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This event report covers some of the burning issues in the context of the European Institute of Technology's annual Digital Conference taking place in mid-September, where politicians and industry experts will get together in order to map out the future of Europe's tech landscape.

Over the next Commission mandate, the European digital arena is set to be transformed radically. Along with the anticipated presentation of Commission plans for the Digital Services Act – covering the regulation of online services, there may also be new rules on Artificial Intelligence and Ethics as well as 5G cybersecurity, in addition to the broader issues that lie ahead in Europe's tech ecosystem, such as fostering innovation in industry, bolstering education in information technologies, and bridging the digital skills gap.

This event report covers some of the above burning issues in the context of the European Institute of Technology's annual Digital Conference taking place in mid-September, where politicians and industry experts will get together in order to map out the future of Europe's tech landscape.

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GDPR could obstruct AI development, MEP says

By Samuel Stolton | EURACTIV.com



Eva Kaili in the European Parliament in Strasbourg
[European Parliament]

The EU's digital agenda over the next mandate is set to be marked by a series of broad-ranging reforms, from artificial intelligence and data protection to cryptocurrency regulation and digital tax. EURACTIV talked to Greek MEP Eva Kaili about how she hopes the EU's digital agenda over the next five years will play out.

Eva Kaili is a Greek MEP for the Socialists and Democrats group. Ahead of her keynote address at the upcoming EIT Digital Conference, she responded to questions from EURACTIV's Digital Editor Samuel Stolton.

Let's start with one of the more contentious issues of the next mandate. What's your take on ethics in the field of Artificial Intelligence? Would you welcome regulation in Artificial Intelligence to help preserve EU principles? What are the challenges of this?

I think the ethical aspect of AI should be a primary concern. Already in the European Parliament report on AI which I shadowed on behalf of the S&D group, we focused a lot on the ethics of AI development. On many paragraphs, we emphasized on "ethics by design" approach and on the fact

that companies producing AI must be very cautious on incorporating any kind of bias on the AI systems.

We also warned against any malicious use of AI from companies who might use face recognition or mood detecting AI technologies in order to manipulate your emotions, feelings and try to gain profit from them by selling you relevant products.

Another issue that will be very important is sensitive personal data. We have to ensure that under no circumstances any AI system will be able to disclose any sensitive private

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data it might collect. The right to privacy will be one of the most pressing issues in the years to come in my opinion and AI will have to be adjustable to this.

How concerned are you with the use of AI across totalitarian regimes worldwide?

Very. But even more worrying is what those regimes will be able to do to their citizens by deploying advanced AI surveillance systems. Will it be then that we will see a pure Orwellian universe where the state will be able to control even the emotions of its people?

Another concern is weaponised AI. Let's just imagine how much destruction they will be able to cause. My intention is not to set the scene of a bleak future but to affirm that we will need international cooperation and specific standards exactly the same way we have treaties for chemical and biological weapons.

You recently submitted a question to the European Commission in which you highlight potential challenges with regards to GDPR hindering AI development. Could you say a bit more about this?

The GDPR is a landmark legislation which established a framework that safeguards our data from being processed without our consent – giving us back our privacy and control over personal information ownership. Although a great achievement, the GDPR includes provisions which could potentially hinder the development of data-driven, self-learning algorithmic systems.

For example, if Article 22 of the GDPR is applied to AI tools, automated decision-making systems would be faced with regulatory backstops

aimed at safeguarding the rights of data subjects.

AI development is a cornerstone of the EU's future strategy. It is important to create a space for it, in which it can be developed – and its development relies on the availability of datasets. It is therefore important to combine the lessons learned from GDPR in the AI space, without over-regulating it so that innovation can be incubated rather than halted.

G7 ministers recently put forward a series of requirements for Facebook's new coin 'Libra' to abide by. Do you agree that there are 'serious risks' surrounding Libra? What could these be and how could these be met at an EU level?

Libra is just one more example of a corporation that tries to leverage the tokenization of value in its business model. Many firms have done it already and thousands will follow soon. This is a natural evolution of the economy and we cannot stop the democratization of money.

I introduced those concepts two years ago in the DLTs and Blockchain Resolution. Unfortunately, ECB, EBA and ESMA ignored my recommendations, they adopted a rather defensive view on crypto assets and they systematically try to keep under the carpet a wave of disruption. Well, the risks are there, but the potential is immense as well.

I believe that we need a holistic view about the tokenization of the economy, to tame the related risk by making a crypto assets integral part of the mainstream regulated economy, and re-assess the idea of monetary policy and central banking by figuring out their relevance in an economy where IoT and AI play a dominant role.

