and user behaviour conditions. We developed these models in collaboration with KU Leuven and used our own office building in Brussels to demonstrate that using such predictive models can not only optimise 'comfort' in the building but also reduce energy consumption."

"We are a technology company with a very strong R&D backbone and our aim is to get innovation to the market," Werner Copppe, co-founder and CTO at 3E, explains. "We are making good use of the results of the ENERFICIENCY project in our technical advisory work and in our product department we can also see a lot of potential to use the results in our software suites. The grey-box models enable faster configuration of the energy installations we are monitoring and, by implication, more optimum local energy management of these



distributed installations, ultimately saving on energy consumption and costs. But the results of the project also help us in new initiatives such as the creation of a new energy service company where the grey-box approach will be essential to the operation. And while it's still too early to say anything about the impact of the results on our bottom line, there is considerable interest in the market and we are piloting a number of initiatives with customers. So the signs are very positive."

### Beyond Europe

With the growing need for renewable energy sources and the national funding schemes and frameworks tending to change and vary from country to country, 3E has maintained a distributed presence in Europe. But with a decline in investment in renewable energy in several European markets in recent years, 3E looked at other horizons. South Africa, with more or less the same time zone as

Europe, offered a good stable base to penetrate neighbouring countries in the African continent, with projects at mining and rebuild sites, among others. Roel makes the point that "while the impact of the results are for the moment visible on a small scale, they will certainly help us to develop our business in the future. And give us more options."

"Interestingly," Werner adds, "this ENERFICIENCY project was the first ICT-related project that 3E became involved in. Previously we had been part of projects whose focus was purely the energy domain. And that's important in the evolution of 3E from a purely energy technical adviser to a software company. So this ITEA 2 project was a successful first-of-a-kind, you could say."

### Contact information:

Werner Copppe, CTO  
[www.3e.eu](http://www.3e.eu)

## PROJECT SHOWCASE

# TWIRL

## Applications made richer, more personalised and more social

Today's mobile market envelops a wide variety of approaches to combine information from different data sources. The challenge is to interconnect all this information, morph it together, enrich it and supply it to users at the right moment and in the right format, and thereby take advantage of it, especially for social networks where more and more data are driving a need for enhancement and improvement. The ITEA 2 TWIRL project rose to this challenge by creating an open platform able to process, query, enrich, interlink and fuse data originating from real world applications and knowledge extracted from virtual data sources, thereby making applications *richer, more personalised and more social*.

### A bridge between the real world and web 2.0

The TWIRL acronym says it all: **T**winning virtual **W**orld on-line **I**nformation with **R**eal world off-Line data sources. In this marriage of virtual and real world information, TWIRL augments real-world applications with knowledge extracted

from virtual data sources, making the creation of augmented reality applications and devices much easier, and allowing developers and end users to access online data sources in a holistic and integrated way.

By developing an open platform able to process, mine, interlink and fuse data originating from real world applications like traffic monitoring or weather forecasts and online data sources such as open linked data, social communities & forums, blogs, wikis and RSS, TWIRL has not only facilitated the creation of new knowledge but has also built a bridge between the real world and web 2.0. This enables the emergence of novel data-driven ecosystems of products and services as well as time-critical decision-making in highly dynamic and data-intensive environments. Furthermore, enterprises and public organisations will be inspired to use and exploit freely available public data and gain new knowledge by analysing combined information from various offline and online data sources.

### Project details

10029 TWIRL



### Project leader

Marc Contat  
Cassidian

### Partners

#### France

Cassidian  
Institut Mines-Télécom ParisTech  
Institut Mines-Télécom SudParis  
Ipernity  
Lille 1 University  
Mondeca  
PERTIMM

#### Romania

Altfactor  
Siveco Romania

#### Turkey

Kartek Kart ve Bilisim Teknolojileri  
TILDA Telekom  
Tmob

### Start date

June 2012

### End date

October 2014

### Website

<http://twirl-project.eu>

### Real-world applicability

TWIRL demonstrated real-world applicability through three powerful prototypes:

