VII. INTERNATIONAL CONFERENCE

Digital Czech Republic 2022

May 12 - 13, Spojka Karlín, Prague







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The Czech Republic on the way from the assembly plant to the brain room

The Czech economy has the opportunity to rank among the world's most advanced if its digital transformation succeeds. To achieve this, the private sector, the state, and academia need to be brought together.

Today, it is no longer enough to invest money solely in education to increase social capital. We must also produce human resources by cooperating with companies at the level of general and long-term education. We will achieve this by offering investment incentives where companies invest in their employees and by opening markets for professionals from abroad to help innovate domestic firms. It is also crucial to connect the commercial world and practitioners with the education system because successful innovation can be very inspiring for students.

A more pleasant environment for innovation can also be achieved by simplifying the process of establishing companies and supporting them at an early stage. Recent developments abroad also provide many opportunities; the new US administration has reinforced the transatlantic link and incoming refugees from Ukraine are often highly skilled workers.

The Czech Republic has no reason for excessive self-criticism in the field of the digital economy. It is primarily investors, not politicians, who decide which country will become successful. Still, the state must support the conditions in which the private sector will be interested in doing business. Especially the university environment in the Czech Republic is very rigid and not very innovative.

We can build on a relatively long-term and strong supply of human capital, but several things are still necessary, such as more compliant legislation and regulatory support for digital innovation, better access to finance and private capital in general, and education reform that allows for more flexibility. Supporting investment in science and technology, promoting digital policies at the European level, and cooperating with the most developed countries at the European level and beyond are vital elements to what we aim to achieve.

In the field of digital technologies and innovation, the winner-takes-all model often applies, and the most important thing regarding that is to gain a comparative



advantage. That is precisely why Europe has for a long time failed to produce highly successful technology companies, at least compared to the United States. The European Union has a long-term strategy to increase its competitiveness, but it will take a while before the results will be visible. Moreover, we must assume that globalization will continue to intensify in the area of digital technologies and that global competition will thus increase even more. Due to a lack of other resources, such as mineral resources, the Czech Republic must rely strongly on its human capital. This makes it even more crucial to improve the quality of education at the tertiary level. Among other things, Czech higher education institutions are not sufficiently exposed to foreign competition and pressure on results from the private sector. By promoting the connectivity of universities and companies, much can be achieved, as we see abroad, where private entities routinely offer grants to educational institutions and work with their students. Unfortunately, we rarely see this form of cooperation in the Czech Republic.

SPEAKERS



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Karel Havlíček

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Vice-President, Chamber of Deputies of the Parliament of the Czech Republic



Vladimír Dlouhý

Czech Republic

President, Chamber of Commerce of the Czech Republic



Jan Švejnar

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IDEA/CERGE-El, Prague, CGEG, Columbia University, New York

MODERATOR



Ondřej Houska

Czech Republi

Reporter, Hospodářské noviny

MAY 12. 12:45 - 13:00

Progress and new challenges of eGovernment

Digitization of public administration has long been one of the government's top priorities. Arguably, 2022 is the year of eGovernment. Is there sufficient cooperation between the government and the private sector to create eGovernment and serve the benefit of society?

One example of private-public cooperation is the banking identity project, which allowed clients to control internet banking remotely. The state decided to profit from the innovation and agreed that through a banking identity the citizen could access public administration services. This experience of cooperation could be transferred to other areas, including the automotive sector, for example, by simplifying the process of registering and insuring a car. During one visit to the insurance company, the client would have the opportunity to handle both matters at once, and the possible digitization of these tasks would also simplify the whole process. However, that would mean the need for legislative changes, the

will on the side of the state and, in this case, on the side of the insurance companies. The state should, first of all, consider which private areas enter and which do not. If there is a reason to introduce regulation, for example, due to unequal access to the client, the state should act proactively. In some areas, especially in the use of technology, the state may create space for testing new services or new ways of providing services under state supervision. Based on this, it is either concluded that regulation is not needed and there is a possibility to leave it to the private sector, or testing will show that regulation is necessary. Last but not least, regulation can be reduced, as today's technology brings new possibilities for control. An example is a taxi service, whose client can carry out the control himself thanks to GPS, and the question arises as to whether regulation of the state makes sense in such cases.



