ITEA Magazine 36

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ITEA 3

Focus on Finland
Leapfrogging into the future

ITEA Success stories
SCALARE and M2MGrids

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Online ITEA PO Days 2020

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Editorial

Dear ITEA Community,

This will be my last editorial for the ITEA Magazine and I would like to share with you some key points I will keep in my heart from these twelve years of Vice-chairmanship.

First of all, I'm delighted about this unique bottom-up approach. In our hectic digital business domain, innovation is at the heart and innovation is coming from adventurous brains at a moment when the others have not yet thought about it. It is a process very different from the more strategically-oriented innovations we observed with the more top-down decision-making in the IC industry or the birth of Airbus, for example, with its necessary huge start-up investment. Both innovation processes, bottom-up and top-down, are necessary and target different results. In ITEA we cultivate the bottom-up approach. It is not an easy path because you need to invest in projects when little consensus yet exists on the direction to follow. Thus we developed a unique methodology to evaluate and coach these kind of projects, starting with going back to the user. What are the pain points you want to solve for which users and customers? Then challenge the project with the State-of-the-Art (SotA): why can't we solve the pain points with the existing SotA? Then if you want to push great ideas in our digital industry, you need access to the market, because the time-to-market windows are very short in our business domains. In ITEA we carefully check the market value chains of today and tomorrow, how our consortia have access to them and how they can impact them. It is only when these pain points, targeted user and customer, and access to the value chains are clear that we check the credibility of the proposed technologies to decide which project to bet on.

Since we are in the R&D phase, it remains a gamble, but the ITEA methodology has been enhanced over so many years with so many unique projects that today we are able to exhibit a unique ratio of success stories in the market. ITEA is a recognised approach today in pushing innovation in the market. I am very proud to have participated in this business story.

I have learned a lot with the ITEA Office about setting up a quality assurance process that has no bureaucratic overhead but helps us to master our different tasks in a very professional way. An ISO 9001 stamp is evidence of this. It's no chocolate medal but real recognition of the professionalism of the ITEA Office team. Year after year this is confirmed by the ITEA Community through surveys which always score very high on the satisfaction of the work done by this team. To have belonged to this team fills me with honour and pride. I thank and applaud them.

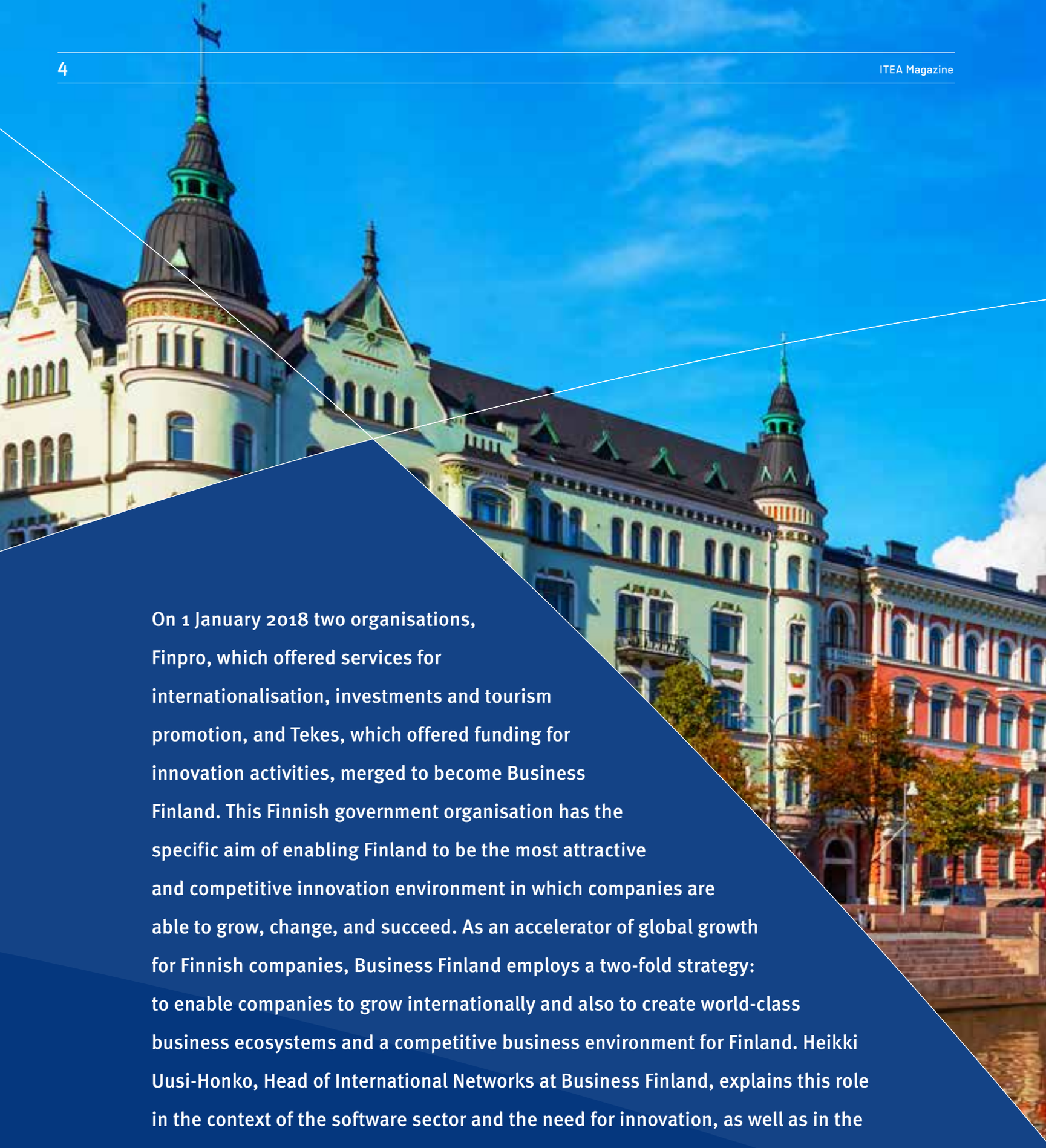
I want to stress specifically the ICT system that supports all our processes and is aligned with this quality plan. Due to its data management ITEA has been able to adapt continuously based on facts not dreams. I have also learned a lot with this full digital loop process.

Reading this magazine, it is good to see Finland strengthening even more its innovation and business support with the creation of Business Finland. Finland has always been a great supporter of the ITEA specific approach and it is inspiring to see how Finland is building a digital trust environment that parallels its trusted zone in the physical world.

Don't forget to check the new bunch of innovative ITEA projects and bet on the ones you feel will deliver the main impacts. For an energy shot, happiness and innovation impact read Robyn Woods and also have a look the article of Jan Segerstam, our new Board member, which explains an incredible success story in digital transformation of Energy ecosystems supported by Empower. The SCALARE Success story shows how ITEA delivers results but also methodologies to master the digital transition. And I am always delighted to tell a success story like Cyclomedia that ITEA has supported. Finally, our quality process is unique, and you have in this edition an in-depth explanation of what lies behind it.

Long live ITEA, I will remember you!

Philippe Letellier



On 1 January 2018 two organisations, Finpro, which offered services for internationalisation, investments and tourism promotion, and Tekes, which offered funding for innovation activities, merged to become Business Finland. This Finnish government organisation has the specific aim of enabling Finland to be the most attractive and competitive innovation environment in which companies are able to grow, change, and succeed. As an accelerator of global growth for Finnish companies, Business Finland employs a two-fold strategy: to enable companies to grow internationally and also to create world-class business ecosystems and a competitive business environment for Finland. Heikki Uusi-Honko, Head of International Networks at Business Finland, explains this role in the context of the software sector and the need for innovation, as well as in the context of the ITEA Community.

Focus on Finland

Leapfrogging into the future

Boosting productivity and competitiveness
"Digitalisation is one of our key national priorities, and ICT and software-intensive systems are playing quite a vital role now that so much business has to be conducted digitally and online. What we had already been seeing over the past ten to twenty years is ICT expanding horizontally and reaching into all kinds of sectors as the process of digitalisation pervades every facet of industry and services. The software sector is thereby helping to increase productivity and competitiveness. As an open, trade-dependent economy, exports are vital and the software-intensive sector is crucial to enabling our exporters to be productive and competitive in the global arena. This is a role that we are keen to support as much as we can. It fits in perfectly with our two-pronged strategy. We also believe that innovation can come in unexpected ways and collaborative forms, such as when SMEs join together with larger companies and research institutions. We are eager to support smaller businesses that want to exploit their potential and grow. In addition, we also do a lot of things you might not think of. For example, we have a programme called Talent Boost in which we attract talented individuals from abroad in an effort to boost our talent pool. We are very much aware of the importance of international connections in this respect. But," Heikki candidly admits, "the Finnish weather is not really a great magnet, so we have to attract this talent in another way. The reputation of our software industry is a good pull."

New business models
Not surprisingly, Heikki points out that the software industry is even more relevant at a time when Business Finland is devoting 20% of its own human resources to providing online support to companies that have been significantly affected by the crisis. "I also think what the current context is teaching us is that in the future, if and when we find a way of defeating the coronavirus, the kind of digital interaction that is currently becoming the norm will, in fact, remain the norm. We will have two digital meetings before and after a physical face-to-face. More distance working, more e-commerce. We are leapfrogging forward into the future. If you like, COVID-19 is acting as a kind of catalyst, propelling new business models, for example for logistics and deliveries. Personally, I like to go to a shop to 'feel' the goods, but I must admit that I am increasingly shifting to online shopping. We're in a disruptive phase and need to re-boot the system. Here, the software-intensive sector has not been hit by the pandemic in the same way as many other sectors have, generally speaking."

Trust in the digital world
With the need for software solutions being accentuated by the pandemic, Business Finland sees a key role for the software-intensive industry. "It must seek to work with the verticals and look to solve the challenges with the more traditional industries," Heikki explains. "We want to see innovative software getting into real applications. After all, innovation is only worth anything when it actually gets used. So, we target focal areas, such as AI and digital tribes. Finland is known as a very trusting and trusted society – but whether this is also the case in the digital world where you don't have the same kind of social norms. This has led to our creation of a 100-million-euro programme to research this trust issue in the digital services world. We are hoping that Finland can come up with some interesting innovations in this area. We need to examine how to create trust in a relatively novel landscape. Trust has to be earned. From a technological, legal, governance and social perspective. Trust and security – these are very complex issues."

Like-minded allies
Since the themes like trust and security also feature very strongly within the ITEA palette of projects, it is no coincidence that Finland is also strongly represented within the ITEA Community. And the approach taken by Business Finland – emphasising bottom-up innovation and ecosystems – finds a like-minded ally in ITEA. "For us, a programme like ITEA extends our innovation panorama. Our participation in ITEA brings an added dimension and extra scope to our national innovation landscape. Innovation is happening more and more these days in networks – internationally – so involvement by Finnish players is important. Looking at the ITEA platform, we see high-quality individual projects measured in terms of business relevance. The impact of the results is both tangible, direct and impactful. But this doesn't come automatically, the process of consortium-building is important to the quality and success. The opportunity for sparring and evaluating is very much appreciated by us. These are essentials. All this together is a recipe for concrete business impact for the participants."

