



# ANNUAL REPORT 2017

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EUROPEAN  
ENTREPRENEURS  
DRIVING DIGITAL  
INNOVATION  
& EDUCATION

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# EIT DIGITAL HIGHLIGHTS

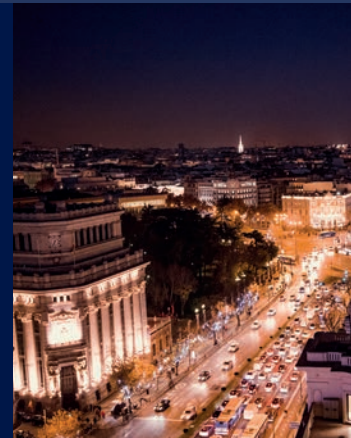


## PAN-EUROPEAN ECOSYSTEM

2 NEW NODES CREATED IN BUDAPEST AND MADRID

25 NEW PARTNERS ADDED OF WHICH 15 WERE INDUSTRIAL PARTNERS

A TOTAL OF 156 PARTNERS INCLUDING EDUCATION OR INDUSTRIAL ORGANISATIONS



## ENTREPRENEURIAL EDUCATION

IN 2017, 291 NEW STUDENTS ENROLLED IN ONE OF OUR MASTER SCHOOL PROGRAMMES. IN TOTAL MORE THAN 1,350 STUDENTS HAVE BEEN ENROLLED IN ONE OF THE MASTER SCHOOL PROGRAMMES SINCE ITS BEGINNING

156 PhD CANDIDATES HAVE BEEN STUDYING IN THE DOCTORAL SCHOOL IN FIVE COUNTRIES (INCLUDING 14 NEW STUDENTS)

THE MASSIVE OPEN ONLINE COURSES EIT DIGITAL PUBLISHED ON COURSERA SINCE 2016 ARE POPULAR. OVER 70,000 LEARNERS HAVE TAKEN ONE OF THE 18 MASSIVE OPEN ONLINE COURSES (MOOCS)



## INNOVATION AND ENTREPRENEURSHIP

9 NEW COMPANIES CREATED AS A RESULT OF INNOVATION ACTIVITIES

90 PRODUCTS AND SERVICES COMMERCIALY LAUNCHED

MORE THAN 33 SCALEUPS SUPPORTED BY THE EIT DIGITAL ACCELERATOR

MORE THAN €90M IN TOTAL CAPITAL RAISED FOR SCALEUPS





**RAYMOND FREYMANN**  
CHAIRMAN OF THE SUPERVISORY BOARD

# FOREWORD

2017 has been a year of delivering on transformation, of our organisational structure and of Europe's digital development, via our innovations and entrepreneurial talent, which unleash increased impact and emerging sustainability.

In 2016 we decided to significantly simplify our governance to make EIT Digital fit for its future. In 2017 we transformed the organisation's structure by deploying our new governance and put it into operation. This organisational transformation has been realised while sustaining our delivery, and while further expanding our partnership by welcoming 25 new partners.

Our 2017 innovation and education activities are driven by our Strategic Innovation Agenda 2017-2019, adopting five strategic areas for Europe: Digital Wellbeing, Digital Cities, Digital Industry, Digital Infrastructure and a smaller exploration area, Digital Finance. Our innovations, schools and accelerator are all organised around these five areas, and thus reinforce each other allowing for more focus, impact and sustainability.

We have further sharpened our way of working on the Supervisory Board amongst others, by establishing three strategic working groups on Identity and Strategy, Sustainability, and Innovation and Education Integration. Being an influential pan-European organisation, driving Europe's digital transformation through our innovations

and entrepreneurial talents, will allow us to create a sustainable organisation, able to attract the means to keep fulfilling its mission of growing Europe's position in the digital world.

In 2017 our activities started to generate increasing impact via delivery of products, services and new ventures from our innovation activities, but also from the growing number of graduates. Our impact is increasingly being picked up by tier one media, resulting in growing awareness of EIT Digital as a strong digital innovation and skills brand. We made good progress on the execution of our sustainability strategy through increased partner contributions, through emerging return on investments from our innovation activities, and through the scaleup contracts in our Accelerator. Value creation, market orientation and return on investment remain our key drivers for impact and sustainability.

Innovation is driven by entrepreneurship and is thus all about people and mindset. Our community of highly motivated and talented people is at the core of our success. We witness this community at work on a daily basis in our 15 locations in Europe and one in Silicon Valley. These locations bring together students, researchers, teachers, entrepreneurs, investors and business developers from all over the world - making EIT Digital a unique organisation, delivering a rapidly increasing impact on the digital development of Europe. I am proud to be part of this community.

# CEO STATEMENT

Delivering Transformation has been our focus for 2017. In a year of intense activity, we transformed EIT Digital into a sustainable, impactful, future-proof organisation by implementing the new governance through the establishment of two new Nodes (Budapest and Madrid), the creation of several legal entities in various countries, and the transition of our employees into our organisation. This process is mostly completed and has allowed us to appreciate the diversity in Europe. We were also able to maintain a high level of output and impact throughout the transformation.

## ECOSYSTEM

Our pan-European ecosystem of research, business, and education partners forms the backbone of our organisation. In 2017 we saw this partnership grow to 156 partners. With the creation of full Nodes in Hungary and Spain, we now have co-location centres (CLCs) in nine European countries. With the opening of our new satellite co-location centre in Amsterdam we are present in 16 different places, including our Silicon Valley Hub. The spread of our partnership and ecosystem across Europe gives us unrivalled strength and offers a critical mass to deliver impact with respect to the digital innovation and transformation of Europe.

The organisational transformation also led to changes in the management team. Both László Gulyás joined us in Hungary and Jesus Contreras in Spain as Node Directors. Gian Mario Maggio became the new Node Director in Italy, Guillaume Toublanc in France and



**WILLEM JONKER**  
CEO

Morgan Gillis in London. Marko Turpeinen returned to his post as Node Director in Helsinki, and Eric Thelen replaced him as Hub Director in Silicon Valley. Vanessa Perez joined as the new Head of Communications.

An important part of our work is our ARISE Europe programme where we collaborate with innovation centres in Czech Republic, Estonia, Greece, Poland, Portugal and Slovenia to boost digital innovation and transformation in those countries. One of the highlights is the Startup Nation Summit 2017 in Tallinn, Estonia, that we co-organised. Beyond Europe, our Silicon Valley Hub has further expanded its activities and is increasingly recognised as an established European digital innovation and education player. 'Startup Europe Comes to Silicon Valley', co-organised by the hub, was a significant success. The 'European Innovation Day' alone attracted more than 500 noteworthy participants from Silicon Valley.

Finally, we intensified our collaborations with the other Knowledge Innovation Community (KICs) leading to joint activities in various countries, and brought about the establishment of the EIT House in Brussels (inaugurated September 2017) with shared offices for most of the KICs. The recognition of EIT and the KICs' work is growing, as was evidenced in the positive mid-term evaluation and the first impact study published by EIT and the KICs. These show impressive results mainly obtained by the first wave KICs.

## INNOVATION AND ENTREPRENEURSHIP

2017 has been the first year of execution for our Strategic Innovation Agenda 2017-2019. Our innovation activities are streamlined around five innovation action lines: Digital Wellbeing, Digital

Cities, Digital Industry, Digital Infrastructure, Digital Finance and 16 offices. In the Digital Industry Action Line we launched a new initiative - OEDIPUS (Operating European Digital Industry with Product and Services) - focusing on Industry 4.0. We are happy to see strong delivery from the innovation activities with 90 new services and products brought to the market and the creation of nine startup companies.

For example, the Street Smart Retail Innovation Activity developed the Digital Retail Suite, which brings the digital experience to market in 15 new digitalised store solutions, that combine online and in-store experience. These have been adopted by global brands such as Estee Lauder, Golden Lady and Prada, and new digitally-enhanced stores by major retail chains and malls such as Gallerie Auchan, Sainsbury's, S-Group and Westfield.

Likewise, the Smart Safety in Smart Cities Innovation Activity developed the Alert System, a cloud-based Internet of Things (IoT) solution that identifies and qualifies natural or other types of risks so as to promptly provide large-scale security alerts for forces and citizens. The Alert System was deployed in major Italian cities such as Parma (river, wind), Florence (bridge), Rome (utility plant) and Milan (pollution, weather), and another 17 smaller municipalities.

Startup ki-elements was created from the Innovation Activity ELEMENT to facilitate early and fast diagnosis of cognitive decline caused by neurological diseases. Product launch will be in France, addressing the potential market of approximately 400 memory clinics and 10,000 independent practitioners, followed by market introduction in Germany. Another startup, eBIZ,

was created from one of our Digital Finance Innovation Activities, addressing the administrative and financial tasks faced by SMEs on a daily basis, such as incoming and outgoing bills, debt management, and tracking of a company's financial status. The solution has been sold to first client SMEs and small companies in Eastern Europe.

Our EIT Digital Accelerator signed up 33 new scaleups to the new terms introduced in late 2016, thus making it a paid service which significantly contributes to EIT Digital's sustainability. The success of our Accelerator is widely recognised, and we are very proud of being ranked eighth in the Top 20 Global Accelerators, according to the Annual Gust Report review of 250 active global accelerators. The total investment raised for the Alumni and current EIT Digital Accelerator company portfolio reached an impressive €300m. The Accelerator is not only about coaching and raising money, but increasingly about finding customers for the scaleups. For example, Metron, a French scaleup reshaping the way energy data is used in industry, has been introduced to a wide range of potential customers.

## EDUCATION

There were 215 and 17 graduates, respectively, from the EIT Digital Master and Doctoral Schools. With the EIT label so important to the programme quality, we were also delighted to see the Doctoral School and all Master School programmes - including the new Data Science options - successfully reviewed and renewed for five years. The Doctoral School completed its transition into a new Industrial Doctoral School integrating the Business Development Experience in the thesis and strengthening its link to EIT Digital Action Lines and

*more...*



## SILICON VALLEY HUB

### CEO STATEMENT *... continued*

industry. One PhD created a startup with a launch customer via the Business Development Experience.

Over 60 applications to 20 Post-Master positions were received. These positions allow Master School graduates to work for one or two years in our co-location centres and engage with our Action Line activities to become innovators and entrepreneurs. Unfortunately, we encounter various regulatory difficulties when it comes to employing these talents at co-location centres; definitely a signal to national governments in Europe to reform labour markets in order to attract the digital talent our region so desperately needs.

We organised 10 EIT Digital Summer Schools on digital transformation topics aligned with our five Action Lines and operated by our co-location centres. We were happy to extend our Summer Schools to our ARISE countries with a Summer School in Lisbon, Portugal. The Summer Schools drew 360 participants, including those from Regional Innovation Scheme countries.

Our Professional School has fully established itself in a consortium with EIT Digital, four research institutes and three universities. In 2017 a course portfolio of 11 existing and nine new courses were created to

enhance the digital transformation professional skills and competencies.

Finally, our MOOC activities had a very successful year, improving, producing and delivering the EIT Digital Embedded Systems (IoT) Blended Master. The Professional School has improved 23 of these courses and produced two new MOOCs. We count almost 70,000 active learners in MOOCs offered on the Coursera platform with over 1,200 course completions.

#### BRAND BUILDING

EIT Digital is increasingly recognised as a leading player in digital innovation, transformation, and skills. Our increasing delivery, both in volume and quality, allow us to execute a comprehensive, campaign-driven communication strategy, that increases our visibility in traditional (especially tier one) media, and across our social media platforms (Facebook, LinkedIn and Twitter). Our visibility in top-tier press is growing with over 100 tier one media impacts, which significantly contributes to our brand recognition. In that context we also organised our second EIT Digital Conference in Brussels which attracted more than 500 attendees. And through our national 'Innovation Days', where we present our results in all our co-location centres across Europe at the year end, we increased EIT Digital visibility in every national ecosystem.





**BERLIN**  
**BUDAPEST**  
**EINDHOVEN**  
**HELSINKI**  
**LONDON**  
**MADRID**  
**PARIS**  
**STOCKHOLM**  
**TRENTO**

**ARISE PROGRAMME**

#### SUSTAINABILITY

Transforming EIT Digital into a sustainable organisation with diversified income streams is a key ingredient of our strategy. This sustainability strategy has been sharpened and is now deployed. Income is generated from various sources, such as accelerator fees, education programme fees, financial returns generated from innovation activities, membership fees, and support by national and regional authorities for our operations. Although the income from these streams in 2017 was still modest, we are anticipating significant growth in the coming years.

#### CONCLUSION

As can be seen from the above, building an effective digital ecosystem and delivering innovations, ventures, and entrepreneurial digital talent is a core part of our contribution to the digital transformation in Europe. This digital transformation is one of the most impactful changes going on in our society; it affects the life of every single individual. Europe has to play a prominent role in this transformation in order to ensure that European values are respected in the digital world to the benefit of our citizens, organisations and businesses.

The EIT Digital community is committed to contribute and deliver on this transformation. On my many visits to our co-location centres, partners and events, I am always energised by the enthusiasm, drive, discussions, activities, and results of the people in our community. In the end, digital innovation is all about people working together on common goals to achieve results and make the impact required to allow Europe to play its role in the digital world.

Thanks to all of you for your drive and contributions: 2017 has been a highly successful year!

**WILLEM JONKER**  
 CEO



# BERLIN NODE

## UDO BUB NODE DIRECTOR

After a solid year of growth with respect to new industrial partners and students in 2016, EIT Digital's Berlin node focused on bringing innovations to life in 2017. With continued strong involvement in calls for proposals while maintaining high quality results, we were able to follow the same growth path as the domestic German economy.

### 2017 ACTIVITIES

The Berlin co-location centre (CLC) remained a lively and vibrant hotspot for the cross-pollination of talents to create impact and value. Internal and external stakeholders made regular use of the meeting rooms and technical facilities. During 2017, we welcomed around 2,900 participants to 189 workshops, meetings and conferences. The 'Founders' Pit Stop' again proved to be a successful format to support EIT Digital's profile in Berlin and to further embed us within the local ecosystem. This regular networking event covers topics that are relevant to scaleup development, such as 'Sales' and 'Public funding opportunities for startup'. As well as this, our annual conference – New Directions in Cyber Security – again brought together representatives from industry, politics and research to discover new trends in this increasingly relevant area. Regular participants include Deutsche Telekom, Fraunhofer, Huawei, Siemens and the German government. Our team also participated in numerous external events such as DLD Munich and Berlin and the startup conference CUBE Tech Fair, presenting EIT Digital to an international audience.

### INNOVATIONS

EIT Digital aims to generate significant innovations from top European research. In 2017, two important innovations of industrial relevance were delivered to the market. One was OEDIPUS (Operate European Digital Industry with Products and Services), a High Impact Initiative hosted in Germany. A collaboration between the EIT Digital members ATOS, CEA, Cefriel, CRF, DFKI,

Engineering, Océ and Siemens AG, OEDIPUS developed 'Industry 4.0' applications for products and services – such as predictive maintenance for industrial printers – through a newly created network of five innovation centres. An Innovation Activity with social relevance, Capiche, was launched in December with substantial media coverage and widespread interest from national and international organisations. Capiche is a translation and tracing service based on Artificial Intelligence (AI) and crowd-sourced knowledge that aims to improve communication with and from refugees across Europe.

### EDUCATION

Education was another strong area, with the German node being one of the most attractive destinations for international Master School students. In the summer and winter semesters, we enrolled almost 190 students. Human Computer Interaction & Design and Embedded Systems were among the most popular courses for technical majors. As part of the 2017 education, research and business integration programme, EIT Digital introduced a new Post-Master programme. Master School post-grad Melonie Manohar worked on EIT Digital's Innovation Activity CivicBudget, focusing on UX Design, at the German node's legal entity in Berlin.

### SOFTWARE CAMPUS

Through our leadership qualification programme, Software Campus (SWC), we continued our successful involvement in the national innovation ecosystem while fostering education, research and business integration. SWC has already supported more than 260 young IT experts and leadership talents enrolled since its launch in 2011, with over 140 graduates already receiving their diplomas. 2017 marked an important milestone for the programme: it grew to 10 industry and 11 academic partners. Renowned German brands such as Merck, Trumpf and Zeiss took part for a second time, with funding being approved until 2023.



# BUDAPEST NODE



## LÁSZLÓ GULYÁS

CORRESPONDING OFFICER

2017 was a busy and successful year in Budapest. We became a full node and established an independent, non-profit legal entity.

### GROWING OUR NETWORK

Our co-location centre (CLC) at Infopark, the first innovation and technology science park in Central and Eastern Europe, was extended by 200m<sup>2</sup> to accommodate our growing ecosystem of students, startups and companies. During the year we hosted 30 successful events with 1,100 participants.

After being joined by four new partners (E-Group, MTA SZTAKI, Evopro and OTP Bank) at the end of 2016 we added three more (ELTE-Soft, Nokia Bell Labs in Budapest and OTP eBiz) to our network in 2017. In line with our strategy of starting with education and then engaging partners in business innovation, the Budapest node successfully connected them to our ongoing activities and existing partners Eötvös Loránd University, Ericsson Hungary, Magyar Telekom and Technical University of Budapest. As well as participating in the EIT Digital Academy, each new partner took part in innovation activities. With the addition of these seven new partners over the past 18 months, industry now represents 72 per cent of the total Hungarian partner network.

### DIGITAL FINANCE

Budapest has been active in digital infrastructure and industry for some time, but now a new focus is emerging: digital finance. This is reflected in the strong Hungarian participation in our Digital Finance Innovation Activities portfolio during 2017.

In line with this new focus, we hosted two important digital finance events: a Summer School on blockchain and the EIT Digital Challenge finals in digital finance. The former provided an education opportunity for the financial technology (FinTech) experts of the future, while the latter brought Europe's five best FinTech

scaleups to Budapest, together with a select group of keynote speakers and jury members.

### EDUCATION

The Budapest node also continued to be very active in EIT Digital's Education Action Lines. By August 2017, we had 45 graduates. In the autumn, our cohort of EIT Digital Master students consisted of 19 people, including many women. The Budapest Doctoral Training Centre (DTC) is one of EIT Digital's largest, and a leading implementer of the new industrial doctoral school model.