SPEAKERS



Zdeněk Zajíček

Czech Republi

Vice-President, Czech Chamber of Commerce

MODERATORKA:



Sara Polak

zech Republic

Artificial Intelligence Archaeologist, Paioneers MAY 12, 13:00 - 14:15

Internet, artificial intelligence, Bitcoin... And what comes next?

The volume of data circulating on the Internet is growing constantly and exponentially. With more data, the protection of that data is ever more urgent. The European Union has written and implemented a large number of legislative acts that seek to prepare for the future.

Data is now commonly referred to as gold or the oil of the 21st century, and the covid-19 pandemic has accelerated this development. Many social and work activities have moved to the digital environment. Big data has allowed us to respond more effectively to dynamic crises. However, there are also many challenges that have to be addressed at the European level. These include the right to privacy but also room for innovation, cybersecurity, and more efficient data sharing. Easy data sharing is one of the keys to a more connected society. Within the Czech Republic, data must travel faster between individual government agencies and across state administrations, which the Czech Republic unfortunately still has a big problem with. The topic should be opened up for discussion at the European level, which should seek to make data transfer the "fifth freedom of the EU". Data knows no borders, and even on this issue, our continent should not become a fortress. There

is undoubtedly a need to strive to preserve the transatlantic link (the topic of, among other things, the great importance to the Czech Republic) and connectivity with other countries. All companies are welcome in the European Union, but they must comply with European rules and laws. In addition, small and medium-sized companies should have access data on which there is a de facto monopoly by a few tech giants so far. Regulating new technologies is general-

ly difficult. Since their development takes place very quickly, the law must focus mainly on principles that will then be applicable even when the legislative process is way too slow to catch up. Moreover, it is difficult to predict future developments. However, it is good that the European Union is trying to respond to new technologies.

Artificial intelligence and big data allow for a dangerous accumulation of power and influence. This is what the Artificial Intelligence Act and the Data Act, which emphasize the principle of autonomy, try to prevent. In particular, users should be able to find out on which basis algorithms personalized content on social networks is generated. The regulation of Al should be based on a risk-based approach, i.e., the greater the risk from a particular use of technology,



the higher the level of responsibility that arises, as well as on the principle of control (the highest level of responsibility follows the person with the greatest degree of control over Al). In any case, an appropriate balance must be struck so that excessive legal barriers do not jeopardize innovation and the EU's global competitiveness. For small and medium-sized businesses, there should be solutions prepared in advance to help them overcome these legal obstacles. At the same time, Europe can draw many inspirations from abroad. The European Data Act is already working with a concept based on the American model, in which the issue of data is considered part of economic and not personal law. Thanks to this, users have legal control over their data autonomously and possibly can "trade" with it.

The attitude of companies towards private data is also fundamentally changing. Previously, private data was considered the most valuable thing that companies had at their disposal, but with more sophisticated legislation and due to frequent attacks on this information, it has essentially become an unwanted burden.

SPEAKERS



Dita Charanzová

Czech Republi

Vice-President and Member of Parliament, European Parliament, Renew Europe



Vladimír Dzurilla

Czech Republic

Director, National Agency for Communication and Information Technology



Ondřej Vlček

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CEO, Avast Software



Alžběta Krausová

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Researcher, Department of Private Law, Institute of State and Law of the CAS

MODERATOR



Petr Očko

Czech Republic

Deputy Minister for Digitization and Innovation, Ministry of Industry and Trade of the Czech Republic





Financial Technology of the Future

Until recently, the financial technologies of the future were seen as science fiction; today they represent a dynamic and developing field. Technology-based financial services are becoming more widespread. What development awaits FinTech not only in the Czech Republic but also in the other EU Member States?