The greater good of innovation
"None more so than the SMEs. These players are great innovation hotspots but, of course,

they tend to lack the funding and resources that can allow their ideas to flourish. That's where we come in as a funding agency. We can provide the leads into the collaborative environments such as ITEA and the ecosystems they inhabit." The word 'ecosystem' causes Heikki to pause. "I realise that ecosystem has a number of connotations. I remember reading a book on ecology a long time ago and came to realise that in an ecosystem there is a top predator, an organism that benefits from all the energy in the ecosystem. So, every time I hear the word ecosystem, I wonder who the top predator in this particular case is. But, at the same time, it is collaboration between all the different players throughout the ecosystem that leads to success. Perhaps I should rethink my idea of the top predator and instead think of a more compassionate concept, like the greater good of innovation. In the end, it's all about improvement, a better life for people. And joining forces for that - what's there not to like?"

More information
www.businessfinland.fi

The approach taken by Business Finland – emphasising bottom-up innovation and ecosystems – finds a like-minded ally in ITEA

Empowering the digital energy economy

A year ago, May 2019, Empower IM Oy joined the ITEA Board, lending further weight to Finland's standing within the ITEA Community as the leading contributor in terms of effort. Empower is a multinational company realising a smarter society through digital innovation. It develops digital platforms for customer needs, utilising profound domain competencies of the service business ranging from enabling energy markets and smart energy information infrastructure to delivering information management systems and services to the energy sector.

The concept of 'sharing'

Jan Segerstam is the Development Director at this energy sector service provider. He also chaired the Finnish national development programme FLEXe (Flexible Energy System), where he has recently been active in building the next steps for a new energy ecosystem in the European realm. Here he explains how Empower is at the heart of enabling the digital energy economy together with major stakeholders in the region. "Empower began in response to a need. A need for energy-related services to Finland's industrial sector. In effect, we grew the service infrastructure that was

needed for the liberalisation of the market – even before the liberalisation. Being ahead of the game, if you like. Finland did not have the large utilities that were common in Europe, so for us 'sharing' became key. We therefore helped develop the infrastructure of services that enabled this sharing or collaboration in networks. Something that is part of the Finnish culture and tradition, in society and in business."

Potted history

Following the establishment of Empower in 1999, a number of subsidiaries were established in various business areas. As the first step towards internationalisation, in 2000 the company acquired a majority holding in Eesti Elektrivõrkude Ehitus, an Estonian network construction company that in 2002 became Empower EEE AS with subsidiaries in Estonia, Latvia and Lithuania. Meanwhile, in 2001, Vattenfall Oy divested some of its operations to Empower and became a shareholder in the company. Under this contract Suomen Voimatekniikka Oy became a subsidiary of Empower. In 2008 Empower came under new ownership and now the organisation is in the hands of AAC Capital Partners and the corporate management.

Mutually trusted organisation

"Our main focal area right now," Jan continues, "is energy intelligence, and this is geared to finding services and solutions for the energy sector whereby the participants can outsource their functions to us while focusing on their core business strategy and strategic decision-making processes. This is quite unique because we are a mutually trusted organisation and so we facilitate these processes in which we have no vested interests. We have developed three major systems: customer information, energy data management and energy management. We are responsible for metering and billing for around half of the customers in Finland. In fact, Finland is the only country in Europe where smart metering and billing runs throughout the entire value chain. What Empower has done is to take the smart metering a step further and to digitalise the whole process. What's more, because we use our own software, we can be much more pro-active in enabling service solutions for our customers, helping them in their strategic objectives. It is evident, then, that software innovation is an important topic for us."

All about software

The role that software plays in Empower is crucial. "Everything's about software," Jan emphasises. "Just take the commercial processes. They are all tied to real-time and time-dependent information, and it is the software innovation that enables the companies operating in the energy market to gain a strategic edge. Especially now in the era of an energy mix that involves not only renewables and more traditional sources but also sees a much broader palette of suppliers, from large utilities to private consumers. So, the need to get the mix and the supply-demand power-matching right is key to an efficient and fair energy market as well as onboarding renewables to help us lower the carbon footprint. At Empower we are working on innovative solutions for these challenges."

Where disciplines meet

Jan is clear about the added value of an interdisciplinary approach towards innovation. "In a Community like ITEA, one of the most inspiring aspects is the way that projects involve different disciplines, partners, cultures, ideas and so on. And sharing it all. This gives us a much better chance of leveraging all the expertise that is available than if we were relegated to a kind of lower-league player confined to a single domain. ITEA has brought us new insight into the digital opportunities that come about when domain competencies meet. And being part of an industry-led collaborative effort provides very valuable input for us in trying to gain a better handle on the future for the good of society."

Leveraging results

Empower is involved in two ITEA 3 Call 5 projects and was previously involved in the M2MGrids and the SEAS project, the latter being the recipient of an ITEA Award of Excellence for Innovation and Business impact. In terms of leverage, from the SEAS project, Empower incorporated dynamic microgrid strategies into its future roadmap and enabled the interaction of flexible energy resources with its Enerim EMS solution that builds on SEAS knowledge in connectivity. "We are currently deploying this solution in upcoming datahub-enabled retail markets in Finland, and we expect to manage over 45% of the national distribution metering points in the coming years."

Taking ITEA to the next level

"For us ITEA is a unique Community that enables cross-domain and cross-national collaboration in open innovation with significant industry impact. To achieve global excellence, Europe needs the kind of collaboration fostered by ITEA and stemming from true industrial drive. And the very constructive feedback from industrial reviews sets ITEA apart from many of the other Communities and Clusters. We really get value from that process. Having joined the ITEA Board a year ago is a statement of our commitment to contributing our long-standing expertise in digitally driven services and digital knowledge in enabling energy market processes and platforms. We are thrilled to be 'on board' and to be going forward into an exciting future with ITEA, helping take ITEA to the next level in ITEA 4."

More information

www.empower.eu

Online ITEA Project Outline Preparation Days 2020

We look forward to connecting (with) you!

300+ potential project partners | presentation of innovative project ideas | dynamic online workgroup sessions | constructive consortium building

Do you have an innovative idea in the domain of software innovation? Then join us in our upcoming ITEA Call for projects! ITEA 3 Call 7 will open on 7 September 2020, in conjunction with the Online ITEA Project Outline Preparation Days (PO Days) 2020, which will take place from 7 to 11 September 2020.

Each year, ITEA opens a Call for innovative R&D projects in the domain of software innovation. This is usually in conjunction with a two-day physical brokerage event, the ITEA Project Outline Preparation Days. This year, ITEA 3 Call 7 will open on 7 September 2020, and although we would have loved to come together with the ITEA Community again, the health of our members is our number one priority. The current situation with COVID-19 prevents us from organising a physical event this time.

However, this doesn't mean we can't connect. On the contrary! ITEA and its Community have a proven track record of being agile and finding solutions to many challenges, and we won't stop now.

Connect with us and your potential partners during the Online ITEA PO Days 2020

This year, we will organise the Online ITEA PO Preparation Days from 7 to 11 September. As you can expect from ITEA, we will make sure to provide you with a high-quality Online ITEA PO Days event with full support from the ITEA Office team in order to get the most out of your

participation. The Online ITEA PO Days 2020 will be a five-day event to enable you to participate in different online sessions of interest.

In short, this online event will enable you to:

- Present your project idea(s) and/or learn about other project ideas via uploaded posters and recorded pitches
- Discuss your project ideas in online workgroup sessions and shape them into initial project proposals and consortia
- Get connected with companies and potential partners from all over Europe and beyond
- Learn more about the specific funding rules in your country well in advance, as well as how to get in touch with your Public Authorities to discuss your idea(s)
- See how the ITEA Office can support you during the full project lifetime

Supporting webinars

During the five-day online event, a set of supporting webinars will be organised to make sure that you get the most out of your participation. You will learn how to fully benefit from the Online ITEA PO Days 2020 and how to shape a Project Outline. There will also be a walkthrough of the Project Outline submission tool, information sessions by Public Authorities regarding their national priorities and eligibility and the presentation of the ITEA Achievement Award winners. At the end of the event, project idea leaders will 'take the stage' to inform participants about the status of their project ideas and our Vice-chairman and Chairwoman will conclude the event. These webinars will be spread over the five days and will host a maximum number of 100 participants per webinar. Recordings of the webinars will be published for all registered participants of the Online ITEA PO Days.

Ensure your ticket now!

The participation fee for the Online ITEA PO Days is 150 EUR but if you register before 1 August, you can benefit from the Early bird fee and only pay 100 EUR! (Fees ex. VAT and non-refundable). The number of registration spots is limited, so if you plan to participate in the Online ITEA PO Days 2020, don't miss this opportunity and register now!

Your entrance ticket entitles you to participate in/receive:

- Access to all Online ITEA PO Days 2020 webinars
  Please note, each webinar has a limit of 200 participants. Recorded webinars will be published after each session (available to all registered participants)
- Project idea information like the project idea overview, project idea posters, recorded project idea pitches, timings and subscription links to online workgroup sessions
- Presentations
- Instruction videos
- Full ITEA Office support

We look forward to connecting (with) you!

More information & registration

https://itea3.org/onlinepodays2020/index.html

Give your project a head-start with the ITEA Online brokerage tool set

To optimise your preparation period, it is recommended that you start shaping your project idea(s) and consortia well before the Call opens. For several years, ITEA has offered a state-of-the-art online toolset (https://itea3.org/onlinepodays2020/getting-started-6.html) to support you in shaping project idea(s) and to help you identify potential project partners in order to build consortia. In the online Project idea tool, (NDA-protected) project ideas can be uploaded and viewed, and you can search for a specific expertise and invite interesting potential project partners to join your consortium via the Partner search tool.

For the Online ITEA PO Days 2020, extra features have been created to facilitate the online event and project creation. On the (registration- and NDA-) restricted Online ITEA PO Days 2020 webpages, you will be able to find:

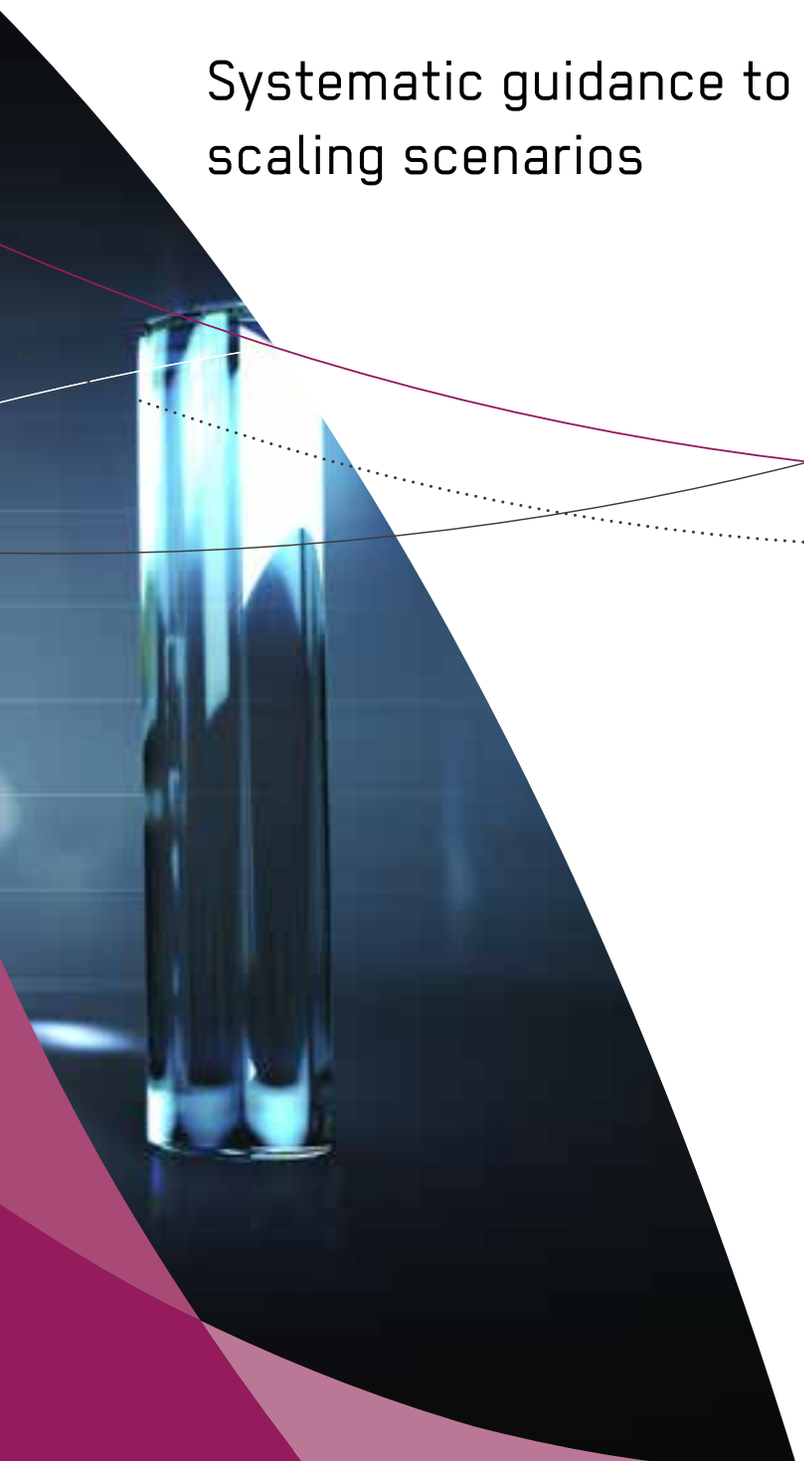
- Posters and video pitches of uploaded project ideas
- An overview of the scheduled online workgroup sessions, where ideas will be discussed and further defined with potential project partners
- Presentations and instruction videos on:
  - How to benefit from the Online ITEA PO Days 2020
  - The project Call overview
  - How to shape your Project Outline
  - How to submit a PO using the ITEA project submission tool
  - Financial and legal aspects
  - National priorities and eligibility criteria
- Links to the webinars that will be organised during the Online ITEA PO Days 2020 and which will support you in constructing a strong proposal

