

## DIGITIZING EUROPE'S ECONOMY – BOOSTING COMPETITIVENESS BY INNOVATION

"THINK DIGITAL!" EVENT SERIES: POLICY TOPIC #2 – INNOVATION POLICY

**'Think Digital!' – A year-long series on the opportunities and challenges of the digital transformation has concluded its second block with a panel discussion on 28 June 2017. The series' second topic was about innovation policies that play a vital role for Europe's future and global competitiveness. If the European Union (EU) intends to be a global leader in economic and technical terms, it has to provide incentives to young entrepreneurs. How can the EU foster innovative technologies to improve its competitive position? What will be the role of policy makers, traditional industries and start-ups in this process? What challenges and risks does Europe have to encounter? These were some of the questions addressed during the panel discussion and at two previous workshops. 'Think Digital!' is organized jointly by the European Office of the Konrad-Adenauer-Stiftung (KAS), Google, Siemens and ZVEI (German Electrical and Electronic Manufacturers' Association).**

Why is innovation so important? In a globalized world, competition is high and profit margins are thin. Now, more than ever companies and the public sector need to think about new ways to deal with a changing environment in order to offer competitive and attractive products and services. Those transformations can then be used to maximize the competitive edge and to be more adaptable for the future. However, innovation does not only help to maintain a prospering economy, it is also offering European citizens the best solutions for existing or emerging challenges. Nevertheless, the perception of the European position when it comes to innovation and the actual performance differ extremely. Europe is often seen as lagging behind other regions even though latest score boards of the European Commission give a different impression.

But being better in reality than perceived by most citizens does not mean that the EU can rest on its

laurels. Therefore, innovation is an important aspect of the EU's 2020 strategy which calls for an investment of 3% of EU's GDP in Research and Development (R&D). Moreover, the European Commission has launched the European Innovation Partnership for different areas like Smart Cities and Communities in order to *"establish strategic partnerships between industry and European cities to develop the urban systems and infrastructures of tomorrow."* The European People's Party (EPP) supports these efforts and promotes *"new technologies, as they bring improvement and efficiency to many areas across all sectors of activity"*.

### THE 'THINK DIGITAL!' SERIES

On 28 June 2017, the organizers welcomed a panel of distinguished speakers to discuss the situation of start-ups in Europe. The event, which was hosted by the Bavarian Representation to the EU, featured keynote presentations from two co-founders of successful start-ups. Michał Brzezicki spoke for SentiOne and Stefan Stanescu for AgriSo. Afterwards, Henna Virkkunen (Member of the European Parliament), Peteris Zilgalvis (Head of Unit, DG Connect, European Commission), Roman Huber (Director, Bayern Kapital) and Lenard Koschwitz (Director Public Affairs, Allied For Startups) took the stage. The panel was moderated by Jennifer Baker (EU-journalist and digital rights expert).



*Around 150 guests  
joined the debate on  
start-ups*



### **SENTIONE AND AGRISO: TWO SUCCESSFUL EUROPEAN START-UPS**

In his keynote, Michał Brzezicki gave an overview of the functionality and the idea behind SentiOne. SentiOne is a social media monitoring and listening tool. The main question the company focuses on is: What are people saying about brands? By using the data that is available online (comments, posts and tweets), the company makes assumptions about what is going on in society with regard to certain topics and products. The SentiOne team thereby uses a three pillar approach: First of all, listening (finding discussions online), then measuring (classifying data), before – in a final step – giving customers the possibility to engage (to enter directly into the discussion without leaving the application). Brzezicki emphasized that no groundbreaking

*Stefan Stanescu,  
co-founder and CEO  
of AgriSo*



technology was needed in order to found this start-up. It all started at the university where he and his fellow students created a prototype that later became SentiOne. It was not only a proof that the concept worked, but a huge success convincing investors of the idea itself and of the team around Brzezicki being able to deliver. The company still focuses on R&D. In order to do so, the team went back to university and cooperated in a research grant to meet certain goals. In the long run, SentiOne wants to automate the process of reading, facilitating the analysis of the extensive amount of text data which is collected in 23 languages.

