

VISEGRAD / INSIGHT

Our.Future: Visegrad 2025

GALAN DALL
DIÁNA BARTHA
DANIEL BARTHA
BOTOND FELEDY
MICHAL HUDEC
TOMASZ KASPROWICZ
TOMAS KOLOMAZNIK
ZDENĚK ROD

VISEGRAD / INSIGHT

STRAT|POL

ROBERT
SCHUMAN
Institute

CBAP

• Visegrad Fund

EDITOR-IN-CHIEF

Galan Dall
g.dall@res publica.pl

GUEST EDITOR

Matej Kandrik
kandrik@stratpol.sk

CO-AUTHOR - EDUCATION

Diána Bartha
diana.bartha@egyensulyintezet.hu

CO-AUTHOR - EDUCATION

Daniel Bartha
daniel.bartha@egyensulyintezet.hu

AUTHOR - DIGITALISATION

Botond Feledy
bfeledy@gmail.com

AUTHOR - ENVIRONMENT

Michal Hudec
hudec@euractiv.sk

AUTHOR - ECONOMY

Tomasz Kasprowicz
tomasz.kasprowicz@res publica.pl

CO-AUTHOR - SECURITY

Tomas Kolomaznik
kolomaznik@cbap.cz

CO-AUTHOR - SECURITY

Zdeněk Rod
zdenek.rod.cbap@gmail.com

PROGRAMME MANAGER

TETIANA POLIAK-GRUJIC
t.poliak@res publica.pl

EDITOR

KAMIL JAROŃCZYK
k.jaronczyk@res publica.pl

ASSISTANT EDITOR

MALIEK Banat
m.banat@res publica.pl

Executive Summary	3
Recommendations	3-4
Scenarios	5-6
Current Situation and Challenges For V4 Digitalisation	7-10
Education: Gaps and Competencies	11-15
Economic Trends and Demographic Currents	16-18
Environment - Focus Water	19-23
V4 Security	24-29

Executive Summary

The influence of the Visegrad Four has grown considerably since its incarnation more than 30 years ago. What started as a fledgling group of post-communist countries — bent on joining Western institutions and eager to open their doors to a pluriverse just beyond their borders — has emerged a collection of societies bridging the classic East-West divisions, complete with the obstacles that democratic transitions entail.

What often dominates commentary on the region, and for good reason, are the non-democratic notions like illiberalism, disinformation and the tests to the rule of law, but the V4 also offers a unique set of circumstances to catch up with their Western counterparts if they are able to capitalise on the opportunities lying in wait.

In this report, readers will find the challenges and security issues posed by a — thus far — lacklustre drive for embracing the technological change; this includes everything from the inevitable rise of automation, digitalisation and necessary educational reforms.

Likewise, the V4's environment and ecology are facing a bleak future with ever-increasing droughts and floods threatening the

existence of settlements and water security for large populations. The absence of coordinated efforts to stem the negative effects of climate change and pollution born from the use of fossil fuels have left the region with a hodgepodge and ineffective strategy for handling the crisis.

All of the following sections of the report and policy suggestions below do have a common thread running through them; the purpose of which is to create local communities strong enough to retain young people and offer them space for action and development. Otherwise, with burdens on our social systems caused by ageing populations and exacerbated by further emigration, no true breakthrough will be reached.

Bearing in mind these challenges, our background analysis and consultations with experts from across the region have formulated the following policy recommendations and scenarios that can help guide stakeholders wishing to confront the stark realities of our collective future and shape our societies into more equal environments which will attract the attention and investment from close neighbours and far-off allies.

Recommendations:

- V4 countries should be the voice of support for **free trade and the creation of more multilateral agreements**. The free flow of goods was a cornerstone of successful transformation and remains one of the major engines of development. V4 countries acting in concert should strongly oppose protectionism and economic nationalism. The transition to automation should also be encouraged.
- A readily available public infrastructure to reskilling individuals for a digital-driven labour market must be made a priority. The

complete **chain of education needs an integrated approach**: from primary school to the funding of the projects initiated by the fresh STEM graduates and beyond. This is a horizontal policy need where several ministries must cooperate, potentially aligning specialisations among the V4 to avoid inner competition and to allow enterprises and start-ups to tap into a diverse pool of STEMs in the V4 economic area. The careful socialisation and sensitisation of the youth (starting from kindergarten and with compulsory education from age 3) to cyberspace must be a similar basic skill to physical education.



- **Raise teachers' salaries and the prestige of the profession:** For a successful reform of the education system and to improve the quality of education, an increase in teacher salaries is essential as low salaries are the strongest disincentives among the young for selecting the teaching profession. There is a need to improve the prestige of the profession in every V4 member state. Also, **V4 level competency tests and the sharing of best practices** should be introduced.
- Visegrad countries have to work on **easing the burden on digital startups** from red tape to financing as they face steep competition from within the EU as well as from the US. These could be done through supporting niche industries around, for example, blockchain, cryptocurrencies or cybersecurity.
- The V4 should consider the setup of a joint **European Digital Innovation Hub (EDIH)**, under the new initiative the EU laid out in the Digital Europe Programme since the establishment of a publicly financed support ecosystem needs a well-informed decision of the V4 and a serious follow-through by all parties involved: governments, legislations, chambers of commerce and market actors.
- Public services on the same platforms: most platforms used by the V4 public services are nationally developed or certainly selected in national procurement procedures. Economy of scale might be an evident reason to call for **joint public procurement of digital services and hardware**.
- Mitigating the environmental impact of climate change is paramount for future V4 societies. **Transparent drafting, successful implementation of the water policy plans and River basin Management Plans as well as enhancing international cooperation** will be essential. This will include increasing regional capacities in the water sector and improving cooperation between the government and regional offices as well as **removing barriers and restoring floodplains and wetlands**. Moreover, the V4 should move towards incorporating renewable energy sources in pace with the EU climatic strategies, which will have the additional benefit of removing their dependence on Russia for fuel.
- Migration is a critical issue facing the EU and recently the V4 particularly. In order to tackle the problem effectively, consistency in the decision-making within V4 and in line with EU protocol is paramount. This includes **considering the newcomers as opportunities** because their qualifications and talents can foster economic growth. Though solidarity with overwhelmed neighbouring nations and buttressing EU border control should also be priorities.

Scenarios

I: Digital Challengers of Central Europe

The V4 governments take advantage of available EU recovery funds and financing to accelerate the transition into Industry 4.0, emerging from the crisis more resilient and en route to further economic convergence with the EU15. The region's low-cost production model of low taxation and cheap labour is no longer viable: wage growth continues to overcome productivity gains as a shortage of labour fuelled by brain drain and an ageing population makes automation and robotisation the logical solution.

Throughout the next three years, the Visegrad countries will receive 44.4 billion euros in grants from the Recovery and Resilience Facility, with at least 20 per cent, or 8.8 billion, allocated towards the digital transformation of their economies. National strategies of digitisation are harmonised with the European Commission's country-specific recommendations, mitigating various spots of weaknesses and overall boosting the digital infrastructure, digital skills of the population, support for SMEs and creating greener societies.

Against a backdrop of the EU's Digital 2030 Agenda, the V4's coordination of public funds leads to a division of labour that allows countries to scale up local initiatives of market leadership (i.e. cybersecurity firms in Prague or marketing automation technologies in Warsaw). Regional cooperation, whether through flagship EU projects or joint innovation hubs, props up the V4 as a collective voice that lobbies for general metrics of the CEE's digital divide on the EU level — a politicised but necessary debate

in Brussels. Given the hardships of accumulating private investment, governments ease the burden on digital startups from red tape to financing and provide tax breaks for investments in automation and AI along with similar subsidies. To address one of the main barriers to digitisation, which is the lack of digital skills, a systemic, horizontal reform in education is implemented with the goal of preparing a generation of ICT professionals as well as alleviating the brain drain to the West. A culture of innovation is further spurred by joint V4 research centres whereby public procurement of digital services and hardware becomes joint rather than national. All in all, the embrace of new technologies improves living standards across all demographics, including in rural areas.

The share of jobs at risk of automation in industry-intensive V4 is significantly higher than the EU average, thus bearing a disproportionate impact on low skill workers in manufacturing, agriculture and mining. The process of industrial automation will reach its halfway mark by 2025 and job insecurity could give rise to another wave of populism.

While reskilling is one antidote to unemployment, a series of potential roadblocks exist including quality of education, regulatory openness and the political environment. None of these problems can be fixed without addressing the democratic backsliding in countries like Poland or Hungary; a democratic government with trustworthy institutions is not just more capable of convincing international corporations that nearshoring is a better option than offshoring but is generally better-suited to reap the benefits of technological transformation.

II: Political Myopia

Political myopia of the Visegrad countries stunts the digital and green transformation of their economies, delaying the V4's convergence with the EU15. With limited resources at hand and politicians fearing the loss of votes from their base – many of whom are employed in fields ripe for automation – precious funding that could be used for the development of AI, digital education and reskilling of the population, as well as alternative energy sources, is instead used to prop up failing sectors in manufacturing.