In Estonia, digitization penetration reaches 93% while in the Czech Republic, that figure is only 15%. This figure testifies to the need for further digitization in the Czech Republic. However, to achieve this goal, first and foremost, there is a need for help from the state with communication and digital education, not only for users but also for companies. A major obstacle lies not only in the ignorance of many Czech users in the field of electronic tools but also in the approach of companies, many of which are not yet ready for digital transformation. Here, the state should intervene not by pressuring digitization

and regulation, but on the contrary, by offering help and adjusting the necessary legislation.

For the highest possible user comfort, states should not unnecessarily introduce excessively restrictive regulations in the field of digitization. However, if regulation is necessary, it should be undertaken. Certain regulations may occur, for example, concerning open data, due to the threat of money laundering. In Estonia, there has long been a debate about open data, the transparency of which is hindered by the principles of personal data protection. But there is a solution in the form of synthetic data, which can also inspire the Czech Republic. It follows from the above mentioned, that for successful digitization it is necessary to promote technology, transparency, and, if there is a real need, targeted regulation.

At the heart of all FinTech, regulations should be an effort to increase the



harmonization of rules at the European level. It is crucial that European fintech firms are able to compete with firms on a global level. However, different regulations across the EU remain an obstacle, making it difficult for them to work together.

There are currently also differences between the Member States in how they allow access to their public services. The EU is working to ensure that EU citizens, regardless of nationality, can also use their national identity cards in the other Member States. This is an issue that needs to be addressed not only in the EU but also at the national level. As the EU struggles to keep pace with the rapid development of technological innovation, it should promote regulations that are principled and take the future into account.

SPEAKERS



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Ott Velsberg

stonia

Government Chief Data Officer, Ministry of Economy and Communications



Greta Schulte

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Jan Blažek

Czech Republic

Chairman of the Board, Banking Identity

MODERATOR



Jana Brodani

Czech Republic

Executive Director, Capital Market Association of the Czech Republic



There are extreme demands on the modern transportation of the 21st century. Europe plans to be climate-neutral by 2050, which means decarbonization of transition quite soon. How will e-mobility and the associated autonomy or digitalization translate into transportation and our lives? Furthermore, how will companies have to adapt?

E-mobility must play a key role in Europe's carbon neutrality plans. The number of electric vehicles has to skyrocket by 2025. However, it is not only about the vehicles themselves, but also about the charging stations and their availability to ensure the greatest possible mobility. In order to efficiently deploy stations, it is necessary to have data and information on user needs. Mobility must benefit people as well as companies, cities, and municipalities. Users themselves also play a key role in expanding and promoting mobility. Part of the transformation process is therefore

to educate users and debunk any myths and misinformation; for example, many people think that the problem with electric cars is limited range, but this is not really an obstacle.

Sweden has the largest fleet of electric vehicles in the EU. E-mobility is dealt with by the Swedish start-up Einride, whose agenda is the development of digital and electric vehicles. At Einride, they see transportation as a service and customers are partners for them, essentially participating in development by providing data on user needs. It is necessary to think about what the transport system will look like in the future and based on this, to effectively deploy charging stations. Digitalization has to be used to benefit all parties and to work towards the UN Sustainable Development Goals through ideas.

Today, the agenda shifts to the connectivity of the customer's needs, the vehicle itself,



and the adjacent infrastructure. This means that the entire ecosystem is also sold with the car, which today includes user-friendly charging infrastructure (accessibility of stations) and the ability to charge both on the main routes and at home.

At the European level, there is a consensus among the states on e-mobility, but the subsequent transposition into individual states is lagging behind. The Czech Republic is not legislatively prepared for e-mobility and there is no wider discussion. The legislator should also think first and foremost about the health and safety of citizens and then set clear rules with regard to smart mobility or autonomous systems. It is necessary to collect and evaluate data; create smart roads in addition to smart vehicles, and strive to educate citizens on sustainability, ability and alternate modes of transportation.