However, it does also face difficulties. Brzezicki pointed out that there is an uneven fight for talents. Start-ups do not have the necessary funds to pay skilled employees attractive salaries, especially in the tech world. Apart from the workforce that is needed to keep up with innovations or to even set standards, law uncertainties are a big concern. Going abroad and opening offices in different European countries means that a start-up has to face a variety of divergent laws. They need to have both, time and resources at hand in order to deal with the different legal frameworks. And even though issues like data, copy rights and e-commerce are addressed by the European Union, the outcomes and implementation of some directives are unclear.

Stefan Stanescu is the co-founder of AgriSo, a farm management company. Being part of an agricultural family business, he and his family started to bring added value to their farm regarding the newest technology on the market. Amongst others, GPS guidance and satellites provide a higher efficiency for tractors and make it possible to seed with an accuracy of 2 centimeters. Furthermore, certain technologies allow farmers to obtain a map indicating the productivity of the soil. Different colors show exactly where to seed and fertilize more in order to reduce the costs and the negative environmental effects. However, the solu-



Michał Brzezicki,  
co-founder and CEO  
of SentiOne

tions available on the market had to go a step further, Stanescu explained. It was not convenient for farmers to access a number of different platforms every day. Thus, the idea of an integrated platform was born. With AgriSo, farmers are now able to monitor their fields as well as their vehicles in real time. All features are simple to use that it is even accessible for older farmers. After good feedback of interested farmers nearby, the founders decided to promote their solution in the media. What started as a project for their own farm is now used by 60 farms in Romania with outstanding results such as better productivity of the soil or fuel reduction about 25%. AgriSo's next step is a promotion abroad. If tests with local partners in South Africa, Ireland and Ukraine turn out well, a franchise or a direct application is planned.

Much like SentiOne, the technological part of AgriSo has its roots in a university. Mihai Stanescu, cousin of Stefan Stanescu gathered a team of programmers from his university to work on an integrated solution. Once again, just like SentiOne, they grow organic at the moment, entering a market when they see poten-

tial customers and interest in their product. However, both start-ups differ in the way they finance their companies. While SentiOne is working with investors, the founders of AgriSo only use the money that comes from their own farm or more precisely, the profits they make due to a higher efficiency provided.

#### CRUCIAL ISSUES

During the followed panel discussion, the speakers most notably discussed citizens' education, the role of the EU and the situation of start-ups in the period of scaling up or failing.

*"We need the people who have skills."*

MEP Henna Virkkunen from Finland urged for better education. For her, the focus had been lying on creating a pool of skilled people to be able to compete in a fast moving environment. But, she is worried *"that many member states have been cutting the budget of research and development"*, even though a European 2020 target demands investments of 3% of a country's GDP in R&D. Even though all panelists agreed



*"I think the most important thing where we have to invest in – in all member states – is education and skills. We need the people who have skills for the future. But then we have also to invest in research and development."*

**HENNA VIRKKUNEN**  
MEP

MEP Henna Virkkunen  
& Peteris Zilgalvis, DG  
Connect, European  
Commission



on the importance of education and skills, only four member states are currently meeting this goal. Leonard Koschwitz (Allied For Startups) supported Virkkunen's point by saying that *"we see great ideas been born at universities"* as can be seen in the example of SentiOne and AgriSo. This statement underlines that today's trends give us the opportunity to solve the problems we face in everyday life ourselves.

*"We don't have one Silicon Valley, we have a whole set of innovative eco-systems."*

As far as innovative ideas are concerned, not only skills and education determine how start-ups perform but also the competitive environment. Silicon Valley seems to be a region that outperforms Europe. However, the panelists drew a slightly different picture of the situation for start-ups in the European Union. According to Roman Huber (Director, Bayern Kapital), there has been a misconception about which new technologies have their roots in the US or the EU. The 3D-printer is – against what might be assumed – the result of European not American companies, some of which now employ 1000 people. Even the amount of

start-ups in Europe and America (including Silicon Valley) equals more or less, emphasized Peteris Zilgalvis (European Commission). Moreover, the EU innovation performance is not only doing better than acknowledged, it is actually catching up with countries like the USA and Canada, said Virkkunen. The main difference to the US is that in the EU there is not one single start-up hub like the Silicon Valley but several innovative regions in Europe. What is often called a gap between different regions should not be perceived as such. Or as Koschwitz put it: *"Don't speak about gaps in terms of geography but different strengths"*.