Such shortsightedness from political leaders extends to other areas of concern as well. Rather than investing in long-term solutions that might mitigate some of the worse realities of climate change, the governments of the V4 continue to 'kick the problem down the road' with retroactive firefighting instead of proactive measures.

This puts the governments in a dilemma as the consequences from flooding, drought and evermore severe storms lead to a compensation cycle for communities in vulnerable ecosystems. Eventually, some areas must be essentially abandoned as the lack of government resources and a barrage of environmental calamities makes living there unsustainable. With uncertain or inadequate employment, lacklustre infrastructure and increased environmental hardships, the younger generations follow the cue from the first wave of intra-EU migrants and relocate to more developed nations in the west, south and north of the continent. This brain drain places an undue burden on struggling social services through lower

taxation collection as well as increased demand from ageing and underemployed populations.

A few regions are able to escape this trap through a combination of factors: considerable national and EU investment into enhanced digital infrastructure and these regions' ability to become a hub for niche markets that attract both talent and private ventures when the post-COVID-19 trend for nearshoring opened up avenues for expansion.

In stark contrast, the efficient allocation of EU recovery funds in the V4 is stymied by the lack of good governance and democratic backsliding in the Central European countries who lose out on the opportunities of technological change despite facing its challenges. Business interests nurtured by the political culture of clientelism and corruption further overhaul public media space to sway public opinion against Brussels' 'obsession' with decarbonisation. With NGOs and civil society on the sidelines, infrastructure investment is given priority over the targets set out in the European Green Deal or the Digital 2030 agenda.

Divisions spark up between these more well off areas and those suffering from inadequate investment, creating a new iron curtain and leaving large gaps for populist politicians to exploit and offer simplistic solutions that continue to avoid addressing the pressing topics at hand.

Current Situation and Challenges For V4 Digitalisation

Digitalisation is a trend, an expectation, a hope and an ongoing social transformation. In most of the developed countries, it is also translated into a horizontal policy, in the form of national strategies, action plans and roadmaps.

Usually, systems of ministries based on 19th-century legacy institutions and strongly path-dependent policy silos are serious hindrances for the implementation of any cross-sectorial policy. The two signature challenges of the 21st century in this domain are undoubtedly digitalisation and climate change.

Digitalisation is a process that has started long ago. National governments were most often not trend-setters but adapters, reactive in the process. The accelerated speed of the digital evolution — how digitalised life is transforming business models, social equilibrium and politics — is rarely making it possible for legislative cycles to follow up on time.

The Visegrad group members are particularly challenged in this process as they are limited in their resources, they possess rather smaller markets with lower capitalisation and purchase power than their peers in the old EU member states. The young STEM-educated, ICT-capable generation is shrinking in numbers, due to demographic trends, emigration from and lack of immigration to the V4 region.

Finally, the significance of the digital transformation has been grasped quite late by some leading political groups in the four countries. Not only the generational gap in political

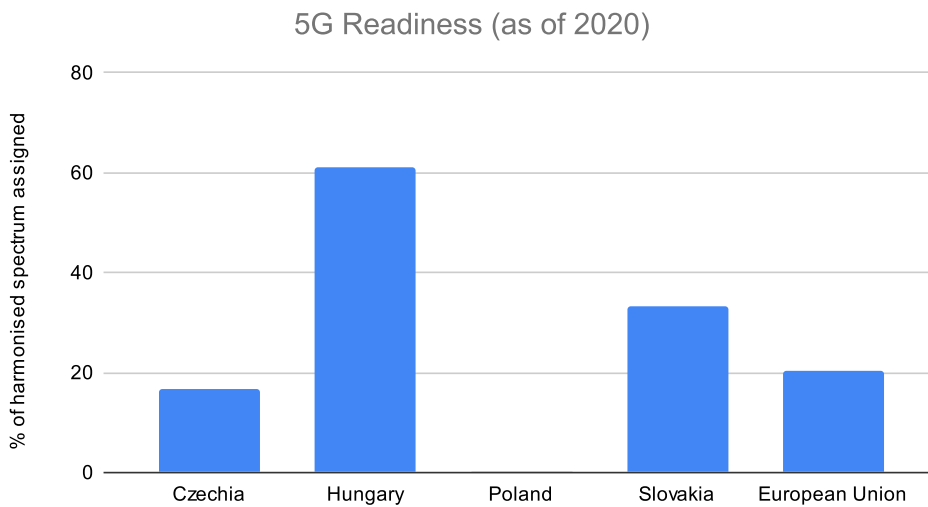
movements contributes to this but the necessary long-term public investments are overrunning the usual government mandate of four years, offering less incentive for political actors to invest resources. However, by now each Visegrad country seems to be gaining momentum — even if in different subdomains — in the large area of digitalisation. The EU context has been also helpful in pushing advantageous legislation — such as GDPR, Digital Services Act, Cybersecurity Act — on the member states legislatures.

The EU context

Digitalisation has been figuring on the agenda of the Commission for quite some time. Just before the COVID-19 pandemic hit the continent, the Commission published in February 2020 the communication Shaping Europe's digital future, later a white paper on data strategy and artificial intelligence, followed by an SME strategy.

The Commission follows the development in member states through its instrument called DESI. This is collecting data on several key areas of digitalisation, also allowing for comparison between member states. This article will rely on DESI datasets.

The communication “2030 Digital Compass: the European way for the Digital Decade” in March 2021 was published and set out tangible targets by 2030 for the entire community. A selection of highly relevant targets will be offered at the end of the article.



The V4 in the light of the Digital Compass

The four pillars of the Compass are helpful to assess the Visegrad countries as datasets are available to compare the most important aspects not only among themselves but also with the EU average. The pillars:

- Digital skills
- Digitalisation of public services
- Digital transformation of businesses
- Secure and sustainable digital infrastructures

When one looks at the DESI picture of the V4, it stands out that in most aspects the countries are below the EU average. Some remarkable exceptions exist, however. Secondly, it is also clear from other comparisons that digital forerunner Estonia and the Baltic EU-member states, despite their similar post-Soviet legacy as the V4 countries, could leapfrog more successfully in a few domains. It also remains true that the usual big member states have inimitable advantages, especially in monetisation and up-scaling of digital startups because size (and homogenous legislation) matters just as much as in traditional (non-digital) markets. At the level of digital skills, the percentage of individuals

with an above basic level of digital skills (in the age group 16-74, as in all following infographics) is above 35% in the EU while oscillating around 30% for the Visegrad Four, with Poland as laggard more close to 25%.

We find fewer individuals with low levels of digital skills in Czechia on average than in the EU while the population of Slovakia, Hungary and Poland between 35-44% falls into this category. So almost every second Polish citizen.

If we take a look at the number of individuals who have never used the internet, Poland and Hungary are above 10% in their population while Czechia and Slovakia perform better than the EU average. All in all, we talk about millions in the V4 who have never been online.

It is hardly a question that V4 governments need to prioritise the development of digital skills of their population. Individuals lacking basic skills are hardly able to enter the digital market, either for producing wealth or consuming. At the other end of the knowledge spectrum, the number of STEM graduates is a trendy measurement unit, even if tricky in this case, notably because of the pull-factors of emigration in the sector (better salary, larger corporations with more perspective, more chance for personal growth attracts easier V4 graduates to leave their countries).

The DESI measurement is based on the number per 1,000 inhabitants in the 20-29 age group, last recorded in 2016. Poland is leading with above 20 people, Hungary being the fourth with almost half of the result, hardly making 12 people.

In the case of female graduates, this is even more striking, the difference is double between Poland and Hungary. This is one of the cases of a large difference between V4 states. Furthermore, evening this gap is a Digital Compass objective by 2030.

The trend is corroborated by the cross-check of a 2020 dataset concerning enterprises reporting hard-to-fill vacancies for jobs requiring ICT specialist skills. Here Poland performs better than the EU average among the fours.

As an insight into the very specific layer of the society which has experience in programming — individuals who have written a computer programme using a specialised programming language — the EU average is 6%, met by Czechia, while the rest three Visegrad countries are around 4%. Overall, this shows a not-so-promising proportion of consumers versus producers, especially that the question is not

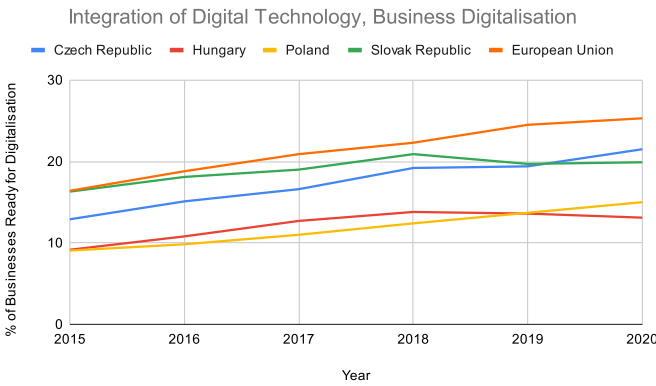
specific for programmers with relevant diplomas, but the autodidactic use of any programming language would qualify.