### TRANSFORMING OUR REGION

As the only node in Central and Eastern Europe, we aim to deliver digital transformation across the region through EIT Digital's ARISE Europe programme and Regional Innovation Scheme (RIS). This saw us leading EIT Digital's first-ever Summer School outside our node countries in Lisbon, Portugal.

### WHAT'S NEXT?

In 2018, we look forward to further increasing, strengthening and extending our partnerships, attracting more students, and augmenting the business impact of our collaborative innovation across our network.

*"As the only node in Central and Eastern Europe, we aim to deliver digital transformation across the region."*

LÁSZLÓ GULYÁS  
BUDAPEST NODE DIRECTOR



# EINDHOVEN NODE



## PATRICK ESSERS

NODE DIRECTOR

2017 was a productive year for the Dutch node: we introduced a new governance model for our organisation; welcomed three new partners to our ecosystem; accelerated new scaleups; launched 16 new Innovation Activities; consolidated the number of students at our Master School; organised outstanding events such as the EIT Digital Conference & Partner Event in Brussels and prepared for the next stage of our growth by opening a satellite co-location centre (CLC) in Amsterdam. With imec Belgium, ING Bank and Innovalor officially joining EIT Digital's ecosystem in the Netherlands in 2017, our partner network now comprises 18 entities: eight industrial, five research and technology, four universities, and one ecosystem.

### 2017 EVENTS

In collaboration with our university partners, we organised successful Winter and Summer School Digital Wellbeing courses. More than 90 students participated, working on case studies from our industrial partners and SMEs.

Other notable events included a visit from the Research Council Working Party, our annual Innovation Day showcasing results from all Action Lines and the final of the Digital Industry category of the EIT Digital Challenge. Challenge winner Florian Reichle, managing director of Trinkle 3D, commented, "Getting into contact with other companies and investors is the best part of EIT Digital's aid." The continued appeal of the Dutch node is apparent from the large numbers participating in the various events we organised – over 1,700 attendees in total – and the strong interest shown by innovative scaleup companies to access EIT Digital's Accelerator services.

### INNOVATION

On the innovation front, 2017 saw the launch of 16 Innovation Activities with close cooperation from 10 of our Dutch partners. In six of these activities, partners took a lead role: BrightAging, Pregnancy Health, Production Quality Parametrics (PQP) Tooling, Prolonging Vitality and Wellness at the Workplace (a joint activity between EIT Digital and EIT Health), Unobtrusive Blood Pressure Tracking, and Vital@home. These efforts demonstrate our impact in engendering collaboration, engagement and inspiration.

### EDUCATION

We extended our education footprint in 2017 as our academic partners TU Delft, TU Eindhoven, and University Twente participated in six majors within the Master School. With 110 students enrolled, and a strong emphasis on online education (blended learning and MOOCs), we are taking a proactive role in helping to tackle the technical skills gap. The business case studies and internships our industrial partners provided proved invaluable to our Master School students, showing that the now established Education-Research-Business integration model is working.

### GOVERNMENT SUPPORT

Another year of financial support from the Dutch Ministry of Economic Affairs for our activities in Silicon Valley meant the Dutch node also continued to contribute to EIT Digital's global activities.



# HELSINKI NODE



## MARKO TURPEINEN

NODE DIRECTOR

The Helsinki node is actively influencing Finland's national Information and Communications Technology (ICT) agenda through regular discussions with the main national players and influencers. In 2017, our ecosystem continued to prosper and our partner network was strengthened with the addition of four new members, bringing the total to 16: five academic, one research, two public sector and eight industry partners.

### ACTION LINES

Our strongest Action Lines are Digital Industry and Digital Infrastructure. The Advanced Connectivity Platform for Vertical Segments (ACTIVE) High Impact Initiative (HIA) in the Digital Infrastructure Action Line is the largest Innovation Activity that we host.

One of our academic partners, Aalto University, provides both EIT Digital Master and Doctoral School education. The University of Turku also continued to contribute to the Master School and to online education in the form of massive open online courses (MOOCs).

### HOSTING

Our co-location centre (CLC) premises in Open Innovation House on the Otaniemi campus is consistently widely used, as well as hosting Master and Doctoral school students, events, visits and lunch talks. It's also home to a dozen startups and scaleups at any one time. For example, the Finnish product development team of the London-based company Apply Mobile works in our CLC.

Our node conducts joint activities with the EIT Raw Materials and Climate Knowledge Information Communities (KICs), and Aalto University has opened a dedicated EIT Services unit to support all EIT KICs operating on its campus. All of these are co-located with us in Open Innovation House.

### 2017 HIGHLIGHTS

Our node continued systematically to build a dynamic and diverse local ecosystem that is recognised as a global innovation hotspot. Our Innovation Day was well received by the 250 stakeholders and influencers participating.

The Helsinki node was proud to organise its Master School Kick-Off with Nokia's Chairman, Mr Risto Siilasmaa, as the keynote speaker. More than 300 international students came together to build the foundation of their pan-European network and be galvanised by an exhausting yet inspiring programme.

Business community activities led by our business developers generated 167 leads and four deals for our accelerated scaleups in 2017.

### EVENTS

Our CLC hosted more than 50 events, of which nine were lunch talks and 19 related to education activities. In August, the Retail, Markets, Consumer Engagement EIT Digital Industry Summer School welcomed 41 students. We also started a monthly artificial intelligence Monday series, creating broad national visibility.

*"The Helsinki node ecosystem prospered in 2017. Our partner network was strengthened, and 250 stakeholders attended our Innovation Day. We had the honour of organising the annual EIT Digital Master School Kick-Off with more than 300 students taking part."*

MARKO TURPEINEN  
HELSINKI NODE DIRECTOR



## MORGAN GILLIS

NODE DIRECTOR

The UK has a large and highly advanced digital economy valued at over €330 billion per annum, which accounts for more than 12 per cent of national GDP – the highest of all national and regional economies globally. London is also home to a major digital investment sector which has pan-European reach and is valued at €42 billion per annum.

EIT Digital's London node continued its progress in 2017 by transitioning to become an independent legal entity and opening a new co-location centre (CLC) in the area of central London known as the Knowledge Quarter. The inauguration ceremony for the new CLC was supported by the Mayor of London and other prominent figures from the UK digital economy.

### 2017 HIGHLIGHTS

The London team successfully added four highly promising scaleups to the Accelerator portfolio: advanced communication and knowledge management company Blooka; CopSonic, which produces technology for sending secured encrypted data through sound waves; EAVE, whose products reduce harmful workplace noise levels while letting you hear speech and environmental sounds; and iDENProtect which provides highly secure and adaptable authentication solutions for smart devices.

More than €8 million in venture funding was arranged for three early-stage UK companies – Furhat Robotics, iDENProtect and Hello Soda – while many companies outside of the UK are being supported by the London node to secure investment within the major venture capital sector in London. A total of six UK-based companies reached the final of EIT Digital's European Digital Challenge 2017 competition.

### PARTNERSHIPS

Two new organisations, Amey plc and the University of Surrey, joined our band of partners, which includes industrial, education and economic development organisations focused on the digital economy. We also hosted project teams from EIT Digital's European Trusted Cloud Ecosystem, which is a High Impact Initiative (HII) delivering solutions to bring greater control over sensitive and personal data.

### EVENTS

We devised and delivered a rich programme of events which purposefully engaged stakeholders from all parts of EIT Digital's ecosystem and the wider international digital economy. Among the highlights were the Intelligent Mobility Conference, the Smart Cities UK event, and the Autonomous Delivery Systems campaign. The node also hosted the San Diego Trade Mission at a plenary event geared to cultivate close entrepreneurial collaboration between the US and Europe.

### THE YEAR AHEAD

Looking ahead into 2018, we will continue to define and communicate our distinct role as a collaborative organisation providing highly efficient paths to growth and internationalisation for innovative enterprises in the UK, and those seeking to access the nation's large digital marketplace from elsewhere in Europe.



## JESUS CONTRERAS

NODE DIRECTOR

In 2017, EIT Digital's co-location centre (CLC) in Spain began its journey as a full European node by consolidating its activities to develop the local digital innovation ecosystem on all three sides of the innovation triangle. We made the most of the excellent facilities at our location in the Technical University of Madrid's (UPM) Science and Technology Park to host a wide range of innovation, research, education and entrepreneurial events.

The year also saw a great increase in our activity and impact. As well as supporting business acceleration, we consolidated our access to financial services, coached four new companies and fully rolled out our Master programmes.

### PARTNERS

Our roster of partners already includes ATOS, Ferrovial, the IMDEA Software Institute, Indra, Nokia-Spain, Telefonica and UPM. To these we added two new industrial partners, Agroman and Innovalia, and one new research centre, CI3 Centro de Innovación de Infraestructuras Inteligentes.

### LAUNCHING OUR NODE

We celebrated our full-node status with an official opening in the company of several distinguished guests: Tibor Navracsics, EU Commissioner for Education, Culture, Youth and Sport, and government spokesperson Íñigo Mendez de Vigo, Minister of Education, Culture and Sport.

### EDUCATION

Every week, over 80 students attended new programmes at our Master School. We also hosted the 2017 graduation ceremony at our Madrid CLC - an unforgettable event with more than 600 attendees and inspirational speeches from the CEO of research and

development at Telefonica and the General Director of Minsait.

### ENTREPRENEURSHIP

Our business team contacted and established collaboration agreements with more than 30 venture capital firms and investing bodies. Over 200 potential startups applied to our coaching programme, as well as 10 players in the field of digital transformation, including corporations, technology transfer agencies and public administrators. The most valuable contribution to our scaleups were the several hundred introductions and leads from our business developers. One particularly successful industrial engagement initiative was a cybersecurity matchmaking event.

We held our first Innovation Day at the end of the year, showing the impact of the innovation activities our partners took part in. The event gave us an opportunity to introduce our coached scaleups, Coowry, Electronic ID, OpenCloud Factory and RedBorder, to the whole ecosystem and showcase examples of our students performing key roles in corporate digital transformation strategies.

Press coverage of our activities has been outstanding throughout the year, including over 25 pieces of coverage in top tier media.

*"In 2017, we consolidated our status as a key player in Spain's innovation and entrepreneurship landscape."*

JESUS CONTRERAS  
MADRID NODE DIRECTOR

# PARIS NODE



**GUILLAUME TOUBLANC**  
NODE DIRECTOR

EIT Digital France and its partners made 2017 a great year for digital innovation, confirming our impact in delivering concrete transformation for Europe.

We welcomed five new partners, including the €5 billion SEB Group, bringing our total number of partnerships to 31. Our partners particularly appreciate the innovation activities of EIT Digital's European ecosystem, the business collaboration between European scaleups and major companies and the access to talent.

## STARTUPS

The value and impact of EIT Digital's European network added to the momentum generated by the French Startup Nation, making 2017 a startup year. Our ecosystem created three deep tech startups. One of them, ki-elements, provides artificial intelligence-empowered tools for cognitive decline diagnosis. We also orchestrated innovation activities and collaboration with our partners around eight scaleups. One example is the agri-tech startup Bilberry, which worked with Nokia to develop a real-time weed detection solution to reduce pesticide spray. In total, the EIT Digital Accelerator helped 20 scaleups to grow in Europe in 2017. We were delighted when French alumnus Vulog, a car-sharing service provider, raised €17.5 million.

## EDUCATION

The real challenge for startups is finding skilled people. With help from our French education partners, our Master and Doctoral Schools trained 90 digital students to become entrepreneurs in 2017. We also organised a Digital Cities Summer School at our Sophia Antipolis satellite, gathering 55 international students and professionals.

## INNOVATION ACTIVITIES

Once again, our French partners demonstrated their strong commitment by participating in 15 impactful Innovation Activities with a natural emphasis on Digital Cities, Digital Industry and Digital Infrastructure. One

such innovation, Piazza, is a multipurpose platform helping European citizens co-create the cities of tomorrow. It came to be thanks to the teamwork of a German university, two French businesses and an Italian research institute.

## AT THE CENTRE OF FRANCE'S DIGITAL LANDSCAPE

The digital dynamics in France are exceptional, and the Paris co-location centre (CLC) made the most of its situation in the heart of Paris, close to Europe's biggest startup incubator, the digital talents of the Institut Mines-Télécom and the Sorbonne Université, the researchers of INRIA and major businesses. In 2017, we hosted 240 events which involved more than 4,000 business people, entrepreneurs, venture capitalists, researchers, students and members of public organisations.

Being at the heart of the major French ecosystems, we are able to promote EIT Digital's key programmes in an impactful way. Our satellite in Rennes also strengthened its role in the cyber security ecosystem by organising a Cyber Security Symposium in November with 170 participants, and a new Master programme on autonomous vehicles was announced for 2018, linked to our Sophia Antipolis satellite.

All these successes are helping to construct an ecosystem that will be instrumental in the near future to return Europe to its position as the innovation leader, as envisioned by the French president.

*"The value and impact of EIT Digital's European network added to the momentum generated by the French Startup Nation, making 2017 a startup year."*

GUILLAUME TOUBLANC  
PARIS NODE DIRECTOR



# STOCKHOLM NODE

## GÖRAN OLOFSSON NODE DIRECTOR

In 2017, we strengthened our position in the local innovation ecosystem. We brought in two new industrial partners, Aifloo and Alkit, our number of Master students increased to record levels and our node became a legal entity, EIT Digital Sweden. Our change in status required us to develop new procedures.

### EVENTS

We organised 18 hot topic events attended by 1,500 people, and co-organised and hosted many others, eg 22 seminars with 330 participants for the KTH Centre for Wireless Systems, a national industry-academia centre of excellence.

Our Innovation Day theme was 'Digital Innovation for Sustainable Societies'. The topics of panels, key notes and pitches included asymmetric collaboration, GDPR compliance, and digital trust. We covered all of EIT Digital's thematic areas and demonstrated the breadth of our European activities through project demos with both local and European business partners.

The finals of the Internet of Things (IoT) Hack Challenge, part of the ACTIVE project, provided an opportunity to present our support for startups and our Accelerator success stories. The event attracted 200 people from our partners and stakeholders as well as potential new partners and collaborators.

The numbers of Master School students and industrial partners in Sweden increased in 2017.

### SOCIAL IMPACT

In 2017, our co-location centre (CLC) hosted Aifloo, a multi-award-winning Swedish social impact startup. During the year, Aifloo raised €5.1 million to help develop its artificial intelligence-based system for improving the quality of life for people in homecare.

We also collaborated with the student startup Inicio to stage digital technology creativity and mentoring events for girls, women, teachers and young students in challenged areas around Stockholm. With support from our Master students, the attendees had a chance to play around with the technology so that their mental barriers to engage with it were lowered or even removed.

### EDUCATION

Recruiting students and fostering talents are priorities for the Stockholm node, including initiatives for the integration of education, research and business. As part of the Digital Infrastructure Action Line, we co-organised two Summer Schools with KTH, one on big data and one on the IoT. In total, around 80 students attended.

The Master School students' daily presence at the CLC steadily increased during the year. They network with digital technology experts and potential employers, attend and organise seminars, events and hackathons, study and go to lectures.

As a result of our activities in 2017, the Stockholm node continues to expand and nurture the Scandinavian part of EIT Digital's pan-European multidisciplinary ecosystem.

*"The numbers of Master School students and industrial partners in Sweden increased in 2017."*

GÖRAN OLOFSSON  
STOCKHOLM NODE DIRECTOR



# TRENTO NODE



## GIAN MARIO MAGGIO

NODE DIRECTOR

2017 was a successful year for the Italian node and its partners, with the launch of innovative products and services, the scaling up of ventures and the ongoing education of the next generation of digital talents – all contributing to economic growth and job creation. During the year, the node was introduced to the new EIT Digital governance, and the EIT Digital Italy Foundation was launched.

### CONSOLIDATION

We further consolidated our ecosystem both at our co-location centre (CLC) in Trento and our Milan satellite, and defined our focus areas for each. The main focus for Trento is Digital Cities, a topic of interest to local government and stakeholders. Milan, situated in Italy's high-tech manufacturing region, now focuses on Digital Industry. The two centres work closely together and share a common strategy.

### ECOSYSTEM

During 2017, we attracted five new industrial partners: Amiko, Cloudesire, Comau, Expert System and GFT Italia. By involving our new partners from the start in innovation activities, we were able to rapidly cement our new relationships.

By the end of the year, we had 26 partners in Italy; four universities, four research/innovation centres, 13 industrial organisations, four SMEs and an ecosystem. Most were highly engaged in our entrepreneurial, innovation and education activities. Their commitment was further confirmed by their strong participation and industrial leadership in bids for future innovation and education activities, in the form of Calls for Proposals for 2018.

### INNOVATION

We helped to accelerate innovation in Italy through

30 Innovation Activities in 2017, including four High Impact Initiatives. As a result, 16 technology transfers occurred, and 25 new products or services were launched. For example, the Street Smart Retail initiative developed a number of innovative solutions, ranging from augmented and virtual reality tools for store layout and promotional display design, to inventory and store management systems.

The Italian Business Development Team lent support to three innovative companies – App-Ray, IsCleanAir and TeamDev – and a total of eight companies signed up for the EIT Digital Accelerator. In April, a demo room was inaugurated at the Trento CLC, with the aim of showcasing the fruits of the innovation activities, startups and scaleups in the EIT Digital ecosystem. These included a dashboard for empowering city managers and a gaming suite making physical rehabilitation entertaining.

### EDUCATION

We continued to educate the next generation of digital entrepreneurs and industry leaders with 60 Master students enrolled in Trento and Milan and 27 Doctoral students in Trento. Our successful Summer School on Cybersecurity and Privacy in Trento attracted 42 students from 14 different countries.

### EVENTS

We organised 60 events attracting more than 1,500 participants from within and beyond the EIT Digital community. Our Italian Innovation Day & Digital Cities Challenge at the Trento co-location centre brought together over 225 industry leaders, entrepreneurs, researchers, public authorities and stakeholders from the information and communication technologies ecosystem. Central to the event was an exhibition showcasing some 30 demos of innovative products and services. Five scaleups in the field of Digital Cities competed to win a €100,000 growth package in cash and services, which was awarded to smart parking innovator Clevercity.



# SILICON VALLEY HUB



## ERIC THELEN

HUB DIRECTOR

Recognised as the only entity with a pan-European reach in the San Francisco Bay Area, EIT Digital's Silicon Valley Hub continues to support European countries and businesses, offering a gateway between Europe and the US. As we continued our journey towards financial sustainability in 2017, we strengthened our participation in EIT Digital's main value creation programmes and honed our offering to our partners.

