

20 years of ITEA

The inside track on Smart Communities

Double interview with Dominique Défossez and Päivi Jaring

Dominique Défossez and Päivi Jaring have both played their role in giving the Smart Communities focus of ITEA a solid foundation and springboard to the future. Dominique has been involved in several projects, often as project leader, and Päivi was the driving force behind the recently finished ACCELERATE project. Both attribute a good deal of their successes to the indispensable ingredient of teamwork.



Dominique Défossez



Päivi Jaring

Dominique Défossez is programme manager for strategy and partnership at NXP Semiconductors in France where he is responsible for initiating, preparing and leading national and international cooperative projects for NXP in France. He is also a member of the ENIAC committee charged with evaluating Nanoelectronics research projects and member of the *Agence Nationale pour la Recherche*, which evaluates Content and Interaction research projects submitted to the French Ministry of Research. He is a familiar face within the ITEA Community where he has both participated in and led a number of projects.

Well-defined structure

“My first ITEA project was HDTVNext in 2010. I became project leader in this collaborative project as NXP took the leadership of this Thomson initiated project because the decoding element was considered a key factor in the focus on systems-oriented interactive algorithms. It was quite a large project, with 21 partners throughout the chain, all contributing in their various ways to the demonstrations, four platforms and exploitation. The collaboration

and cooperation were strongly supported by the well-defined structure that ITEA provided. A major overall benefit was the capacity to define a common view between academics and industry on the future for multimedia distribution. It brought the European partners a step further in their video roadmap perspective and also generated credibility and technical advances in European innovation. Since then, I have contributed to 16 other ITEA projects more or less directly in various roles, from team member to work package leader and project coordinator.”

Impressive business impact

Dominique’s involvement in ITEA is substantial but reducing this to the Smart Communities arena, three projects stand out: HDTVNext, JEDI and MOOC TAB. “As I said, HDTVNext was a project dedicated to the deployment of HD technology. The main problem it proposed to solve concerned the CPU capability to handle such high-performance computing required for multi-standard video decoding. We achieved a number of key advances including the

enhancement of the advanced video coding (AVC) standard that enables good video quality at substantially lower bit rates than previous standards. The audio digital signal processing (DSP) rendering algorithms we developed enable a system to learn the topology of a room and adapt the sound output accordingly. A further innovation was an scalable video coding (SVC) decoder that automatically adjusts to the available bandwidth. In terms of business impact, 15 different products emerged from the HDTVNext project results – from automatic content creation for regional broadcasters to video transcoders, power-line communications (PLC) extenders, HD video on demand, an interactive platform and HD conversion.”

Award winner

Another Smart Communities project in which Dominique had an important hand, as work package leader this time, was the award-winning JEDI project that was dedicated to the 3D TV proof of concept. It confronted issues that were more in the 3D acquisition capability than in the 3D rendering performances. “Capturing

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3D movie requires a completely different way of making films,” Dominique explains. “So we wanted to build a JEDI standard vision of the development and evolution for the revolutionary 3D TV in the near and distant future. We did this by firstly exploring the concepts of multiple views throughout the broadcast chain for the next generation of 3D TV, and secondly by establishing a stereoscopic chain from end to end as a demonstrator and as a tool for assessing the acceptability to the user.” The project’s success was evident in the impressive results that followed. One such result was the first-ever satellite transmission of 3D TV in full-HD resolution per view in excellent 3D quality all over Europe in Digital Video Broadcasting (DVB). JEDI won the golden ITEA 2 Achievement Award in 2012.

Lifelong learning

And now Dominique is leading the three-year MOOC TAB project that is due to finish this year and is dedicated to the fast-emerging offer of MOOCs (Massive Open Online Courses). The success of MOOC is expected to change the structure of the higher and corporate education industry within 10 years. The tablet, as a tool for having content whenever you want, is very complementary to the online Web MOOC Platform but, Dominique points out, “such massive deployment within education underlines the need for tablet fleet management as well as content management protection. Our MOOC TAB project is creating a tablet-based platform dedicated to lifelong learning through an on-demand and open MOOC platform, on which data is stored on a local secured cloud.”

Team spirit

Looking at his involvement in ITEA projects, Dominique feels that the experience has taught and is still teaching him a lot. “What I have noticed is the capability to build a complete value chain from a bottom-up perspective. NXP is mainly focused on the hardware but, fortunately, my background is on the software side. I have learned that by building a team spirit within a competent consortium, we can achieve real, impressive results. At the beginning of the project, each partner just knows its piece of the puzzle. During the project execution, we all start to learn how the complete picture works. ITEA projects bring software

companies together. By definition, software companies are more numerous than hardware companies because they require a lower level of investment. Thanks to the ITEA structure, SMEs can meet and expand their visibility outside national boundaries. Big industrial partners have the benefits of internal structure to lead them in the consortium and academics build strong relationships by bringing research activities, transferring IPs or allowing potential students to be hired. All round, it’s a worthwhile venture for everyone.”