SPEAKERS



Marek Novák

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Nataša Obermann

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MODERATOR



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Democracy and digital society 2.0

Technological change also poses new challenges for liberal democratic systems. With the development of social networks, a situation has arisen where the de facto largest media are not regulated by media laws. Historically, the media played the role of protector in democracy, but today it can be argued that social networks are its greatest threat. Moreover, the functioning of social media can be abused by actors such as the Russian Federation, who have long and systematically sought to reduce trust in democratic institutions and democracy. When creating new legislation, whether, at the level of the European Union or the Czech Republic, it is first necessary to understand what exactly is subject to regulation. Searching for individual disinformation and then enforcing its removal is not only an inelegant solution but also a fight against windmills. The essence lies deep beneath the surface of the problem. The algorithms based on which the content of our social networks is created are now set up purely to present to a potential customer as many ads as possible and thus keep users online as long as possible at any cost. Tech giants are using artificial intelligence to make a social network algorithm display an ideal cocktail of information that amuses us and confirms our beliefs, as well as information

that makes us angry. Negative emotions have great potential to keep us online. Lies have always been a part of political life, but at a time when lies and disinformation are amplified by the mechanisms of social networks, it is necessary to look for legislative solutions.

Traditional media today are unable to find their place on new social media platforms. They are often represented on social networks, but their presence here is not rewarded. And it is the traditional media that are responsible for creating quality content, so indispensable for any healthy democracy. At the same time, there is a relatively easy solution – to tax advertising presented on social media and invest the collected funds raised in support of traditional journalism.

The Anglo-American world has experienced a great upsurge in so-called identity politics in recent years. This is a relatively neglected topic in continental Europe, but it should be given more attention, as diversity affects the quality of democracy everywhere. In other words, it is not only dangerous if the media are owned by one rich man, e.g., Jeff Bezos, but also if the media are controlled by one million white heterosexual men. Diversity also needs to be addressed in the context of counter-disinformation scenes.



Disinformation can now be thought of as a commodity requiring supply and demand. The offer may be the same in Scotland and London, for example, but Scots are much more prone to misinformation because they do not feel connected to their community with the mainstream media. This lack of connectivity in society in turn leads to some people trying to seek information from other sources that seem to understand them better, often disinformation websites and information shared on social networks without securing and citing a reliable source.

The same mechanism works at the transnational level. Media coverage of the war in Ukraine may have given the public the impression that the Russian invasion was something special, as Europeans and white Christians were victims. Human suffering in wars in the countries of the Global South, on the other hand, has been portrayed as something normal, which contrasts markedly in the eyes of the public with the events in Ukraine. This may be a factor that creates a lack of understanding for some Britons and Americans about the horrors in Ukraine, and which motivates the public to seek alternative sources of information that seem closer to their views.

SPEAKERS



Timmy Dooley

Ireland

Senator, Vice-President-Designate of ALDE



Michael O'Flaherty

reland

Director, European Union Agency for Fundamental Rights



František Vrábel

Zech Republi

Founder and Director, Semantic Visions



Tereza Bartoníčková

Czech Republic

Scientist and Founder, Internet Institute



Marcus Ryder

Inited Kingdom

Journalist and Lecturer, Birmingham City University

MODERATOR



Roman Máca

Czech Republic

Analyst, Institute for Politics and Society



Digital Security in the Age of Cyber Wars

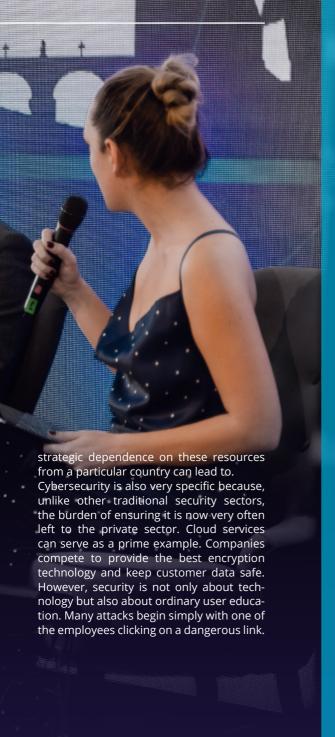
Digital security is a crucial topic these days. The danger in virtual space is even more important because of state actors such as Russia or China, but also because of the illegal activities of cybercriminals.