So, don't delay your preparations: start uploading your project idea(s) now to take full advantage of the tools!

ITEA Success story

SCALARE

Systematic guidance to decision makers for scaling scenarios



Husqvarna, with its traditional lawn mowers and other garden equipment, is a familiar name in Europe. A lawn mower used to be a typical mechanical product with no software included at all, but over the last decade this product has been completely transformed and many households now own a robotic lawn mower that autonomously measures the length of the grass, navigates around obstacles and finds the borders without any difficulties, and even returns automatically to its loading dock after having completed its job. Forget the hard work and noise of Saturday mornings and enjoy a nice lawn at any moment of the year.

Question of scale

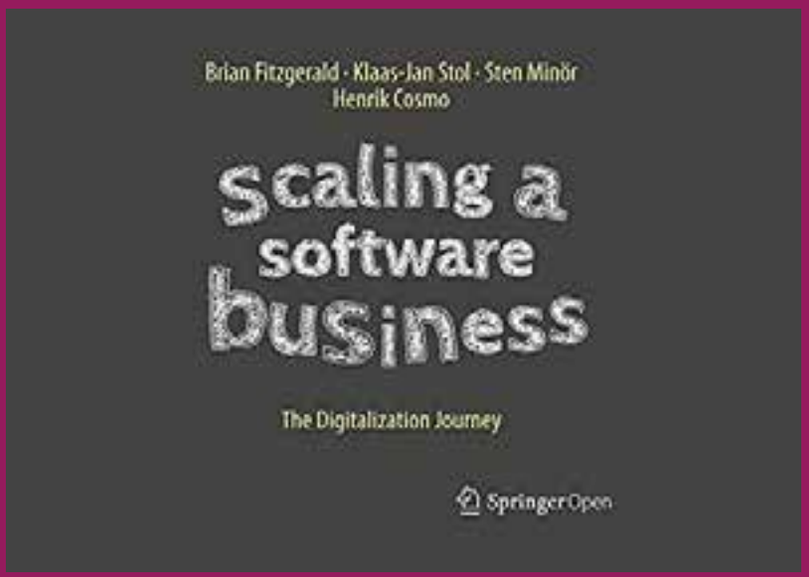
As in the case of Husqvarna, most product innovations today are enabled through software components, so it is no surprise that software is the primary means of competitive differentiation. Software plays a key role in the digitalisation of many products that hitherto were completely driven by electronics, so scaling software in a controlled and efficient way is crucial, and represents a major challenge for organisations. The required transformations are often driven by the technological evolution of products, systems or services as well as by how the business and the company are organised. In many instances, existing processes must be reshaped, and new best practices and tools incorporated. The challenge taken up by the ITEA project SCALARE, a joint effort of industry and academia from five countries, was how to support and enable organisations in scaling their software capability in a systematic, proactive way.

The SCALARE approach is unique in that it provides a holistic vision for scaling in three dimensions: software systems and services, processes and methods, and business and organisation. One of the key outcomes of SCALARE is the Scaling Management Framework (SMF), which organisations can use to assess their software development capability and plan their efforts to scale up that capability. Companies in every domain face this need to develop expertise in software development, including those domains that we do not traditionally consider to be software industries. Besides the Husqvarna example, many other domains rely increasingly on software to deliver their functionality including the automotive industry, with millions of lines of code running on up to 100 ECUs in modern cars. The SMF is an analytical tool that companies can use to assess where they are and define the steps to take to improve their software process.

Diverse and big impact

The project partners were able to benefit from the SCALARE project in several ways. Husqvarna had been undergoing a shift from mechanical products to connected products with a service offering (electronics and software) but until 2016 the products had virtually no connectivity. With customers becoming increasingly demanding, the company was challenged to adjust to those high standards and implement customer centricity. Customer service has become a competitive trump card. Services are difficult to imitate and can thus be a competitor lock-out. SCALARE has enabled Husqvarna to make this transition, with its team of 4-5 software

Open source guide



The SMF and a rich set of case studies are reported in a practitioner-oriented book 'Scaling a Software Business', published end of November 2017. The book is freely available (https://www.springer.com/gp/book/9783319531151) as open access under a Creative Commons license. It provides a gentle introduction to how a variety of companies across several domains, including services and consultancy, are able to scale up their software development capability, which can be an inspiration for the whole European industry.

Building on the first book, which had been downloaded 16,000 times by mid 2020, the Swedish SCALARE project partners Addalot, Sony Mobile and Blekinge Institute of Technology published a second book in 2018 based on the scaling management framework from SCALARE, called 'Principles for Industrial Open Source'. This book contains a detailed description of an Open Source program for industrials, and emphasises that the most innovative software is Open Source and that it is possible to simultaneously support Open Source while keeping parts of the code proprietary. The book presents Industrial Open Source, industry-proven and standardised patterns for how to manage a large-scale Open Source transformation. It can be used as a guide on your journey to succesfully transforming your organisation. In particular the book explains:

- How to create more business – through new and alternative revenue streams
- Why contributing is vital – to secure that value is added to your products
- Why compliance is a necessity – as a ticket to participate

The second SCALARE e-book can be downloaded from https://itea3.org/news/new-book-by-itea-project-scalare-principles-for-industrial-open-source.html.

developers expanding to more than 160 people and enabling a 50% shorter time-to-market compared to 2016.

Other project results include a prototype of the open source pattern tool ASPIRE, a web-based documented case study with searchable metadata to easily identify solutions for common scenarios developed by Lero, the Irish Software Research Centre at the University of Limerick, and available under an open source BSD licence. This helps managers identify key practices when faced with scaling scenarios. The Inner Source topic – which refers to the adoption of Open Source practices and processes within an organisation – has attracted considerable attention from companies worldwide including Nokia, PayPal, SAP, and Robert Bosch. The research studies conducted as part of the SCALARE project also attracted considerable interest from companies globally. Researchers at the University of Limerick have since developed this work further, which led to a prestigious 4-year research grant from Science Foundation Ireland. Together with Open Source advocate Danese Cooper, who started the InnerSource Commons Community, one of the SCALARE researchers co-authored a book on Inner Source published by O'Reilly and freely available. The InnerSource Community has steadily grown since, with over 250 members representing a wide range of companies worldwide. Besides a considerable body of research studies that were published during the SCALARE project and a Special Issue of Softhouse's magazine, six Masters students completed their theses on the SCALARE topics.

Furthermore, the Continuous Delivery (CD) assessment model was developed by Softhouse Consulting. It defines different maturity levels for various disciplines within the software development lifecycle, necessary to deliver software fast with good quality. With this maturity model, Softhouse Consulting already helped over 30 organisations - from SMEs to large enterprises - to understand where they stood in the software development lifecycle, and from there to define where they wanted to go. For SMEs, the model gives structure and for large enterprises it makes the processes more efficient, as it acts like a guiding layer in the middle, resulting in as much as 60%

efficiency savings for some companies. Thanks to SCALARE, Softhouse Consulting found a new way to enter the business area and was able to recruit 6 additional senior consultants working with new consultancy services and achieved an increased revenue of over €400k per year, thanks to the possibility to reuse the founding of this model in the areas of IoT / Cloud services, AI, ML and Digitalisation. Finally, by offering the maturity model as a free download and distributing it widely, it also has a societal impact; with a low threshold, other organisations become inspired to take action, and the model becomes the reference.

Softhouse also developed the Scaling Agile Model for companies that want to start agile working on a larger scale. The OSS Maturity model is primarily a management communication tool being used at Sony Mobile to enable product value to be extracted from Open Source Communities and guide the development of an orchestrated ecosystem. The SCALARE project accelerated Sony Mobile's own maturity in Open Source to the level that they now are seen as an industry authority both internally, within the Sony Group, as well as externally. Sony will continue to benefit from the software scaling strategies outlined in SCALARE as they evolve and move to new offerings "Beyond The Smartphone", e.g. services based on Big Data, Cloud and IoT.

The Swedish consulting company Addalot also extended its consultancy services portfolio as Open Source and Servitisation consultancy services were introduced. This led to the recruitment of 1 senior consultant working with new consultancy services and an increased revenue of around €150k per year and growing.

Addelot also leads a Swedish industry network for Open Source, Industrial Open Source Network (IOSN), under the auspices of the Swedish lobby organisation for software intensive companies and academia, Swedsoft. The members in IOSN include Ericsson, Volvo, Saab, Scania, Axis, Bosch and Sony Mobile.

With an estimated 10,000 people having been reached via numerous organised events, tutorials and keynotes, online videos, the project partners are helping to 'arm' the European industry for the digital transformation!

More information
https://itea3.org/project/scalare.html

ITEA Office successfully passed the ISO 9001 recertification audit

We are proud to announce that ITEA Office successfully passed the recertification audit for ISO 9001 accreditation. The Quality Management System of ITEA Office meets again all the requirements of the ISO 9001:2015 standard. The certificate (by Dekra) is renewed for a period of 3 years, until 1 April 2023.

Since the beginning of ITEA 3 in 2014, the ITEA Office has a Quality Management System in place to ensure adaptability to the upcoming changes in industry. Since April 2014, this Quality Management System has been ISO 9001 certified.

DEKRA recertification
Each three years, there is an ISO 9001 recertification audit. Achieving our ISO 9001:2015 recertification means companies and R&D actors active in ITEA projects have complete assurance that ITEA Office continuously keeps improving to operate at the highest quality standards and that all regulatory requirements are met for our services.