When it comes to the e-government and digital interaction between the state and its citizens, the picture is usually promising.

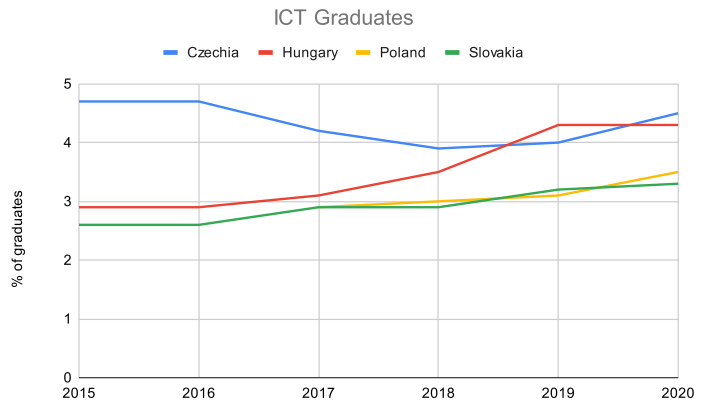
Individuals interacting online with public authorities over a period of a year (from the age group 16-74 of all internet users) climbs to 70% in Hungary, while it remains at 50% in Poland. One finds similar brackets for individuals submitting forms online.

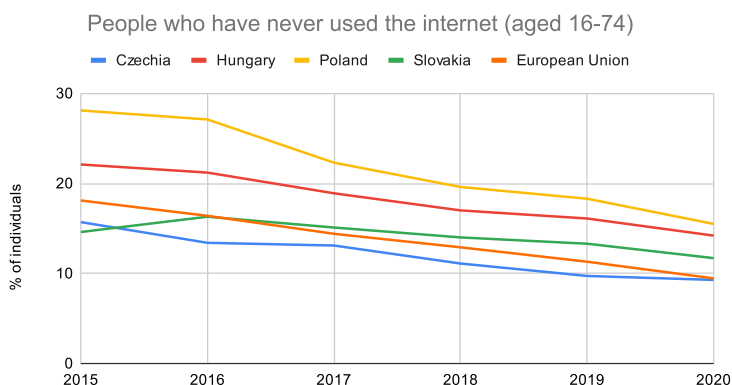
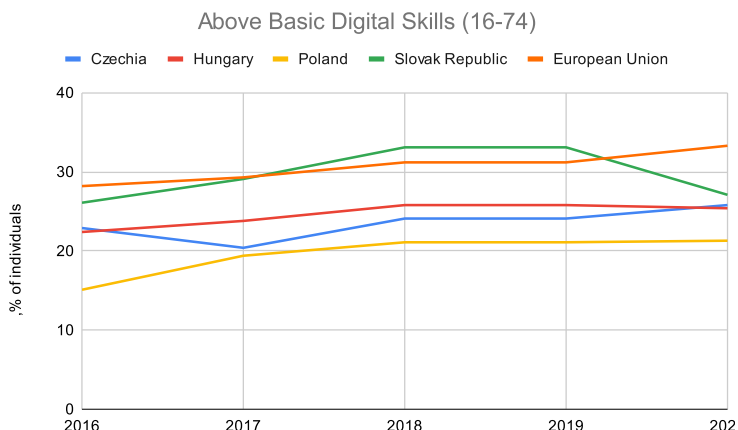
The OECD Survey on Digital Government 1.0 has data only on the Czech Republic, and none of the other V4, quite curiously. While the index is quite detailed, one may assume that the other V4 are at best around the Czech results, which falls below the OECD average. On the composite index, the average is 0.5 whereas Czechia scores 0.43

The OECD digital government index consists of six separate domains, each measured on its own. Without entering into details, it is showcasing where the V4 governments might need to boost the digitalisation of their public services. In light of the OECD



Data from all charts in this section come from the Digital Economy and Society Index (DESI).





assessments, it seems the technological know-how is either at hand or ready on the market, the more difficult part of the development is the shift of the mindset of public servants and the (lack of) pressure by the population for more digitalisation.

- Digital by design
- Data-driven
- Open by default
- User-driven
- Proactive
- Government serving as a platform

The secure critical infrastructures where their vulnerability consists precisely of their digitalisation, remain largely national compe-

tencies, despite the NIS directive of the EU. While transnational energy grids and electricity connections, gas interconnectors exist and are critical to the V4 countries, they remain usually under state control or direct influence.

The telecommunication networks are, to the contrary, privatised and run by large regional players such as the German Telekom group, Vodafone and others. The secure flow of information, upgrade to 5G and the growing prevalence of fibre optic cables are common characteristics of the Visegrad countries. In other words, the hardware side of digitalisation is more advanced than the software and skill aspects. Lacking legacy infrastructures, V4 are offering good quality broadband connections.

Education: Gaps and Competencies

In this chapter, we are going to examine the educational system of the countries of the Visegrad Group, namely Czechia, Slovakia, Poland and Hungary. In the first part of the paper, we present the main structural characteristics of each country, then we compare them by focusing on important trends and highlighting common elements of their educational systems. Finally, we draw up recommendations in selected key areas.

Czechia

The Czech education system is the most decentralised among the V4 countries. The Ministry of Education, Youth and Sports is formally supervising the education system, but the Ministry is only responsible for structural decisions. They decide on the main development areas, arrange financing and allocate the budget. The Ministry sets the qualification requirements of teachers while regions and municipalities are responsible for the establishment of schools and the pedagogical work.

In Czechia, the importance of pre-primaries in early childhood education is acknowledged. Municipalities have to assure pre-primary school for children with permanent residence above the age of 2, and it is compulsory for children above the age of 5.

Primary school attendance is obligatory for children above age 6 and lasts 9 years. Although primary education is organised in a nine-year training, multi-year secondary schools and eight-year conservatories are also available. Pupils usually leave primary school at age 15 and can choose between general education and vocational training. We consider the short compulsory education as a weakness in the Czech system because it can be the main obstacle in further reducing the number of early school leavers.

At the end of secondary training, students finish their studies with an examination (Maturita) or a

VET certificate or without a certificate. The examination serves as an entering criterion for tertiary education.

The state offers follow-up study opportunities to VET degree holders to acquire Maturita and in this way opening a new career path and facilitating the application to tertiary education. Conservatories besides the secondary training provide tertiary education on art. Tertiary education is divided into three cycles: Bachelor, Master and Doctoral degree programmes, however, non-structured long Master programmes are also available.

Slovakia

In Slovakia, the educational institutions are governed by the Ministry of Education, Science, Research and Sport of the Slovak Republic. Public schools in Slovakia are free of charge and the institutions follow state-developed educational programmes. The Ministry is responsible for the development of the content, goal and methods of education. The finance of the schools is normative-based, the allocation of money depends on the number of students which may create territorial disadvantages between children in the countryside and in the capital. Besides the public schools, the state also finances private and ecclesiastical schools.

As a highlight of the Slovakian system, nurseries are available in Slovakia for children between the ages of 6 months and the age of 3. The early development of children is important, and the possibility of a nursery helps the employment of the parents. This stage is independent of the educational system. Pre-primary education is provided for children between the ages of 3 and 5, and compulsory school attendance is between

years 6 and 16. Primary and lower secondary school is a 9-year long single structure, which also supports the decrease of the number of early school leavers. Upper secondary school starts at the age of 15. Pupils can choose between general, vocational and art education.

Conservatories also exist in the system that provides secondary and tertiary professional education of art. Tertiary education is divided into Bachelor, Master, and Doctoral programmes.

Poland

When talking about Polish education, it is necessary to mention the education reforms implemented in 1999. The most important element of the reform was the extension of compulsory education; the new structure provided 6 years of primary education and 3 years of lower secondary training. In that system, compulsory education was extended to 9 years. In 2004, a 1 year compulsory pre-primary was implemented for 6 years old children which also served as a tool

to develop their skills. This law was modified in 2011, to start the compulsory pre-primary education at the age of 5.

Since 2017, a second compulsory education reform came into force: compulsory education provides 8 years of primary school. After those 8 years, pupils can opt for public and non-public post-primary schools: general secondary, technical secondary, vocational training or art schools. Three types of exams measure the performance of the students: the eighth-grade exam, the maturity exam and the vocational exam. The reform shortened the years spent in compulsory education, but at this point, we can not measure the success of the new system as there is no available information and comparable results.