Transformational impact

So, as Dominique is drawing his latest project, MOOC TAB, to its conclusion at the time of writing, Päivi Jaring, former Senior Research Scientist at VTT Technical Research Centre of Finland and now an independent research scientist based in the Netherlands, is able to take stock of the very substantial and successful project ACCELERATE that ran from September 2013 till November 2016. This project set out to shorten the innovation cycle and time-to-market, and to increase the number of new products or solutions as well as the number of ideas that are accelerated and/or created. The project created a lot of visibility for this highly relevant topic and had significant transformational impact on several of the participating companies, such as new spin-offs, products and business models, culture changes. So how does Päivi look back at her ITEA experience, and what did she get out of it from both a personal and a professional perspective?

From SHOPS ...

“I first came into contact with ITEA in 2003 when I was working as a group manager at VTT in Finland. The project was SHOPS, which aimed to help solve the challenge faced at the time by the European utility sector: how to reconcile the three major constraints of deregulation, increasing demand for energy and preservation of natural resources.” This project’s answer was to deliver a services-oriented platform dedicated to the residential energy consumer segment and enable utilities to not only offer differentiated energy services but improve the overall energy consumption efficiency at the same time. “Mind you,” Päivi points out, “you may not recognise any references to me back then because I still went by my maiden name,

Kallio.” And some years further down the line, Päivi had the opportunity to coordinate an ITEA project herself.

... to ACCELERATE ...

Päivi got a taste for national and international research projects, in part through her role in her early years at VTT where she managed the software architectures research group, being responsible for personnel management and for acquiring research projects and new customers. Her own research focused on the potential of using ICT in business and this made her the ideal candidate to take charge of the ITEA 2 project ACCELERATE where the focus was on employing ICT to accelerate the go-to-market of companies. “What we wanted to do was to shorten the innovation cycle and time-to-market, and to increase the number of new products, solutions and ideas. After all, innovation has to go beyond creating technology; it has to ‘go to market’. So if European technology companies are to be able to rapidly validate the match between the market and their innovative ICT-intensive technology, they must acquire acceleration knowhow. Our aim, then, was to transfer knowledge on a massive scale and introduce a new type of product development. This so-called validated learning process, which systematically searches for the technology-market match by validating the mechanics of a business model.”

... into the market fast

So an ACCELERATE platform emerged. It eases and facilitates interactions between start-ups and investors for business and product ideas or just an idea that can become marketable. “The results we achieved had a real impact on the consortium partners,” Päivi explains. “For instance, the Finnish Bittium saw its share of business ideas rise from 25% to 35% and expected the potential impact of the ACCELERATE project to result in revenues of several million euros within three years. With the prospect of more to come. That really is a shining example of innovation going beyond the technology and into the market ... fast! And what is interesting to mention is the fact that ACCELERATE really works as a platform should, sparking other developments and projects even after the project’s end.” ACCELERATE was also the basis of one of the presentations at the VINNOVA-ITEA masterclass on the Digital Transformation.

SotA

ITEA vice-chairman Philippe Letellier suggested in his SotA (State of the Art) article on ACCELERATE in the ITEA magazine (March 2017 issue) that “speed is now the alpha and omega of innovation. Thus acceleration of the go-to-market is a key focus for today’s industry. ACCELERATE is one of our success stories on this topic and its SotA provides answers to how we can develop a methodology for acceleration, what role ICT technology itself can play in acceleration and how we can get towards a ‘market’ of acceleration services. It proposes an exciting comparison of innovation in SMEs and large companies. It helps to understand the strengths and weaknesses of these two kinds of organisation ahead of innovation.”

Independent but connected

So, all in all, Päivi has had quite an impact on the ITEA Community even though for the past year she has focused on developing herself as an independent scientist and is supporting the establishment of a company. “I should explain that I worked remotely for VTT in the Netherlands since 2014 and when faced last year with the choice of returning to Finland, which is what VTT wanted, or staying in the Netherlands, where my children are now well and truly settled, I chose to stay and focus on becoming independent. Of course, through my ITEA and VTT work I have built up a network of good and valuable connections. So I have access to a much wider range of people I can call up and ask for advice or knowledge, which can be very useful for setting up new things. I would say that this is one of the main benefits of being in an ITEA project – you get to cooperate and collaborate with many different players and benefit from their insight and expertise. I would say that coordinating a project with many partners from various countries and making a success out of it would certainly go down as one of my highlights and without ITEA I would not have had this experience. Having been a coordinator has added another string to my bow. And although I am busy with other challenges at the moment, I’m still in touch with some of the partners, so friendships do develop out of business.”

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