The certification was carried out by DEKRA, one of the largest testing and certification institutions in the world. DEKRA has extensive expertise in auditing and certifying management systems in the field of quality, safety, sustainability, and information security.

ITEA Office is always committed to keeping up the good work and we are open to all suggestions for improvement, so please feel free to share your ideas with us via info@itea3.org.

Community Talk with:

Robyn Woods

and a panacea for care

Although a fairly new face in the ITEA Community and based in Calgary, Canada, Robyn Woods has managed to make a very firm imprint since her initial contact. Not only has she led the very successful Panacea Gaming Platform project (April 2017 to May 2020) but has turned the results to date into an equally successful award-winning, patented collaboration tool called Teleroo™ and Kids Digital Health™, a subscription-based collection of therapeutic games and content at KidsDigitalHealth.com. Here she tells us about the underlying motivation for her business adventure and the ITEA fit.

Virtual care

Robyn is a Registered Speech-Language Pathologist of 20 years who turned digital health entrepreneur in 2006. She pursued digital health to help minimise the disruption, travel costs, and risks, all the more evident in a pandemic but also road conditions during long, snowy winters in Canada, for families living with disabilities. Of course, travel time is a significant challenge for people living in rural communities with the geography and weather patterns in Canada. “It can mean a drive of three hours to see a patient for an hour or so and then there’s another three hours getting back,” Robyn explains. It was then that the (very appropriate) Eureka! moment arrived. Robyn asked the question: “Why can’t we just put a camera in a person’s home?” So that’s what she did in 2011. “And then the hardware became software and then the software benefited from content,” she continues, “and that’s what has become the familiar product Teleroo™ and the basis for Kids Digital Health™. This led to a new way of practising – virtual care.”

Teleroo™

Teleroo™ is an award-winning, patented virtual care platform that connects care teams, families,

and their communities through engagement, and leads to an increase in continuity of care and behavioural health, along with desired fiscal outcomes for all parties, including health providers and governments. Teleroo™, which represents the future of patient-centred care in action, is founded on the service delivery model of evidence-informed practice, including video modelling and deep coaching. With help from the National Research Council of Canada, Robyn applied for a patent for the Teleroo™ brand, which has become the collective name for an exclusive suite of technology and therapy tools, the result of more than 10 years of research and development, and the collective expertise and experience of its team of therapists, practitioners, researchers, software developers, and its families.

Taking the stage

"It was through the National Research Council of Canada that I came into contact with the world of Eureka and the Community of ITEA in particular. The former ITEA Chairman, Rudolf Hagenmüller came to Winnipeg some years ago and presented the ITEA Community. I became intrigued and that's what brought me to Belgium for the Project Outline Preparation Days. It was so exciting and there was so much energy that I just had to get involved. I more or less ran onto the stage with my idea. I seized the opportunity through ITEA to take the lead in forming a consortium for the Panacea Gaming Platform project, the first ever Canadian lead. I must say that the Canadian Public Authorities were very keen to give us and the other Canadian participants plenty of support. When the three-year project got under way in April 2017, it proved to be a pretty exciting journey, and certainly one of the big highlights in my career. In 2018 we also represented Canada in Seoul, South Korea, during a Digital Health Mission there. Last year was also a very exciting year as we were flown to Abu Dhabi and Dubai to present, as one of just ten companies in the world, our solution to 196 countries and 100,000 participants. In May we were invited to address the Canadian Senate about virtual care and we demonstrated Teleroo™ and our international work."

Great support

"I must say that the ITEA connection has been fantastic. The support is tremendous and the project review, quite rightly, challenged us about our claims. It led to collaboration and dialogue, and a successful conclusion. And then we launched the Kids Digital Health™ platform (kidsdigitalhealth.com) dedicated to providing parents and caregivers access to gamified apps and tools." The virtual launch event and fireside chat featured speakers from Canada, USA, Belgium, South Korea, France and Turkey, showcasing the importance of global, collective action when it comes to the future of digital health. "It was great to have the support of our ITEA Chairwoman Zeynep Sarılar and Vice-chairman Philippe Letellier. And Zeynep emphasised the value of having 'access to different cultures and knowledge bases to create a global solution.' This is certainly something we have found in our ITEA experience - from Belgium to Turkey and from Canada to South Korea. We really feel the benefits of international collaboration and part of a global Community. Not only that but it gave us a lot of media attention and a new revenue stream with new partners."

Value of relationships

"So, it's quite clear that ITEA has helped us to kick on. But it has actually given us even more. Through ITEA we found partners, and the pleasure I have had in working with these partners, from different backgrounds and cultures, with their vast range of expertise and experience, has been priceless. The relationships we have built up with them go well beyond their project sell-by date. Relationships help create trust and with trust you are prepared to take risks together. Some in the form of commercial partnerships, such as we have with BeWell in Belgium and our Korean partner, Worri Soft. They have given us a world stage. And just seeing how all this technical knowledge can be transformed into clinical practices that can benefit everyone. I mean, for someone with no technical background leading a successful Cluster project for software-intensive services, that just about says it – I feel I have learned so much about how the power of collaboration can achieve great things. So, we're very keen to do more."

Benefits of diversity

"But just as importantly, the convergence of technology then has to be applied to the diversity of cultures in the application," Robyn explains. "That's another benefit of having a diverse cultural mix in the consortium. People need to see themselves in the technology for acceptance by the different cultures. Whether that's Asian avatars or North American norms or Belgian values. It helps us pinpoint the true gap that we can fill and define our global value proposition. I've got a lot to be grateful for, and hopefully the journey with ITEA will continue. These are exciting times in more ways than one. The focus is on COVID-19 right now, but we must look to the power of collaboration and innovation to create a new, more resilient world. And we hope to play a role in that creation."

More information

https://itea3.org/project/panacea-gaming-platform.html
https://teleroo.com
https://kidsdigitalhealth.com

ITEA project results enhancing people's lives

Extensive health monitoring platform

The eWatch platform is an extensive health monitoring solution in which both patients and clinicians can benefit from a holistic approach.

The solution starts with vital sign tracking devices like wearables (health bands, special wrist watches, etc.), sensors, wound monitoring devices and eye tracking systems. The metrics collected from patients by these different endpoints are sent to dedicated clouds and processed using Artificial Intelligence and Machine Learning (AI/ML) algorithms. Once the results are formed, the central cloud gathers the results from the sub-clouds, which support different types of integration protocols. The multi-sensor dashboard then shows the overall health results and trends for the patients, which can be used by clinicians in their diagnosis, treatment and follow-up.

The solution offers precise indoor localisation coordinates, which are valuable for big hospitals and care centres. The security and privacy of the solution regarding the GDPR is also taken into account in such a way that patients, hospitals and clinicians can safely use the system.

The eWatch platform is a very valuable solution that improves telemedicine services by collectively showing very different types of health metrics, such as cardiac monitoring results (like atrial fibrillation detection), heartbeat, oxygen saturation, physical activity, blood pressure, stress/workload, sleep patterns and wound images. The system is also ready to be extensively integrated with new sensors/endpoints if desired in the future.

ITEA 3 project eWatch

Calendar

14-15 July 2020
#HANNOVER MESSE - DIGITAL DAYS
https://www.hannovermesse.de/en/news/digital-days/hannover-messe-digital-days

1-2 September 2020
13TH GRAZ SYMPOSIUM VIRTUAL VEHICLE
Vienna, Austria
https://www.gsvf.at

7-11 September 2020
ONLINE ITEA PO DAYS 2020
(opening ITEA 3 Call 7)
https://itea3.org/onlinepodays2020/index.html

21-22 September 2020
INDUSTRY OF THINGS WORLD
Berlin, Germany
https://industryofthingsworld.com

6 October 2020
ESI SYMPOSIUM ONLINE PREVIEW
https://esi-www.tno.nl

13-14 October 2020
TERATEC 2020 FORUM
Palaiseau cedex, France
http://www.teratec.eu/gb/forum/

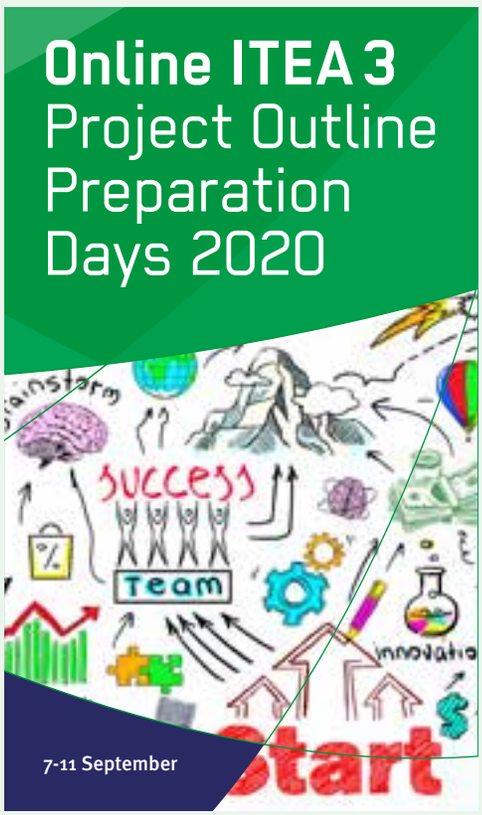
14-16 October 2020
TRIZ FUTURE CONFERENCE 2020
Cluj-Napoca, Romania
https://tfc20.eu/

15-16 October 2020
VMAP INTERNATIONAL CONFERENCE ON CAE INTEROPERABILITY 2020
Munich-Taufkirchen, Germany
https://www.vmap.eu.com/vmap-conference-2020/

24-28 October 2020
ICST 2020
Porto, Portugal
https://icst2020.info/

27-30 October 2020
HOLLAND HIGH TECH ONLINE NAJAARSEVENEMENT 2020
https://www.hollandhightech.nl/agenda/hht-najaarsevenement-2020-online

10 November 2020
ITEA 3 CALL 7
Deadline submission of Project Outlines
https://itea3.org/



SME IN THE SPOTLIGHT

Cyclomedia

Where seeing is believing

With its headquarters centrally located in Zaltbommel, the Netherlands, Cyclomedia is to the business user what Google Earth is to the consumer, with an imagery and LiDAR (Light Detection and Ranging) point cloud database that is accessible via the Internet anywhere, anytime and with any device. "Although," as Bart Beers points out, "our service is not free!" It was some thirty years ago that Bart Beers, a geodesy graduate of the TU Delft who specialised in photogrammetry, co-founded this SME. Currently employing around 120 people in the Netherlands alone, Bart is the CTO and has the privileged role of managing the research and innovation activities that are the heartbeat of this dynamic world-leading player in the field of Geographic Information Systems (GIS) and Insights. Here he tells us about the company's origins, its business evolution and the role that Cyclomedia has played in the ITEA Community and vice versa.

Lockdown opens up possibilities

But understandably, and even relevantly, the conversation kicked off on the subject of COVID-19. While seemingly paralysing social and business life as we have known it until very recently, the pandemic has actually benefited the outdoor activities of Cyclomedia. "We earn a living by bringing the data and insights we collect outdoors into the database our clients use. And, paradoxically, that physical recording process has been made easier by the lockdown situation. Take New York City, one of our customers. Twice a year we physically record the city. You can imagine what this is like on the ground with all the traffic congestion. Now we drive unhindered on vacant highways that you would normally drive in low gear! And in terms of working from home – well, it's a different environment but we can still do our work as usual. The Cloud is our companion – for data, for processes, for data analytics and for software development."