Higher education does not follow the Bologna structure: Polish students can enter fee-based at least 3-semester-long specialist programmes while undergraduate students

Figure 1: Public spending on education as a percentage of GDP (levels 1 and 2)

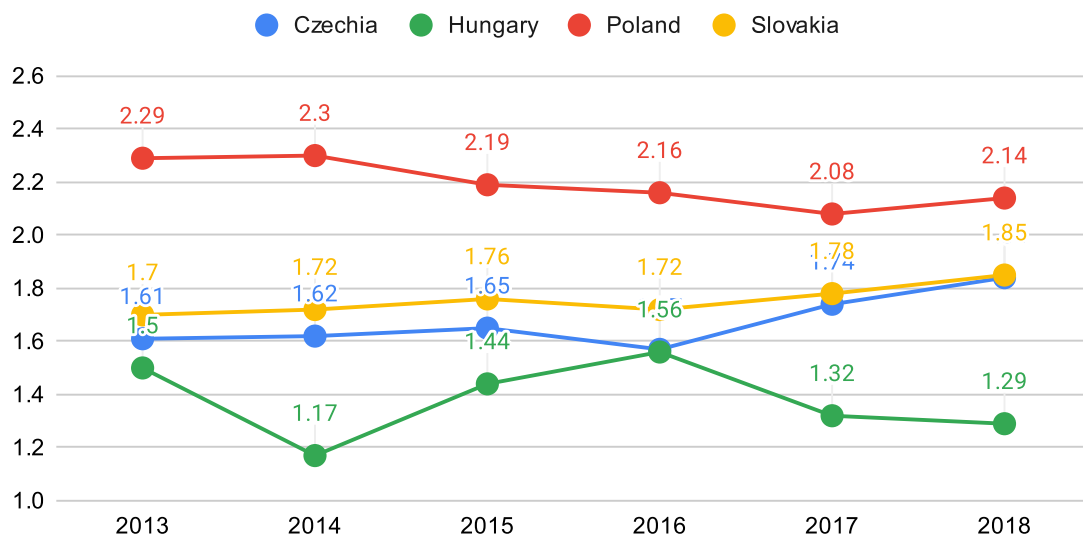
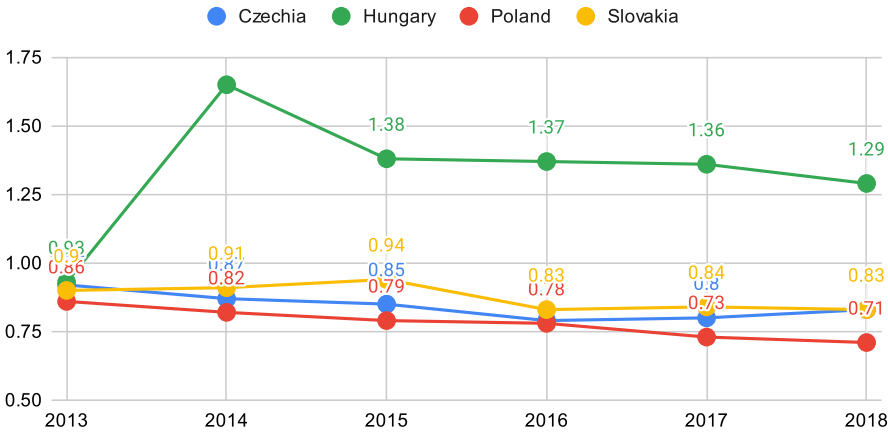


Figure 2: Public spending on education as a percentage of GDP (levels 3 and 4)



with maturity can apply to first-cycle programmes. Graduate pupils may attend second-cycle programmes or long-cycle programmes that provide Master degrees. In Poland, Higher Educational institutions can be named academies, universities, or technical universities.

Hungary

The Hungarian educational system is highly centralised as the maintenance of the schools and kindergartens is a state responsibility. Besides the VET and adult training — which lies with the Ministry for National Economy — Katalin Novák the Ministry of Human Capacities is in charge of public education. Although public education is centralised, it is feasible to establish private schools, international schools, and ecclesiastical schools.

Education is mandatory between the ages of 3 and 16. Creche is optional and offered for children aged 20 weeks to 3 years, and it functions as a driver and a possibility for parents to return to the job market.

Kindergarten is for children between the ages of 3 and 6, however, the system suffers from the lack of capacity. Primary school is obligatory above the age of 6. Primary and lower secondary (from grade 5 to 8) school is based on an 8-grade

school system. Students have the opportunity to transfer from the 8-grade system to a 6- or 8-year-long general secondary training. This opportunity strengthens the selectivity of the school system: the most talented students and also the children of higher socioeconomic status opt for other training and leave behind the underprivileged ones.

The secondary school system enhances the inequalities, general secondary schools are usually open for children of higher social classes; meanwhile, vocational schools or special education institutions appear as a possibility for children of lower social classes. The governmental decision about the lowering of the age of mandatory education boosted the separation of children of different social classes. Public education — besides the special education schools — ends with a general and nationwide examination. The results of the examination and the average of the secondary school grades serve as an entrance to higher education.

Higher education is available in state- and privately-funded universities. The training usually follows the Bologna model, a 3 years long training of Bachelor and a 2 years long Master degree programme. After the fulfilment of the 5 years,

students can apply for Doctoral studies. Besides the Bologna structure, there are undivided programmes (10-12 semesters) in the disciplines of medicine, law and teacher training.

Equal opportunities

One of the most urgent problems in the examined countries is the unequal distribution of opportunities. Not all children have access to high-quality education. The educational system is not capable to fulfill the most important task: to ensure equal opportunities.

The attendance of pre-school institutions is an important indicator as the most important skills are developed the best between the age of 1 and 5. In Poland, early childhood education remains low, enrolment of children under 3 years was 11.6% while the EU average is 34.2%.

Currently, schools and teachers can not adapt to the different students' needs. As a consequence, schools focus on the development of the children of the higher social classes while the most disadvantaged ones are excluded. The equality of opportunities is damaged in this area as well. Not only socially excluded children are in danger, but pupils with physical or mental disabilities or those who require special educational needs as well.

The development of equal conditions and the provision of access to quality education is a universal right. The early intervention — if it is needed — can be only assured if the educational system is well-constructed. The prevention of early school leaving is essential likewise the promotion of the importance of tertiary studies.

We argue that longer compulsory education is beneficial both for the children and for the country. The Polish example proves that the extension of compulsory general education is rewarding. International research and labour market feedbacks showed a positive change as an effect of the longer compulsory period.

As an entirely opposite example, the Hungarian model strengthens the separation of children, by offering several education paths and lowering the age of compulsory school attendance. Another important problem to address is the growing number of early school leavers, which has a geographical aspect too.

The region would like to challenge these problems by focusing on VET training. The number of students applying for VET is higher in Poland than the average of OECD countries. Czechia and Hungary also opt for vocational education, they want to react to the needs of the job market. The enrolment rate to VET in Czechia was 72.4% in 2017 while the EU average was 47.8%.

Those who drop out of VET trainings or leave school without a general certificate usually find low-paid and low-qualified jobs. The national curriculum must be revised to focus on skills needed in the future. We believe vocational education is cementing social mobility and the region's capability to avoid the middle-income trap.

Teacher training and the future

By examining the educational system, the shockingly low salaries are clearly the roots of the most urgent problems. Current salaries of the teachers do not represent the importance of their profession and their role in society. On the other hand, salary progression is flat, teachers earn less and their salary grows slowly. One good example: in Poland, as a reaction to the dissatisfaction of teachers, the state implemented radical reforms in 2019. The reform was the consequence of national strikes and demonstrations, which awoke due to the educational system reform.

The reform of the teaching training system with the aim of the development of teaching methods and the recognition of students' needs is urgently needed. If we do not think in subjects, but in competencies, teachers can use more attractive teaching methods.

Teachers complain about the time they spend on administrative tasks instead of pedagogy. It is a national interest to change the educational system and reduce administrative burdens.

Demographic trends

Ageing of the teacher population is a widespread problem among the examined countries. In Poland, almost one-third of teachers are over 50 while in Hungary the ratio is almost half. That means that one-third or half of the teach-

Our Future:

er population will retire within ten years. Parallely, the recruitment and training of young teachers is not successful. Not the best students become teachers and a lot of them drop out of the system during the training or opt for other professions after a few years spent in the public education system.

On the other hand, the average number of students is decreasing, due to the general population decline, which helps to reduce the immediate effect of the decline in the number of teachers.

Politicians and experts have the opportunity to create an attractive educational system, by responding to the trends described above. They should develop pedagogical methods, or even rethink the role of schools. Due to the demographic trends, we need to restructure the whole system.

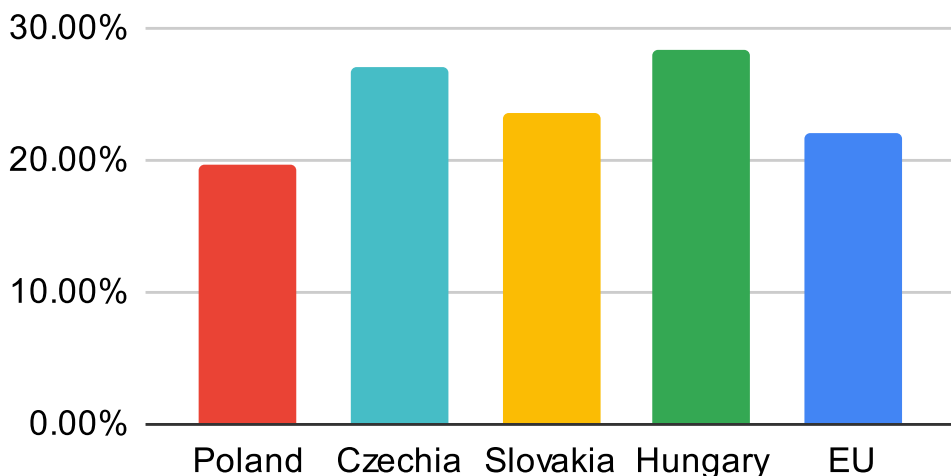
We have to also consider the fact that the decline of the number of students is significantly present among families of higher socioeconomic status. The number of disadvantaged students grows or stagnates. There are two opposite trends present, which means that fewer and fewer teachers have to

deal with the growing proportion of disadvantaged students.