*"Culture of the second chance: This is a much better wording."*

Talking about start-ups always raises the question either about a scale-up or a wound up of a young company. But how long is a company called a start-up? *"This is the enterprise that is aiming to scale rapidly"*, said Zilgalvis who drew a clear line between young companies and well-established small and medium enterprises (SME). However, finding a clear definition of the term start-up to grant exemptions to them cannot be the right approach, added Koschwitz. In the end, it might *"create a glass ceiling and prevent companies from growing"*. Even though the European start-up scene is vibrant, *"we do have a challenge in the scale-ups"*, stressed Zilgalvis. Furthermore, he commented that unicorns are not seen too often in Europe. Unicorns are mostly Tech start-ups worth more than one billion US Dollars before their initial public offering.

Nevertheless, there is always the other side of the coin, in this case the failure start-ups. The reasons for a failure can range from a lack of funding to an unfruitful composition of the team or legislative barriers, described Koschwitz. Especially the fear of failing and losing everything often hampers young entrepreneurs. The financial aspect of a start-up is thus – at the same time – an obstacle and the basis for success. For Hu-



Roman Huber, Bayern  
Kapital & Lenard  
Koschwitz, Allied For  
Startups



MEP Christian Ehler, expert of EPP on Horizon 2020

ber, the key have been public or private partners so that founders do not have to finance their business with their own savings. In order to do so, "you have to make clear for each private investor that the start-up scene is a hard working community", he said.

The 2<sup>nd</sup> policy block of the 'Think Digital!' series featured two additional workshops, which allowed for a deeper discussion of two of the most relevant aspects of innovations: Horizon 2020 and Digital Skills.

### EUROPE'S DIGITAL INNOVATION POLICY - HORIZON 2020 MIDTERM REVIEW AND OUTLOOK TO FP9

The first workshop took place on 3 May 2017 in the Siemens AG HQ Brussels. In order to ensure that the EU maintains its competitive position, Public R&D and Innovation funding played an essential role. In a time frame of seven years (2014 to 2020), the European Commission's Horizon 2020 program seeks to spend more than 80 billion Euros in this area. The Commission wishes to enable breakthroughs and discoveries to drive economic growth and create jobs. The Horizon 2020 initiative was discussed by Christian Ehler (Member of the European Parliament), Eddy Roelants (Vice-President for R&D at Siemens EU Representation Office), Kurt Vandenberghe (Director for Policy Development and Coordination at the European Commission's DG Research and Innovation) and Muriel Attané (Secretary-General of the European Association of Research and Technology Organisations).

MEP Ehler opened the discussion by saying that Europe had to find its role in a global economy. Currently, the EU is losing 40.000 engineers every year due to demographic reasons and is facing a serious innovation gap. According to Ehler, this is why the EU has to define a European model for the digitalization era with which it distinguishes itself from other parts in the world. Instead of just allocating an immense budget, the EU had to prioritize its aims and decide for "flagship projects".

Roelants gave an overview about what digitization means to businesses and citizens and which different forms it is assuming. He put a special emphasis on artificial intelligence, autonomous systems, and big data.

Vandenberghe was highlighting how difficult it is for the European Commission to measure the concrete impact of investments. Addressing the "productivity paradox", Vandenberghe stated that in the EU, there was a huge amount of digital knowledge. This knowledge, however, was lacking implementation. In order to have a real and visible impact of investments, there was no other way as to prioritize. Attané fully agreed on this point. According to her, the EU has to strengthen its collaborative applied research. More than that, collaborative participation with industries should be promoted.

The discussion highlighted three crucial issues with regard to Horizon 2020. First, there was a general agreement that the EU should allocate more money to fewer issues. Second, the EU, especially the European Commission has to better communicate the successes of its Horizon 2020 program in order to obtain public understating and support. And third, facing political impatience and various concerns in the Member States, the EU needs concrete results of its initiatives.