From mono to multidirectional

"After graduating I became a scientific assistant and got involved in a project to develop a new

mapping system that made use of street-level photos to construct accurate maps as was already being done similarly from the air, but then at lower accuracy. Of course accurate methods existed for map-making on the ground but these were rather inefficient. This was in the early eighties when there was hardly any digitalisation. It was all fish-eye lenses and measuring optomechanically. Then came funding for IT initiatives, and we saw map-making heading in that direction – after all, our job was to gather information using technology. Everything began to gain momentum and by 1993 we had a system in operation for measuring digitally, although recordings were still made on black and white roll film that had to be developed and digitised subsequently. In 1995 we were commissioned by the city of Rotterdam to map the city. We were able to make panorama views at intervals of 20 metres and these were sent to the relevant councillors by the ISDN route – internet as we know it had yet to be invented. A series of developments followed and, to cut a long story short, at the turn of the millennium we had a system that could record digitally and in colour at once. And we could benefit from the availability of the internet. But we still had to stop the car for each recorded image. So there was a lot to be gained in terms of efficiency. Fast-forward to 2007, and we had a system that was able to continuously record images on the road without sacrificing geometric image quality. This differs from the Google system where the images are made by separate cameras and then cosmetically stitched together. What we did was to patent a technology whereby you can record in all directions from one position – while on the move. This proved to be such a success that we soon had half of all the municipalities in the Netherlands as customers. This gave us the encouragement to take things up a notch. So, we approached utility companies, banks and insurance companies in addition to the 'missing' municipalities, and now we could proactively start covering the Netherlands completely."

International dimension

Cyclomedia soon began to expand internationally, with branches in Germany where it largely maps cities and undertakes projects in other European countries such as France, the UK, the Czech Republic and the Nordic countries. In the US Cyclomedia has 16 of the 25 largest cities as customers. "A very interesting and quite huge assignment we got there," Bart continues, "relates to the wildfires that broke out in California in 2018 for which a utility company was held responsible – in a lot of locations their above-ground cables were touching vegetation, thus setting it on fire. The utility company needed to show the authorities that it could address such situations in the future, otherwise it would probably be out of business. Cyclomedia put its technology, in the meantime augmented with accurate LiDAR point clouds, to good use to automatically determine the precise location of such unsafe situations. Having the exact locations enabled the utility company to have vegetation pruned down properly. And in a second run we could repeat our process to see whether the pruning had been done correctly. This was a very good demonstration of the value of our technology."

Synergy

"As you can imagine, R&D is a key component of our work," Bart explains. "Our R&D department has 40 professionals and they serve various interests within the company. As CTO I am very involved with the R&D department, of course. In my role I also try to acquire publicly funded research projects. The benefit here is that such projects accelerate the innovation process, like the ITEA PS-CRIMSON project whereby we worked together with external partners on a specific goal. This really generated a terrific level of synergy. With Dutch and Canadian partners particularly. Of course, you might expect synergy from an intrinsic point of view but just as significant was what we gained from working together, the different approaches, people, cultures. This provided a great learning environment. Indeed, with a number of the consortium partners, we are progressing into a subsequent project, SMART. It's a somewhat different subject but Cyclomedia will be taking its technology component – 3D information – a step further in this new project. What we intend to do is to automate from our street data what has generally been a largely manual process to date."

Constructive and positive

"The ITEA approach is based on getting real tangible results – impact – and that is what appeals to us. Also, the reviews are very useful – they are constructive and look to resolve issues and problems along the way. For example, despite a couple of partners dropping out, we still managed to fulfil the objectives we set out to achieve. So I'm very positive about the ITEA programme and I look forward to being part of the follow-up project SMART."

More information

www.cyclomedia.com

ITEA Success story

M2MGrids

From vertical M2M silos towards smart interoperable Cyber-Physical Systems

Executed between November 2014 and May 2018, the M2MGrids project aimed at creating enablers for a dynamic cyber-physical information ecosystem that would interoperate in real time with the business processes of companies with real-life objects, people and things. The consortium was comprised of 29 partners from Belgium, Finland, Israel, the Netherlands, Portugal and Turkey, including 8 large enterprises, 14 SMEs and 7 academics. VTT acted as project coordinator while Nokia, from its research unit Nokia Bell Labs, acted as major industrial partner focused on M2M service platforms.

Major disruptions in energy and mobility domains

M2MGrids focused on major disruptions in targeted energy and mobility domains. The disruption in the energy domain was related to operating models and the high cost of peak hours in energy grids. To make more efficient use of the energy grid, there needed to be a flexible and automated means by which to control both consumption and generation between multiple energy stakeholders and prosumers. The inability of multiple stakeholder systems to exchange information in dynamic situations (such as in a traffic accident) was leading to disruptions in the mobility domain. Both focused cases demonstrated the need for collaborations between multiple vertical M2M silos, and implied opportunities for new types of services for real-time business processes via

Figure 1. Energy flexibility and traffic accident use cases.

smart interoperable Cyber-Physical Systems. In addition, efforts to develop smart and interoperable cyber-physical systems were often hindered by vertical silos within M2M industries. A shift from use of vertical towards more horizontal capabilities, and from offline data analysis towards online operation was demonstrated, especially in the context of energy flexibility and traffic accident use cases.

The project developed a horizontal M2MGrids architecture framework, with a set of novel horizontal capabilities related to information models, algorithmic operation, stream processing, communication overlays, security, and specific capabilities of horizontal platforms that enable embedded products to be part of the cyber-world. These novel capabilities were evaluated in the energy flexibility and traffic accident use cases. More information can be found in the paper on the ITEA M2MGrids website: https://itea3.org/project/m2mgrids.html.

Enablers

The demonstration of the energy flexibility use case included an evaluation of the World Wide Streams (WWS) horizontal service platform developed by Nokia Bell Labs. In the demonstration, WWS acted as a key horizontal enabler for a set of energy flexibility services interacting to balance the power level and reduce the peak loads in the distribution grid. The flexibility services combined a number of essential capabilities: Distribution system operators (DSO), network state monitoring and short-term congestion forecasting (Technolution, Target Holding, Alliander); a local energy flexibility market (Empower); scheduling of resources by aggregator services (Gecad); interaction with an aggregated simulation of energy resources like Electric Vehicles (EVs); buildings and local distribution grid (VTT); a standardised energy flexibility interface (EFI) for household appliances (TNO); an EFI-capable gateway for white goods (Arçelik, KoçSistem); and EFI-based operation of EVs (Eteration).

The demonstration of the traffic accident use case included an evaluation of the virtual CPS communication hub (realised by VTT), which enables mobile embedded products and services of multiple stakeholders to horizontally interact and exchange information in a controlled and secure way. This CPS hub facilitated interaction between resources like a smart watch (Polar), a small air quality monitoring sensor (Imec), a wearable platform for health monitoring & analysis service (Bittium), a street lamp (Valopaa), animal tracking products (Tracker), a 3D camera (Sony), a crime announcement service (LiveU), and Safax authorisation service (TU/e). In addition, the CPS hub was the key enabler of the interaction with Nokia WWS, energy market service (Empower), external aggregation of simulated energy resources of EVs, buildings and local distribution grid (VTT).

The Nokia World Wide Streams (WWS) platform, as matured for distributed multi-actor automation

scenarios in M2MGrids, is now enabling a Nokia Enterprise business unit product, and is regularly used in customer trials.

The Nokia Enterprise TEPS (Transport, Energy and Public Sector) segment sales unit promotes WWS as an enabler for flexible launching of services as part of segment solution toolkits, notably for the sub-segment of Energy Flexibility Management and related Smart City and Utility services. In this way, WWS is consistently broadening the capabilities of the Nokia IoT solution umbrella, with the management of distributed edge stream processing services, and facilitating domain expert service authoring on the platform. Being actively proposed in customer solutions in the energy domain and other automation domains alike, as well as in related smart city cases, WWS, already today, can be considered to enable a 20-30% higher business growth in application-enabling Digital Value Platform (DVP) projects for these segments worldwide.

New business models, new products

Empower IM analysed new business models for microgrid trading and networked devices in the M2MGrids project. This knowledge has led to activities for preparation of national infrastructure for energy flexibility in Finland targeted to new flexibility markets with national TSOs and local DSOs of the energy ecosystem.

Within the M2MGrids project Bittium created a Medical Analysis cloud ('MA-Cloud') solution, which was the basis for Bittium's neurology businesses in the Medical business area. After the M2MGrids project, Bittium continued with the MA-Cloud solution from the research project to the commercialisation project. Today Bittium BrainStatus™ Wireless EEG Amplifier solution is medically certified and together with Bittium MedicalSuite™ Service Platform (formerly called MA-Cloud) these solutions are generally available to domestic and international customers. Bittium BrainStatus™ is a wireless compact EEG amplifier, which is used together with a disposable easy and quick to wear Bittium BrainStatus™ electrode headband for diagnosing patients with altered mental status like status epilepticus. Bittium BrainStatus™ enables quick measurement in field conditions as well as in hospitals, thus making the treatment process of the patient faster.

Tracker developed a low-power development platform for new products, applications and services for monitoring, tracking and control in M2MGrids. The platform led to the development of the Tracker Artemis product, the world's first 4G IoT dog tracking collar, which is now generally available. Commercialisation impact estimation including device and related services sales is about €3 m in 2020. The development is essential in Tracker growth, and four persons were employed permanently even after the project, with market share potentially increasing in future.

Technolution developed a sensor prototype for sensing power quality as well as congestion analysis and prediction in M2MGrids. After the project, this R&D led to the Technolution LS/MS sensor product, which is now offered in different markets for non-intrusive, cost-effective and high-quality sensing, such as low/mid-voltage power cables and industrial electrical motors. The sensor products have been installed as part of a multi-purpose sensing platform in multiple sites, such as energy grid transformers, steel factories and industrial machinery electrical motors, helping these clients track and predict the status of their processes, equipment, infrastructure and equipment status in real-time. The development of the LS/MS sensor, partly within M2MGrids, has proven to be a key feature in the Technolution IoT operation and management portfolio.

Slimmer AI (formerly Target Holding) developed machine-learning knowledge of short-term energy consumption forecasting from daily down to 15-minutes horizons (called nowcasting) within M2MGrids. This knowledge has boosted the development of new, AI-powered forecasting

M2MGrids contributed to the development of smartness and interoperability for cyber-physical systems, especially in energy and mobility domains.

and balancing solutions for energy producers and solar panel companies, including day-to-night storage, for solving problems pertaining to grid congestion. Besides this direct exploitation, the forecasting technology is part of Slimmer's AI toolbox. It is further developed and adapted to a number of other applications. Working closely with its customers, Slimmer AI expects to employ up to 10 colleagues on the basis of this M2MGrids technology within three years.

Arcelik was first to introduce new, automated demand/response compatible household appliance products. KoçSistem exploited the results to enable energy management of adaptive demand-supply household and industry devices as well as energy grid adaptive demand-supply gateways. Eteration developed a Complex Event Processor that manages real-time events within big data according to the execution plans. The processor can run in embedded gateways and large-scale cloud environments. Imec has taken advantage of the project's work by producing an Air Quality Monitoring Platform that provides real-time monitoring/accessing of the sensing data along with data storage in the cloud. LiveU has opened significant market opportunities, having won a tender for the next Olympic games with the Japanese police department and also having collaborated with Associated Press on a new live video exchange newsgathering platform: AP Live Community, an app based on M2M.

Vertical to horizontal shift

The M2MGrids project contributed strongly towards shifting from vertical use towards more horizontal capabilities in the IoT product development. It also contributed to the development of smartness and interoperability for cyber-physical systems, especially in energy and mobility domains. Despite the huge challenge, the M2MGrids project succeeded in making real progress as is evident by the exploitation of the novel solutions created during the project. In addition, several new research opportunities were identified during the project and these have led to the preparation of EU-wide research and national co-innovation projects including e.g. INTERRFACE (flexibility markets), TIoCPS (trustworthy communities), iFLEX (end-user perspective for flexibility markets) and OneNet (scaling of flexibility market mechanisms).