The Czech Republic is trying to approach cyber security horizontally. Cybersecurity must be built across the entire society. The National Security Strategy for Cybersecurity is based on three pillars: our national capabilities, international cooperation, and building a resilient society. The state is essential for building cybersecurity, but it cannot provide security in the digital environment on its own, which is why we need a society-wide approach.

Included in cybersecurity, there are elements that we could think of as "physical" security. For example, resilient supply

chains and resilient critical infrastructure need to be ensured. This shows why foreign policy, diplomacy, and cooperation with our foreign partners form an essential part of the Czech strategy. In the private sector, for example, the Czech Republic has a project aimed at the security of digitization of healthcare in cooperation with Microsoft. At the state level, it is necessary to set up regulations well. We must not overregulate the digital space to hamper innovation, nor must we underregulate and create systematic security risks.

Data backup should be transparent. It is always advisable to know where Czech data is located and store it, if possible, in "friendly countries". Today, data is a strategic raw material just like oil or natural gas; needless to say, what problems



SPEAKERS



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Jeff Bullwinkel

United States

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Sara Polak

Czech Renubli

Artificial Intelligence Archaeologist, Paioneers



Few areas have experienced such a revolution as education since the outbreak of the pandemic. Technology expands and simplifies the capabilities of the education system, but it can also act as a disruptor to it. What is the future of the whole system in the context of digitization?

The pandemic has shown both the positives and the negatives of online technology. The possibility of online study seems to be a positive, but its negative lies in the limited human contact, which is reflected in the decreasing activity and interest of students in teaching. Technologies should be used as an aid in non-standard situations, but they should not be the main means of communication.

Over the past two years, we have realized that digital solutions cannot replace real education and social contact. We must always have a balanced approach to what can be done in a virtual environment and what requires direct contact with students.

To achieve this, digitalization should start with a good project, and first and foremost it is crucial to define how to increase the technological literacy of society.

To start digitizing education, no more equipment is necessary than an ordinary mobile phone or laptop. Still, there is a gap in today's society between those who have technological literacy and those who do not. For this reason, it is necessary to change the mental settings of users so that digital technology becomes a means accessible to all. In addition, for a more effective education system for secondary schools, it is important to connect it with business, so that students have the opportunity to gain practical experience, among other things. At the same time, it is necessary to work on teaching methods and create more effective teaching strategies.

Finland puts great emphasis on professional teachers. During the pandemic, they applied all their skills, took advantage



of financial and other support from the state, and managed to provide distance education to young people at a high level. But the lesson of the pandemic is that digital solutions cannot be implemented at the expense of classical pedagogy. Despite the digital equipment, students have faced a lack of socialization, and therefore the challenge of digitalization is primarily how to preserve the community nature of schools.

After the pandemic, there is a changing role for national governments that are unable to bring fundamental changes to the education system. In the Czech Republic, it is necessary to build an integrated approach that involves companies, non-governmental organizations, and other units such as regions or municipalities. An important factor in the development of education is mainly school heads and their ability to cooperate with all stakeholders, including private companies or the non-profit sector.

SPEAKERS



Ivo Vondrák

Czech Republic

Governor, Moravian-Silesian Region, Member of Parliament, Chamber of Deputies of the Parliament of the Czech Republic



Minna Kelhä

Finland

Director-General, Finnish National Agency for Education



Vojtěch Petráček

Czech Republic

Rector, Czech Technical University in Prague



Barbora Bühnová

Czech Renublic

Co-founder, Czechitas; Vice-Dean, Masaryk University



Petr lonák

Czech Republic

Member of the Board of Directors, Confederation of Industry and Transport

MODERATOR



Bohumil Kartous

Czech Republic

Director, Prague Innovation Institute



The health sector is improving and moving forward rapidly, including in the area of eHealth. However, the Czech Republic is still not able to start digitization as successfully as we can see, for example, in Denmark or Estonia. The Kingdom of Denmark offers its citizens a portal on health, which is very popular. Among its advantages can be found, the ability to share your health records with other people. Older citizens can offer their younger family members access to look into these records and sharing also helps doctors to efficiently work with patients and colleagues.