### ACTIVITIES

The Hub provides support to national initiatives in other parts of the world, especially those European countries that contribute to our operational costs (Hungary, Italy, The Netherlands and Germany). We operate the US arms of the EIT Digital Accelerator and the Digital Industry engagement programme and we engage in education-related activities. We also support EIT Digital Innovation Activities that have an explicit ambition to do business in the US, such as CEDUS and CivicBudget.

### COMMUNITY

Community-building among Europeans in Silicon Valley through the EuropeSV initiative further intensified in 2017 with four meetings taking place, and a shift in focus from information exchange to a more active coordination amongst members. We again co-organised the Startup Europe Comes to Silicon Valley week, at which 14 European scaleup companies participated, and the European Innovation Day, which attracted 500 attendees.

### EIT DIGITAL ACCELERATOR

The Silicon Valley Hub supported eight portfolio companies in 2017 and contributed to the sign-up of at least two new scaleups. We introduced a Silicon Valley Readiness Assessment to help focus access-to-market support on those European scaleups with the best chances of success in the US marketplace.

EIT Digital offers value-added services to industrial partners and customers via its programme of industry engagement. At the Silicon Valley Hub, this includes offering US-based industrial players access to our networks and resources in Europe. We continued to develop our approach throughout 2017 as we talked to prospective customers, with the result that we will be closing our first customer deals in 2018. We also secured our first service revenue via a digital finance and cybersecurity project connecting a region in Germany to the Silicon Valley ecosystem through a programme of dedicated events and visits.

### EDUCATION

We designed and implemented a programme to attract US students to internship positions within EIT Digital's European ecosystem, with the first internships taking place in 2018. The programme has strengthened our relationships with key US universities, which in turn will help us to attract US students into the EIT Digital Master School. Further groundwork for 2018 included our collaboration with a major US executive education player on a professional education course programme.

### LOOKING AHEAD

We will continue to work towards a stronger presence for EIT Digital's Knowledge and Information Communities (KICs) in the US and to act as a host for other European initiatives.

# ARISE PROGRAMME



**FABIO PIANESI**  
HEAD OF EXTERNAL COLLABORATION

Launched in 2015, ARISE Europe supports growth in countries where EIT Digital does not have a node presence by connecting us and our core functions – the Accelerator, the Master School and the Summer Schools – to local innovation and education ecosystems.

## NETWORK GROWTH

Considerable effort was devoted in 2017 to the expansion and diversification of our network through the engagement of two innovation partners (ANJE in Porto and Neulogy in Bratislava) and a university (ISCTE in Lisbon), bringing the total number of collaborating organisations to nine in seven countries: Czech Republic, Estonia, Greece, Poland, Portugal, Slovenia and Slovakia. We diversified even further by establishing dialogues with government agencies and signing a memorandum of understanding (MoU) with Kredex in Estonia. Our strengthened network allowed us to considerably improve our impact; giving growth opportunities to the best scaleup, engaging local students and educational organisations in our academic activities, pursuing joint strategic projects with local governments and boosting our and partner organisations' footprints.

## RESULTS

We identified and connected with 61 accelerator scaleups, five of which are now part of the acceleration programme. We organised 37 co-branded events with our partners, engaging with over 2,700 people including more than 400 entrepreneurs, 175 investors, members of local innovation communities, government and business representatives and other stakeholders. We helped our partners to expand their (and our) network in neighbouring countries, increasing our footprints in the Baltics (Latvia), the Balkans (Croatia and Serbia) and Romania.

This increased range of activities and augmented impact attracted attention from the media; we had a significant presence in tier one titles and outlets such

as Bloomberg, ERR (Estonian National TV), El Mundo, PIK Radio in Poland and Serbia's national TV station N1.

## EDUCATION

Together with ISCTE we organised the first Summer School to take place outside of our node countries, giving the Portuguese innovation ecosystem the opportunity to work with our Master students on projects of interest to them relating to 'Healthy lifestyle and occupational fitness'. Eight Master School roadshows in Greece, Latvia, Romania and Portugal further strengthened the School's connections. These combined efforts produced 56 applications to the Master School – a 65 per cent increase on 2016 – and 36 students enrolled, compared to 16 in 2016.

## STARTUP NATION SUMMIT

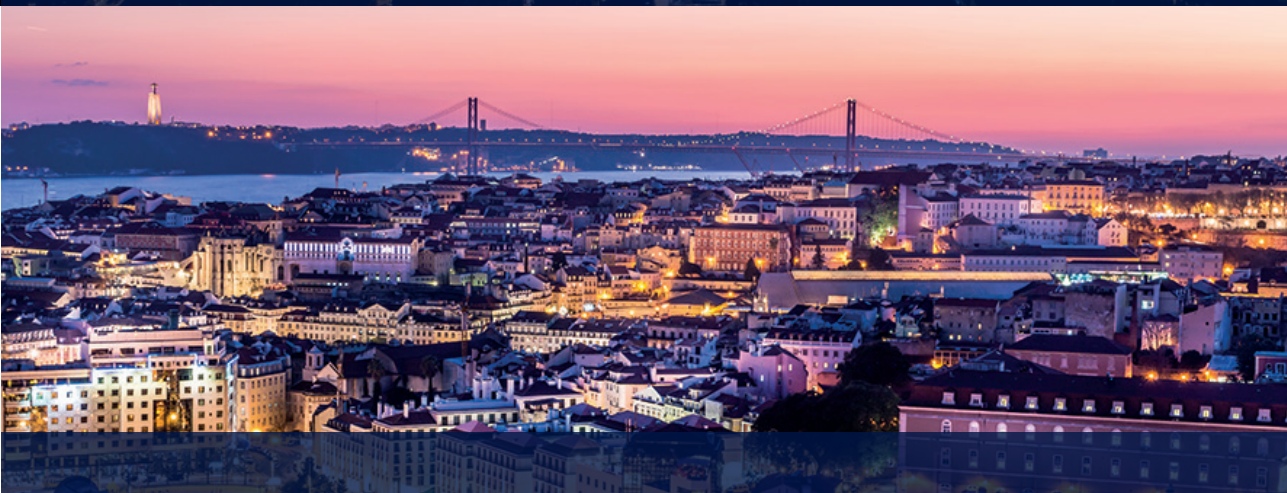
Leveraging our MoU with Kredex, we co-organised the Startup Nation Summit in Tallinn, a high-level policy event that formed part of the programme of the Estonian Presidency. The other co-organisers were the Estonian Ministry of Economic Affairs and Communications, the European Commission, Startup Estonia, Dell and the Global Entrepreneurship Network. The summit gathered a network of more than 170 entrepreneurship policymakers and experts from more than 60 countries to identify, test and track innovation policies and public sector-driven programmes to support new businesses.

*"We firmly believe that the relationships we built during the last three years through the VC Workshops we co-hosted with EIT Digital were instrumental in building our credibility."*

DIMITRIS KALAVROS-GOUSIOU  
FOUNDATION, GREECE



**CZECH REPUBLIC**  
**ESTONIA**  
**GREECE**  
**POLAND**  
**PORTUGAL**  
**SLOVENIA**  
**SLOVAKIA**



**DEEP TECH  
STARTUPS  
PRODUCTS  
SCALEUPS  
GROWTH**



**CHAHAB NASTAR**

CHIEF RESEARCH AND INNOVATION OFFICER

# INNOVATION AND ENTREPRENEURSHIP

As one of the pillars of the EIT Digital strategy, Innovation and Entrepreneurship is about our organisation investing in activities that accelerate the market uptake of digital technologies – leveraging our unique European ecosystem.

In order to create pan-European impact and critical mass, our investments are clustered in integrated 'Innovation Action Lines' - portfolios of thematic activities targeting impactful outcomes. Each Action Line is focused on supporting its activities scale at the pan-European level and beyond.

Action Lines that have been strategically chosen with respect to major digital trends and European leadership potential. In 2017, these Innovation Action Lines were: Digital Infrastructure, Digital Cities, Digital Industry, and Digital Wellbeing, with Digital Finance an exploration area with limited investments.

- Innovation Activities, sourced at the EIT Digital partnership, are awarded through an annual open and transparent process of Call for Proposals. These activities are based on agile cooperation between EIT Digital's partners to typically turn research results and technologies into products with a business model. They are at a pre-venture stage throughout the year with the objective of hitting the market at the end of the year.

- Fast-growing startups (also known as scaleups) admitted to the EIT Digital Accelerator are sourced either through the annual pan European contest 'EIT Digital Challenge', or through direct scouting. These companies are more mature – they have already reached product/market fit and are scaling up rapidly. Scaleups are supported by the EIT Digital Accelerator, a pan-European distributed team of business developers and fundraising experts working out of our co-location centres. Our ambition is for them to be future European champions.

Next, you will learn how EIT Digital is Driving Innovations to the Market. We will then explain how EIT Digital is Accelerating Scaleups. Eventually, we go over each Innovation Action Line and highlight selected Innovation Activities and Scaleups that are supported in the portfolio of that Action Line.



Figure 1:  
The integrated Innovation and Entrepreneurship funnel



Figure 1

# DRIVING INNOVATIONS TO THE MARKET

As explained in the previous section, the Innovation & Entrepreneurship pillar is driven by Innovation Action Lines. In 2017, these Innovation Action Lines were: Digital Infrastructure, Digital Cities, Digital Industry, and Digital Wellbeing, with Digital Finance as an exploration area with limited investments to gauge traction.

The Digital Infrastructure Action Line is the core enabler of the digital transformation by providing secure, robust, responsive and intelligent communications and computation facilities. The Digital Cities Action Line leverages the digital transformation of the cities through centralised, participative and collaborative interactions between city actors: government, city service providers, industry and citizens. The Digital Industry Action Line covers the seamless process from production to retail and the related supporting functions such as logistics and consumer engagement. The Digital Wellbeing Action Line leverages digital technologies to stay healthy (prevention/early detection) or cope with an existing chronic condition. Both physical and mental wellbeing are considered. The Digital Finance exploration area covers the delivery of innovative financial products and services through digital technology, with the objective of making financial systems more reliable, more transparent, and less dependent on central infrastructures.

Each Action Line contains a portfolio of open Innovation Activities carried out by the pan-European EIT Digital Partners under supervision of our Action Line Leaders, and fast-growing technology startups that are ready to scale commercially (also known as scaleups). This section focuses on Innovation Activities.

With our Innovation Activities, we focus on market impact. These activities are sourced from the EIT Digital partnership and are awarded through an annual open and transparent call process. Each activity is an entrepreneurial open innovation project between a few partners to typically turn research results into products targeted at a customer segment.

Innovation activities adopt agile development methodologies with a committed scrum team working with short, successive development cycles aiming towards a minimum viable product at all times. Each activity runs like a venture with a business champion that provides specifications and commits to go-to-market. Value creation from Innovation Activities is realised in a variety of ways, such as catalysing new startups, growing mid-size companies and boosting the adoption and the market access of innovations at large corporations. Success is measured by the key performance indicators (KPIs) of 'New/Improved Products or Services' and 'number of startups created'.

2017 was a successful year. We have achieved an increase of 17 per cent of the KPI 'New/Improved Products or Services' (90 products in 2017 versus 77 in 2016). The development for startup creation has been quite stable over the past two years. Nine startups were launched on the market in 2017 as an outcome of Innovation Activities.

Next, we will look at scaleups.





**ACCELERATOR  
SCALEUPS  
VENTURES  
ACCESS TO FINANCE  
ACCESS TO MARKET**

# ACCELERATING SCALEUPS



**DOLF WITTKAMPER**  
HEAD OF THE EIT DIGITAL ACCELERATOR

The EIT Digital Accelerator supports European digital ventures to scale up their businesses in Europe and beyond. The goal is to accelerate the growth of promising technology scaleups by helping them intensify their growth, secure target customers and raise capital.

At the beginning of 2017, the Accelerator made a significant transition towards sustainability. Originally established as a free programme to support hundreds of startups and scaleups – fast growing businesses ready to grow internationally – the EIT Digital Accelerator changed its model to a fee-based support programme for selected scaleups.

As a result of the change, all existing contracts with startups and scaleups finished at the end of 2016. The programme focused on sales in the first part of 2017, building a sustainable portfolio of 33 scaleups by the end of the year. Four alumni companies from the 2016 portfolio showed their trust in the EIT Digital Accelerator by deciding to rejoin the programme as customers in order to continue their international scaling.

The sharper focus on scaleups and the strict selection process led to an increased maturity level within the portfolio. Hence, the average revenue of the portfolio companies was higher (€1.2 million) as was the average headcount (22 employees) at the time of joining the Accelerator programme.

EIT Digital Accelerator support focuses on two main areas: Access to Market (A2M) and Access to Finance (A2F). More than 40 business developers and financing experts with diverse backgrounds (serial entrepreneurs, business consultants and industry experts) work from nine different European countries as well as EIT Digital's Silicon Valley Hub in the United States.

The A2M team supports companies with qualified lead generation through targeted introductions and corporate matchmaking events across Europe. They also help companies develop and define their go-to-market strategies and moves into new territories. Last year, the A2M team facilitated over 750 direct introductions to potential customers in 22 EU countries and the USA. This resulted in an average of 25 leads in six countries per scaleup.

The A2F team provides scaleups with fundraising guidance, preparation and the investor connections needed to raise Series-A or Series-B investments (€1 million to €10 million). With strong links to over 200 international financial and corporate venture capital firms, the team can identify the ideal investors for any of the supported scaleups. The focus of the A2F team is to address both traditional financial investors and corporate venture funds, a growing category of investors understanding the added value that innovative scaleups can bring to their future business.



In 2017, the A2F team started to support 24 new portfolio companies looking to raise a total of €58 million. The first results are expected in 2018. In the meantime three supported companies closed a funding round totalling €5.9 million. By the end of 2017, the total amount of investments facilitated by the A2F team crossed the €90 million mark. All EIT Digital-supported companies, including alumni, have raised a total of more than €300 million in funding.

The fourth edition of the EIT Digital Challenge – the pan-European contest to identify the best fast-growing digital technology ventures within the EU28 countries – was launched in September. The contest was split into five categories following EIT Digital Action Lines: Digital Industry, Digital Cities, Digital Wellbeing, Digital Infrastructure and Digital Finance.

136 innovative companies from 20 European countries took part in the contest. The top five scaleups from each category were invited to pitch their technology on stage at a final event in front of an international jury of experts. The winner of each category received a prize package worth €100,000, consisting of one year's growth support from the EIT Digital Accelerator and a cash prize of €50,000.

The winners were:

- **Digital Industry:** trinckle 3D – Cloud-based platform to simplify 3D printing processes.
- **Digital Cities:** Cleverciti – Smart sensor technology for on-street parking.

- **Digital Wellbeing:** Lexplore – Detecting dyslexia based on AI, eye tracking and the cloud.
- **Digital Infrastructure:** ApiOmat – Technology to digitally transform business processes.
- **Digital Finance:** OptioPay – Online platform that increases the value and flexibility of payouts.

All winners joined the EIT Digital Accelerator and will receive international growth support throughout 2018.

*"We've had good experiences from EIT Digital's help in the past and the new service seemed even better. EIT Digital has a good network with quality assurance and high standards as well as a user-friendly business model. With the assistance of the EIT Digital Accelerator, we are now confident to expand our business to new customers and markets."*

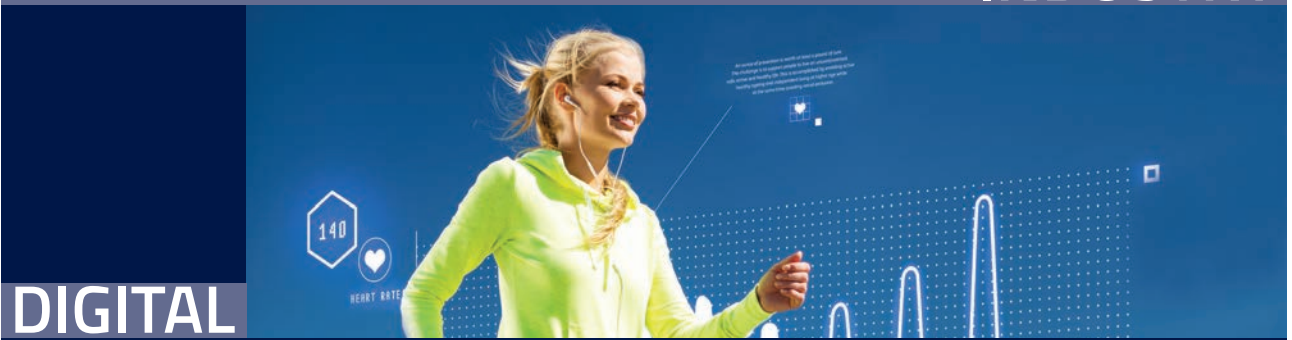
JAAKKO OLKKONEN  
CEO and FOUNDER, Wellmo



## DIGITAL CITIES



## DIGITAL INDUSTRY



## DIGITAL WELLBEING



## DIGITAL INFRASTRUCTURE



## DIGITAL FINANCE



**STÉPHANE PÉAN**  
DIGITAL CITIES ACTION LINE LEADER

# DIGITAL CITIES

In 2017, the Digital Cities Action Line successfully steered a diversified portfolio involving 11 Innovation Activities along with three scaleups in the EIT Digital Accelerator. As a result, 29 products and services were delivered and one startup established.

The Smart Safety in Smart Cities activity, which contributes to the field of resilient cities, is a good example of business impact. Thirty Italian cities have already adopted their Alert System, a solution that identifies and qualifies a risk and alerts security forces and citizens.

Likewise, BeCamGreen, which provides an Intelligent Transportation System (ITS) solution that accurately identifies occupants in vehicles, succeeded in globalising its business by selling a prototype in North America.

In the area of civic engagement, the Piazza Innovation Activity set up a debate on the future of self-driving vehicles in France, involving around 500 people in five French cities, with the support of a robust civic platform.

The activity City Enabler for Digital Urban Services (CEDUS), which provides a FIWARE-based open-platform software to boost digital cities services, has started commercialisation in the Italian market. It also succeeded in entering the second phase of a pre-commercial procurement (PCP) led by three major European cities.