More information

https://itea3.org/project/m2mgrids.html

Practise what you preach

The story of a Cluster's quality system

ITEA was founded as Software Innovation Cluster in 1998, when IT and Software were becoming increasingly important for the competitive position of Europe's industry. Internet was booming in the nineties, the first internet companies and search engines went public and were considered the "promising pearls" of the New Economy, where endless welfare and exponential growth were ingredients of a very optimistic vision of the future.

Frontrunner

Even though economic growth has not continuously been sky-high after the nineties, the world has drastically changed ever since. Software is crucially important in many aspects of our lives and industry. ITEA has played a vital role in many innovative software solutions and technologies that have been developed in the last two decades. Creating impact on different aspects of our society. Besides economic growth (increased revenues and employment of industry and SMEs, emergence of spin-offs and start-ups), ITEA projects have contributed to better and more efficient healthcare, safer cities, clean and smart mobility, among others. Key to this are two very important basic values of ITEA (and ITEA projects): being a frontrunner and high quality.

ITEA has always tried to reach beyond the State-of-the-Art, touching areas and technologies that are not yet in the market and facing up to many challenges relating to technology, science as well as application possibilities, customer awareness, market acceptance and more. This is reflected in the early stage involvement of ITEA project partners in topics like Functional Mock-up Interface (FMI), Digital Twin, Simulation and AI. Recently AI has been everywhere, but in ITEA projects it has already been an important feature for several years. The latest projects and activities are "Beyond AI", touching a world in which AI is already a common feature. ITEA is keeping pace with the most early and advanced solutions and technologies.

Quality & Innovation

High quality is probably one of the most important USPs that ITEA has developed over the years. This is reflected in the fact that ITEA is one of the exceptional Cluster organisations to have received the ISO-9001 certificate for Quality Assurance. All ITEA activities and processes are regularly internally and externally audited to keep the pressure on the ITEA organisation to strive for the highest quality and to follow the guidelines of the ISO standard. This is not just paperwork. Quite the contrary, it relates to very concrete and tangible aspects of the operations within ITEA. ITEA has always believed in the saying “Practise what you preach”. It is important that you do whatever you say needs to be done. For ITEA this implies that its activities should radiate the values of Quality and Innovation. If we do not live up to these values, how can we be a plausible stimulator of high-quality innovation? The high level of quality in ITEA is safeguarded by a set of annually defined high-level improvement goals and by continuously monitoring the ITEA processes according a set of multi-faceted KPIs. The KPI targets are annually set and quarterly measured and reported. Strong deviations of the KPI measurements from their targets forces the organisation to react in an agile way. An important aspect of achieving a high level of quality is the appreciation by our ITEA Community. Therefore, it is a common practice to issue a survey after each event, the different phases of a Call and at the end of a project. The valuable feedback we receive from our stakeholders is then used to further improve our future activities.

A crucial feature for ITEA to be able to deliver high-quality operations is an advanced IT system in which all our project information, operational activities, customer and stakeholder data and financials are integrated. This is a very important backbone of our Quality. We can pick out all kinds of KPIs and report about them, but without a solid and reliable method/system of keeping track of the information and data in these KPIs, it is impossible to maintain and guarantee the

ITEA's activities must radiate the values of Quality and Innovation

required quality. In addition, the conviction that ITEA has to be innovative itself goes together with having an advanced IT system.

Unique & versatile

The ITEA system is advanced and unique. The development of the current system started in 2010, as a cooperative system developed by ITEA and ARTEMIS-IA based on several small stand-alone databases used in the different teams. The system has a modular approach and CATRENE – at that time the Eureka Cluster that was active in the field Microsystems and electronics – was the first external user of the ICT system. In 2015 ITEA chose its own path and took the leading role in the continued development of the system resulted in the Eureka Clusters Information System (ECIS) that ITEA is currently using for all its operations. The system is fully web-based and has a personalised interface towards the different Communities. There are basically three different components: the Office backend, the internal Community website for project activities, and the public website. Because all information is securely stored in one integrated system, many interconnections are possible. The ITEA project portfolio on the public website is automatically generated and updated from the project database in the backend. The HTML code of the website adapts automatically to the size of the device used, which means that the website can be viewed from any device, from a smartphone to a widescreen desktop computer.

Community portal

The ITEA Community portal is the entry point for Community members, varying from project participants, members of the different ITEA bodies like the Board, Board Support Group and Steering Group as well as the Public Authorities. The role-based access control ensures a clean interface where each user has access to the relevant sections of the Community website. Project leaders can manage their project, technical contacts active for their company in one or more projects can update their own data, reviewers can download the review templates, and much more.

The ITEA PO Days are also supported by the ECIS system: users can register for the event and also start to create a project idea in the ITEA Project idea tool (PITool). As this year's PO Days will be an online event, new tooling has been developed to support the webinars and the workgroup sessions which will also be held online.

The ECIS system is the main source of data at the ITEA Office. Some examples of possibilities that this system facilitates:

- Linking project data and national contracts to the invoicing system
- Automatic generation and sending of (pro-forma) invoices based on the project cost, currently supporting four different invoicing systems
- Advanced project statistics, like project costs and effort in a country or overviews of costs and effort by organisation types or call size or grouped by any other kind of variable
- All project related documents and contacts per ITEA Call
- Integrated project evaluation system
- Mailing system
- Event management

"The PENTA Cluster, dedicated to micro and nano-electronics enabled systems and applications, is operated by the AENEAS industry association, using the ITEA ICT system with specific adaptations.

AENEAS has had a long-term relationship with ITEA, starting with CATRENE and now supporting the PENTA programme. Close teamwork between ITEA and AENEAS not only resulted in a very rapid implementation of the PENTA programme, but also permitted continuous improvements and developments, including the latest joint EURIPIDES²-PENTA Call.

AENEAS has a privileged role as both partner in and customer of the ITEA ICT system. We contribute to the evolution of the tool specifications, with cross-fertilisation between PENTA and ITEA leading to a status of co-ownership of the tool, each Cluster benefiting from the features designed for the other.
This is a valuable demonstration of cooperation among Clusters, sharing a common tool, that sets the trend for the future Eureka Cluster Programme."

Caroline Bedran,
AENEAS Director General
28 May 2020

Multiplicity

The system/software has not been developed to be introduced in the market, as ITEA is not a commercial organisation, but an association that works on a not-for-profit basis. However, the software is of such character, value and quality that it can be utilised by external parties that are active in the field of innovation and collaboration projects, Cluster stimulation and networking events. In other words, which involve great amount of relations and networks of stakeholders and organisations, active in different kind of interrelated activities and/or projects.

Considering this, it might not be surprising that one of the other Clusters is also using the ECIS system or some of its features. Since 2016, the Aeneas Association and the Eureka Cluster PENTA have been using the ITEA IT system for their Call operations, with EURIPIDES2 joining in 2018, and their joint Call is fully supported by the ECIS system. The modular and flexible approach of ECIS enables the support of multiple Clusters with one single code base.

The ECIS Brokerage tool module is used for the first joint Call for the Eureka Clusters on Artificial Intelligence. This Call was launched on 1 April and very recently ITEA has also been requested to service one of the Eureka Network Calls on the current COVID-19 theme that opened in mid-May.

New dawn

The Eureka Clusters are currently going through a dynamic period, as a new Eureka Cluster Programme (ECP) will be determined in mid-2020. One of the ingredients of this programme is anticipated to lead to increased cooperation between the Clusters. This relates to different activities, such as joint events and Calls. The ITEA IT system has several elements that could facilitate the Clusters and ECP. Anticipating the future situation, ITEA and CELTIC-NEXT have announced cooperation on the development of new Eureka Clusters IT system. This will be in place in 2021.

Collaborative, automated and trusted

Future methodologies for effective cybersecurity

“Our systems are becoming more complex. Attacks come from everywhere and everyone trusts no one.” So begins ITEA Vice-Chairman Philippe Letellier, who recently co-organised a cybersecurity workshop alongside Atos, Bosch, Airbus and KoçSistem. The aim of this was to understand the most pressing issues for international customers, from which new R&D projects can be generated. Given ITEA’s focus on industry over policy, French Ambassador for Digital Affairs Henri Verdier provides a government perspective on the themes which emerged.

Collaborative security

Broadly speaking, collaborative security was the main trend to emerge from the workshop. “How do you manage multiple partners who are not at the same level of security?” asks Philippe, pointing to the rise of multi-platform technologies. “In areas like sustainable energy, there are now thousands of producers and even more users. When you exchange information on the electricity load, you can analyse where you need energy – but as a terrorist, it’s an ideal platform to attack. Actors therefore want to push R&D in the direction of collaborative security and propose a methodology and framework to build this.”

Henri Verdier
French Ambassador for Digital Affairs

Philippe Letellier
ITEA Vice-chairman

“That’s very important, of course,” Henri agrees. “The more we diversify the system, the more emerging properties occur, the more difficult it becomes to protect it with traditional walls and authorisation. A lot of neurons make a mind and a lot of people make a society. I was trained as a biologist so I can analyse one neuron, but I can’t predict the mind. With so many different strategies, policies, frameworks and silos, I feel that we don’t yet have enough knowledge to analyse systemic risks. In a catastrophe, everybody will say that they did their job correctly.”

As an analogy, he points to the *Vasa*, a Swedish warship which sank minutes into its maiden voyage in 1628. Each individual involved in its construction did his job correctly but failed to discuss the overarching design flaws. “A similar issue can be seen in cybersecurity,” Henri explains. “Emerging properties in complex systems cannot be dealt with alone, but trust must be developed if actors are to comfortably and effectively collaborate on defence, and we probably need specific research on those systemic issues.”

Generating trust

In short, collaborators must be able to validate the quality and security of one another’s software, yet this often provokes a backlash from companies. “In India, for example, they’re required to give access to source code,” Philippe explains. “They’re in a very competitive market, so we must find a way to describe a quality assurance framework that protects intellectual property.” This could take the form of a maturity model or a certification which is audited annually. Another possibility is a rating agency, which could score companies on cybersecurity à la credit agencies for banking.

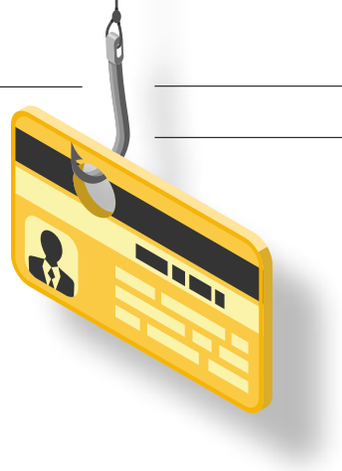
As former French State CTO and the founder of three companies, Henri views trust as something to be earned. “When I was CTO, I needed to be able to check the code myself. To be frank, some software is a mess, so we need more progress on security by design. I’m not saying that you should forget IP and business models, but you should invest in open source and understand their culture of sharing code and accepting comments. The sociology of security could also be something to research: why do CEOs think that the quality of code doesn’t matter? Don’t forget, trust is also about attitude.”

Philippe: “We have two worlds: propriety and open source. Both are welcome, but testing could be part of the methodologies we develop so that technology providers have access to the APIs to test their code. We can stress that ‘zero trust’ means ‘I want to test’.”