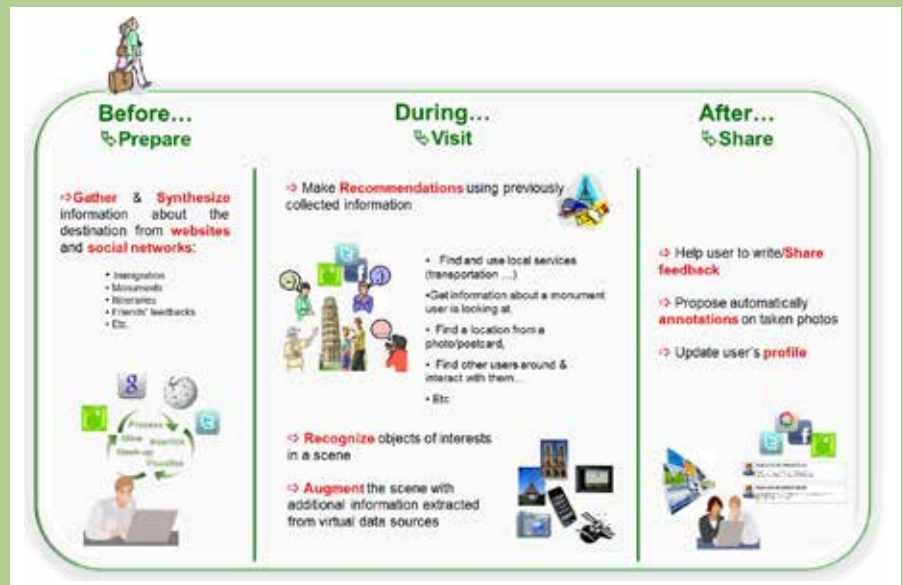
- Augmented Life, which enables the tourist and business user to plan, enjoy and return from a trip;
- Augmented Entertainment (scenario I), which enriches the multimedia user experience in a digital home setting;
- and Augmented Entertainment (scenario II) in which mobile applications host interactive, personalised campaigns and items.

“But,” as Cassidian’s Marc Contat, the project leader, points out, “it is not only the user that gains from these complex context- and user-sensitive intelligent systems. Developers will be able to easily create new products and services based on the augmented reality paradigm while content providers will be able to optimise their content and distribution by making content available for more application areas.”

### Impressive results

The number of results developed in TWIRL is impressive. Several connectors (API and data format) to different sources of information (like Flickr, Foursquare, Twitter and Wikipedia) were created along with search engine enhancement with search recommendation/location and an open platform to merge heterogeneous data coming from different internet sources. The University of Lille developed an algorithm for monument recognition from pictures and a fuzzy logic inference engine was developed for a debate component along with an information visualisation interface for enriched search results. Finally, an augmented dashboard was also developed for the three demonstrators.

The consortium partners have been quick to exploit these results. For example, in Turkey, Tmob is pushing augmented reality with credit card campaigns for banks and campaigns for retail store chains while Tilda’s new products and services integrate a social network capability. In France, Pertimm has integrated the search ‘recommendation’ into its e-Commerce Solution product while Cassidian has been using the developments in the open source platform WebLab and ipernity is developing



new features using TWIRL 3rd-party components – auto-tagging, tag clustering, cross-language information retrieval, etc.

### Business value

The augmented products and services created using TWIRL offer value to both business, for instance as enterprise mash-ups or in business intelligence, and consumers, as in smart-phone applications, by improving their decision making. A detailed analysis of the current state-of-the-art will help organisations and end users to gain an overview of current approaches and technologies while a specified open and extendible architecture will provide a concrete framework on which to base future applications and which can be reused within future projects.

In providing a platform and associated tools for creating augmented applications that have a high-fidelity social, environmental and personal flavour, TWIRL can help establish European leadership. And by promoting open standards and open interfaces and specifications, allowing third parties to adopt and extend the TWIRL platform, a significant impact on mobile, multimedia, services and information mining industries, both within and outside Europe, can be expected. TWIRL has laid the foundations for future projects and products based on virtual information and real data, and also for the use of BigData and the Internet of Things (Smart and Connected Objects).

# ITEA 2 RECONSURVE demonstration completed successfully

The ITEA 2 RECONSURVE Project was successfully demonstrated on 23 October at the Turkish Coast Guard Command facilities in Antalya, Turkey.

The four-year project aimed to enhance the situational awareness of maritime authorities by developing an open interoperable maritime surveillance framework augmented with multimodal sensor networks and an automated decision-support system. The project intends to close the known capability gaps of the fragmented maritime surveillance systems currently operating throughout the EU.

The demonstration event was attended by the Chief of Staff of the Turkish Coast Guard Command, Sami Tübek, Senior Colonel Salih Gürkan Karabacak, ASELSAN Security Systems Group Manager Dr. Ünal Koyaz and Chairman of ITEA Rudolf Hagenmüller.