Regarding promotional activities, the Digital Cities Action Line participated in the Smart City Expo World Congress, the leading event in the field. Innovation activities and supported scaleups had the opportunity to showcase their results and achieve exposure on key social networks during this three-day international event.

The Digital Cities Action Line also fostered thought leadership with a particular focus on connected vehicles. The analysis suggests that this market will be stimulated by fifth generation mobile networks (5G), a key enabler. EIT Digital presented this thinking on the main stage in front of 500 people at the New Mobility World conference in Frankfurt.

Regarding education, the two Summer Schools – held in Nice and Berlin – successfully attracted 100 new talents from a variety of nationalities.

DIGITAL CITIES

# INNOVATION ACTIVITY



For EIT Digital and its partners, one key pillar of a resilient city should always be citizens' safety. We have recently witnessed the deadly impact of earthquakes in Italy, floods in the UK, massive fires in Portugal, terrorist attacks in France, and other incidents from a long list of tragic events that remain in our hearts and minds.

In 2017, we supported the Smart Safety in Smart Cities Innovation Activity, which aims to implement the Alert System solution.

In crisis situations, such as natural disasters or even terrorist attacks, civil security agencies and local authorities need to quickly inform affected citizens. Event data confirms that it takes an average of 72 minutes to alert 100,000 people. With Alert System, it takes only 11 minutes.

In technical terms, it is a digital solution based on a platform that integrates sensors, open data and algorithms, in order to identify and qualify a risk and, if necessary, alert security forces as well as citizens via all communication channels (voice, text, mail, social media). The system can also manage feedback and requests for help, thanks to integration with BT Cloud Contact.

In 2017, the project initially targeted Italy and completed the technological development before launching the service to around 30 cities. Florence, Milan and Parma are among those already working with Alert System. In 2018, the objective is to industrialise the platform and its processes, culminating in a European launch in 16 countries, including Belgium, France, Germany, the Netherlands, Switzerland and the United Kingdom. Alert System is already expanding beyond Europe to other global markets with the support of Comunica Italia.



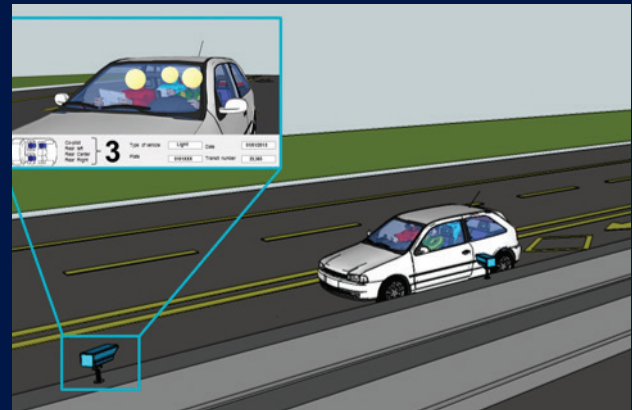
## DIGITAL CITIES

# INNOVATION ACTIVITY

Among the major problems facing European cities today is urban road transport. It contributes to increasing rates of accidents, air pollution, traffic congestion and noise, which has a negative impact on citizens' health, lifestyle and wellbeing as well as our cities' economies.

BeCamGreen is an innovation activity aimed at developing an Intelligent Transportation System (ITS) solution based on computer vision (image processing) and big data (sensors, social media and open data), which contributes to traffic reduction, especially among single-occupant vehicles, and boosting new policies on sustainable mobility.

It is an automated system that precisely identifies the number of occupants in a vehicle's front and back seats in real time thanks to state-of-the-art algorithms for human and facial detection.



Marketable, this unique solution is designed for transportation authorities, as well as road/parking operators, willing to implement new strategies to reduce traffic congestion by prioritising and promoting high-occupancy vehicles, but also low-emission vehicles and public transportation. The result is improved air quality, noise and traffic levels.

The objective is not to penalise single-occupancy car drivers, but to reward those that make more sustainable transport choices, for example by applying reduced toll fares or by providing priority lanes to high-occupancy vehicles. The aim is to foster a change in mindset among citizens, encouraging them to think twice before taking their cars and choosing the travel option that benefits both the citizen and the whole city.

BeCamGreen pilot testing was completed in 2017 on a high occupancy lane in Madrid and a prototype will be running on an express lane in the US in 2018.



DIGITAL CITIES

# SCALEUP CASE STUDY

## Nordic Automation Systems (NAS)

Founded in 2014, Estonian-Norwegian scaleup Nordic Automation Systems (NAS) makes sensor technologies, data analyses and monitoring systems for smart gas, water and heat metering as well as smart city street lighting solutions. The technology is based on wireless long-range and low power wide area network (LoRaWAN) and enables NAS to provide full vertical end-to-end applications at low cost.

The company is already present in more than 25 countries with customers such as Diehl Metering, Levira and Seas-Nve. It has a partnership with Semtech and is one of the few companies licensed to build LoRaWAN gateways.

NAS joined the EIT Digital Accelerator in November 2017 and is aiming to grow its sales pipeline in 2018 with help from Accelerator's business network.

The goal this year is to use EIT Digital Accelerator's access-to-market support to close a double-digit number of major customers, and/or partners, with business operations that will secure a recurring revenue for a minimum of three to five years.



*"Industry analysts expect high growth in our target segment and industries. The EIT Digital Accelerator with its strong network of business experts all over Europe will allow us to grow far above our organic growth potential."*

ARNE KAASIK  
PARTNER & COMMERCIAL DIRECTOR  
NAS





## DIGITAL CITIES

# SCALEUP

## CASE STUDY

### IsCleanAir

IsCleanAir has developed modular filterless technologies to effectively abate a wide range of air pollutants. Its systems are cost-effective to run and are easy to install and maintain while guaranteeing the highest level of environmental protection in both industrial and urban areas.

The Italian company, founded in 2015, created a patented technology named APA (Air Pollution Abatement), a device that works at surface level to abate most pollutants present or released in manufacturing, commercial or urban environments. Up to 99.7 per cent of indoor and 90 per cent of outdoor toxins can be treated with the technology.

IsCleanAir has signed an agreement with the TIM/Olivetti Group to promote and distribute APAs on the markets, mainly to cities and manufacturing plants.

Certified by the European Commission for proven excellence within the Horizon 2020 programme, IsCleanAir holds 12 patents for its highly innovative technology and has been awarded numerous national and international innovation awards, grants and peer recognitions.

The company joined the EIT Digital Accelerator in April 2017 to grow both national and international markets. Since then, IsCleanAir has participated in several international events facilitated by EIT Digital and been introduced to key business partners and clients such as Catania airport in Italy, which has shown much interest in the APA technology. A live demo is available to visitors at the co-location centre in Trento, Italy.



*“Entering EIT Digital’s Accelerator programme represents an extraordinary growth opportunity for us in both the national and international markets.”*

**GIUSEPPE SPANTO**  
CEO, IsCleanAir





## PETRI LIUHA

DIGITAL INDUSTRY ACTION LINE LEADER

# DIGITAL INDUSTRY

The Digital Industry Action Line covers the seamless process from production to retail and the related supporting functions such as logistics and consumer engagement. The mission of the Action Line is to improve efficiency in production and retail, to better address customer needs and to help save natural resources in manufacturing and logistics.

The Action Line is addressing important areas for Europe. We can expect major technology disruptors to emerge in industrial production, as the entire chain uses large amounts of data to optimise all stages of operations, and service-product combinations become technically feasible and easy to introduce. The business model innovations are expected to disrupt many current industries as the outcome produced by the service-product combination becomes more valuable than the product itself.

In 2017, the High Impact Initiative (HII) Street Smart Retail entered its final year, focusing solely on delivery. The new HII, Operate European Digital Industry with Products and Services (OEDIPUS), produced its first results too. The portfolio included 11 Innovation Activities, many of which are on the manufacturing side.

These activities delivered 30 new or improved products and two new startups were created, VimAI and Aikeet. Two more startups are expected to be launched in 2018.

The main dissemination activities were the EuroShop 2017 trade show in Dusseldorf and Manufacturing Performance Days in Tampere. Many results from these activities have been reported on by different media outlets covering the manufacturing and retail sectors. Also, several articles and interviews were published in titles such as Pan European Networks, The Memo, Agenda Digitale and Smart Industry.

The Action Line prepared two Summer Schools: Decentralised Production in Munich, and Retail, Markets, and Consumer Engagement in Helsinki.



DIGITAL INDUSTRY

# HIGH IMPACT INITIATIVE

Street Smart Retail has developed the Digital Retail Suite (DRS) platform, which brings the digital experience to brick and mortar stores of all sizes in the new retail landscape where online shopping is increasing fast. The DRS enables shop owners to collect and analyse omnichannel real-time data of customers, and tailor powerful in-store shopping experiences, in order to increase sales, conversion rates and retention rates.

DRS is a cloud-based solution that integrates consumer behaviour analytics, profiling customer preferences in-store. It enables real-time profiling of customers and makes use of discounting strategies, in order to tailor powerful experiences for individual customers. With indoor navigation, it creates a truly contextual marketing solution for brands and retailers, making it possible to open a new, direct and personalised channel of communication with their customers.

## STREET SMART RETAIL

Innovative solutions built on the DRS platform range from using augmented and virtual reality tools in the layout of stores and for promotional displays, to inventory management and store management systems.

The Street Smart Retail HII continued to deliver new products in 2017. The activity partners commercialised DRS in more than 10 countries in Europe, the Americas and Asia. Altogether, the activity achieved 20 new/improved products in 2017 and services (five related to DRS core technology that were managed by Reply); and another 10 related to store experiences that were managed by TIM Group or BT Italia. More than 50 service solutions were sold to key customers in Europe, North America, Asia and selected Latin American countries.

A spin-off company is expected to be launched in the first quarter of 2018. It will build a new service for sales staff using the same DRS technology.



DIGITAL INDUSTRY

# HIGH IMPACT INITIATIVE



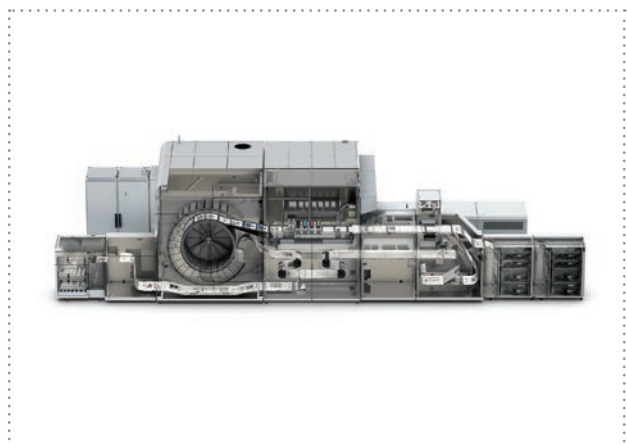
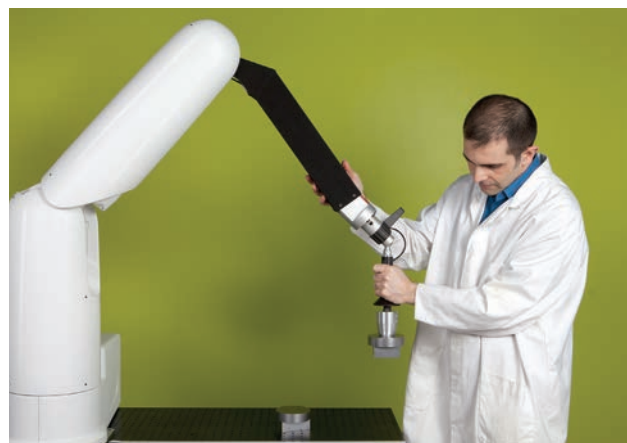
Operate European Digital Industry with Products and Services (OEDIPUS) represents a unique opportunity to create products and services for a 'smart industry' and, in particular, to explore the combination of open platforms with proprietary industry cloud and enterprise systems to understand which new business models this combination could generate and support.

In 2017, OEDIPUS delivered its first solutions for digital factories. The activity introduced the 'plant condition monitoring' application, a new predictive maintenance and quality monitoring solution. This is used for real-time vibration analysis and energy and water consumption assessments, to constantly monitor machinery performance and make sure equipment is kept in top working condition.

A second important element, an external Internet of Things (IoT) board, was introduced to connect existing machinery without connectivity solutions to an industrial cloud platform. The board can be retrofitted to different kinds of industrial machines to measure their performance or predict maintenance needs. Sensors will collect relevant data to provide precious insights on equipment condition.

As more machinery can be connected to an industry cloud, a complete digital mirror of a production line or cyberspace system can be created. OEDIPUS is building this opportunity in order to speed up the digital transformation (DT) of the manufacturing industry.

OEDIPUS also pursues the creation of digital industry innovation hubs acting as hot spots for the digital transformation of the manufacturing industry. By establishing these iCentres as hubs for SMEs, OEDIPUS aims to provide services like access to technology and access to training on key topics in digital transformation.



## DIGITAL INDUSTRY

# INNOVATION ACTIVITY



The activities are centred on predictive maintenance, in-factory logistics and processes, plus some specific solutions on workforce training, and energy production.

The Smart Internet of Things (IoT) Application Development framework – SIOTAD – activity produced a new vision-based control system for phytosanitary sprayers in agriculture. The product was launched by French startup Bilberry. Its goal is to reduce the use of herbicides by 80 per cent. The second outcome is related to the high impact for the agricultural digital industry/economy by delivering and testing a future applications enablement framework for the IoT. There is high demand within the agricultural vertical for IoT, machine learning and connectivity to ease workloads and increase productivity.

The Industrial Paperless Production Process activity developed a product called 'i4.0 Paperless' to digitise the production process in order to reduce paper usage in industrial plants, to monitor the production process and to increase overall efficiency. The solution really simplifies work and improves efficiency through information sharing across the production, reducing errors and requested time. The production monitoring feature offers an innovative way to control the processes and share information with all stakeholders in real-time, enforcing information sharing, reducing associated errors and supporting stakeholders' decision-making.

Add-on Low-cost Multi-purpose Smart Maintenance – ALMeS – activity's business objective was to simplify and reduce the maintenance costs for manufacturing

SMEs and large enterprises. The ALMeS toolkit with analytics dashboard was launched by Reply and it can be adapted to different types of machinery and provide the predictive maintenance analysis at a lower cost compared to other products present on the market. The main impact is the manufacturing industry SMEs, but also on the automotive, aviation, energy, food processing, infrastructure, logistics and service sectors. The areas that need to be further addressed in future portfolios are data-driven solutions which can tackle larger portions of supply chain management, logistics and product life cycle management, and also the circular economy.



DIGITAL INDUSTRY

# SCALEUP

## CASE STUDY

### TEEPTRAK

TEEPTRAK, founded in 2014, develops a real-time performance tracking system for industrial companies to monitor machine performance, operators' pace and product quality. The technology relies on advanced algorithms, combined with input from operators and the latest communications technology to deliver meaningful, real-time information anywhere in the world. The combination of hardware and software is cost-effective, can be quickly installed in a wide range of situations and improves overall production efficiency.

TEEPTRAK joined the EIT Digital Accelerator for the first time at the end of 2015 after winning third prize in EIT Digital Challenge 2015's Internet of Things category. The following year, the Access to Market (A2M) support not only generated more than 130 leads, it also resulted in several deals with large multinationals, like Kuka, as well as SMEs. Through EIT Digital, TEEPTRAK also met Chinese reseller Zhongan at industrial technology trade show, Hannover Messe. These deals are about to be continued and extended in the forthcoming years.

2016's successful collaboration convinced TEEPTRAK to rejoin EIT Digital Accelerator in November 2017. The company moved its 10 employees to EIT Digital's co-location centre in Paris to further strengthen future collaboration and acceleration.



*"We are seeking to commercialise our products on a larger scale. Therefore, we are very pleased to benefit from the expertise of the EIT Digital Accelerator to help us develop our presence in Europe."*

**FRANÇOIS COULLONDON**  
CEO & FOUNDER, TEEPTRAK



## DIGITAL INDUSTRY

# SCALEUP

## CASE STUDY

### METRON



Founded in 2013, French scaleup METRON reshapes the way energy data is used in industry.

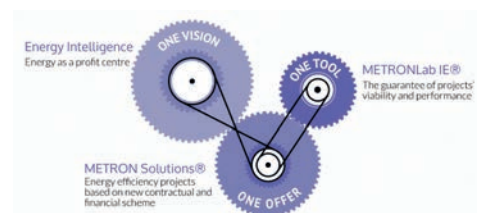
As an energy efficiency operator, it works at the crossroads of the energy and digital industry 4.0 sectors by delivering energy-transparent factories, meaning plants where energy usages are monitored, analysed and optimised in real time.

Its solution connects seamlessly to every industrial system on the shop floor. Fully interoperable with all industrial protocols, it allows business owners to remove data silos and fully digitalise their factories. Using machine learning models and dedicated knowledge bases, Metron can deeply understand complex energy patterns and identify non-intuitive optimisation opportunities.

METRON addresses industries from all sectors such as manufacturing, chemistry, plastics, automotive suppliers, etc. To date, it has more than 80 clients including Danone, Valrhona, DS Smith and Nemera. METRON joined the EIT Digital Accelerator in September 2017 to further reinforce its European development as well as prepare for expansion into Asian markets. Since then, the EIT Digital Accelerator team has helped to introduce the company to more than 120 potential new customers.

*"We are at the heart of energy intelligence. Our approach is to turn energy efficiency from a static, reactive process into a dynamic, proactive strategy. We aim to benefit from the expertise of EIT Digital to help us increase our current growth in Europe and our expansion in Asia in 2018."*

VINCENT SCIANDRA  
CEO, METRON





## JOHAN KORTAS

DIGITAL WELLBEING ACTION LINE LEADER

# DIGITAL WELLBEING

The aim of the Digital Wellbeing Action Line is to slow down the global growth in healthcare expenses while maintaining our quality of life during working years and at an advanced age. Our mission is to extend European citizens' working lives and independent living by two more years. We are committed to finding ways to lower the demand for cures, serious interventions and long-term care.