Automating security

Despite their mutual need for collaboration, governments and companies do differ in their relationship to cybersecurity. For a country at war, for instance, cyberattacks are not carried out on a cost-benefit basis – success is priceless. “It’s difficult to be in defence,” notes Henri. “Like in chess, white attacks and wins.” However, this mentality sometimes carries over to the private sector through concepts like ‘hack-back’. “Protecting yourself through AI and automation is okay, but some companies also want to destroy the machine attacking them. The position of France is avoiding private warfare. Basically, we need a clear regulation framework. Part of a programme could be to give more funding to police and justice so that it doesn’t take three years to be sure of who attacked you.”

> In a catastrophe, everybody will say that they did their job correctly



In the workshop, says Philippe, "the analysis was that there is no solution besides security automation that does not impair the business model. If you react too drastically and block a customer's business, you lose them. We had a project which developed an ROI concept that modelled the costs of counteractions, for example. If you cut your server, how much do you lose? You make the decision to counterattack or allow the attack to happen, depending on the level of threat."

A culture of progress

Throughout the discussion, cultures of progress and frugality repeatedly emerged. These refer to a recognition of the never-ending nature of cybersecurity and an understanding that greater complexity increases the risks of error. Such a culture can exist at a national level, as shown by the French law on all government-developed code being public. "The ANSSI (National Cybersecurity Agency of France) can prevent the use of code which is too bad or dangerous," says Henri. "This has never happened because if we find an error, we correct it! Plus, if you know that your code will be read by somebody else, you'll do a better job."

He continues: "Some security officers say that you first need to buy secure infrastructure, but we developed an agile methodology for security with the ANSSI. In this kind of project, we have a continuous improvement policy. We agree to test the product with false data, so we don't need to invest from the first day in very secure infrastructures and organise ourselves for a continuous improvement. Maybe we'll then test with just a hundred volunteers. They'll need reassurance, so we should publish a clear methodology and do more research into clear concepts, strategies and prototypes. It can't just be 'buy and receive'…"

"…because that kills innovation," finishes Philippe. "Another dimension is how innovation occurs in a grey zone of maximum risk. If you want to innovate, you must be frugal in such a way that you don't need to ask the CEO. You can then ask for more investments when you have a result. The culture of progress appears everywhere in security. Perhaps it's something we could push."

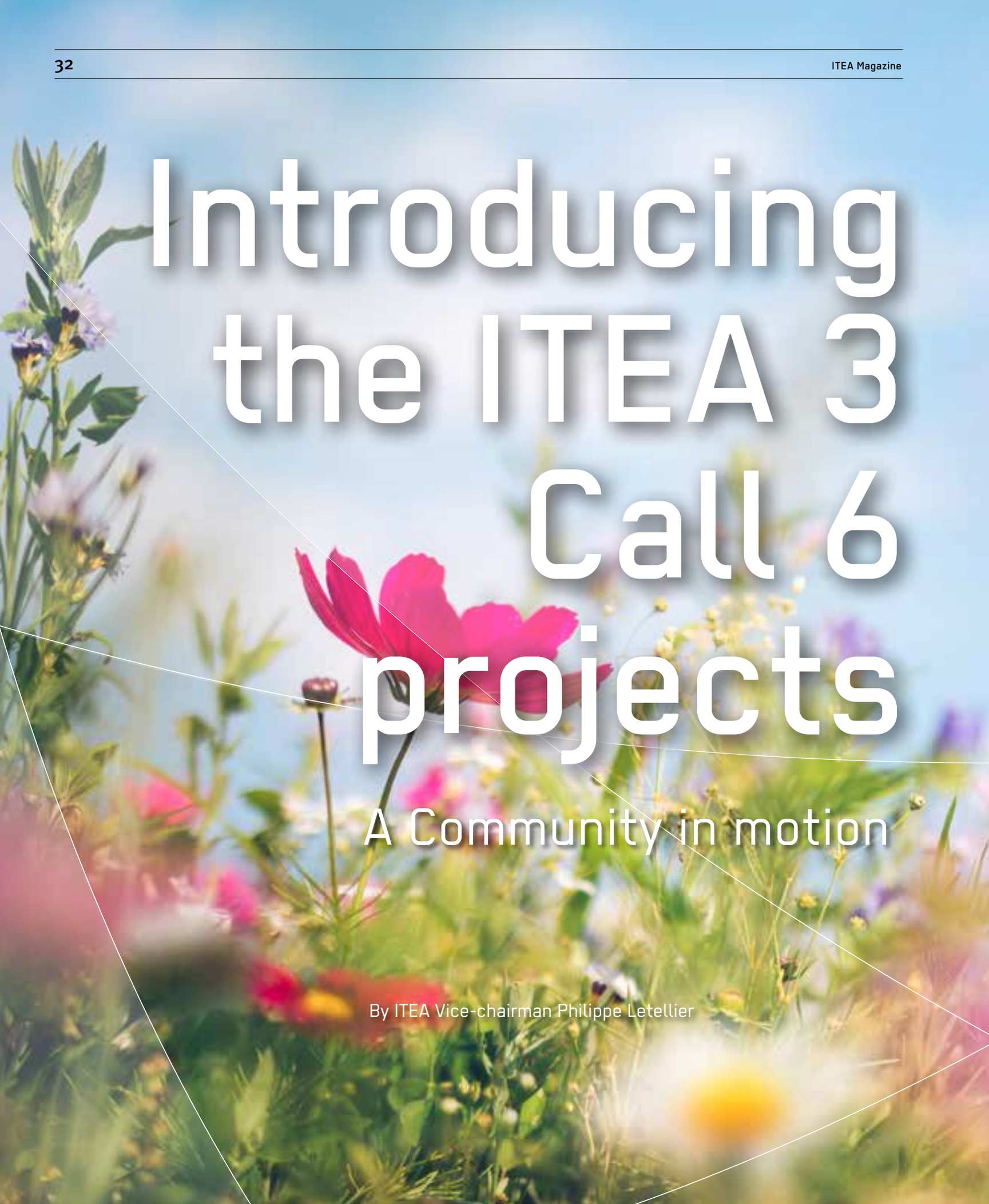
Four types of knowledge

In conclusion, Henri summarises their discussion into four types of knowledge, all of which are needed for the effective mobilisation of cybersecurity:

- **Technological** – keeping Europe near the top on issues like quantum computing and AI
- **Strategic** – defining concepts, maintaining good practices and providing education
- **Human science** – the sociology of organisations, such as why security experts are often not contacted until the end of a project
- **Policy** – international cooperation on cybercrime and the definition of cyber-concepts

Because ITEA is currently concentrated on the first three areas, Philippe is interested in the idea of a Policy Advisory Board, which may provide a connection between government and industry on the creation of much-needed methodologies. As for Henri, the benefits of such an approach are clear.

"In this attack and defence game, those who try to protect their data alone will lose. This is a global threat which needs a global solution, and we need to act together: big companies, start-ups, research and government. If you only try to stop attacks when they happen, you're just a goalkeeper. At some point, you'll miss."



Introducing the ITEA 3 Call 6 projects

A Community in motion

By ITEA Vice-chairman Philippe Letellier

20 projects, 19 countries and 2708 Person Years make up the sixth ITEA 3 Call.

Year after year, we see the interest of industry in our straightforward process for taking innovation straight to the market – something that the positive figures for this year prove. Once again, SMEs play a crucial role in the ITEA Community, with more than 1314 Person Years (PY) in total. The presence of large industrials is also vital to ITEA's ongoing success, having provided 710 PY as well as opportunities to increase the impact of the SMEs in terms of global reach and scaling up for the market. The large companies that manage the ITEA Programme, the ITEA Founding Companies (IFCs), also have reasons to be cheered: despite having less than 267 PY between them, their management of the Programme is what allows ITEA to maintain its unique approach to industry and business.

At ITEA, we are proud of our welcoming nature and the Community openness to fresh faces. 53.2% of Call 6 partners are new to ITEA and 20% of project leader companies have never before been in this position. In other words, ITEA is always in motion. Another key indicator is human capital: 70% of ITEA project leaders are performing this task for the first time, yet they consistently bring the international, high-tech and market-oriented skills that we need to maintain a high profile and keep our industrial partners at the global forefront.

This year, we observed a very important focus on Smart engineering with 10 proposals which again cover simulation (for which ITEA has already been so successful) and new methodologies to cover different point of views for software and system engineering. With four projects, Smart health and Safety & Security are the two other topics on the podium. It is interesting to see that the Smart health projects are all dedicated to data monitoring - clearly the new frontier of today. Nevertheless, I bet that we will see some more traditional projects on devices (image as treatment) in the next years because we must continue to progress there and have already been so successful in this direction. Smart industry and Smart mobility remain low, with only one project per domain. I also forecast that these will be back in the coming years, as these domains are very important for our future and the digital transition still requires a lot of work. We've observed a certain focus on Smart energy for the methodology of deployment or security, which was hidden behind other Challenges but deserves to appear as a domain itself. A last global remark is that AI is everywhere in ITEA: it is the required tool in all domains and the ITEA Community clearly masters it in a good way when we look at the maturity of the proposals. The global quality of the proposals was good, with a unique number of top-ranked proposals.

In the end two projects were cancelled after labelling due to lack of funding in (one of) the main countries.

ITEA 3 CALL 6 PROJECT OVERVIEW

Challenge	Projects
Smart engineering	AIDOS, AIToC, COMPAS, DEFAINE, e-INDEX, Muwo, Phoenix, UPSIM, VMAP analytics
Smart health	D4Health, INNO4HEALTH, HARMONY, LifeStylePre
Safety and Security	ACASIA, EnGRC, Orchestrator, STACK
Smart industry	MIRAI

Hereafter, you will find a short project description of each labelled project.

AIDOS – 19030
Systematic Development of AI-based Industrial Domain Solutions
Project leader: Demag Cranes & Components GmbH (Germany)

The AIDOS project aims to enable personnel with fewer skills in the application of data analytics, machine learning and similar AI techniques – as well as personnel with deep knowledge – to find the right technology for dedicated, domain-specific tasks that could take advantage of AI technologies. Besides guiding them to the right solutions, the AIDOS AI Knowledge Portal will direct the problem owner to high-rated companies and researchers in order to solve the problem described.

ACASIA - 19048
AI-supported Compositional Analysis and Synthesis for Intelligent Embedded Applications
Project leader: Siemens AG (Germany)

New services and solutions for future mobility and industry introduce a new level of complexity for intelligent embedded software systems. ACASIA introduces a mix of AI-based methods and classic methods to allow an optimal compositional verification approach for verification support for critical, parallel embedded software in the area of AI containing software systems. It allows individual software components to be analysed separately and then uses these results to construct an overall system that is verified, safe and secure.

AIToC – 19027
Artificial Intelligence supported Tool Chain in Manufacturing Engineering
Project leader: Volvo Group Trucks Operations (Sweden)

The goal of AITOC is to develop an integrated toolchain for manufacturing engineering that supports decision-making in early phases. To achieve this, the toolchain will support the formalisation and automated analysis of requirements, the computer-aided generation of process plans, simulation models and instructions and the software-supported generation of layouts. In all of these dimensions, Artificial Intelligence will be utilised in expert systems and simulations based on data from existing solutions.
The interoperability of engineering tools is also in focus and will be developed using standardised neutral data formats.

COMPAS – 19037
Compact modelling of high-tech systems for health management and optimization along the supply chain
Project leader: NXP Semiconductors (Netherlands)

High-tech systems integrate numerous highly complex components. Simulations are necessary at various stages of their design process to ensure mechanical robustness and reliability. COMPAS aims to develop novel, compact models and ultra-compact digital twins. The compact models capture nonlinear, transient and coupled (i.e. multi-physics) situations. The digital twins can self-sufficiently cast decisions (ultimately in real time) for prognostic health management. COMPAS will develop them using the example of the thermo-mechanical reliability of high-tech systems, such as motor control units for automated factories, smart infrastructures (streetlights, power grids) or autonomous vehicles.