The RECONSURVE consortium led by ASELSAN demonstrated the capabilities developed as part of the project, including maritime situational awareness, Unmanned Aerial Vehicle (UAV) integration, IR-based vessel classification, fusion with external maritime data sources and the semantic interoperability of three maritime surveillance systems developed by ASELSAN, Cassidian and GMT.

These capabilities were demonstrated with the following scenario:

- 1 The vessels revealing suspicious behaviour were detected successfully by the situational awareness component of the RECONSURVE system.

*Figure 2 Vessel Classification Chain*



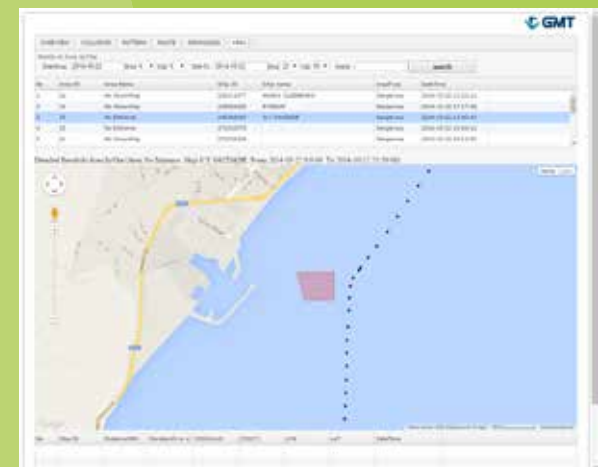
*Figure 1 Identifying Suspicious Behaviour and Displaying on VATOZ Tactical Screen*

## Situational Awareness Module – VATOZ Integration

- 2 A rotary-wing UAV, developed by ASELSAN, was directed to the location of the suspicious vessel, and the images of the vessels transmitted to the command and control system where the operator was able to view in real-time the flight plan of the UAV and the recorded video.
- 3 The vessel classification module automatically classified the vessels (from the IR images) and identified the ship category and dimensions. The maritime picture was enriched with this additional information.



- 4 The information regarding the suspicious vessels was shared with the SecuriSyte C2 System through the semantic interoperability framework. This confirmed that the two maritime surveillance systems can interoperate seamlessly.



*Figure 3 VATOZ - SecuriSyte, GMT Integration via Semantic Interoperability Layer*

The ITEA 2 RECONSURVE project consortium consists of nine companies from three different countries: Turkey, France and Korea, each of which brought its special domain expertise into the project. The Turkish Coast Guard Command participated in the project as an end-user, and provided invaluable guidance throughout with its domain expertise.

The project was the first recipient of the 'Most Innovative and Commercially Viable Project' award of KIAT (Korean Institute for Advancement of Technology).

## The Austrian Research Promotion Agency (FFG) improves funding conditions for SMEs

At the end of 2014, the Beirat of the FFG General Funding Programmes has approved a further step in improving the funding conditions for Austrian SMEs that participate in EUREKA cluster projects. Small and medium sized enterprises can now be funded with max. 60% (small) or max. 50% (medium-sized) in the form of grants.

We hope that these improved conditions stimulate the integration of Austrian SMEs in ITEA 3 projects.

For more information about Austrian ICT companies active in research: <http://www.ictprofiles.at>



## Starting 2015 with the launch of the ITEA Vice-chairman's blog



With the ITEA 3 kick-off year behind us, we have started 2015 by launching the ITEA Vice-chairman's blog.

It will feature regular contributions from Philippe Letellier, ITEA Vice-chairman. With this blog we would like to share latest insights from the field of software innovation while also providing you the opportunity to comment, interact and contribute via the comments section.

*"This blog will express my personal opinion as Vice-chairman. I intend to share with you on a regular basis some feelings on innovation, business opportunities, international trends and ITEA successes."*  
Philippe Letellier, ITEA Vice-chairman

We invite you to explore the blog and join the conversation on <https://itea3.org/itea-blog.html>.

You can subscribe to our blog, to be informed whenever a new post is available.

# Smart cities ... enabled by ICT

'Smart city' is a buzzword, a term that is still quite a fuzzy concept and is used in a variety of ways. Definitions range from the simple city that "has digital technology embedded across all city functions" (Smart Cities Council) to the more detailed city that "brings together technology, government and society to enable the following characteristics: smart cities, a smart economy, smart mobility, a smart environment, smart people, smart living, smart governance" (IEEE Smart Cities). We asked Guus Derks of the Netherlands Enterprise Agency for his take on smart cities.