You've previously been heavily involved in tax issues. What is your opinion on the taxation of digital giants? Do you

agree that there is a risk of the EU market fracturing if a common EU approach isn't found on digital services tax? Or would you prefer a broader international agreement?

Digital tax is a sine qua non in the current economic reality. The idea behind it, though, should be rather positive than negative. In my view, digital tax is a tool for reduction of the digital inequality within the economy and the creation of competitive advantage between the economies. Also, it is a tool for bridging the digital gap within the society and the business field with critical investments in digital infrastructure, digital innovation and what I call "human digital capital" through education.

Digital Tax should not be a burden but a factor of acceleration of the competitive position of the EU economy as well as a factor of accelerating the transition to Industry 4.0. For this reason, I suggest an EU Digital Transition Fund where proceedings of the Digital Tax will be accumulated and then channelled in digital transition projects.

Allow me to predict that the current proposition will never be adopted. Digital Tax is a necessary growth instrument that requires us to be ambitious, technologically savvy, and competition relevant. A good European Digital Tax will provide EU with a significant regulatory advantage over our global competitors and we should not miss the opportunity.

It has recently been revealed that the EU is preparing a broad-ranging 'Digital Services Act,' that would allow the bloc to regulate against illegal material online, giving clearer rules for platform liability. Do you think regulation of this nature is necessary? What will the challenges be of adopting such an act?

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The framework governing online content in the EU is highly fragmented. Whether addressing services like social media or activity areas like online advertising, the laws within the EU remain divergent. It is necessary for the EU to harmonise the governance of online content and address risks like online hate speech, discrimination, or disinformation. The expected Commission proposal for a Digital Services Act should be aimed at harmonising the divergent rules for online services in the Digital Single Market.

Moreover, the proposal should be aimed at incentivising large companies to tackle harmful online content beyond the voluntary self-regulating framework under which they operate now. Lastly, the Commission proposal should emphasise the need for stronger public oversight and mechanisms to address content moderation systems. A harmonised framework addressing the needs of the modern and evolving landscape of online services will also benefit innovators as barriers to access the European market will diminish.

Member states have recently submitted their risk assessment reports for the future of Europe's 5G network. What do you think are the most pressing issues when thinking about the future of Europe's 5G infrastructure? What are the challenges and solutions?

5G networks will be the cornerstone of the European economy and society in the future. In 2025, worldwide 5G revenues are expected to amount to €225 billion. 5G networks will seamlessly connect billions of devices, and enable the transmission of massive amounts of data between and among connected devices. The most pressing issues in deploying 5G networks at scale within

the EU relate to ensuring the stability and security of those networks from potential harms.

5G networks not only enable steadier and faster connection for our devices but also connect critical infrastructure with central administration. The connection of critical services in key areas like health, finance, transportation, and resource management through 5G networks will also increase the vulnerability of those core functions to potential threats and cyber-attacks. It is imperative for the EU to concentrate its efforts in completing a coordinated European risk assessment on 5G networks.

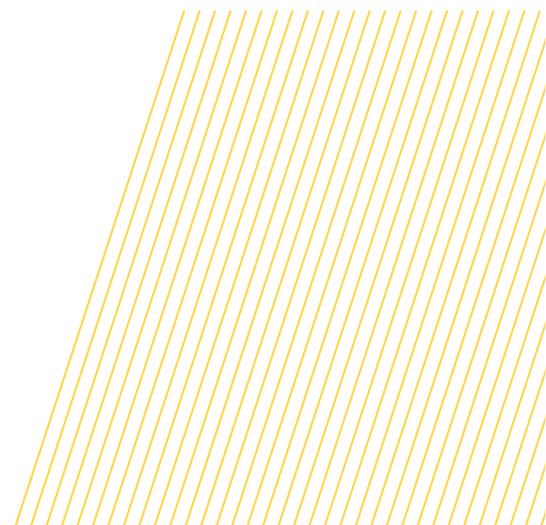
Through the EU Cybersecurity Agency (ENISA), the EU should complete the threat landscape and the Union-wide exposures to risk related to infrastructure extending to the entire digital ecosystem. Moreover, the Commission working alongside with ENISA and member states should develop minimum common requirements to ensure higher network security.

What are your priorities going into the next mandate with the Science and Technology Options Assessment body, which you chair?

As the chair, what I can envisage is that STOA will focus a lot on green technologies and how we can use them to control environmental damage. The results of the European elections showed that citizens put environmental protection as a high priority and therefore we have to listen to their message and grasp their concerns.