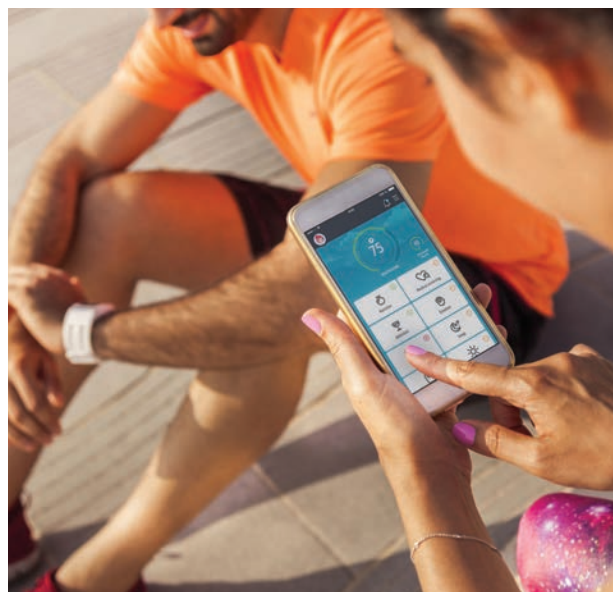
The Action Line's approach is to leverage digital technologies to help people stay healthy (through prevention and early detection) or cope with existing chronic conditions. This approach applies to both physical and mental wellbeing and requires sustainable business models which allow for large-scale deployment while maintaining user privacy and security.

The 2017 Innovation Activity portfolio was composed out of ten Innovation Activities that are balanced across the challenges and focus areas stated in the Strategic Innovation Agenda (SIA) 2017-19.

The digital technologies being used consist of – among others – world-class accurate body sensors and security platforms, as well as domain-specific data analytics and algorithms from the EIT Digital partner network and application-specific associated partners.

The 2017 portfolio shows how digital transformation through EIT Digital and partners is well on the way to build the future in human healthcare and wellbeing.

An important part of this future is that all health and wellbeing stakeholders regard the human being as a complete individual requiring varying personal (care and wellbeing) needs throughout his or her lifetime. This requires a human-centric approach with user-friendly exchanges of secure health data for prevention, early detection, treatment and disease management. Health data is becoming a source of innovation but could have a negative impact on privacy. The new European privacy legislation (GDPR) should force the control of this flow of health data in order to prevent data pollution and privacy issues. The Action Line supports this move and will continue to emphasise the need for preventive wellbeing solutions to enable a healthy lifestyle and to maintain a good state of mind, body and soul.





## DIGITAL WELLBEING

# INNOVATION ACTIVITY



The ten Innovation Activities achieved good results in general with several new or improved products, module packages or services being launched, or about to be launched, into the market. In addition, one new startup was formed (ki-elements out of DFKI ELEMENT); one startup (Prindit) continued to develop more diverse applications for more paying corporate customers; and the cross-KIC activity, ProVITA with EIT Health, set up an incubator programme focusing on occupational health and will use the outcome of the activity in several startup cases.

The Action Line was active in several key areas such as safer independent living for the elderly coping with early stage dementia or Alzheimer's; early detection of cognitive disorders through speech analysis; health and motivational monitors for the workplace; a driving safety app for corporates and insurance companies; and a unique, unobtrusive continuous blood pressure tracking algorithm and system for cardiac patients.

The objective is to find large-scale deployment and sustainable business models in a fragmented market without long-certification processes, while preserving users' privacy and security. Privacy by design was, and still is, an important topic in the Action Line, as we anticipate the new privacy legislation (GDPR).

Some of the success stories outlined below reflect the key strengths of the Digital Wellbeing Action Line. These are: connect the right partners to develop new innovative solutions, anticipate trends and legislation on a European level, provide Access to Markets and leverage the investments.

## ELEMENT

This activity focuses on the early detection of cognitive decline, for example dementia based on speech analysis. Led by the German Research Centre for Artificial Intelligence (DFKI), this Innovation Activity, this Innovation Activity has resulted in the launch of startup, ki-elements; the introduction of prototype app, DELTA (a mobile application featuring cloud-based AI), in Nice; and several promising leads to further progress next steps. The prototype product will also be adapted to the German market.

## ESSENCE

Empowering Safer homes for SENiors through ConnEcted technologies. Led by Atos (Spain) and business champions Nively (France) and Trilogis (Italy), two successful field trials were conducted in homes for the elderly in which the potential lead customers accepted final product configurations (module packages) on e-health, safety (fall detection), security and communication as well as discussing business introductions.

## Wellbeing@work

Led by Swedish RISE, supported by Politecnico di Milano and with business champion startup Prindit, the Activity resulted in an extension of the platform with more applications to increase corporate wellbeing while improving performance in the workplace. Ten customers over three countries, totalling 7,000 users, were involved in 2017 and provided positive feedback for the next level app and services.

## MEMoSA

The MEMoSa solution aims at making motorists with car insurance more responsible by tracking their physiological and psychological conditions while driving. The enhanced driving performance should improve road safety and reduce related healthcare and insurance costs. Moreover, accurate estimations of personal insurance risk will help in the provision of personalised insurance products. A new and improved product was

DIGITAL WELLBEING

# INNOVATION ACTIVITY

The Digital Wellbeing Action Line co-organised and executed two successful Summer Schools within the EIT Digital Master School programme. Innovation activities, partners and SMEs contributed by bringing in lectures, workshops and entrepreneurial industry cases that were carefully prepared with the involvement of the Action Line Leader.

They included:

- A new Summer School in Lisbon in July, organised with partners from ARISE (such as Building Global Innovators (BGI) on the given theme, Healthy Lifestyle and Occupational Health. Cases were brought in by local startups, scaleups and Fraunhofer Portugal through its good relations with BGI. Thirty Master school students, two Arise stipend students and one external paying student attended the event and gave enthusiastic inputs.
- The August Summer School at EIT Digital Eindhoven CLC on the given theme of Independent Living and Long-term Care. Cases were brought in by partners Philips, imec, Bright Cape and Achmea. The emphasis was on the need to find good solutions in home monitoring and self-management. Thirty Master school students, two Arise stipend students and one external paying student on outreach mobility scholarships attended and together formed inspiring teams.



DIGITAL WELLBEING

# SCALEUP

## CASE STUDY

### Firstbeat

The Finnish company initially joined the EIT Digital Accelerator in 2014 and has since grown into an internationally-recognised provider of heartbeat-based physiological analytics.

The technology is used in more than 80 wearables including devices by Garmin, Huawei and Suunto. 21,000 professional athletes and 850 teams worldwide base their training on Firstbeat's analytics, including Manchester United football club and the Golden State Warriors basketball team.

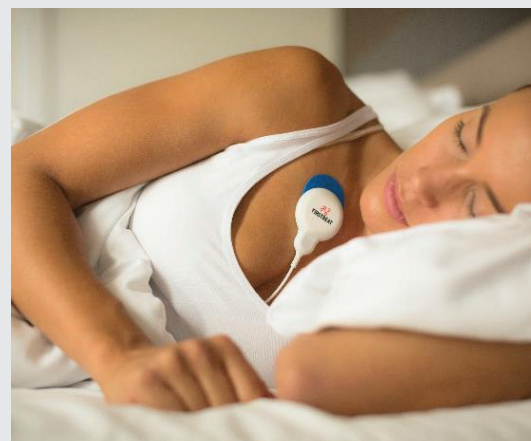
More than 200,000 employees of over 7,000 companies have used Firstbeat's workplace wellness programme to improve their wellbeing and productivity, reducing sickness days by as much as 60 per cent.

Firstbeat rejoined the EIT Digital Accelerator in March 2017 to further cultivate its global success. The Accelerator has strengthened Firstbeat's key messages and brand visibility, and contributed to growth strategies in the EU and US. Further results of the collaboration will be seen in 2018.



*"The collaboration has provided us with fresh insights and advice on how to develop our business further. This was the original target for us, to facilitate our learning and seek new influences. The process has provided inspiration in several ways and we are glad that we have participated in the programme."*

**JONI KETTUNEN**  
CEO & CO-FOUNDER, Firstbeat



DIGITAL WELLBEING

# SCALEUP CASE STUDY

## Checkpoint Cardio

Checkpoint Cardio combines advanced medical devices with software to check a patient's vital signs in real time.

The system measures an electrocardiogram (ECG), pulse, respiration, body position and temperature, and sends the data as well as the patient's location to a telemedical centre where it is monitored by an experienced team. The telemedical centre is the first of its kind in Europe. This tool not only reduces visits to the doctor but also prevents sudden cardiac incidents as happened at Sofia Airport in December 2017: Checkpoint Cardio saved the life of a man who was in immediate danger of a heart attack. The story hit the headlines in the Bulgarian media.

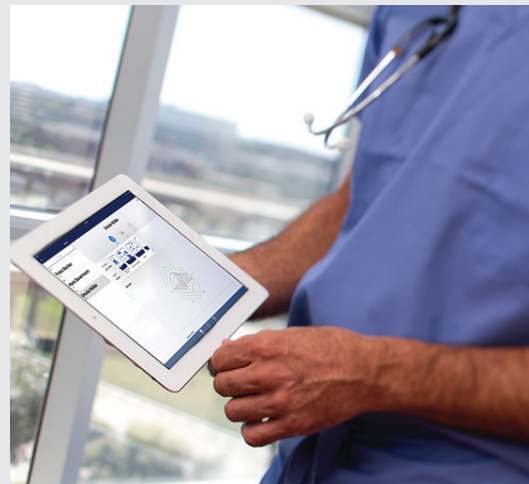
Checkpoint Cardio was founded in 2014 and has 40 customers in Bulgaria, as well as 17 pilots in place in Austria, Germany, the Netherlands, and Russia. The scaleup joined the EIT Digital Accelerator in November 2017 with the goal of opening up new markets and preparing for a finance round in 2018. Checkpoint Cardio's attendance at the EIT Digital booth at Medica Tradefair Düsseldorf was a huge success. It sparked a lot of interest in the company, resulting in deals and proposals worth more than €450,000 as well as a potential partnership with the French EIT Digital Accelerator alumnus, Nively.

EIT Digital's Access-to-Market support has led to a successful start for Checkpoint Cardio.



*"On behalf of our marketing and sales team I would like to express our gratitude for this successful co-operation. Meeting EIT Digital Accelerator was one of the highlights of 2017."*

**IVAYLO DACHOV**  
CHIEF MARKETING OFFICER  
Checkpoint Cardio





**HENRIK ABRAMOWICZ**  
DIGITAL INFRASTRUCTURE ACTION LINE LEADER

# DIGITAL INFRASTRUCTURE

The Digital Infrastructure Action Line is the core enabler of digital transformation by providing secure, robust, responsive and intelligent communications and computation facilities.

The Action Line covers the core Information & Communications Technologies (ICT), including computing, networking, and cybersecurity. In 2017, the networking activities focused on mobile broadband infrastructure, blue light networks, and the Internet of Things (IoT). The key areas for computing were cloud computing, big data and artificial intelligence. The security-focused innovation activities covered privacy as well as identity management, infrastructure and critical infrastructure protection.

During 2017, the Action Line had 13 Innovation Activities in the portfolio, including two high impact initiatives: Trusted Data Management with Service Ecosystem (Trusted Cloud) and Advanced Connectivity Platform for Vertical Segments (ACTIVE). In addition to innovation partners, several EIT Digital Master and Doctoral School students were involved in the innovation activities work. The Action Line's Innovation Activities saw some impressive results with 24 new or improved products, services or processes launched on the market. In addition, a previous startup, Swedish Logical Clocks AB, received a major investment for an analytics enterprise platform.

Two Summer Schools were organised in Stockholm, Sweden; one about IoT and the other on big data and analytics. A third, focusing on cybersecurity, took place in Trento, Italy. Summer schools are joint initiatives with the EIT Digital Master School with the aim of teaching innovation and entrepreneurship using real industry case studies. Some of the summer school lecturers came from the Action Line's Innovation Activities and others came from industry to provide real-world insights to the issues the students encountered. In addition, a number of lecturers from the academic world were invited.

The main dissemination activities were the NetFutures 2017 Conference organised in Brussels in July by the Directorate General for Communications Networks, Content and Technology (DG Connect) and the EIT Digital Cyber Security Conference held in Berlin in October. In addition, the Innovation Activities also participated in several one-to-one meetings and pitching events with EIT Digital Accelerator scaleups.

Furthermore, the Action Line contributed to a European Parliament investigation on 5G connectivity and held important talks with several operators.

## DIGITAL INFRASTRUCTURE

# HIGH IMPACT INITIATIVE

The vision of this High Impact Initiative is to create the number one brand in Europe by the end of 2018 for small and medium-sized enterprises looking for cybersecurity products and services.

It offers a platform for personal data storage with multi-subject data policies. It provides encryption with key management and search services. The malicious objects scanning tool can be used by any web application provider. Malicious activities detection is available both for the network and the cloud.

The Trusted Cloud platform rests on the three pillars of compliance, integration and centralisation. Compliance with regulation, like the European Union General Data Protection Regulation (GDPR), is guaranteed by implementing a layered security structure including identity management, encryption, protection and monitoring. Integration is provided by the software development kit (SDK) which enables automatic subscription of multi-tenanted security capabilities. Finally, centralisation allows the monitoring of security policies from security dashboards.

Startups and small companies can drastically reduce their time-to-market with the help of Trusted Cloud by obtaining guidance to achieve the desired level of compliance with the help of Trusted Cloud's application security assessment function.

It can be used as a platform to implement and reuse software components and micro-services, and to guarantee that security is added rapidly and uniformly.

Further, it provides the perfect platform to collaborate and exchange services inside an organisation. Once



an application has been certified by one instance, the other can deploy the same components very quickly, bypassing local certification. This way Trusted Cloud can help organisations use the cloud as a means to lower IT costs.

Trusted Cloud provides an end-to-end solution supporting the deployment of an application to the private or public cloud. Cloud accounts can be optimised to generate benefits of scale, and security policies are more consistently enforced. These policies can even be implemented for private cloud scenarios without causing delays.

Trusted Cloud and its 'click to secure' approach provides compliance, protection and privacy for e-commerce organisations and their customers.



## DIGITAL INFRASTRUCTURE

# HIGH IMPACT INITIATIVE

The Advanced Connectivity Platform for Vertical Segments ('ACTIVE') High Impact Initiative innovates for accelerating the creation of wireless network applications and services by providing advanced ways of creating generic end-to-end networks at the edges and networks supporting the widespread growth in the Internet of Things.

ACTIVE provides a unified approach for developers and industry to support the widespread growth of IoT by enabling seamless communication between devices and cloud in an always energy-efficient way and by defining the middleware abstraction for applications with open and standard application programming interfaces (API). Further, it develops applications running on the ACTIVE platform, with a special focus on security, privacy and device management.

The ACTIVE Innovation Activity runs seven different tasks, each having implementation responsibilities for different levels of the platform. This includes vertical related applications, application programming interfaces, connectivity and gateway management functionality, and security-related solutions throughout the entire stack.

During 2017, two of EIT Digital's partners, Finnish Bittium and Italian Engineering, participated in ACTIVE, securing several customer contracts based on the implementation work carried out in the project. The main 2017 ACTIVE dissemination activities were the DG Connect's Net Futures 2017, the Institute of Electrical and Electronics Engineers's Symposium on Personal Indoor Mobile Radio Communications and Internet Engineering Task Force (IETF) 100 conferences as



well as the EIT Digital Helsinki, Stockholm and Trento Innovation Days.

A series of hackathons were organised over September to December in cooperation with the Swedish KTH Royal Institute of Technology to stress-test the platform and involve students.

The High Impact Initiative is likely to complete the ACTIVE platform development, integration and market packaging during 2018 and is aiming for a commercialised product and operational service business model.



# DIGITAL INFRASTRUCTURE INNOVATION ACTIVITY



The 13 Innovation Activities in the Digital Infrastructure Action Line are grouped into three categories, focusing either on computing, networking or security.

HopsWorks is one example of the computing-focused innovation activities. It works on a next-generation Hops-branded Hadoop open-source software framework for distributed storage and processing of very large data sets. The Innovation Activity is using startup, Logical Clocks AB, to sell and distribute Hops focusing on Internet of Things (IoT) and telecoms markets, as well as the owners of sensitive big data.

In June 2017, HopsWorks won the International Scalable Computing Challenge (SCALE 2017), organised by the world's largest technical professional society, the Institute of Electrical and Electronics Engineers. In January 2018, Logical Clocks received a €1 million (10 million SEK) investment from a major technology provider in Sweden.

General public telecom networks cannot guarantee communications in the event of manmade or naturally-occurring emergency situations, especially when it comes to internet communications requirements. The Rapidly Deployable Networks Innovation Activity supports communities across Europe by providing a field-deployable wireless communications system that is flexible and includes automatic configuration and self-organising networks. The Innovation Activity's first customer delivery was made in August, followed by several others in autumn 2017.

Phishing is the fraudulent practice of sending electronic messages to obtain sensitive information such as usernames, passwords, and credit card details (and

money) by disguising oneself as a trustworthy entity. To counteract such attempts, the Web Application Firewall for large-scale phishing attacks (WAFFLE) Innovation Activity is bringing a solution called Phishsense to market.

The sad fact is that most phishing crimes are currently difficult to prevent because victims have been compromised by the time they discover the fraud has taken place. This has opened up new markets for products like Phishsense which fights phishing through pro-active detection of phishing sites by applying machine learning.





DIGITAL INFRASTRUCTURE

# SCALEUP

## CASE STUDY

### App-Ray

App-Ray is a fully-automated security analysis tool designed for mobile applications. It scans and analyses Android and iOS apps in order to detect vulnerabilities to hacking, data leaks, malicious code and other threats. App-Ray is not just designed for personal mobile devices as it can also protect corporate data from being leaked through harmful apps. Furthermore, it enables app-store providers to screen incoming apps, developers to identify weaknesses and organisations to manage risks associated with mobile applications.

The tool was developed as a result of intensive academic research work at the German Fraunhofer AISEC Institute, partnering with the EIT Digital research ecosystem. The company was founded in 2015 and is headquartered in Austria, where it was awarded Best Startup in 2016.