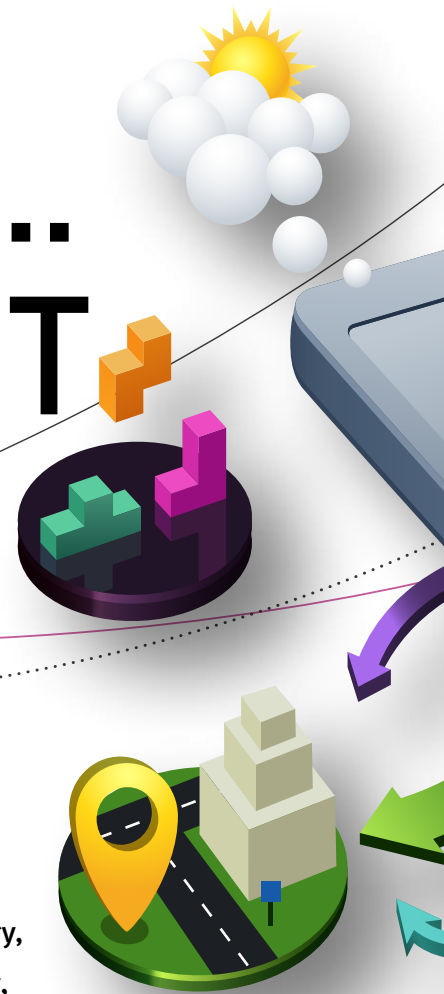
Guus Derks

"In looking at smart cities, we at the Netherlands Enterprise Agency have defined societal challenges. The main work areas are critical infrastructure, digitisation and standardisation. Within these work areas there are sectors that are of interest. These are Energy, Logistics, Water, Waste, Health and ICT. ICT is a separate sector due to the definition of the European committee. Personally, I see it as an enabler for the other topics and defining it as a separate sector introduces the risk that the other sectors are looking at the ICT sector instead of investing themselves. As mentioned, one of the sectors is logistics, quite a broad term that covers things like e-mobility and public transport, but also food logistics. Water includes water management and drinking water. Given the technological advances and the advent of digitisation we have witnessed in recent years,

new business models are being created and new opportunities for innovation for and in the environment are being explored. And it is the technology and innovation that can make our cities smart. We also have to remember that law and legislation will have to be constantly updated to keep pace with these developments. The way people live, work (at home) and use these cities, the quality of life and healthcare – these are also aspects that play a role."

### ***Is the smart city concept different from modern/sustainable urban development?***

"There seem to be a whole lot of names or definitions for a smart city, from green city to urban sustainable delta. All have a slightly different focus or emphasise a particular aspect but they all share the same goal, which is to make an urban environment which is nice





to live in and which uses the technology to improve the quality of life and living. And indeed smart city concepts can even be applied to rural environments. After all, there are plenty of rural villages that can use the same kind of technology and innovation. If you look at electricity and the emergence of microgrids combined with the creation of local markets, for a few hundred houses green energy, such as solar or wind power, could be a very sustainable option for storage and consumption. All it needs is a little bit of skill in the application of the technologies.”

#### **What are the major smart city developments occurring in Europe today?**

“One of the major transitions taking place is the shift away from fossil fuels to reduce the CO<sub>2</sub> footprint. This can be seen in terms of both industry and traffic, especially with the growth of more environmentally-friendly fuel alternatives and of e-mobility. And in this sense, the type of infrastructure becomes very important. It has to become ‘smart’ too in order to prevent overload or undercapacity. In terms of logistics and traffic management, cities are having to come up with smart solutions to enable the distribution and

flow of goods and people in the face of the increasing density of both. But energy is the big driver. Decentralisation of supply and matching supply and demand in smart cities is a complex issue because a smart city is essentially a system of systems. We have to redefine those systems and, with that, redefine the business models. Because innovation in one spot can mean revenue in another. The challenge is to bring the investment en revenues together.