We will also focus on issues such as the AI development, how to use technology for humanitarian aid and assistance, bioethics and gene editing and all the technologies that will impact our future. We will also work against fake news through our STOA creation: the European Science Media

Hub (ESMH). As digital technologies advance, STOA through the ESMH is dealing with various issues from combating fake news to Virality and how it impacts politics.



Nanotechnologies are 'the future', EIT Digital chief says

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By Samuel Stolton | EURACTIV.com



European Institute of Technology Digital
CEO Willem Jonker. [EIT]

The next global trend in the technology industry will involve digital miniaturisation and nanotechnologies, the head of EIT Digital, Willem Jonker, has said.

Speaking at the opening of the 2019 EIT Digital conference in Brussels last week, Jonker highlighted the recent trends in the technology sector and made some bold predictions for the future.

"The first decade of this century was all about the deployment of fixed and mobile infrastructure," he said. "The second decade was all about platforms and data – Facebook got to

one billion users in Q4 of 2012, it was a big thing, it was the decade of the platforms."

"The third decade will be about digital miniaturisation," he said, adding that several key developments are taking place – such as the use of photonics in networks or quantum technologies in computing.

"Now you see the next wave of infrastructure paving the way for technologies and the applications of the next decade," he said.

In broad terms, nanotechnology and digital miniaturisation refers to the manipulation of elements on the atomic and molecular scale

– measured at approximately 100 nanometres across.

This form of technology involves the production of miniature electronic devices which can be employed for a range of uses including in the environmental and health sectors.

The European Commission has been conducting research into the future of nanotechnologies on the continent for several years, and as part of the Horizon 2020 funding mechanism, the EU has been attempting to bridge the gap between nanotechnology research

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and markets, in addition to realising the benefits that nanotechnologies can bring to “sustainable growth, competitiveness, environment, highly skilled jobs and the increased quality of life”.

Elsewhere at this year's EIT Digital conference, appearances from key political players in the digital arena spoke out about the state of tech in the EU. S&D MEP Eva Kaili struck a particularly sombre tone about the challenges of balancing regulation with innovation, describing her own stance as advocating for a “principle-based approach that doesn't stop innovation”.

She added that a ‘strong digital Europe’ should ‘give back trust to citizens’ following a series of mass data breaches on the bloc that has harmed confidence in the ability of lawmakers to efficiently regulate against such risks despite the GDPR.

Kaili also noted the forthcoming priority of the Commission to device an Artificial Intelligence strategy in the field of ethics, and spoke about how ethical considerations should always be taken into account in the tech realm.

“One example could be the use of data in the health sector to monitor diseases. Imagine if this would create barriers for access to social welfare insurance,” she said. “For example, you are Google searching a chronic disease...and you find that others could have access to your research data. Can they be trusted not to share this data?”

“Suddenly firms may have access to this information. This is something we don't want to happen.”

Elsewhere, Yves Lostanlen -Managing Director & Head of Europe, Middle East and Africa at Element Ai took to the stage to talk about the importance of Europe's startup culture and why the bloc should do all it can to “help companies transform

their business in a responsible way”.

That is a point also highlighted by Chahab Nastar, Chief Research and Innovation Officer of EIT Digital, who noted the work done by the EIT Digital in supporting “the incubation of innovative businesses from the startup level to completion in 12 months”.

While Jonker's opinion on the future technological trends of Europe was not explicitly highlighted by other participants at this year's conference, his reading seems to follow past funding patterns.

For the EIT Digital chief, this future trend of deep miniaturisation is likely to be branched across a number of different fields, including network infrastructures, computational systems, and sensor equipment.

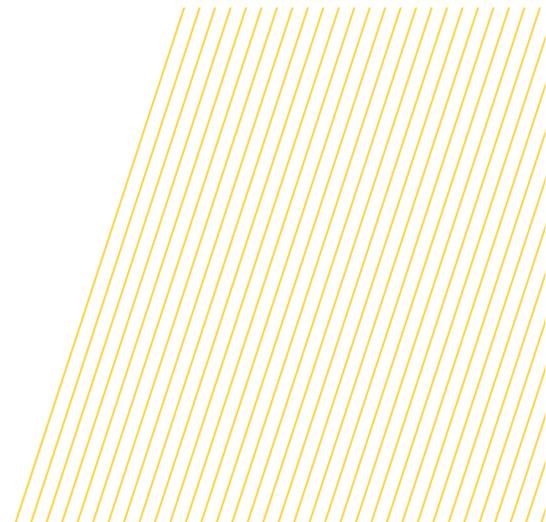
Since 2007, the EU has invested €450 million in more than 110 projects related in nanoelectronics in particular, a field of nanotechnology, that includes smart embedded components and systems.