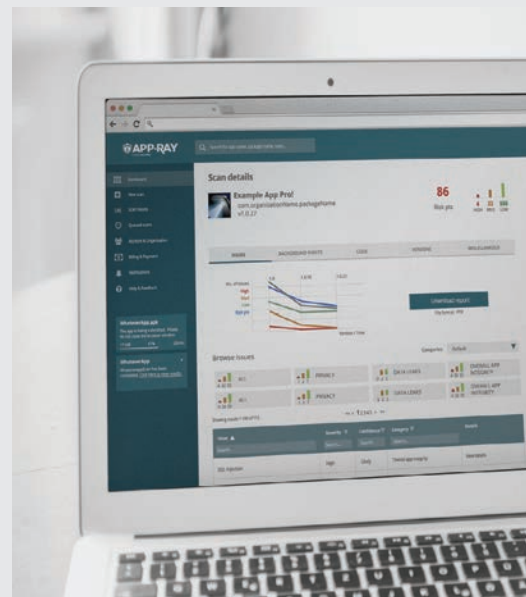
App-Ray is already active in Germany, the Netherlands and the UK. Clients consist of leading IT and telecommunication companies like Deutsche Telekom, Swisscom, Tech Mahindra and Vodafone.

The company joined the EIT Digital Accelerator to receive support in scaling across Europe, especially in German-speaking countries. EIT Digital's ecosystem provides international access to potential customers and investors for App-Ray to benefit from as it grows within the cybersecurity market.



*"The added value I found at the EIT Digital Accelerator is the team supporting us: a group of professionals with a strong business and technological background, who are clearly impact-oriented and with great connections both in Europe and Silicon Valley."*

ZSOLT NEMETH  
CEO, App-Ray GMBH



## DIGITAL INFRASTRUCTURE

# SCALEUP

## CASE STUDY

### DigiFlak



Estonian scaleup DigiFlak, founded in 2013, helps companies and individuals to easily manage and fully protect digital identities, sensitive information and network connections with its dedicated USB/NFC-connected device Flak Secuter.

DigiFlak initially joined the EIT Digital Accelerator after winning the EIT Digital Challenge 2015 Cyber Security and Privacy category. The company received access-to-market support, resulting in sales of more than 7,000 devices to SMEs and individuals in different countries. It also partnered with Braintree Paypal, Kaspersky Lab and Launchpad USA. Two years later, in 2017, DigiFlak became the first alumnus to rejoin the EIT Digital Accelerator.

Last year saw various deals and collaborations, such as DigiFlak's partnership with US-based Engage Black, to offer combined solutions for certificate management and communication protection. The EIT Digital Accelerator also supported DigiFlak in closing a deal with German distributor GANEC GmbH to become one of the company's main resellers.

Additionally, DigiFlak closed a €247,000 deal to participate alongside 14 big European companies and universities in the H2020 CAPTAIN project, coordinated by the Aristotle University of Thessaloniki, with the goal of enhancing the development and implementation of innovative eCare technologies with data privacy and data security features.

*"We have completely changed our go-to-market strategy by migrating from direct sales to working with value-added distributors and resellers. EIT Digital helped us establish strong contacts with leading European distributors, IT corporations and government programmes. We have also changed our technical strategy to provide our customers with innovative GDPR-compliant solutions based on blockchain and smart-contract technologies. We hope these changes will help us significantly increase sales volumes and penetrate new markets and industries."*

**MAXIM KOSTIN**  
CEO & FOUNDER, DigiFlak



**DANIEL MICHEL**  
DIGITAL FINANCE ACTION LINE LEADER

# DIGITAL FINANCE

In 2017, EIT Digital set up the Digital Finance Exploration Area to support the creation of innovative tools and solutions for the finance industry so that it can adapt to the challenges of the modern world. Robust yet agile, tailored financial services are essential for our economies, our citizens and our businesses. More precisely, Digital Finance focused on the three largest segments the finance industry serves: the retail banking sector, corporate banking services, and asset/wealth management.

- The future of **retail banking** looks at the way financial institutions will interact with their retail customers (ie citizens) in the future, using modern and digital devices and tools. A broad range of technologies are analysed including authentication, cashless societies, cybersecurity, micropayments, online payments, and personal financial management.
- Modernised **corporate banking** is a fundamental area for the efficiency of European industries. Modern corporate banking services will help companies be more productive and receive more tailored access to the financial resources they need. In this field, EIT Digital promotes tools to create better financial transparency, automate and simplify financial and accounting tasks for companies, provide the tools for fluid and secure lending, and improve the financial services rendered to corporates, SME and startups in Europe.

- In the digitalised **wealth/asset management** domain, we will support technologies such as machine learning and artificial intelligence algorithms to provide better advice, or solutions to better structure financial products, improve reporting, and support investment professionals in selecting the best financial products to withstand market risks.

Starting with three Innovations Activities in this space in 2017, and a couple of scaleups, EIT Digital is backing key innovative trends at the forefront of digital transformation in this industry in the years to come. One startup has been created from these innovation activities, and three innovative product/services have been launched on the market.

On the purely academic side, we set up a Summer School focused on the hot topic of the digital finance sector: blockchain technologies. Organised in Budapest in July and August 2017 participants from 17 nationalities attended the successful event, and worked on concrete use cases provided by our partners.

## DIGITAL FINANCE

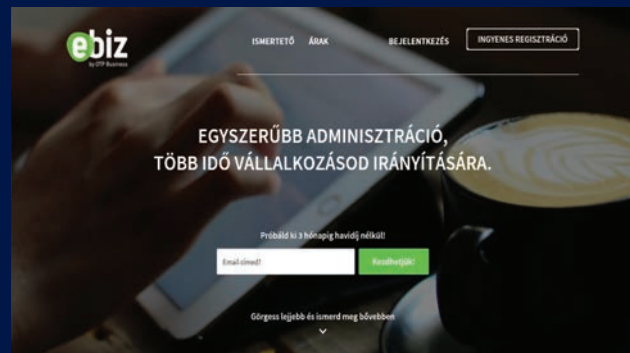
# INNOVATION ACTIVITY

In 2017, the Action Line supported three Innovation Activities that focused on: the simplification of company financial and cash management tasks; secure customer authentication in online transactions to prevent fraud, and the establishment of a distributed (shared) ledger using blockchain for contract settlement.

eBIZ is a startup created by OTP Bank as the result of a successful Innovation Activity led by the bank with the following EIT Digital Partners: ELTE, Technical University Berlin and Deutsche Telekom.

Accomplishing financial tasks is often cost-intensive, non-transparent and time-consuming for SMEs and startups. The eBIZ product enables these customers to manage their invoices and transactions. It also provides real-time transactional data to their accounting on a single secure, cloud-based platform that can be reached through a mobile application. The system flags any tax liability which is prepared and submitted by an accountant via the accounting programme, and tax payments or any other money transfers can be made from the platform.

This Innovation Activity is an excellent example of the model EIT Digital wants to promote. By creating an integrated team comprising a corporate bank with a specific innovation need and academic technology providers, cutting-edge technologies can be leveraged to find a business solution.



## DIGITAL FINANCE

# SCALEUP

## CASE STUDY

### Coowry

Spanish scaleup Coowry has developed an end-to-end micropayment platform that lets any mobile customer use their airtime (prepaid and postpaid) as digital cash. The system solves the complexity and cost of micropayments in the digital economy, where billions of dollars are exchanged each year (via music, apps, digital content, affiliate payments, technology-enabled mobility services, P2P payments etc), and average transaction amounts are less than US\$10. The payment processing is easy and frictionless, using telecoms operators as 'exchange agents' instead of banks.

The solution is completely commission free both for buyer and seller and clears in real time for any transaction amount, starting from cents. Anyone with a mobile phone number can start using Coowry immediately, without the need to register, download an app, or have a banking relationship. The platform is especially ideal for emerging markets, where bank accounts/credit cards are not relevant, as well as for the rapidly-growing shared mobility services models emerging worldwide (on-demand vehicle rental, ride sharing, e-hailing etc).

The company's unique features provide an exceptional advantage for sellers at every stage of the customer journey, from simplifying the onboarding of new users to providing an immediate and cost-free platform for marketing campaigns and reward mechanisms.



Coowry is fully operational and is already integrated with Axiata (the second largest telecoms operator in South East Asia) and Telefonica (serving 21 countries across Europe and Latin America), both of which are backing the company financially and commercially. They are also in the process of completing their integration with Orange and Vodafone and have established partnerships with other large telecom providers in the Asia Pacific region.

The company joined the EIT Digital Accelerator in 2017 for its Access-to-Finance programme. We have provided expert advice and opened doors to targeted venture capital investors from across Europe.





**ANDERS FLODSTRÖM**  
CHIEF EDUCATION OFFICER

# ENTREPRENEURIAL EDUCATION

Digitalisation and digital transformation have brought about disruptive technologies and business models that have changed the way we work, live and do business forever. Products and services, infrastructures and professions have become obsolete, replaced by new ones. The change is so far-reaching that new paradigms and even cultures emerge in the way sectors are managed across cities, communication, education, entertainment, finance, government, healthcare, industry and transport.

Digitalisation and digital transformation rely on the availability of a digitally savvy, knowledgeable and skilled workforce. For example, there is a critical need for coders of apps and deep machine learning. It could be argued that it is their ability to code algorithms and their understanding of how they can be used in different contexts that fuel the digital transformation.

There is, of course, more to digital transformation than coding algorithms. It requires a cross-disciplinary way of working that allows new digital technology to be applied to societal and industrial challenges. The scope of digital transformation is wide. It can translate into commercial success or result in a better life for individuals and developing nations that can more easily adapt to new digital urban, communication, healthcare and governance models.

The growth of workforce digital competencies shows the importance of digitalisation. Official US labour market statistics reveal that since 2009 the digital workforce, as a generic sector encompassing a multitude of applications, has more than doubled in size compared to other sectors and is projected to continue growing at the same rate in coming years.

Earlier higher education was seen as a guarantee to get a well-paid job. Perhaps digital education will overtake that and digital as a generic competence will become an element in all education from primary and secondary to tertiary education.

But it is not just technical skills that are in demand. Europe needs people who can turn technology into products and services to bring to market. It needs engineers with an entrepreneurial mindset and business people who understand the implications of digital transformation for their business.

Education is the tool we have to keep up with the ever-changing demands placed on our current and future workforce. Primary, secondary, tertiary and professional education all play a decisive role in responding to the dynamics of the labour market.

The EIT Digital Academy, with its EIT Digital Master, Doctoral and Professional School, focuses on tertiary and professional education. It teaches technical people how to become innovative and entrepreneurial leaders in the European digital economy. It upskills and cross-skills professionals, equipping them to drive digital



transformative change in their working environment. Through entrepreneurial education, it supports the digital transformation of existing companies and promotes the emergence of new digital ones.

The EIT Digital Academy aims to provide digital knowledge and skills in support of innovation and entrepreneurship. It is therefore critical that the portfolio of education programmes for all EIT Digital Schools mirrors the rapid changes occurring in the digital sector. Topics once in the spotlight need to be re-assessed in light of new research and innovation findings, to ensure they are still relevant and support digital transformation.

Reflecting on the cohorts of Master students, PhDs and professionals over the past years, trends appear to indicate, for example, a decline of interest in cloud computing and internet communication, against the rise of data science and autonomous systems.

The first major revision of the Master School portfolio is now underway, and new partner agreements for the 2018 programme portfolio are aligned with this.

Similarly, the Industrial Doctorate is now central to the EIT Digital Doctoral School, so as to better meet the needs of the industry. PhD students work under academic supervision on industry-led assignments, thus benefiting from continuous tutoring from within the industry. The fact the industry defines research topics for the Industrial Doctorate is unique. On the other hand, the PhD students who are embedded in

the EIT Digital ecosystem bring fresh knowledge and business insights to the industry, helping inform short and long-term business strategies.

For the EIT Digital Professional School, digital transformation has widened the audience for professional education, attracting new groups beyond the digital technologists. Cross-sector collaboration is no longer the exception but the rule.

Entrepreneurial education is the focus of the EIT Digital Academy. Its aim is to form tomorrow's innovators, entrepreneurs and leaders whom Europe needs in order to stay at the top in the global digital economy.

# MASTER SCHOOL

The EIT Digital Master School offers eight two-year European Master School programmes in computer science and information technology, with a focus on Innovation and Entrepreneurship (I&E). Through partnerships with eighteen leading universities, it delivers outstanding technological education that is truly European.

Students can choose the EIT Digital Master School programme that best suits their career aspirations and intellectual interests, with each programme designed to address the most innovative and industry-relevant fields of Information and Communication Technology (ICT).

The EIT Digital Master School attracts the best students from across Europe and beyond. It then equips them with cutting-edge technical knowledge and business skills, so they can go on to help shape the global digital transformation and cement Europe's leadership role within it. The Master School's education is uniquely centred on teaching students how to think like entrepreneurs. This is delivered through I&E content of its programme, which features four modules: I&E Basics, Business Development Lab, Summer School and Thesis, all of which are integrated and aligned with the students' technological majors.

## MASTER SCHOOL PROGRAMMES

The EIT Digital Master School offering was updated to respond to the dynamics of industrial and societal digital transformation. A new Autonomous Systems (AUS) programme was launched in 2017, whereas



**PATRICK HARTIGAN**  
HEAD OF MASTER SCHOOL

the Software and Service Architectures programme was dropped. Digital Media Technology (DMT) and Security and Privacy (S&P) were redesigned and are now superseded by Visual Computing (VCC) and Communication and Cyber Security (CSE). The first of the new revisited programmes will be released in 2018.

## 2017 PORTFOLIO

- Cloud Computing and Services (CCS)
- Security and Privacy (S&P)
- Data Science (DSC)
- Embedded Systems (ES)
- Human Computer Interaction and Design (HCID)
- Internet Technology and Architecture (ITA)
- Digital Media Technology (DMT)
- Software and Service Architectures (SSA)





### INTERNATIONAL MOBILITY

During the two-year programme, students get to study at universities in two different countries, leading to a double degree and an EIT-labelled certificate. They also undertake a work placement and participate in a two-week Summer School either in Berlin, Budapest, Eindhoven, Helsinki, Lisbon, Munich, Nice, Stockholm (2) or Trento. In 2017, students were offered a choice of 10 Summer Schools, each delivering case study-based I&E education using business challenges provided by EIT Digital partners. The Digital Finance Summer School was newly introduced this year.

### STUDENT NUMBERS

Since the launch of the programme in 2012, over 1,350 students have joined this European community of young digital pioneers. 600 students are currently in their first or second year, with 273 new students having started their studies last September. Eighteen admitted parallel entry students will raise this number to up to 291. Amongst the new students, 48 per cent are European Union citizens and 28 per cent are women. The number of female students increased slightly over the past year.

New students were welcomed at the annual two-and-a-half-day Master School Kick-Off event in Helsinki in October. As an introduction to their I&E education, they were required to immerse themselves in a business challenge. In total, 301 students took part, some of whom were Bachelor's students potentially interested in applying for the Master School.

In late November, 197 students attended their graduation ceremony in Madrid. The career prospects of our Master School students are strong. A survey from our alumni association shows that 88 per cent have

either gained employment or become PhD candidates (12 per cent). Eighty-seven per cent will be employed in the European digital technology sector. In addition, 65 per cent of the respondents stated that they wanted to start their own business.

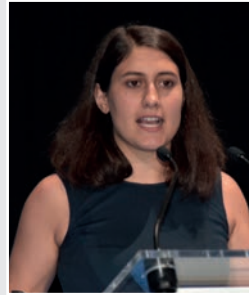
## MASTER SCHOOL

# CASE STUDY

Ana González-Plaza is the CEO of startup App'ero and yet she is still a student of Internet Technology and Architecture (ITA) at the EIT Digital Master School. She started the programme at Université Pierre et Marie Curie in Paris and will finish it at Universidad Politécnica Madrid (UPM) in Spain.

It was whilst in Paris that González-Plaza and five of her fellow students started working on App'ero, an app for bar-goers that not only lets them locate bars, but also place orders through their phones and split group bills, thus reducing queuing time.

App'ero was a runner-up in JA Europe's 2017 Enterprise Challenge in Helsinki and secured a partnership with Meridien Hotels, the third largest hotel group in Europe, for its proof-of-concept studies.



**ANA**  
GONZÁLEZ-PLAZA



**ROBERT**  
CAROSI

Many students finance their studies with jobs on the side. However, this wasn't enough for 22-year-old Robert Carosi, who started his own business in his first year at the EIT Digital Master School.

After studying Cloud Computing and Services (CCS) at Delft University of Technology (TU Delft) in the Netherlands last year, Carosi will complete his second year at KTH Royal Institute of Technology (KTH) in Sweden.

His startup Phishermen helps companies fight cyber security attacks by training employees to recognise phishing. "People are the weakest link when it comes to ICT security. Many companies invest a lot in firewalls and virus scanners, but not in the people themselves."

The EIT Digital Master School encouraged Carosi on this path.

*"Before I started at the school, turning an idea into a business or finding customers all seemed far-fetched. The EIT Digital Master School, however, challenges its students to step outside their comfort zone. It fosters an 'American Dream' atmosphere. It makes you feel like you can have a dream, and make it come true."*

**ROBERT CAROSI**

## MASTER SCHOOL

# CASE STUDY

Li moved from China to Europe in 2013 to join the EIT Digital Master School in Digital Media Technology (DMT). After a first year at Delft University of Technology (TU Delft) in the Netherlands, he did his second at KTH Royal Institute of Technology (KTH) in Sweden. Upon graduation in 2015, Li joined Telia as a management trainee. He is now based in Oslo, where he works on strategy and product development within the company's emerging business unit.

Li uses the technical and entrepreneurial innovation knowledge gained from his education and work experience to offer his perspective on the digital transformation and its impact on business.

*"While business dictates the goals and technology acts as an enabler, it is the culture that sets the stage for the change to take place."*

XIAOPENG LI



**XIAOPENG  
LI**



**SOFIA  
JOHANSSON**

Sofia Johansson joined the EIT Digital Master School in 2016 in Human Computer Interaction and Design (HCID). She completed her entry year at KTH Royal Institute of Technology (KTH) in Sweden and will do her exit year at UniTN in Italy.

In the future, Sofia truly sees herself building her own startup, with the aim to improve people's quality of life. "I would like to work in the medical or environmental fields. Helping others is close to my heart. I applied to the EIT Digital Master School because I am passionate about design and human behaviour in relation to technology. In my second semester, some of my classmates and I had this idea to help asthma patients, which we are now trying to develop into a business. We have received some initial funding from the Asthma Association in Sweden to build functional prototypes."