“Let me give you an example. In the east of Amsterdam there is a housing project where the sinks in the kitchens have been equipped with grinders to dispose of organic waste, which then comes into the sewer system and gets transported to the water company, which actually doesn’t want any more garbage in the sewer system. So why not use the organic waste to create a biogas and transport it to an energy company that will use it to create heat and energy that can then be transported back to the city? But since it is the water company that removes the waste and the energy company that utilises it, the question arises as to who invests in the grinders. Somehow you have to split up the profits in a fair way. Everyone involved along the chain has to become a kind of shareholder in a new business model. And that is where the problem tends to lie; it’s not the technology that is the problem.”

#### **How can Europe take the lead?**

“In Europe we are good at working out what puzzle you need and designing the pieces for

that puzzle. And each city presents a different challenge, or puzzle, if you like, and so you have to design the pieces that will create a particular puzzle. This is something we are very good at in Europe. If we look at the initiative in which we (Netherlands Enterprise Agency) have been involved in Bandung, in Indonesia, we are setting up an office there that can work with the local authorities and companies to define and create the puzzle so that we can establish the pieces of the puzzle that are not locally available, whether that’s knowledge, expertise of a specific technology, and bring them in. One of the things we are doing right now is setting up new business models as well as relationships with local government and companies to open doors and creating shortcuts for companies or consortia that want to go there. The primary focus of the Netherlands Enterprise Agency’s PIB (Partners in International Business) programme is to create business opportunities and be part of the exploitation in the long run.”

#### **Where do you expect to see smart cities in 20-25 years’ time?**

“I don’t expect any kind of end point to have been reached. It’s an ongoing process. We will have new technology that is currently not available. I see e-mobility and automated mobility (the Google car idea) becoming more prevalent and I think we will be more effective at harvesting energy from nature. The environment will become cleaner and consumers of energy will also be producers of energy – just think of all the houses with solar panels on their roofs. And instead of selling the energy back to the energy company, they could sell the daytime energy the panels produce but which they don’t use – because they are at work during the day, for instance – to a local school or community home that needs it.” A local market will be created and in this market, matching supply and demand, ICT can act as a manager, controller or broker. This decentralised and growing market will give opportunities to SMEs to develop special programmes, for example, to adjust energy consumption to preferences – for cheap or green energy. There will be plenty of opportunity to innovate. But in this new market cooperation will be essential to create standards and subsequently market volume. ICT will not just have an impact on these new urban environments but, as Derks points out, “ICT will enable the necessary innovation. Yes, I would say that ICT will actually be the enabler for smart cities.”

# Calendar

17 February

**DGE / EUREKA COLLOQUE SMART CITIES**

Paris, France

🌐 <http://www.euripides-eureka.eu/forums/4>

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24-26 February

**EMBEDDED WORLD**

Nürnberg, Germany

🌐 [www.embedded-world.de/en](http://www.embedded-world.de/en)

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10-11 March

**CO-SUMMIT 2015**

Berlin, Germany

🌐 <https://itea3.org/co-summit-2015/index.html>

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12 March

**WORKSHOP INDUSTRIAL WASTE WATER & AQUEAU BROKERAGE SESSION**

Helsinki, Finland

🌐 [www.acqueau.eu](http://www.acqueau.eu)

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16-20 March

**CEBIT 2015**

Hannover, Germany

🌐 [www.cebit.de](http://www.cebit.de)

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17-18 March

**METROMEET**

Bilbao, Spain

🌐 <http://metromeet.org/en>

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13-17 April

**HANNOVER MESSE 2015**

Hannover, Germany

🌐 [www.hannovermesse.de](http://www.hannovermesse.de)

27-28 April

**3RD INTERNATIONAL B2B SOFTWARE DAYS & CELTIC-PLUS EVENT 2015**

Vienna, Austria

🌐 <https://www.celtic-initiative.org>

🌐 <https://www.b2match.eu/softwaredays2015>

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19-21 May

**EDAWORKSHOP 2015 AND CATRENE DESIGN TECHNOLOGY CONFERENCE**

Dresden, Germany

🌐 <https://www.edacentrum.de/edaworkshop>

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20-22 May

**KOREA EUREKA DAY 2015**

Seoul, Republic of Korea

*More information will follow soon*



# Smart City: EUREKA's Inter-Cluster in the lead



As a planned next step of the Inter-Cluster initiative, the French DGE (Direction Générale des Entreprises), the EUREKA Clusters and the EUREKA Secretariat have organised the conference:

« EUREKA accompagne les pépites de la French Tech à la conquête des Smart Cities »

It will be held on Tuesday February 17 from 14h to 18h in the Conference Centre Pierre Mendès-France in Paris. The programme includes presentations of companies that already participate(d) in a EUREKA project on Smart Cities and representatives of European cities that explain the future needs.