Higher educational trends

Generally, the international recognition and the quality of higher education is low in the examined countries, therefore a growing number of students opt for leaving their home countries to study abroad. Central-Eastern Europe is also not an attractive destination for students from Western countries. However, some of the Central-Eastern universities can reach global standards, for example, the Charles University of Prague or the medical training in Hungary; therefore, we have to focus on the improvement and innovation of the programmes and the institutions. Due to the low quality of higher education, the proportion of students studying abroad is constantly increasing. Generally, these students do not tend to come home after their studies.

Investment to GDP



Economic Trends and Demographic Currents

V4 countries share a certain historical fate and their trajectories converge despite the quite different choices they made in the past.

Poland and Hungary were on the opposing sides of World War II, yet they both ended up territorially diminished and under Soviet control. The same can be said about Czechia and Slovakia. Fortunately, in recent times, their common fate is a much better one.

After the collapse of the Soviet Union, Poland, Czechia, Slovakia and Hungary invented an efficient process of transition from the centrally-planned to a free-market economy. The path they have chosen was extremely successful and in stark contrast to their southern and eastern neighbours. Between 1993 and 2019, Czechia managed to improve its standing in the ranking of wealthiest countries by 12 places, Hungary by 10 places, Slovakia by 25 places and Poland by a staggering 38 places. At the same time, Russia fell by one place despite its huge natural resource deposits and Ukraine by 41 places. Poland's case is especially startling as it started as an underdog but managed to surpass all of these countries save Czechia, which had a large head start.

This success was fuelled by several tactics that are of importance to this day. The relative overall success depended largely on the commitment to these factors:

- Free-market reforms
- Privatisation based mostly on the sale of state-owned enterprises to foreign investors
- Adopting Western institutional order

culminating in EU accession

- Opening the economy to FDI and markets to foreign goods thus participating eagerly in the globalisation processes

The combination of these with a favourable and stable international environment was crucial to success in the past and will be also important in the future. Globalisation helped to attract FDI and V4 countries were quickly integrated into the global supply chain. Although they were much more expensive than some Asian destinations, they were close to the industrial powerhouse of the EU — Germany — and offered access to an educated workforce. This gave rise to the process of nearshoring — moving production to destinations close to headquarters yet gaining cost advantage.

At the same time, local entrepreneurship grew thanks to stable legal environments, access to the common market and large factories opened by international corporations that needed suppliers. The privatisation mode, although politically unpopular, gave another advantage; since major companies were in foreign hands, there were fewer local oligarchs to capture the state.

For many years now, this mode of operating the economy was declared as no longer viable. In particular, the analysts and policymakers indicated the need for more innovation needed to move higher in the value chain. Being just a large assembly line

is not the limit for the aspirations of V4.

As wages started slowly to converge to Western levels it seemed like the only way to continue economic growth is to become leaders of innovation — an approach in contrast to supplying relatively cheap labour. Still, any attempts to implement this strategy were largely unsuccessful as innovation is impossible to plan or induce by law. Difficulties in raising levels of innovation were especially seen in Poland where all measures of innovation and investments especially in R&D were low.

Surprisingly enough, despite these setbacks, Poland tended to grow faster and emerged from economic crises in a better shape than the rest of V4. Therefore, a simple analysis based on few indicators might not be sufficient. It seems that ecosystems built around assembly plants allowed for the development of know-how and products under the radar of traditional innovation measures. It might be that the entrepreneurs supplying simple components to large manufacturers learned gradually to fashion more and more advanced versions. This is just one of the possibilities and figuring out why this mode of operations remained successful requires further research.

The Current and Future States of Play

Looking forward, we need to first examine whether the foundations of this success are still sound to give hope of further dividend.

The institutional framework of V4 coun-

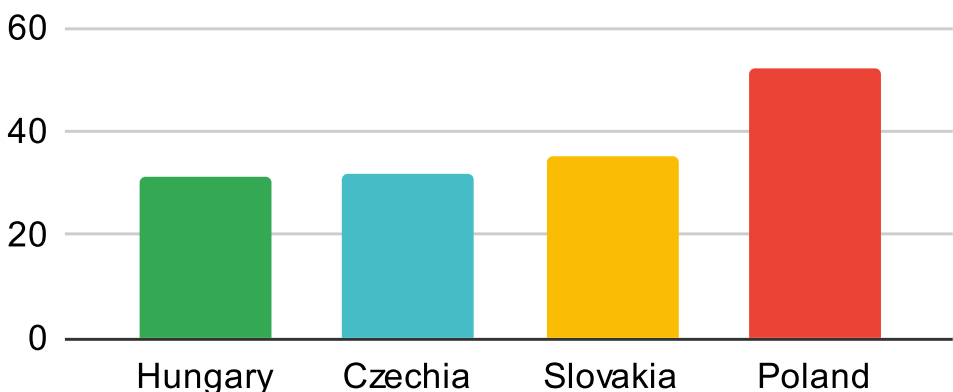
tries plainly deteriorated. After huge efforts in the late 1990s, the period after 2010 is marked by the rise of conservative counterrevolution that values sovereignty and the concentration of power.

In fact, this worldwide phenomenon seems to originate in Hungary and then moved to Poland, long before Brexit and Trump. Clearly, these two countries have the largest problem with maintaining high-quality institutions as demonstrated by constant conflict with the EU concerning the rule of law. Fear about the impartiality of the judiciary might be at least a partial explanation of the low level of private investment in Poland.

Another issue concerns oligarchy and the capture of the state. Again, initial strides were at least partially reversed and here V4 countries went different ways. Hungary used the typical method of Eastern European states where political power is used to build private wealth by transfers of public money into pockets of politicians and their cronies.

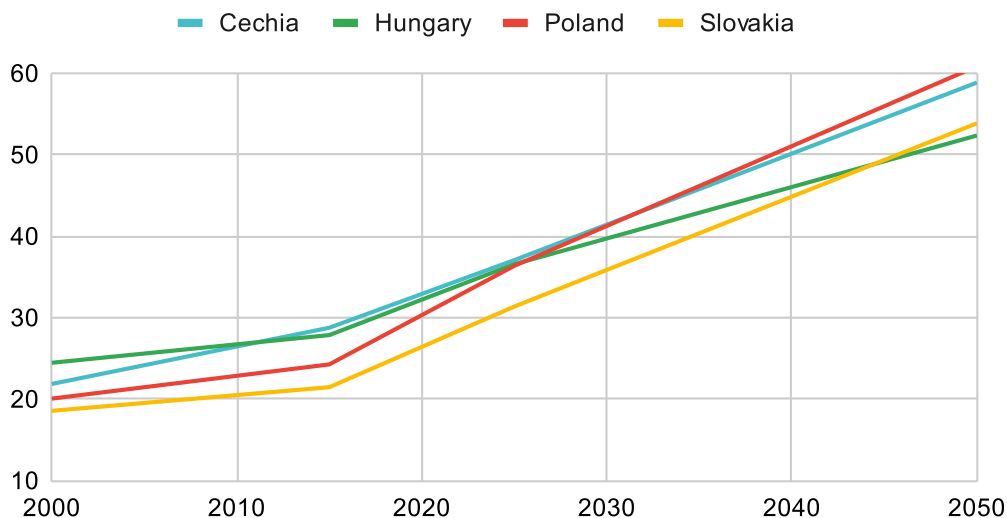
In contrast, Czechia and Slovakia have seen the rise of powerful political people that were wealthy before entering politics. Poland has chosen yet a third way. It is trying to reverse privatisation and is nationalising many companies and even sectors like banking. This gives enormous economic power into the hands of politicians and an opportunity to build a large clientele base. In any of these scenarios, private entrepreneurship is under pressure from une-

Innovation index



Innovation index

Old age dependency ratios OECD



ven competition from the political sphere.

Yet the biggest challenge of all seems to be demographics. Europe is ageing rapidly but the process is especially visible in V4 countries.

While at the accession they were one of the youngest societies of the EU, now they are quickly becoming one of the oldest. The process was amplified by the mass migration to the West, an effect of joining the EU: after 2004, these countries lost from about 1% (Slovakia) to over 7% (Poland) of their 2004 population.