D4Health – 19041
Data-driven decision-making for distributed healthcare
Project leader: TNO (Netherlands)

The D4Health project will tackle situations in which decision-makers are confronted with complex strategic decisions in the healthcare infrastructure domain. The project aims to gather and bring together datasets that represent the underlying mechanics (demographics, epidemiology, healthcare productivity figures, real estate capacity, ...) and make them interoperable as linked data. Using this data and knowledge rules that are elicited from domain experts, a dashboard can be created that enables decision-makers at various levels to study scenarios.

DEFAINE – 19009
Design Exploration Framework based on AI for froNt-loaded Engineering
Project leader: ParaPy BV (Netherlands)

European players are being forced to explore new product development approaches that can drastically reduce lead times. DEFAINE will deliver a Design Exploration Framework to reduce recurring costs in the design of aircraft and wind energy systems and the lead times for design updates. The framework will enable the effective exploitation of the front-loaded product development approach in combination with Artificial Intelligence. Front-loading can significantly reduce the inefficiencies of the current engineering approach by enabling large-scale design exploration at the beginning or even before the start of a project.

e-INDEX - 19020
Electricity Intelligent Demand-Side- and Energy-Management Exchange
Project leader: RISE Research Institutes of Sweden (Sweden)

Demand-Side Management (DSM) enables the adjustment of loads in the grid to ensure a balanced operation while simultaneously optimising the utilisation of resources in the electrical power system. Today's DSM systems are limited to local energy grids and the load-balancing solutions within the local grid itself. A larger roll-out of the same idea can be achieved by utilising mathematical planning and machine learning methods. e-INDEX proposes a more holistic level of data integration and decision-making spanning a large-scale, inter-regional connection.

EnGRC – 19044
Development of Cyber Security Maturity Model and GRC Platform for Energy Sector
Project leader: Karya Bilişm Ltd. ti (Turkey)

Cybersecurity in the energy sector is a big challenge for countries and organisations. The goal of the EnGRC project is to (1) define a relevant cybersecurity maturity framework, (2) develop a Governance, Risk and Compliance (GRC) platform to apply the defined framework with the contribution of all stakeholders and (3) process IT and OT data from stakeholders and provide cybersecurity benchmark information to energy sector authorities on a utilisable business intelligence platform.

HARMONY – 19019
Harmonizing IT-eco-systems providing a seamless workflow while integrating multi-vendor applications
Project leader: Philips (Netherlands)

HARMONY will create a harmonised IT ecosystem, providing healthcare professionals with real-time, comprehensive insights into patients' statuses while integrating all relevant information for diagnosis, treatment selection and follow-up. The project's main innovation is the ability to compose disease-centric workflows through the vendor-agnostic, seamless integration and interoperability of all relevant applications along the care path. This can be considered a revolution as the care professional (e.g. doctor) can use a single, easy-to-use IT system when performing his/her work.

INNO4HEALTH – 19008
Stimulate continuous monitoring in personal and physical health
Project leader: Philips Electronics Nederland BV (Netherlands)

Incorporating Remote Patient Monitoring (RPM) in chronic disease management can significantly improve an individual's quality of life. INNO4HEALTH aims to stimulate innovation in continuous health and fitness monitoring in order to inform patients and their physicians on their readiness regarding surgery and the ability to recover rapidly from invasive treatment. In sports, the same technology will be used to continuously assess fitness and health in order to provide information to athletes and their coaches and to help them optimise their performance during competitions.

LifeStylePre – 19023
AI-Enabled Solutions for LifeStyle and Health Interventions
Project leader: University of Oulu (Finland)

The WHO reports that non-communicable diseases (e.g. cardiovascular diseases, cancer, chronic respiratory diseases and diabetes) cause 71% of all deaths globally. Up to 40% of NCD deaths could be prevented, so there is a clear need for individual-centric, technology-based and evidence-based approaches to early detection and structured care. LifeStylePre combines insights from preventive health settings and clinical research. The resulting solutions will be designed to enable personalised lifestyle advice and compliance monitoring for at-risk subjects with the aim of preventing or delaying the onset of irreversible disease burdens.

MIRAI – 19034
Machine Intelligence for smart/ sustainable planning/operation of IoT/ Edge computing applications
Project leader: NOS Inovação (Portugal)

The standard approach of IoT applications when leveraging cloud infrastructure to address constraints at the level of end and edge nodes is no longer viable, especially for applications with hard real-time requirements and increasing AI usage. This project will develop MIRAI Framework Building Blocks (MFBB) based on AI techniques in order to enable the smart and sustainable planning and operation of IoT and edge computing applications. This will supplement the traditional vertical scaling approach to the cloud with the horizontal scaling of IoT and edge computing applications amongst edge devices.

Muwo – 19022
Multi-method workspace for highly scalable production lines
Project leader: Ruhr-Universität Bochum (Germany)

Muwo aims to create an opportunity to use production systems more effectively through flexible scaling. Scalability is achieved by the development of smart hardware interfaces. This will allow workstations to advance to multi-method workstations that support both manual and automated processes. Additionally, workstations can combine different processes. A transmutable simulation validates the workstation configuration and a process combiner optimises the production configuration using AI/ML methods. Through this, Muwo improves the design and operation of production systems.

UPSIM – 19006
Unleash Potentials in Simulation
Project leader: Virtual Vehicle Research GmbH (Germany)

Nowadays, simulation is used for design space exploration, virtual testing or predictive maintenance for supporting early stage product decisions. Most importantly, real testing is ultimately used to assure product quality and certification. The aim of UPSIM is to enable companies to safely collaborate on simulations in a repeatable, reliable and robust manner and to implement simulations in a Credible Digital Twin setting as a strategic capability in order for them to become an important factor in quality, cost, time-to-market and overall competitiveness.

Phoenix - 19024
Continuous Evolution for Future-Ready Software Systems
Project leader: ERSTE Software Limited (Turkey)

The current speed of change and the advent of completely new challenges like AI impose difficulties for organisations everywhere in keeping up. At the same time, most of the effort is actually required to restructure existing systems as a basis for the future. Phoenix is going to change this by providing novel capabilities to support the evolution of software in unprecedented ways, enabled by current advances in AI in particular. Phoenix will support system understanding and analysis, situation assessment and decision-making and the (semi-)automated transformation of the system to support enhancement.

Orchestrator – 19039
Artificial Intelligence Based Network Operation Center Orchestration
Project leader: Cekino Savunma Elektronik ve Bilisim A.S. (Turkey)

Orchestrator aims to develop an AI- and ML-supported network monitoring, management and cybersecurity platform. The main focus is on the monitoring and management of highly dynamic, large-scale hybrid networks, as well as ensuring the cybersecurity of such networks by employing AI- and ML-based solutions for acting against emergent attacks at machine speed. The Orchestrator platform will revolutionise the experience for security analysts by providing proactive capabilities via automated remediation actions against cyberattacks based either on Robotic Response or Cognitive Response.

STACK – 19045
Smart, Attack-Resistant Internet of Things Networks
Project leader: RISE (Sweden)

The goal of STACK is to let IoT networks maintain their functionality in both benign environments and more challenging situations, such as when IoT networks are under attack or exposed to harsh radio environments and cross-technology interference. Solving these challenges will enable a new class of IoT applications that provide a certain Quality of Service (QoS), even when under attack. Our major innovations towards this goal include more robust IoT communication, attack detection and mitigation by performance and interference monitoring and smart algorithms that leverage a tight integration of IoT devices with a smart edge.

VMAP analytics – 19007
Smart Analytics for Multi-Scale Material and Manufacturing Modelling
Project leader: Fraunhofer SCAI (Germany)

Many companies have already introduced Digital Twins. However, if producers of advanced materials and complex parts need a more detailed look into the ongoing manufacturing processes and changing material properties, they will not find solutions today. The vision of VMAP analytics is to enable the realisation of smart Digital Twins for materials and manufacturing design tasks. The VMAP interface standard will open the initial VMAP standard for multi-scale models, sensor and measurement data and information from production machines. VMAP analytics will provide an open ontology for engineering processes in materials and manufacturing design.

Eureka Clusters AI Call and a new model for Eureka Clusters, the ECP

On April 1, the Eureka Clusters Celtic-Next, Eurogia, ITEA, PENTA and Euripides opened the Eureka Clusters AI Call for projects. The aim of this Call is to boost the productivity and competitiveness of European industries through the adoption and use of AI systems and services.

Artificial Intelligence is a rapidly developing technology with the potential to influence or transform almost every aspect of the economy and society. In-depth knowledge and leadership in developing and applying this powerful capability is an essential requirement, if industry is to maintain its leadership in multiple application areas, or take advantage of new opportunities.

The Call was looking for projects that form innovative ecosystems, with AI at their core, that enable advances in the State-of-the-Art and result in opportunities for commercial and societal impact in the application areas addressed. The intent was to bring together partners from across the broad AI adopters Community of all types (Large Enterprise, SMEs, Research & Technology Organisations and Universities) into collaborative teams that are able to demonstrate a high impact in the chosen application area at the end of the project.

Within the Eureka framework, this Call on AI has so far received over 40 Million Euros of funding commitments and expressions of support from Austria, Belgium, Canada, Denmark, Finland, Germany, Hungary, Luxembourg, Malta, the Netherlands, Portugal, Singapore, South Korea, Spain, Sweden and Turkey.

Also the interest from industry was significant. With 109 project ideas and over 700 contacts that created a profile for the Partner search, the interest in the AI Call was clearly visible in the Brokerage tool that ITEA built for this purpose. At the deadline of 15 June, over 40 project proposals were submitted, of which 27 opted for ITEA as (primary) Cluster. One project consortium chose ITEA as secondary Cluster. All submitted proposals in this Call represent a potential total investment of well over 200 Million Euros, where ITEA has over 160 Million Euros in AI, mainly in Europe.

Currently, the submitted project proposals are being reviewed by experts of all involved Clusters. Proposals will be assessed for technical quality. National Public Authorities will check the eligibility of all participants to receive funding support. The results of the reviews will be available early November at the latest. This Eureka Clusters AI Call was a first Call for projects organised together with a set of other Eureka Clusters. In the future, similar Calls can be set up, next to the yearly Cluster Calls for projects, whenever there is an important overlapping topic to boost the productivity and competitiveness of European industries, that will create impact on economy and society.

More information on this Call can be found on https://eureka-clusters-ai.eu.

The Eureka Clusters Programme

In June 2020, a new model for Eureka Clusters was approved under name of ECP, the Eureka Cluster Programme. Additional to the bottom-up Calls of each Cluster, there will be Joint Calls on new subjects where Communities of Clusters may work collaboratively. Experience on the AI Call will be used to optimise the approach for this new type of Call under the ECP. A Multi-Annual Plan and Annual Operation Plans for the ECP will be prepared by Clusters and Public Authorities, so that the strategies of Cluster Communities and Public Authorities will be aligned. This new model has been successfully designed during the Dutch Eureka Chairmanship and Austria will finalise the implementation plan during its forthcoming Chairmanship. ITEA is looking forward to this next step in the future of the Clusters.

Eureka Cluster events and Call dates

ITEA 3	7-11 Sep	Online ITEA PO Days 2020	https://itea3.org/onlinepodays2020/index.html
	10 Nov	Deadline for submission of Project Outlines	https://itea3.org
CELTIC-NEXT	19 Oct	Project submission deadline CELTIC Autumn Call	www.celticnext.eu

Colophon

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

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