During the EUREKA Swiss Innovation event held on 19 November 2014 in Basel, the EUREKA Clusters' Chairpersons, the Swiss EUREKA Chairman Bruno Moor and the Head of the EUREKA Secretariat Pedro de Sampaio Nunes, signed a memorandum of understanding (MoU) on Smart City.

All parties are committed to encourage and facilitate collaborative innovative proposals addressing smart cities. The InterCluster Committee estimates that such projects could represent up to €2 bn by 2020 and urges EUREKA Members States to provide adequate support.

EUREKA Clusters are the entry point for Smart City projects driven by industry, focused on innovative systems, solutions and services.

Jean Luc Maté, InterCluster Committee Chairman stated: "Thanks to this partnership, we aim to increase interest and project participation in smart cities. It is important to highlight the fact that there has been a lot of interest from companies to use the EUREKA platform for Smart City projects for a number of years. This

agreement will encourage industry more to enable business models and empower people".

Since 2010, more than 100 projects contributing to smart cities and representing € 1.1 bn of public and private funding have been labelled by EUREKA. ITEA 3 and Celtic-Plus have been the pioneers in involving cities and other public institutions in their projects. City design, buildings and life simulation are taken into account in this InterCluster analysis under Smart City planning.

Although the implementation of Smart City projects largely depends on governments (national, regional, local) initiatives, the challenge for industry is to come up with affordable, friendly solutions, which above all meet the needs of citizens, who have to take over the ownership.

A smart sustainable city uses innovative technologies to provide a better quality of life to its citizens, efficient and friendly services and sustainable development. Cities can be seen as dynamic and complex systems that evolve in time and space, following trajectories that are difficult to predict. More information on [www.eurekanetwork.org/smart-cities](http://www.eurekanetwork.org/smart-cities).

Source: EUREKA - [www.eurekanetwork.org](http://www.eurekanetwork.org)

# Sweden and Spain announced as next EUREKA Chairmanships



Sweden will succeed Switzerland as the country chairing the EUREKA Network, for the period running from July 2015 to end of June 2016. It will then be replaced by Spain for a similar period of time.

VINNOVA, Sweden's innovation agency, and CDTI, the Spanish Centre for Industrial Technological Development, manage the operations related to EUREKA projects and instruments in their respective countries. Sweden and Spain are two of the founding members of the EUREKA Network. In the frame of their Chairmanship, Sweden and Spain will be responsible for advancing the objectives set in the EUREKA Strategic Roadmap for the 2014-2020:

- To provide a clear added value to industry, with business-driven instruments, a suitable access to public funding and state-of-the-art communication and evaluation.
- To become a preferred initiative for public funding agencies, aiming to extend national priorities and R&D&I funding programmes to a transnational dimension.
- To become a preferred platform for industrial R&D&I cooperation between Europe and other parts of the world.
- To contribute to the completion of the European Research Area for its innovation part, reaching smart synergies between EUREKA instruments and other relevant instruments.

Source: EUREKA - [www.eurekanetwork.org](http://www.eurekanetwork.org)

ACQUEAU		12 March	Workshop Industrial Waste Water + AQUEAU Brokerage Session	Helsinki	<a href="http://www.acqueau.eu">www.acqueau.eu</a>
CATRENE		19-21 May	edaWorkshop 2015 and CATRENE Design Technology Conference	Dresden	<a href="http://www.catrene.org">www.catrene.org</a>
Celtic-Plus		27-28 April	Celtic-Plus Event 2015	Vienna	<a href="http://www.celticplus.eu">www.celticplus.eu</a>
EURIPIDES <sup>2</sup>		11 March	Closing Date for PO Submission		<a href="http://www.euripides-eureka.eu">www.euripides-eureka.eu</a>
		29 May	Closing Date for FPP Submission		
EUROGIA2020		2 March	Call 04 1st Cut-Off Date		<a href="http://www.eurogia.com">www.eurogia.com</a>

# Colophon

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An online version is available at <https://itea3.org>

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**Submissions:**

The ITEA Office is interested in receiving news or events linked to the ITEA programme, its projects or in general: R&D in the Software-intensive Systems and Services field. Please submit your information to [communications@itea3.org](mailto:communications@itea3.org).

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