Moreover, the people leaving were usually young, skilled and educated. This brain drain was initially quite welcomed as it eased internal problems — mostly connected to unemployment among youth. This of course provided short term relief but predictably backfired. V4 countries are notorious for their low fertility rates, well below replacement levels.

This leads to the dramatic deterioration of old-age dependency ratios. V4 countries in 2000 had 4-5 working-age citizens per person over 65. Now, it is less than 3 while in 2050 it is projected to be less than 2. This is a huge burden for the young that need to support not only their children but also a growing number of pensioners.

What makes things even worse, the older generation is holding political powers due to sheer numbers making sure benefits are not limited but expanded. At the same time, all of these countries are very sceptical of accepting immigrants with the most vocal being Poland and Hungary. Few solu-

tions are helping new settlers (and even those mostly on local levels) and a lot of deterrents. This forces younger generations to shoulder all of the burdens and increases the probability of rebellion — most likely in the form of another mass migration out of V4.

The shortage in the workforce is already a problem. Even during the COVID-19 crisis, unemployment in V4 did not go up a lot and is lower than average. This may sound like good news but is a sign of a systemic issue undermining the future development of the economies.

Aside from encouraging migration that does not seem to be a politically feasible option as of now, the only other choice is automation. This in turn requires large capital outlays, high R&D spending and a high level of education, none of which are strong V4 suits. The latter two are the effect of a legacy higher education system that did not go through the transformation and the reset other social structures did. It is mostly rigid, formalised, based on hierarchy and does not encourage risk-taking. As a result, universities of V4 are very low in the Shanghai ranking. This problem is amplified by growing pressure on independent scholars and institutions resulting, for example, in the exit of Central European University from Hungary or prioritising branches dear to conservative governments but of limited practical applications like theology, social science, history in Poland.

Environment - Focus Water

The following chapter focuses on the water-related policies of Visegrad countries - Czechia, Hungary, Poland and Slovakia in regards to implementing the Water Framework Directive and achieving its targets. We take a comprehensive look at the state of water policies in all of the countries with the goal of better understanding the similarities and the differences.

Environmental issues are by their very nature non-local and extend beyond the territory of any country. One of the best examples is water — a precondition for human, animal and plant life as well as an indispensable resource for the economy. In the European Union, protection of water resources such as rivers, lakes, wetlands or underground waters is underlined by the water framework directive (WFD), which celebrated its 20th anniversary in December 2020. It may come as a surprise to many that the water directive is to this day one of the EU's most ambitious and holistic pieces of environmental legislation ever created.

The most important target of the directive is to achieve a good quality of surface water and groundwater by 2027 at the latest. The WFD and related directives also aim to mitigate the effects of floods and droughts and to ensure the progressive reduction of pollution and prevent further pollution of water bodies (European Commission 2021).

Very soon after the ratification of the WFD, Central Europe learned the importance of quality water management; unfortunately, they learned it the hard way. In 2002, Czechia and Bavaria were hit by one of the largest floods in the last century. Other regions along the Danube were also seriously affected. Moreover, the large area hit by the 2002 flood went on to suffer repeated droughts in the following years. Similarly, droughts are also common in all of the Visegrad countries. The driest regions are in Hungary, south Slovakia and south Moravia, but central Bohemia and eastern Poland also had to cope with water shortages (Waisová 2018).

Visegrad countries share also other problems when it comes to the water management sector, caused partly by their history as members of the Soviet Bloc. The most notable one is water pollution caused by heavy industry, missing water infrastructure and other human interventions and subsequent decline of water quality.

Similarities can be found also in the decision-making process of the V4 countries. Some of these include inconsistencies between planning processes at the national level, the complicated performance of state administration at the level of district offices, the poor participation of local governments in planning and drafting of various policies, insufficient coordination and cooperation of local governments and watercourse administrations as well as a systemic underestimating of the importance for state water monitoring.

Floods, droughts and other manifestations of extreme weather are likely to become more common in the future due to climate change and will, to various degrees, affect all Visegrad countries because of the similar climate and weather conditions. Fortunately for them, this opens ground for cooperation or at least coordination while tackling the issues.

Some countries are already more prepared than others; however, all countries face unique problems. For example, while Czechia transformed the integrated rescue and water management system and sped up the implementation of anti-flood measures as a result of the 2002 floods, in Hungary, anti-flood systems remain weak as illustrated by the annual floods in the area around the Danube and Tisza although the situation is gradually improving (Waisová 2018). Water shortages are becoming a problem in Poland, which has one of the lowest values of freshwater availability in Europe. The 'dry man of Europe', an occasional reference to Poland, has already experienced summers where whole towns were left without water (Reuters 2019). Furthermore, it is also threatening



the agriculture sector which still employs about 12% of the population. The situation with water availability also deteriorates in Czechia — the only country in Europe with no river flowing from another country. In both of them, to various degrees, the problems are caused by human intervention in the environment, such as converting wetlands into farmland or building deep wells for irrigation which further deplete the water. On the other hand, Slovakia is in a much better position in this regard although only because of the rich drinking water reservoir on Žitný ostrov, the largest river island in Europe.

In the other areas, such as building water infrastructures like sewage systems and plumbing, Slovakia is lagging behind. In 2018, only 68.4% of the population was connected to public plumbing. The situation is only slightly better in Poland while Hungary and Czechia have over 82 and 85% of people connected (Eurostat 2021).

In the following years, achieving the targets of the Water Framework Directive and mitigating the effects of climate change in this area remain the biggest challenges for Visegrad

countries. In this pursuit, several important tools are at hand. One of them is River Basin Management Plans (RBMP) which are required to be renewed every six years by each member state to outline how the objectives for various river basins will be reached. RBMPs for 2022-2027 will be crucial as they are the last before the directive deadline. Particularly in the area of river basin management, cooperation between countries is not only much needed but also required by the very nature and complexity of the issue.

On the European level, the Commission agreed on a Common Implementation Strategy (CIS) only five months after the Directive entered into force, in order to address the challenges in a cooperative and coordinated way. Coordination of various water-related policies also takes place under the Strategy for Danube Region (EUSDR) and the International Commission for the Protection of Danube River (ICDPR). One example can be sharing the best practices and cooperating on anti-flood measures

along the Danube river (Fehér et al 2017). These frameworks incorporate all Visegrad countries with the exception of Poland.

Cooperation is also ongoing on the basis of bilateral border commissions among the countries. However, as illustrated by the dispute between Hungary and Slovakia about the Gabčíkovo-Nagymaros dams from the late 1990s, water can also be cause conflict. Moreover, cooperation is also limited (or enhanced) by the current political situations and overall relations between the countries, although not as much as other, politically-more-explosive areas.

Looking Forward

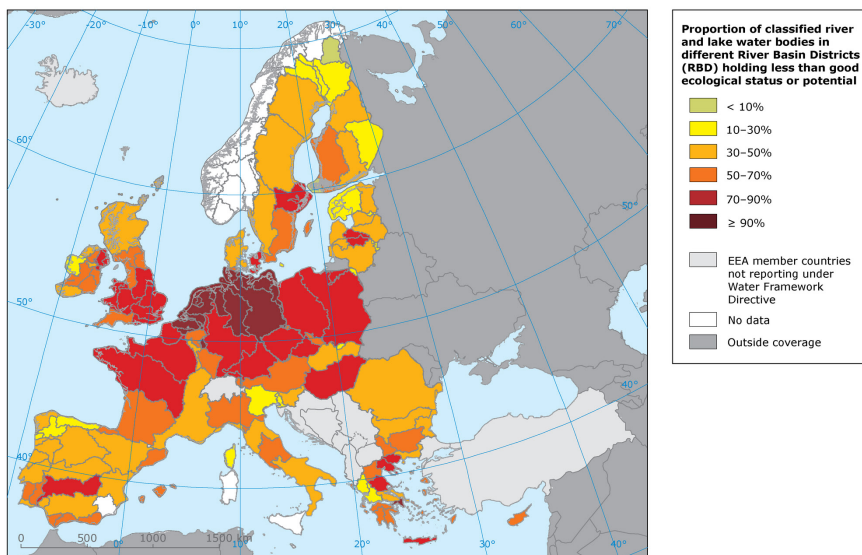
The situation in the V4 in regards to implementing the WFD and water management in general varies. For example, Czechia has more advanced antiflood measures in place than other countries while in Hungary, there is still much work to do. The quality of water bodies in Slovakia is, in general, better in comparison with other EU states, which can't be said about other V4 countries, as seen on the map below. On the other hand, there remains much to be done in improving access to the water infrastructure, such as plumbing and sewers. In the Czech Republic, Hungary and even Poland, the percentage of people

connected to the wastewater treatment facility and other infrastructure is higher (Eurostat 2021).

Despite these slight differences, the overall objectives of the WFD remain the same and there are measures that Visegrad countries can all take. Responsibility for the implementation is, of course, still on the national governments. What follows is a brief list of policy recommendations for the governments. It needs to be noted that there are many other important issues that couldn't be mentioned here for the sake of space. Measures specific only for certain countries were also left out.