*"Since joining, I have developed an additional interest in innovation and entrepreneurship. I really like the idea of starting something of my own."*

SOFIA JOHANSSON

# DOCTORAL SCHOOL

Europe needs to educate PhDs who are not only specialists in their field, but who can also transform ideas into products and services. It needs innovators and entrepreneurs. Hence since 2016, the EIT Digital Doctoral School has offered an Industrial Doctorate programme that teaches students and researchers about product development, supply and distribution chain management, as well as marketing strategy.

Industrial Doctorate PhD students work under academic supervision on industry-led research assignments, thus benefiting from continuous tutoring from within the industry. They are further encouraged to develop their mindset for Innovation and Entrepreneurship (I&E) through the integrated Business Development Experience (BDExp). Their thesis topics also align with the EIT Digital Action Lines: Digital Cities, Digital Industry, Digital Infrastructure, Digital Wellbeing and Digital Finance.

The Doctoral Training Centres (DTCs) located at EIT Digital co-location centres (CLCs) provide students with a multi-disciplinary environment. Each DTC carefully manages industrial partners' thesis supervision and mentoring of PhD candidates, as well as the delivery of industry-relevant, high-quality I&E education. They also promote cross-geographical and organisational partner mobility.

Each DTC specialises in one or two fields, to ensure that research critical mass is achieved:



**ROBERTO SARACCO**  
HEAD OF DOCTORAL SCHOOL

- Budapest: Digital Finance and Digital Infrastructure
- Helsinki: Digital Industry and Digital Infrastructure
- Madrid: Digital Infrastructure
- Rennes: Digital Infrastructure
- Trento: Digital Cities

The Industrial Doctorate shaped up well in 2017. Throughout the year, 20 themed industrial PhDs were launched with both major companies and SMEs as industrial partners of which fifteen themes were admitted in the end of the year.

In total, the Doctoral School increased PhDs to a net number of 156 in 2017, including 17 PhDs who graduated with an EIT-labelled doctoral degree following a six-month industrial postdoc or BDExp. Also included are the 14 new students in the industrial doctorate programme.

In 2018, EIT Digital expects the Industrial Doctorate to enrol an additional 40 students, whilst 35 PhD candidates will graduate. To grow the number of PhD candidates to over 200, two new DTCs are planned in 2018 - Amsterdam and Milan - which will focus on Digital Finance and Digital Industry respectively.

## DOCTORAL SCHOOL

CASE  
STUDY

Teresa Macchia graduated from the EIT Digital Doctoral School in March 2017. Having a PhD in Computer Science is a special achievement for her because she had no previous technical education.

Now Macchia's non-technical background is aiding in her ambition to strike the right balance between humans and technology. This is reflected in her thesis about a cyborg ecology approach, smart cities, and the Internet of Things (IoT) industry in Europe.

Macchia was immediately enthused by the offering of the EIT Digital Doctoral School, particularly by the combined academic and entrepreneurial approach, and the chance to be part of an international network. She applied and was admitted in December 2012.

Through the London EIT Digital office, Macchia contacted Irene Lopez de Vallejo, Director of Research and Development at EIT Digital partner Digital Catapult for an internship. There, she carried out research for an innovation programme called 'Things Connected'. This programme aims to boost Low Power Wide Area Networks (LPWAN). There she discovered that innovation is not always about money. "It is also about the ecosystem and finding ways to improve it. Innovation and change are more likely to occur when different people work together and make human technology valuable."

Macchia continues to work on her thesis findings at Digital Catapult, as an Experimental Researcher



**TERESA  
MACCHIA**

on the Internet of Things. The "Things Connected" programme is up and running. "We support 20 SMEs, startups and scaleups, to develop products with LPWAN technology and commercialise them." Her work is about design, cities, sociology and technology. It seems that all the disciplines Macchia studied have come together in her current job.

*"It is also about the ecosystem and finding ways to improve it. Innovation and change are more likely to occur when different people work together and make human technology valuable."*

**TERESA MACCHIA**  
GRADUATED FROM THE EIT DIGITAL  
DOCTORAL SCHOOL

# PROFESSIONAL SCHOOL

Digital technology is changing the labour market. Professions alter, jobs disappear, and new positions arise. Professionals need to learn to adapt to the evolving workplace or to move into another job. Lifelong professional education, therefore, is essential. EIT Digital Professional School helps people stay at the forefront of innovation, enabling them to find their way to their next project or job.

The EIT Digital Professional School courses chosen for 2017 were produced as planned. The portfolio now includes 23 courses. Moreover, it has improved 16 courses and produced two new Massive Open Online Courses (MOOCs). All the EIT Digital Professional School courses are blended, meaning all courses have one or more online modules followed by a face-to-face (F2F) session. We lead the online production and the F2F training. Partners contribute content and teachers.

## MARKETING AND SALES

Midyear, the EIT Digital Professional School hired a marketing lead and a business-to-business sales representative. The marketing and sales efforts focused on three courses; there was high demand for eight. We will further strengthen the sales and marketing capacity in 2018.

## RESULTS

The 2017 income targets have not been achieved. This is because we had neither sales nor marketing capacity until June and September respectively. Now with a strategy in place since the last quarter of the year, we



**JENS OHLSSON**  
HEAD OF PROFESSIONAL SCHOOL

expect sales to increase in 2018. We also anticipate finalising formal revenue-sharing agreements between EIT Digital Education Foundation and our partners by early 2018.

## OUTLOOK

The EIT Digital Professional School aims to address the increased demand in executive and senior management education by producing nine blended courses focusing on digital transformation topics like blockchain, cyber security, citizen participation in digital cities, distributed systems and digital twins. We will create four blended courses for new competencies and professional roles. These will be sold at a higher price point through B2B channels, to strengthen EIT Digital Professional School's sustainability.



## PROFESSIONAL SCHOOL

# CASE STUDY

Imagine a 58-year-old professional, with his own energy consultancy advising international agencies and ministries, in a classroom full of young Technical Master School students. How would it feel?

To Dr Roland Clarke, Director of Clarke Energy Associates in Barbados, it felt good. "I learned a lot from the students. They are a bonus of this Summer School. The students there have a technological background that I don't have, so when we worked in groups, the lessons given by the instructors were of a very high level."

As a consultant in renewable energy and energy policy, Dr Clarke needed to learn more about blockchain and how to use it for energy trading. He came across the EIT Digital Academy Summer School on Digital Finance in Budapest while searching online.

"I have now acquired a better understanding of how technical people speak. The Summer School opened my eyes to the psychology of innovation and entrepreneurship. I needed that mindset. I will focus more on customer needs and am already being more proactive. I will also work more with rapid prototyping. In the past, as an advisor, I have been advocating sustainable energy. During the Summer School, I acquired a new set of skills that enable me to move from advocacy to implementation. That will help me create the future that I want."



**DR RONALD  
CLARKE**

*"I learned a lot from the students. They are a bonus of this Summer School. The students there have a technological background that I don't have, so when we worked in groups, the lessons given by the instructors were of a very high level!"*

**DR ROLAND CLARKE**  
DIRECTOR, CLARKE ENERGY

# SUMMER SCHOOLS

Summer Schools are a focal point for Education-Research-Business integration, and an opportunity for Master School students to experience hands-on Innovation and Entrepreneurship education. Here, students are immersed in real business cases closely aligned to the EIT Digital Action Lines.

## 2017 HIGHLIGHTS

All Master School students are required to attend a Summer School during the holiday period between their entry and exit years. As in the previous year, Summer Schools were open to external participants from academia and industry.

Each of the 10 Summer Schools was held over a two-week period, featuring lectures and presentations from entrepreneurs and industrial product development specialists; as well as site visits, which complemented the class work on business development.

Each Summer School was themed around a specific area of technological transformation, including Digital Wellbeing, Cybersecurity and Privacy, Urban Mobility, Big Data Analytics, Internet of Things and Blockchains. The cities hosting the Summer Schools were Berlin, Budapest, Eindhoven, Helsinki, Munich, Nice, Stockholm, and Trento. An additional Digital Wellbeing Summer School was hosted in Lisbon, an ARISE location.

In addition to the 285 Master School students, there were 75 external participants including industry professionals, PhD students and a number of local students and undergraduates who were considering the

Master School in the context of future career options. There were also 37 attendees from ARISE countries.

Attendee satisfaction was as high as previous years, indicating the Summer School is a much-appreciated part of the Master School programme. The Summer School programme will evolve in 2018, so it aligns more closely with action lines.





## SUMMER SCHOOL

CASE  
STUDY

As part of the EIT Digital Academy Summer School on blockchain for economic security, Krishna Iyer Easwaran, an EIT Digital Master School student in Embedded Systems, was tasked to pitch his team's blockchain business solution to a jury, an audience and the business case owner.

To make his point, he asked for a full glass of water. His classmate poured him one, passing the glass on until it reached Easwaran. "This is not a full cup," Easwaran said, illustrating what happens during the shipment of goods. "During shipment, 0.5 per cent of goods are lost or damaged, and 75 per cent of the lost or damaged goods turn out not to be guaranteed by insurers," he stated. "You need to prove where and when the goods got lost or damaged." This could be done by applying the business solution his team had developed using blockchain, with the slogan: "The sea is rough but your insurance claim shouldn't be."

For Easwaran, the Summer School on blockchain was highly educational. He rates it as "excellent". Easwaran also liked the fact that some of his classmates were business people as it brought a real-life perspective. By the way, his team won the business challenge.



**KRISHNA IYER  
EASWARAN**

*"The best thing is the programme structure. It provides the right mix of content, in the right order. First, we were presented with the business issues; then introduced to the technology, mixed with business classes. To me, the business perspective and how to identify business opportunities was the most educational. And the atmosphere was very dynamic."*

**KRISHNA IYER EASWARAN**  
EIT DIGITAL MASTER SCHOOL STUDENT

# BLENDED LEARNING

EIT Digital believes in the digital transformation of education. Therefore, it offers both on-campus and online courses, combining the best of both worlds. Online education makes it possible to break down time, place, and scalability barriers, whilst also promoting greater diversity in teaching methods. This commitment to innovation in education is aligned with the European Union's ambition to lead in the field of education and support training in Europe and beyond. All EIT Digital programmes contain Innovation and Entrepreneurship (I&E) courses.

## 2017 HIGHLIGHTS

Online content was made available to all Master School students during the Master School Kick-Off and Summer Schools through online starter kits. Access to blended courses was similarly promoted to Doctoral and Professional School learners.

EIT Digital has since 2016 offered a unique online programme, the Internet of Things through Embedded Systems, which can be followed on Coursera. It contains 17 separate Massive Open Online Courses (MOOCs), and five Small Private Online Courses (SPOCs). Together, these 22 courses represent 250 web lectures and amount to 30 European Credit Transfer System (ECTS) points, which is the equivalent of one semester on campus. This online programme provides access to the EIT Digital Master Programme in Embedded Systems, which is therefore a blended programme.

In 2017, Bachelor's students who had successfully passed the online programme were eligible to be selected for the Master's degree, giving them the opportunity to study on campus for their second semester. Two students, a Dutchman and an American, were accepted and enrolled in February 2018.

EIT Digital is the first educational organisation in the world to offer a double degree blended Master's.

In 2017, EIT Digital also started working on a new blended Master's programme in Data Science, which is planned to launch on Coursera in 2018. This will be a unique opportunity to attract and recruit the best students from all over the world.

Another benefit of online programmes is that they generate significant evaluation data, which can be used to improve both blended and on-campus education.

## RESULTS

In 2017, a total of 70,000 unique learners followed one or more EIT Digital MOOCs on Coursera. The majority came from Europe, the United States and India. More than 1,100 learners in total paid for a certificate. The EIT Digital courses were again rated more than four stars on a scale of five. The number of unique online learners is expected to rise significantly in 2018, to around 120,000.

Partners in the blended Master Programme in Embedded Systems include Eindhoven University of Technology (Netherlands), KTH (Sweden), University of Turku (Finland), University of Twente (Netherlands) and Haas School of Business (United States).



# POST-MASTER PROGRAMME

Post-Master positions are an EIT Digital initiative to engage Master School graduates by attracting them to stay within the knowledge and innovations communities (EIT-KIC) to work on some of our most interesting Innovation Activities.

In 2017, we employed a total of seven Post-Masters. While three of them chose to continue to work on EIT Digital innovation projects, four started their careers as data scientists, network engineers, and UX experts. A new application round last autumn attracted more than 60 individual applications for the 2018 positions.

# SUCCESS GRADUATION ACTIVITY COMMUNITY MEMBERS

## ALUMNI

2017 was an exceptional year for the EIT Digital Alumni Foundation. We have continued to develop key activities and launched new important projects, we have strengthened the connections with the whole ecosystem, and our community has grown significantly in size and engagement. The amount of work, energy and resources to fully scale up this community is increasing day by day, but our results and achievements are being noticed within (and outside) the EIT ecosystem, and increasing numbers of alumni are contacting us to give back.

Over the past year our community has experienced impressive growth, both in terms of the number of registered members and by the amount of new initiatives launched.

In fact, not only did the size of our community increase by more than 200 per cent, with the number of alumni doubling, but we also welcomed the first former employees, associate members and friends.

The major community meetup in 2017 was our inaugural Annual Meeting, which took place in Brussels in March. The 85 participants listened to a keynote speech by ustwo co-founder Matt 'Mills' Miller, visited the European Parliament, discovered what their colleagues are working on and networked with them. Several members decided to stay an extra day and attend the EIT Digital Conference, where they listened to high-profile talks and saw some of the latest innovations.

Our next achievement was the complete redesign of our website and intranet, in order to offer a more user-friendly and centralised online engagement platform for the community, and to make it easier to track the



careers and whereabouts of our members. Thus, after the initial development and maintenance by our alumnus Dimitris, we organised an internal hackathon that focused on bug fixing and open-sourcing: our website can now be 'forked' and anyone can contribute to its development by simply submitting a pull request. At our elections, Francesco Bondadiman decided to remain and run for President, together with Tamunomiebaka Dibi as Events Officer and Tiziano Antico as Marketing & Communications Officer. Later, Alessandro Tomasi applied as Treasurer and Sandip Pandey as Secretary. Two more candidates (Giancarlo Pastor Figueroa and Anand Bhaskaran) helped make the voting period more exciting and illustrated the increasing interest in these roles by community members.

Representatives from both the old and new board met at the Eindhoven CLC for a weekend transition workshop, during which the current state of affairs of the Alumni community was discussed. The new board officially took over on July 4.

The main priority last summer was to finalise the event guidelines which now allow members to organise events in the name of the Foundation, and have them funded by the board.

We expanded our Slack team and made the role of our Local Representatives' official, which helped us represent the community at every Summer School and on several other occasions.

With our Local Representatives' help, we organised more than 20 events in over 10 countries, with 500+ participants. In addition, we launched a mentorship programme and a blog which we expect to scale in 2018.



Over the course of the year, we strengthened the connections and intensified the communication and collaboration with the different EIT Digital teams. Our alumni helped the Master School office during their recruitment campaign, joining the webinar Q&As and representing the Master School at university fairs. Many of our members acted as mentors at the Kick-Off event in Helsinki, while others joined the innovation and entrepreneur workshops giving valuable feedback from their experiences.

We also started enlarging our network of connections and partnerships with tech businesses: Forrester offered a 70 per cent discount to our members for their Security & Privacy conference in London, and many other companies contacted us to post job opportunities on our website, which led to 50 listings on our Job Portal. We invite our members to exploit the vast potential of this community, by establishing effective and mutually-beneficial relationships between their companies and our association.

In line with the Foundation's goals, we played a crucial role in the further development of the broader cross-KIC EIT Alumni community. This included helping to organise the Board of Boards meeting and the EIT Alumni Connect, sharing guidelines and best practices for social media, inviting external members to join our events, leading the rebranding of the Startup Days and continuing to support the Women@EIT initiative, which was also expanded to a broader EIT Alumni level.

An active presence at the Master School Kick-Off helped raise awareness of the Foundation and provide early engagement with our potential target segment. In fact, a massive number of students pre-registered on our website.

We organised an internal startup contest, which helped us scout for entrepreneurial ventures inside

our community, and allowed App'ero to represent us at Slush 2017. In addition, the social media campaign linked to this contest exceeded targets and over the year, thanks to this and similar campaigns, social media followers and likes increased by 70 per cent.

In conclusion, we consider the alumni community a vital component of the EIT Digital ecosystem, in terms of external promotion and brand awareness, connections with companies, life-long career development of its members, and key performance indicator reporting. For these reasons, we hope it becomes more integrated with all the branches of the organisation, and kindly wish for greater consideration and interest by all employees and partners.

Our next efforts are now directed towards the Annual Meeting 2018, taking place from April 28 to May 1 in the beautiful mountains of Trentino, Italy. It will be a long weekend full of workshops, learning, talks and presentations, all with our beloved community!

Read more and register at <https://alumni.eitdigital.eu>

# RESEARCH PARTNERSHIP STRATEGY INNOVATION ENGAGE

## COLLABORATIONS WITH EUROPEAN PROGRAMMES AND INITIATIVES

2017 saw EIT Digital collaborating in three important areas: the Factory of the Future Public-Private Partnership (PPP) and the I4MS programme; DG Connect's Future Internet Research and Experimentation+ programme (which now falls within Future Connectivity Systems); and the Big Data Value Public-Private Partnership (BDV-PPP). In addition, we worked on our first pre-commercial procurement (PCP) project, aimed at providing solutions for smart cities.

All our co-operative efforts share common elements: clear added value for the EIT Digital Strategic Innovation Agenda; synergies with action lines and involvement and extension of our ecosystem.

### FACTORY OF THE FUTURE PPP AND I4MS

Our collaboration with the Factory of the Future PPP and the I4MS programme started in 2017, following initial dialogue the previous year, and is operated through the Manufacturing Industry Digital Innovation Hubs (MIDIH) project, coordinated by EIT Digital.

MIDIH aims to establish a network of digital innovation hubs running as 'one-stop shops' of services. The hubs provide industry and SMEs with access to the most advanced digital solutions in cyber-physical production systems (CPPS) and the industrial Internet of Things (IIoT). They pool human and industrial competencies, access to markets and funding opportunities.

Leveraging existing competence centres (CCs) and hubs, MIDIH attracts and mentors local manufacturing SMEs, enabling them to get involved in Industry 4.0 projects, experiments and businesses. The network is underpinned by a common platform of knowledge, methodologies and collaboration tools to allow cross-border fertilisation, continuous improvement and open innovation.