A particular sector where nanoelectronics have made sound progress is in health. The EU funded ‘Nanoma’ research project is a case in point. The initiative sought to experiment with the deployment of nanorobotic delivery systems designed to improve the administration of drugs in the treatment and diagnosis of breast cancer.

Nonetheless, despite a series of ambitious research project being backed by EU funds, it remains unclear whether any financial support will be put aside for nanotechnologies in the EU's forthcoming funding mechanism, the Horizon Europe fund – a €100 billion research and innovation programme to succeed Horizon 2020.

The Commission has outlined areas such as supercomputing, artificial intelligence, cybersecurity and digital skills as particular priorities for the allocation of

funds. Nonetheless, an EU source has recently informed EURACTIV however that it would be “surprising” if digital miniaturisation wasn't an area of relative importance for the EU to pursue in the future.



OPINION / PROMOTED CONTENT

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In Europe, we have to be 'paranoid optimists'!

By Willem Jonker | EIT Digital



Willem Jonker.

What if Europe was the best place in the world for digital innovation? When it comes to Europe's position on the global digital market, some might say we are better at regulating and planning than delivering, but we are catching up and this positive development has already been going on for about a decade, writes Willem Jonker.

Willem Jonker is the CEO of EIT Digital, a leading European digital innovation and entrepreneurial education organisation driving Europe's digital transformation.

Looking back 30 years ago, Europe was a dominant player in digital technology, with Nokia ruling the mobile world, a strong position in high-performance computing and

a respectable number of computing manufacturers.

Unfortunately, Europe had to learn the hard way what it takes to remain competitive on the digital market, because today the situation is completely different. The mobile world is dominated by the US and Asia, there are hardly any computer

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manufacturers left in Europe, and the entire social media and platform development slipped from us, even though we were early adopters.

Most European countries had their own local Facebook, like Minitel in France or StudiVZ in Germany. But over the years we lost ground and others passed, and now we must catch up. At the turn of the century, we were all obsessed and distracted by the looming Millennium Bug.

However, Armageddon didn't come, but what did was the internet and eventually mobile internet. Remember, the iPhone only came in 2007, yet today we can't believe this only happened a good 10 years ago. Europe missed out on most of these developments, not as a consumer, but as an actor, as a producer.

On the consumer market, we have seen the importance of data platforms and social media platforms evolve. But sooner rather than later, these platforms will also invade industry, they will invade healthcare, they will invade finance.

Having learnt its lessons from the past, Europe must act now if it doesn't want to lag behind once more. We should and can be very proud of GDPR and the level of privacy protection we appreciate in Europe. Restrictions, however, do not bring you the Googles, Facebooks and Apples in Europe. It's not enough to have a Digital Agenda for Europe; we also need a digital economy!

Quoting the chairman of the board of Nokia, who used this term in his book on the company's transformation, I believe we must become "paranoid optimists". We should be well aware of what is going on, but not at the same time end up with a list of "Yes, buts"; instead we must work on a list of "How to get theres."

For the time being, however, there are few areas where I see Europe evolving quickly. And this is where we come into the play.

EIT Digital is the best delivering machine in Europe when it comes to digital innovations, skills development, support for entrepreneurs and connecting the diverse European ecosystems. Our virtual ecosystem has enough power to breed companies that can compete at a global level with their Asian and American counterparts.

But we also have a clear vision for a strong Digital Europe. Our mission has shaped us into an early detection system that identifies areas of strategic importance for preserving European competitiveness in the digital world. This knowledge lays the ground for our advice on the measures needed to keep Europe at the forefront of digital innovation.

EIT Digital's mission is not only to give advice on how to deliver but to be the catalyser of successful digital transformation in Europe. We are a deep tech organization that 'walks the talk', combining technological understanding with entrepreneurial

experience and mindset. Europe is still ahead of the technology curve.

Now is the time to scale up this potential to create successful economic players and globally competitive products.

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You can meet Willem Jonker and other inspiring speakers from the European world of digital innovation, policymaking and entrepreneurial education on Tuesday, September 10, at EIT Digital's annual conference 2019 – 'For a Strong Digital Europe'. More than 1,000 digital experts & opinion leaders will gather at The Egg in Brussels to get the latest on Europe's digital future and discover opportunities to grow their digital business. More than 50 ground-breaking digital deep tech innovations and live demos will be on display and participants will be able to expand their professional network in more than 500 matchmaking sessions.



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