Transparent drafting, successful implementation of the water policy plans and River Basin Management Plans as well as enhancing international cooperation

As mentioned above, RBMPs are crucial documents for member states in reaching the targets set by the WFD. Currently, all Visegrad countries should already have a draft of their RBMP for 2022-2027 for all the river basins. It is necessary for these documents to be transparently discussed with the public, academy, experts and all other relevant stakeholders. Furthermore, planning of measures needs to be consistent with overall water management policy and other re-



Map 1: Proportion of classified river and lake water bodies in different River Basin Districts (RBD) holding less than good ecological status or potential

lated policy areas such as navigation, energy production, flood protection, agriculture etc. When it comes to RBMP's, some countries have it more difficult than others. Poland has ten river basins, Czechia three, Slovakia two and Hungary only one. This means that successful implementation is also a question of capacities that need to be reinforced in all V4 countries.

Connecting of relevant documents to the EU Floods Directive and other relevant documents

RBMPs, Water Policy and other water-related documents need to have a clear connection not only to the WFD but also to the Biodiversity Strategy and overall goal of achieving climate neutrality by 2050. All of these documents and policies need to work hand in hand and complement each other which is not always the case in the Visegrad countries.

Enhancing regional capacities in the water sector and improving cooperation between the government and regional offices

Lack of regional capacities is a crucial missing piece in reaching the targets of the WFD. However, experts, specialists, technicians and administrative workers are also missing in other sectors such as energy. Regional capacities are important for a couple of reasons from writing a project to the successful and effective use of European and state money for implementing water-related measures.

Especially in the countries as big as Poland, but also in the others, some measures work only in a certain environment. Therefore, water policy needs to be tailored for different parts of the countries, which can't be done without capacities on a regional level. Also, cooperation between the government and regional offices need to be enhanced, so regions better understand the goals and underlying principles. Coordination between the different levels is also important for the quick flow of funds and support, which subsequently speeds up the process of implementing measures and achieving the targets.

Removing barriers and restoring floodplains and wetlands

Removing barriers to the water flow and restoring floodplains is one of the underlying principles stated by the EU biodiversity strategy for 2030. Large barriers, such as dams or a series of small structures alter a river's natural flow and cause

pressures on fish and other species as well as their habitats.

According to the EEA report, there are more than one million barriers in European rivers, about 10% of them are obsolete (European Environmental Agency 2021). Barriers are also one of the main reasons for rivers failing to reach a good ecological status as is necessary for the implementation of the Water Framework Directive. In the European Union, 3500 barriers have been already removed since 1996 when France removed the Kemansquillec dam. After France, Spain, Denmark, Netherlands, the United Kingdom and Estonia started removing barriers as well. Removing barriers is objective also for V4 countries as stated in various policy documents and in WFD as well. However, at the same time, plans for new barriers, such as dams or small hydropower stations, are emerging which is a clear sign of inconsistency of water policies and other related areas. An example is the Czech Republic. Its government proposed a plan for building 31 new small to medium-sized dams as a solution for drought (ČTK 2020). However, some experts and activists including World Wide Fund for Nature (WWF) warn that this step would only worsen the already bad quality of the surface water and push the Czech Republic away from reaching the WFD targets (Ekolist 2019).

Speeding up the development of plumbing and sewage infrastructure and water treatment facilities

All countries still need to work on expanding water infrastructure to provide the basic needs for their citizen, but the situation is worst in Slovakia. According to the Eurostat statistics, from 2018, only 68.4% of the Slovak population were connected to the wastewater collecting and treatment facility (Eurostat 2018). Connections are missing especially in the small villages that are not a priority due to the target of Council directive concerning urban waste-water treatment (Council directive 1991). The focus is on bigger agglomerations with populations over 2000. This means European structural and investment funds are also targeted to the bigger towns and cities.

To this day, Czechia is the only country that already reached the target. Poland and Hungary are lagging behind, although they have more people connected than Slovakia. Development of

Our Future:

water treatment infrastructure is important because, in the case it is missing, wastewater goes to the rivers, creeks or cesspools and subsequently, leads to increased pollution of surface and underground water bodies.

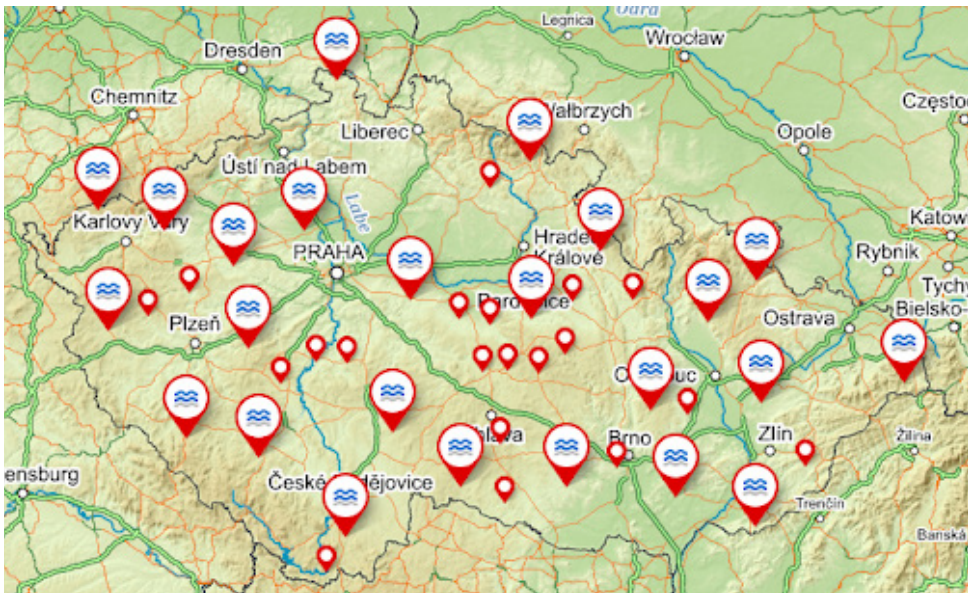
Management of droughts, floods and implementation of nature-based adaptation and mitigation measures

Countries need to step up with the implementation of preventive and adaptation measures against droughts. Special attention needs to be paid to the so-called green infrastructure, that helps to slow down the outflow of water from the basin into watercourses, increase the retention capacity of river basins, support the natural accumulation of water in suitable sites, improve the resilience of the ecosystem. Green infrastructure also leads to less heat stress in the cities, more biodiversity, clean water and healthy soils.

Droughts are becoming a serious problem especially in the Czech Republic, Hungary and Poland, although it is affecting Slovakia already as well. Three countries most affected by the droughts are already implementing certain measures. Nevertheless, as mentioned above, the approach taken by Czechia can help to provide

water when needed, but it is in contradiction to some goals of the WFD. The same goes for Poland, where the government plans to provide water for irrigation including building deeper wells that will further deplete underground water reserves (Win 2019). In general, when it comes to adaptation and mitigation measures, the principle 'do no significant harm' should be applied. This means that measures in one area should not negatively affect other areas.

According to Jozef Pecho, a climatologist from the Slovak Hydrometeorological Institute, measures for how to prepare for droughts are limited. However, the best and most useful are nature-based solutions (Vasilko 2021). Some of them were already mentioned before. For example, conserving and restoring ecosystems, maintaining mixed forest/bush landscapes with more than three types of trees, avoiding excessive water use by livestock, restoring floodplains, removing barriers in order to connect these floodplains to the river system and so on. These measures not only help to mitigate the risk of droughts but also are mitigating flooding by increasing water retention, and is the approach recommended by the UN (UN EP 2019).



Location of planned dams in Czechia. From Mapy.cz

V4 Security

The security architecture of the Visegrad group (V4) is rather multifaceted. Although the V4 as a specific nation-state grouping shares common geographical space and history and shared security threats, both worldwide and domestically, the perception of the security environment differs among the four members due to diverse political affiliations to EU and non-EU states. The V4 are also characterised by the number of ideological, procedural and substantive issues in their security policies. Furthermore, as analysts Figulová and Janková (2021) postulate, 'the positions of particular V4 states, especially on Russia and migration, diverge from the common and unified approach to security threats' as well. However, the need for security cooperation is a given considering the current geopolitical challenges and new security threats regardless of any mutual differences which are the reality and driven by their varied perceptions of soft and hard security. Where hard security is concerned, the 'gap between Poland and other member states is widening due to Poland's regional and foreign policy ambitions as well as the geographical proximity of Poland to Russia (Cabada and Waisová 2018: 13). Although the security perception of V4 states can differ, the security environment and security policy orientation remain rather similar and offer numerous avenues for cooperation such as NATO — being the crucial security guarantor of the region — and the EU.

Strategic compass

The main pillars of security cooperation should still be based on NATO and EU defence structures. The V4 countries should use their prominent position on the eastern flank of NATO — as it is an area constantly monitored by Moscow and is related to Russian power politics in the region — to create their own platform within Western defence structures, echoing similar models as the Benelux or Nordic cooperations.