MIDIH aims to:

- Be closely aligned with the Digital Industry Action Line and, in particular, the OEDIPUS High Impact Initiative, helping to disseminate the action line's results widely.
- Encourage people to adopt the results of the Future Internet Public-Private Partnership (FI-PPP), such as integration of the FIWARE platform.
- Connect our ecosystem to participating digital innovation hubs and competence centres across Europe.
- Promote EIT Digital as a 'trusted third party', bringing growth opportunities to manufacturing industry and SMEs across the continent.

### THE BIG DATA VALUE CONTRACTUAL PUBLIC-PRIVATE PARTNERSHIP (BDV-CPPP)

The BDV-PPP is a European programme aimed at strengthening the data value chain, in order to allow Europe to play a major role in big data in the global market. In June 2015, we signed a memorandum of understanding with the Big Data Value Association (BDVA), the private counterpart to the European Commission in the BDV-PPP. The BDVA is tasked with

involving industries, research centres and academia to build communities around data and lay the foundation for a thriving data-driven economy in Europe. The first output of the MoU was the successful joint submission by many of the major players of the BDVA of a proposal for coordinating the conditions for a successful deployment of the results of the PPP. The project, called BDVe, started in January 2017. We are contributing to a skill-building framework for big data specialists and establishing innovation ecosystems around the cPPP.

#### **FUTURE INTERNET RESEARCH AND EXPERIMENTATION (FIRE+)**

Testbeds for trying things out are crucial for the development of future internet products, services and applications. As part of our collaboration with the FIRE+ programme (now in DG Connect's Future Connectivity Systems), we are co-ordinating a project aimed at linking network function virtualisation (NFV) and software defined networking (SDN) testbeds provided by major European players (mostly EIT Digital partners) and making them available to the larger community of developers and innovators. Called SoftFire ([www.softfire.eu](http://www.softfire.eu)), the project started in 2016 and last year 26 external organisations engaged with it. Two open calls offered industry and research institutes across Europe the chance to exploit SoftFire's platform to develop new services and applications. Participants were mainly from industry and came from Cyprus, Finland, France, Greece, Italy, Luxemburg, Poland, Portugal, Spain, Sweden and the UK.

#### **SELECT4Cities**

SELECT4Cities is a PCP project issued by the cities of Antwerp, Copenhagen and Helsinki aimed at developing a platform for European cities that could enable large-scale co-creation, testing and validation of urban Internet of Everything (IoE) applications and services.

We are participating in a consortium, coordinated by one of our partners, which submitted a proposal based around the City Enabler for Digital Urban Services (CEDUS) innovation activity in the Digital Cities Action Line. The consortium successfully completed the first phase of the PCP development and was admitted to the second phase.

We are using CEDUS to work on three SELECT4Cities use cases:

- Managing city traffic congestion with mobility Real Time Information (RTI) in Antwerp
- City IoE service provisioning for remote care to diabetes patients in smart homes in Helsinki
- Integrating real time air quality, mobility and noise IoT city sensor networks for city planners and citizens in Copenhagen.

The work will continue into 2018.



EIT Digital communications is responsible for managing the influence and reputation of the brand in order to establish EIT Digital as the leading innovation and entrepreneurial education organisation in Europe.



**VANESSA PEREZ**  
HEAD OF COMMUNICATIONS

# COMMUNICATIONS

We orchestrate a range of activities aimed at creating a favourable point of view among our major stakeholders. 2017 saw the promotion of our mission and key success stories across a number of media channels and events.

We achieved strong visibility in the media throughout 2017 with more than 100,000 followers on our social channels, 48 million impressions, increased website traffic to over 1.32 million visitors and over 100 tier one articles. This included features in El PAÍS, Focus Magazin, Forbes, Il Sole 24 Ore, La Stampa and Le Monde.

One of the highlights of the year was the EIT Digital Conference and Partner Event in Brussels last March, which attracted more than 500 participants from all over Europe.

## TURNING POINT

2017 marked a change of direction for EIT Digital's communications as we sought to move from brand awareness to brand engagement.

The audience analysis and strategic ambitions led to us revisiting our brand and messaging platform to better engage with our stakeholders, whether they are students, entrepreneurs, C-level representatives or institutions.

We shifted the communications approach from a technological stand point to a people-oriented perspective.

Our communications strategy now aims to:

- Have an integrated and consistent approach
- Align the brand and messaging platform with more clarity
- Better engage audiences in conversation along their customer journeys
- Tell compelling stories in the media and on social media
- Promote EIT Digital's vision through evolving event formats.

## OUTLOOK

We expect the way EIT Digital engages with external stakeholders to change significantly in 2018, especially in online communication. By building on past successes and the innovations being delivered to markets throughout the year, our communications will strongly support the organisation's sustainability goals.



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# FINANCIAL REVIEW

The 2017 Business Plan was assigned to 123 partners of which 118 have reported costs against 91 Knowledge and Innovation Community (KIC) Activities.

The Grant Agreement 2017 including the associated Business Plan was signed on 13 February 2017 for a total budget (KIC Added Value Activities and KIC Complementary Activities) of €273,972,691. The KAVA budget was estimated at €109,050,961 with a maximum EIT contribution of €85,059,749, or a single reimbursement rate of 78%.

This budget was the basis for the Internal Agreements Grant 2017 that was signed with the partners.

In September 2017, the Business Plan Addendum was submitted to EIT to reflect the evolution of the KIC Activities over the first eight months as reported by the partners in their budget change requests. This resulted in Amendment 1 of the Grant Agreement 2017 signed on 21 December 2017. These budgets (against which the reporting has taken place) were €240,457,282 for the total budget, €93,857,961 for the KAVA with a maximum EIT contribution of €73,209,210.



## CONSTANT SMITS

CHIEF FINANCE AND OPERATIONS OFFICER

One amendment to the Internal Agreement Grant 2017 has been approved in October. The October Amendment solely contained Activity change requests to reflect the changed budgets from the Business Plan Addendum. The actuals over 2017 reported by the partners on 15 March 2018 are €248,804,971 or 103% of the overall budget, €87,156,050 or 93% of the KAVA budget and an EIT Request of €64,478,294 or 88% of the EIT budget with a single reimbursement rate actual of 74%.

The overall spread per segment in EIT contribution request versus budget is small (between 76% and 93% of the budget) except the Cross-KIC Activities (54%). The overall KAVA actual and total actual is very close to budget due to higher co-funding and complementary funding contributions than budgeted.

ACTION LINES	EIT BUDGET	KAVA BUDGET	TOTAL BUDGET	EIT ACTUAL	KAVA ACTUAL	TOTAL ACTUAL
<b>Education</b>	<b>€16,681,418</b>	<b>€20,258,127</b>	<b>€33,457,937</b>	<b>€14,361,064</b>	<b>€18,279,392</b>	<b>€30,477,951</b>
EIT Labelled Master Programmes	€9,724,225	€12,096,465	€19,465,965	€9,014,258	€11,690,844	€18,665,486
EIT Labelled PhD Programmes	€2,191,797	€2,558,074	€5,323,232	€1,709,903	€1,945,657	€3,945,058
Training of Professionals and Executives	€2,221,206	€2,669,739	€5,634,892	€1,378,341	€1,859,698	€4,920,257
MOOCs/MOOPs	€907,000	€1,080,000	€1,180,000	€824,056	€1,023,347	€1,187,305
Education Ecosystem and Development	€658,473	€725,716	€725,716	€564,375	€685,679	€685,680
Summer Schools	€978,717	€1,128,132	€1,128,132	€870,129	€1,074,164	€1,074,164
<b>Innovation and Research</b>	<b>€35,402,524</b>	<b>€51,148,579</b>	<b>€182,312,469</b>	<b>€31,998,523</b>	<b>€49,537,449</b>	<b>€195,232,988</b>
Digital Infrastructure	€9,767,898	€15,604,150	€55,640,540	€8,905,948	€15,291,071	€62,125,329
Digital Industry	€9,251,322	€14,128,178	€51,629,101	€8,468,110	€14,044,054	€53,488,239
Digital Wellbeing	€5,081,446	€6,600,922	€28,995,712	€4,810,425	€6,644,221	€33,028,387
Digital Cities	€6,303,503	€8,619,889	€33,260,197	€6,075,900	€8,776,979	€33,805,903
Digital Finance	€1,825,229	€2,697,400	€9,288,879	€1,543,079	€2,563,764	€10,567,770
Cross-Action Line Activities	€3,173,125	€3,498,038	€3,498,038	€2,195,058	€2,217,359	€2,217,359
<b>Entrepreneurship</b>	<b>€5,902,625</b>	<b>€5,999,032</b>	<b>€8,234,652</b>	<b>€4,927,298</b>	<b>€5,146,773</b>	<b>€8,535,580</b>
Digital Accelerator	€3,798,915	€3,798,915	€5,697,915	€3,245,436	€3,331,751	€5,867,971
Business Development and Industrial Engagement	€459,860	€556,267	€556,267	€182,941	€300,733	€300,733
Digital Challenge	€896,500	€896,500	€1,166,120	€791,984	€792,647	€1,111,236
Access to Finance	€747,350	€747,350	€814,350	€706,935	€721,641	€1,255,639
<b>Management and Coordination</b>	<b>€10,304,598</b>	<b>€11,384,179</b>	<b>€11,384,179</b>	<b>€9,571,071</b>	<b>€10,430,764</b>	<b>€10,796,780</b>
KIC Coordination	€2,982,600	€2,982,600	€2,982,600	€3,118,677	€3,134,705	€3,134,705
Nodes and CLCs	€6,621,998	€7,251,579	€7,251,579	€5,958,878	€6,668,711	€7,034,726
Silicon Valley	€700,000	€1,150,000	€1,150,000	€493,515	€627,348	€627,348
<b>Communication, Dissemination and Outreach</b>	<b>€1,753,900</b>	<b>€1,853,900</b>	<b>€1,853,900</b>	<b>€1,341,056</b>	<b>€1,431,880</b>	<b>€1,431,880</b>
Communications, Dissemination and Outreach	€1,753,900	€1,853,900	€1,853,900	€1,341,056	€1,431,880	€1,431,880
<b>Regional Innovation Scheme</b>	<b>€2,188,144</b>	<b>€2,188,144</b>	<b>€2,188,144</b>	<b>€1,775,953</b>	<b>€1,776,467</b>	<b>€1,776,467</b>
Engaging RIS Players	€2,188,144	€2,188,144	€2,188,144	€1,775,953	€1,776,467	€1,776,467
<b>Cross-KIC Activities</b>	<b>€976,000</b>	<b>€1,026,000</b>	<b>€1,026,000</b>	<b>€503,326</b>	<b>€553,327</b>	<b>€553,327</b>
Cross KIC Activities	€976,000	€1,026,000	€1,026,000	€503,326	€553,327	€553,327
<b>Grand Total</b>	<b>€73,209,210</b>	<b>€93,857,961</b>	<b>€240,457,282</b>	<b>€64,478,294</b>	<b>€87,156,050</b>	<b>€248,804,972</b>

# OUTLOOK

Harvest for Value is our motto for 2018, which means our focus as an organisation is on value creation by harvesting from the investments we make. Over the past few years our organisation has significantly grown in many aspects, through our ecosystem, our partnership, our student population, our venture portfolio and our budgets. This growth has led to an increasing delivery of results both in terms of quantity and quality. This made us a recognised player in the European landscape of digital innovation, transformation, and skills. Based on this, we will further expand our impact by harvesting from our results on the creation of economic and societal value that will allow Europe to play a prominent role in the digital world.

## ECOSYSTEM

In 2018 we will finalise the implementation of the new governance resulting in 2018 being the first fiscal year in which the governance structure will be completely operational. In that context we will also start deploying our newly developed human resource processes. We will see a further expansion of our partnership, especially resulting from expansion of the Budapest and Madrid ecosystems which achieved full node status in 2017. We will further strengthen our ARISE programme in RIS countries focusing on building ecosystems and deployment of the EIT Digital Accelerator, Master School and Summer School. The Silicon Valley Hub will focus on its role as a bridge between Silicon Valley and the pan-European EIT Digital ecosystem as well as being



**WILLEM JONKER**

CEO

the Silicon Valley-based figurehead for pan-European digital innovation and education.

## INNOVATION AND ENTREPRENEURSHIP

Our 2018 innovation activities will increasingly focus on value creation through delivery of digital products, services and startups, generating impact as well as income for EIT Digital and its partners. We have reached a stable level of investments and will deliver, like in previous years, more than 75 products and services and around 10 new startups, aiming at high impact and emerging revenues for EIT Digital. The participation of SMEs in innovation activities will increase by more than 30% compared to 2017, resulting in more than 70 SMEs being involved in our innovation activities. As EIT Digital is the core driver of digital innovation and transformation in EIT, we have a natural connection to other EIT knowledge and information communities (KICs). In total, five innovation activities connect us to other KICs.

Regarding our action lines, it has been decided to transform Digital Finance into a full action line given the growing interest in the existing partnership and leading financial actors joining the EIT Digital partnership. EIT Digital will thus operate with five Innovation Action Lines: Digital Cities, Digital Wellbeing, Digital Industry, Digital Finance and Digital Infrastructure. Selected examples show the kind of impact our innovation activities are after.

In the Digital Industry Action Line, the Operate European Digital Industry with Products and Services activity operates through a network of five Innovation Centres, integrating SMEs and industry to drive digital

innovation, generate valuable business opportunities and provide skills in Europe. The Augmented Welder activity provides cost-effective and adaptive welding learning solutions – combining virtual and augmented reality technologies – in industrial settings that enable faster learning processes and reduce welders’ muscle-skeletal disorders and accidents.

As part of the Digital Cities Action Line, City Enabler for Digital Urban Services (CEDUS) is supposed to be one of the most important platforms to facilitate the emergence of digital cities in Europe. CEDUS influence is also significant on several other activities across the new portfolio; in particular Sustainability Enabler that focuses on environmental challenges. The latter is the first cross-KIC activity in the Digital Cities Action Line, in collaboration with the Climate KIC.

In the Digital Infrastructure Action Line, Advanced Connectivity Platform for Vertical Segments (ACTIVE) will bring Internet of Things connectivity platforms to the market, enabling vertical applications to be far more easily developed. In addition, Security Operations Centre for Critical Infrastructures strengthens the resilience of critical infrastructures to cyber-attacks.

The EIT Digital Accelerator will have phased out early stage ventures from its portfolio and will focus on scaleup support only, managing a portfolio of ‘deep tech’ scaleups for increased impact. The Accelerator will expand its portfolio by doubling its number of term sheets, generating base fees, as well as success fees (Access to Finance and Access to Market). The scaleup support programme of the EIT Digital Accelerator will generate substantial revenue thus contributing to the sustainability of EIT Digital.

Finally, our Industry Engagement Programme will be fully deployed, to better serve our industry partners and contribute to revenues; the programme will leverage the EIT Digital innovation, education and ecosystem assets in order to offer value-added services to industry partners, with modest initial revenues expected in 2018.

## EDUCATION

The growing number of students and learners participating in and graduating from our schools contributes significantly to the recognition of EIT Digital as a frontrunner in offering state-of-the-art entrepreneurial digital education programmes. The focus of our programmes will be on further growth, expansion of our on-line and blended offerings, and the development of sustainable financing as well as revenue generation.

The Master School will further sharpen its portfolio. The cyber-security programme has been renewed, a new autonomous systems programme is introduced, as well as a new micro Master programme on data science. The Master School Innovation and Entrepreneurship education will be fully disseminated in an online blended format. The new MSL financial model will provide sustainable financing while keeping the programmes accessible for a broad range of students, thus responding to the societal needs of inclusiveness and digital skills. The popular post-Master programme will be expanded to 30 positions by the end of 2018.

The Industrial Doctoral School has led to an increased industry participation in our PhD programmes. Therefore, the IDSL will be significantly expanded in 2018. As part of our sustainability strategy, actions are taken on a national level to financially support the industrial PhD positions. We plan to grow the number of industrial doctoral training centres, which are fully integrated in our co-location centres and thus contribute to the injection of deep-tech know-how into the business development activities.

The Professional School offerings will be further strengthened through development of six digital transformation courses fully aligned with innovation Action Lines (including programmes like Architecting for Business Value and Digital Twins). While the Professional School courses will remain accessible for individuals, the marketing effort will shift toward B2B channels, since these channels are expected to provide a better route to sustainability.

## CONCLUSION

Harvest for Value requires focus on value creation and impact. By making the value and impact visible and broadly known, we strengthen our recognition and brand, which are essential ingredients for a sustainable future in which we are able to harvest on the investments we make. The value and impact we have is the result of the collective contributions of us all. We witness and experience these contributions on a daily basis. I thank you for your continued efforts and commitments to the mission of EIT Digital, and I look forward to the various occasions where I will meet many of you.

Our joint efforts will drive the digital transformation in Europe.

**WILLEM JONKER**  
CEO

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# ABOUT EIT DIGITAL

EIT Digital is a leading European open innovation organisation. Our mission is to foster digital technology innovation and entrepreneurial talent for economic growth and quality of life in Europe. We bring together entrepreneurs from over 130 top European corporations, SMEs, startups, universities and research institutes.

EIT Digital invests in strategic areas to accelerate the market uptake of research-based digital technologies and to bring entrepreneurial talent and leadership to Europe. Our innovation and education activities are organised in and around our co-location centres, where students, researchers, engineers, business developers and entrepreneurs come together to drive the digitalisation of society.

EIT Digital is a Knowledge and Innovation Community of the European Institute of Innovation and Technology (EIT). Since 2010, EIT Digital has been consistently mobilising talents, ideas, technologies, investments and businesses across Europe and beyond to stimulate disruptive digital innovation. Its headquarters is in Brussels with co-location centres in Berlin, Budapest, London, Helsinki, Madrid, Paris, Stockholm and Trento, as well as a hub in Silicon Valley.

EIT Digital invests in strategic areas to accelerate the market uptake of research-based digital technologies focusing on Europe's strategic, societal challenges: Digital Industry, Digital Cities, Digital Wellbeing, Digital Infrastructure and Digital Finance.

EIT Digital breeds T-shaped entrepreneurial digital talent focused on innovation through a blended Education Strategy that includes a Master School, Doctoral School and Professional School.

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