Eddy Roelants, Vice-President for R&D at Siemens EU Representation Office & Kurt Vandenberghe, Director for Policy Development and Coordination at the European Commission's DG Research and Innovation





(From left to right)  
the moderator  
Paul MacDonnell,  
Executive Director  
of the Global Digital  
Foundation; Daniel  
Haglage, CEO of  
Makeke GmbH; Ute  
Poerschke, CEO of  
Elschukom GmbH;  
André Richier, DG  
Growth, European  
Commission and  
Siegfried Mureşan,  
MEP, European Par-  
liament

## INNOVATIVE AND COMPETITIVE BUSINESS- ES – EUROPE NEEDS DIGITAL SKILLS

On 7 June 2017, a second workshop in the Google Headquarters in Brussels addressed the way the digital transformation is changing the way businesses operate. The automation of processes and the emergence of Internet-powered services affect the way we work. Digital skills are not only a requirement to safe and create jobs, businesses in all sectors and of all sizes also need tech-savvy people to compete and innovate. The European Union needs to fill the digital skills gap to ensure that today's workforce has the necessary tools to employ existing technologies and to create the workforce of tomorrow. The panel of the workshop consisted of Siegfried Mureşan (Member of the European Parliament also patron of the 'Think Digital!' series), André Richier (DG GROW, European Commission), Ute Poerschke (CEO of Elschukom GmbH) as well as Daniel Haglage (CEO of Makeke GmbH).

First, Mureşan and Richier were highlighting the importance of digital skills, both for the every-day and the working life of European citizens. The two speakers took stock of current policy tools that were or that are about to be installed by the European Union in order to support the digital transformation of companies. The European economy can only be competitive if an investment-friendly environment for the private

sector is provided. This refers to the respect of the rule of law and a good infrastructure, to the quality of education as well as to the reduction of barriers and regulation wherever possible.

Both Mureşan and Richier agreed that businesses and the public sector must be equally involved in the digital transformation process. Furthermore, digital skills have to be created and provided both at a national and a European level. Education traditionally is a policy field the member states or even the regions are responsible for. However, Mureşan argued that the EU should make education a priority and should define what digital skills mean. For example, the Erasmus program shows, that EU initiative can in fact increase labor mobility which usually is relatively low within the European Union. In addition, the EU should also provide its citizens with the possibility of a life-long learning, starting with the right syllabus in school. In any case, European and national initiatives have to be coordinated so that investment can be done wisely and effectively. Richier spoke, in favor of a clear awareness and understanding of what digital skills mean. There is an unprecedented change going on, both in economy and society. While it is without any question that a high amount of digital skills is needed, it is often unclear which skills are exactly meant. Regarding the potential and possible consequences of the digital transformation, many people feel



The audience witnessed an illuminating debate.



### **SIEGFRIED MUREŞAN**

*MEP and Patron of Think Digital*

*"Our policies will not limit themselves to teaching EU citizens about tools and technologies, they will aim at equipping individuals with the critical thinking and digital curiosity necessary for them to become not only users of technologies but active citizens in connected societies."*

afraid that they might not handle or get along with the changes. Richier argued that a debate in the society is needed about which digital possibilities we want to use.

Poerschke and Haglage provided the audience with insights of their expertise and daily work. Together, they were presenting examples of best practices of digital entrepreneurship and re-skilling workforce strategies. Those two speakers pointed to the potentials of digitalization by optimizing processes. In doing so, lots of time and money can be saved. At the beginning, it is often not clear what the exact result or outcome of a process will be. Therefore, both speakers were underlining the difficulties to convince customers and employers of certain changes. In addition, it became obvious that within the European single market, many barriers and regulations are still in place and thus, preventing a genuine transformation. This is especially harmful to SMEs (small and medium-sized enterprises) as they, in most cases, are lacking capacities to deal with the formal, legal or linguistic requirements.

Taken together, both our panelists and attendees were highlighting the extent and speed of change in economy and society, caused by digital transformation. Demands were raised to the politicians to; on the one hand, create a certain predictability of the developments in order to handle them (for example by introducing some guidelines). On the other hand, people were arguing to remain open for changes and developments, and for the economy to unleash its potential. The policy makers, on their part, stated that the EU has to increase its productivity and investments in order to keep the European social model. For the moment, the EU is responsible for 50% of global social expenditure. This will only be possible in the long run if the EU remains globally competitive.