Estonia is similarly renowned for its successful digitization of state administration, which began after regaining its independence in 1991. The citizens of Estonia are very demanding on this issue and the state must constantly respond to their requirements, whether in e-health, education, or mere communication with state

institutions. In the world of digital technologies, development is moving extremely fast, and governments must strive for constant reforms to keep up with the latest technical solutions. For example, Estonia directs only about five percent of its GDP into health care, with the average in European Union countries being between nine and ten percent. This slight underfunding of the health sector forces the government to strive even more for effective digital solutions that can ease the tight budget. During the pandemic, according to government data, about thirty percent of doctor visits were online. Other areas, such as mental health care, show even more promising results.

The Czech Republic is still coming to terms with distrust in digitized healthcare, triggered by the failure of IZIP's electronic health book project at the beginning of the last decade. It is necessary to try to restart digitization and change the idea that



investing in health care means building a new hospital. The scope for improvement is wide. From better prevention-oriented education of the population to regular blood sugar measurements, to easier data sharing between residents and institutions. The key to success may be the enactment of a common API (interface for application programming) for all institutions. This small piece of legislation will draw a clear space in which the private sector should move in terms of computerization and allow for decentralized data sharing.

SPEAKERS



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Morten Elbæk Petersen

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Martin Zeman

Czech Republi

Director of IT and Computerization of Health, Ministry of Health



Veronika Oudová

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Ambassador, European Innovation



liří Pecina

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1st Vice-Chairman, Alliance for Telemedicine, Digitization of Health and Social Services

MODERATOR



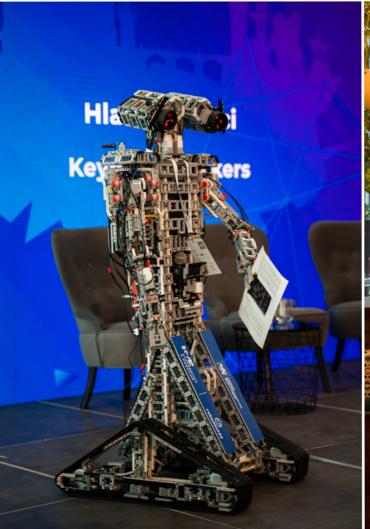
Tomáš Doležal

Czech Republic

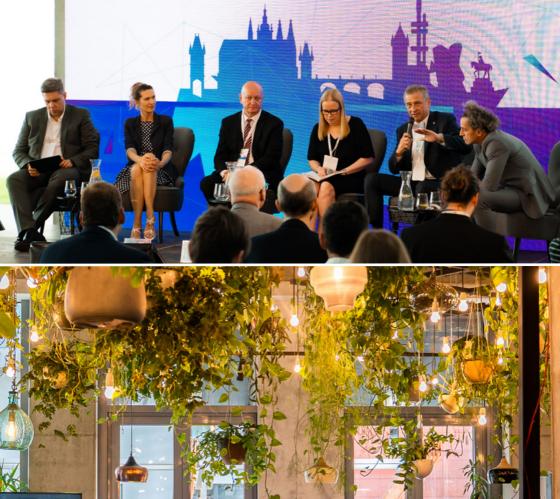
Director, Institute for Health Economics, Co-founder, Medevio













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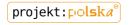
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The mission of the Institute is to cultivate the Czech political and public environment through a professional and open discussion and to create a living platform that names the fundamental issues, elaborates their analyses and offers recipes for their solution in the form of cooperation of experts and politicians, international conferences, seminars, public debates, political and social analyses available to Czech society as a whole. We believe that an open professional discussion and knowledge of the nature and causes of individual problems is a prerequisite for any successful solution to the problems of contemporary society.

The main themes of our efforts are social transformations, foreign and security policy, defence, European affairs, ways of adapting to emerging climate change and sustainable development, as well as education, schooling, digitization, energy and its new forms, urbanism, life in the city and in public spaces, and last but not least, the issues of values in politics and human rights in our country and in the world.

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