### **HOW SHOULD WE FOSTER INNOVATIONS?**

The speakers at the three 'Think Digital!' sessions of the 2<sup>nd</sup> policy block covered a broad range of topics and raised a lot of questions politics and the industry need to tackle in the future. Five points were consistently mentioned at all sessions and seemed to be particularly relevant for successfully promoting innovations on a broad scale across Europe: (1) Regulations must not hamper innovation. Entrepreneurs have to be able to make a rough estimate how the legal and political framework is going to evolve in order to invest and to make changes. (2) Borders should not be an obstacle to investments. The European Single Market, the Digital Single Market as well as the Capital Market Union is important to make innovations possible. (3) Digital skills are the key for successful transformation. Only if citizens know how to handle digitalization and how to act in a digital world, our economy can flourish. (4) Innovations are only feasible if extensive research and development is done. Therefore, an adequate funding of this area is indispensable. (5) Our environment changes and innovations need to adapt. We have to be open-minded to keep track of this process.

The European People's Party (EPP) recognizes the importance of entrepreneurship and young businesses. It strives for helping these companies to grow and scale up. The key is a successful implementation of the Capital Market Union and the European Single Market. Unjustified regulations should be reduced to foster entrepreneurship and job creation. The EPP wants to encourage member states to make entrepreneurial education a part of school curricula. The party focuses on research and development to promote entrepreneurship and self-employment amongst the youth.

# The rise of a European startup scene - what are the key drivers of innovation and entrepreneurship?



## CONCEPT OF THE 'THINK DIGITAL!' PROJECT

Since the European Union has to deal with several existential crises, the 'political will' to complete the Economic and Monetary Union or to discuss institutional reforms has slowed down. One of the issues on which member states and the European Institutions can agree on, is the need to digitalize economies and societies within Europe. When presenting the Digital Single Market Strategy of the European Commission in April 2016, Vice-President Andrus Ansip said: "Our Strategy is an ambitious and necessary programme of initiatives that target areas where the EU can make a real difference. They prepare Europe to reap the benefits of a digital future. They will give people and companies the online freedoms to profit fully from Europe's huge internal market. The initiatives are inter-linked and reinforce each other. They must be delivered quickly to better help to create jobs and growth. The Strategy is our starting point, not the finishing line."

The European Office of the Konrad-Adenauer-Stiftung shares the European Commission's view and fully supports its Digital Single Market Strategy. Only a substantial and successful digitization of the economy and society allows Europe to remain competitive in an increasingly global market. Policy-makers have a big role to play in delivering this vision. Moreover, they have the difficult task to strike a balance between innovation and key principles. To participate in the political debate about the DSM, the European Office of the Konrad-Adenauer-Stiftung, Google, Siemens and ZVEI has launched a new event-series called 'Think Digital!'. The series includes conferences and workshops on a broad range of digital topics, investigating the relationship between digital technologies and all economic sectors.

## PATRONS



Günther Oettinger



Siegfried Mureşan



Angelika Niebler



Eva Maydell



Axel Voss



*Fokus Europa*

*Digitizing European Cities*

*"Think Digital!" event series:*

*Policy Topic #2 – Innovation Policy*

## Publisher

*Konrad-Adenauer-Stiftung e.V.  
European Office  
11, Avenue de l' Yser  
B-1040 Brussels  
Belgium*

## Text

*Lucas Schramm  
Jana Niedringhaus  
Kai Zenner*

## Editors

*Dr. Hardy Ostry  
Kai Zenner  
Maria Christian*

## Photos

*Lucas Schramm  
Vincent Albrecht*

## Design

*Balázs Mózes-Finta*

*This work is copyrighted in its entirety. Any redistribution or other usage require the written consent of the Konrad-Adenauer-Stiftung e.V.*

© Konrad-Adenauer-Stiftung e.V.

[www.kas.de/brussel](http://www.kas.de/brussel)