The V4's direct yet multitudinal historical experience with Russia could be an invaluable asset to NATO and the EU if the countries could agree on a more 'common' strategy towards Moscow. Until this is reached, the V4 can make use of already existing platforms as a strategic compass, which should be oriented in two directions: towards the Bucharest Format (B9) and the Western Balkans. Focusing on the Bucharest format will further strengthen security potential at the eastern flank of NATO while activities towards the Western Balkans will support NATO enlargement and stability in this region.

Additionally, V4 countries should further develop cooperation with Germany as one of the key players in European security. They should also focus on closer cooperation outside Western security devices, namely Israel. Historically, strong ties stem primarily from ideological proximity, especially on the issue of security policy. The V4 could use Israeli experience in the fight against terrorism, new technology and the modernisation of armaments.

V4 and new security challenges

With respect to current security challenges, the V4 should emphasise the following five security areas: 1) hybrid threats and cybersecurity, 2) terrorism, 3) migration, 4) energy security, and 5) defence. According to the opinions of security experts from the V4, disinformation campaigns and migration will most affect V4 countries in the next 5 years. (Survey conducted across V4 countries, security experts were interviewed, 2020)

Hybrid threats and cybersecurity

Hybrid threats dominate the agenda today regarding the current and future wars as it

is often the topic of individual state and NATO-wide strategic discussions. It is related to information sovereignty and another trend in the field of security — cognitive warfare, which creates the new, third operational dimension, besides the cyber and the physical ones.

For the V4, the hybrid issue became crucial in recent years due to their geopolitical position on the eastern flank of the Alliance. The annexation of Crimea, the war in Ukraine, the activities of the Russian intelligence services in Europe, disinformation campaigns and cyber-attacks have shown that Russia is using these methods intensively within the region.

If we look at the priorities of the Polish Presidency and action plan in terms of security, we will find there is only one priority concerning hybrid threats focusing on exchanging experience relating to cyber issues and space. The V4 still concentrates its attention on traditional areas such as defence planning and capability development, establishing multinational formations etc.

In the context of the NATO 2030 strategy, which emphasises resilience to hybrid threats, V4 cooperation should move more in the following directions. Countries should closely cooperate in the development of capabilities for operating in the cognitive and virtual dimensions. They should be more effective in detecting disinformation and be able to prevent or limit its impact. Local specifics and historical experience from the Soviet era compared with other NATO members require a coordinated approach in this field. Although fact-checking platforms exist in all countries, a coordinated effort is needed to deal effectively. Countries should develop a common concept based on the strategy announced by the European Commission. As a concrete step, countries could be more involved in the Central European Digital Media Observatory (CEDMO), stationed in Prague (EDMO 2021), or focused on their own platforms.

Strategic Communication (StratCom) is another area for cooperation, which is closely connected with the limitation of disinformation's impact on society. The main focus should be on the preparation of national strat-

egies, training, and education of experts.

Cybersecurity is yet another security challenge for the future. The V4 countries are increasingly becoming victims of cyber-attacks, especially during the COVID-19 pandemic.

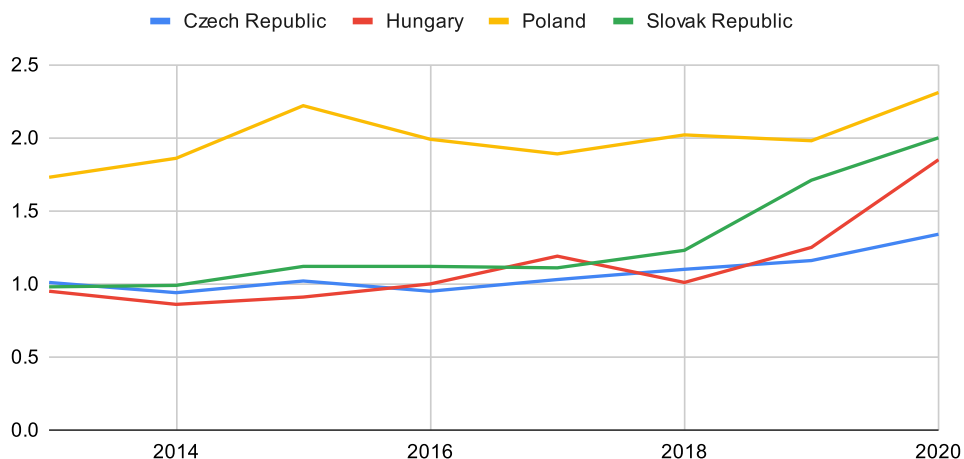
Terrorism

Faced with persistent terrorist threats, the V4 has logically perceived terrorism as significant threat. Since 2011, the V4 agenda has included strengthening counter-terrorism strategies, especially cyber-terrorism, which has become a critical threat for state or private critical infrastructure. Additionally, other pre-occupations even increased after the terrorist attacks in Brussels or Paris. However, the V4 primarily faces non-Islamist terrorism and right-wing extremism, especially cross-border far-right extremism networks or volunteers from the region joining militias in Eastern Ukraine as foreign fighters.. However, it is essential to mention that although terrorism is a crucial security threat, the risk of terrorism in V4 is less imminent than in the United States or Western European countries.

Regarding the cooperation on terrorism, all V4 states primarily use complementarily counterterrorism methodology in accordance with the international organisations. Hence, V4 states can rely on their EU and Euroatlantic bonds, mainly via shared intelligence and collective or individual police operations. These policies also reflect NATO's Counter-Terrorism Policy Guidelines focus Alliance efforts on three main areas: awareness, capabilities and engagement. In terms of NATO, the V4 also cooperates on updating the counterterrorism action plan in time for their next NATO meeting in December 2021.

Besides, as briefly mentioned above, the V4 engages in both domestic and regional efforts to manage terrorism and the international environment outside of the EU. This approach is based on the spill-over effect, which means that active radical or terrorist groups abroad can reach the EU and V4 region since the world has become considerably globalised.

Defence expenditure as a share of GDP (%)



Source: The Secretary General's Annual Report, 2020

In Afghanistan, Hungary in Baghlan and the Czechia in Logar were active via the provincial reconstruction teams (PRTs). Although the Afghan scene has experienced turbulent changes such as chaotic NATO withdrawal and Taliban rule, PRTs aimed to pursue security-development nexus approaches to combat causes of Afghanistan's instability, namely terrorism, warlords, unemployment and grinding poverty. And concerning the current developments in Afghanistan, it is vital to assess the PRTs role to carry out lessons learned for future civilian-military missions to be implemented effectively and to be able to avoid past mistakes.

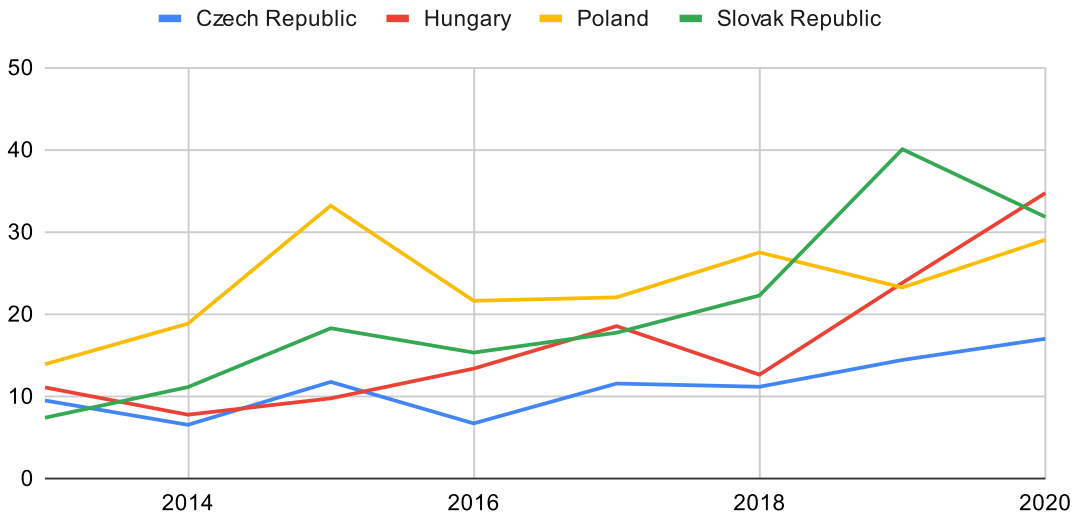
Additionally, the current deployment of specific V4 countries (Czechia, Slovakia, Hungary) can be seen in Mali within the EUTM mission to support the fight against terrorism via pieces of training of the local forces. The Czech Army, while being in the EUTM command in Mali between June 2020 and January 2021, also demonstrated that even a small state can have the ability to have a command in such multifaceted engagement like the EUTM and be recognised as a stakeholder.

Nevertheless, V4 countries never cooperated altogether in international missions. If they did so, they could develop their specific methodology to manage security issues such as terrorism, and thus could inspire other NATO and EU countries with their specific attitude — especially in Afghani, US, German, or the Dutch PRTs models were implemented.

Migration

Uncontrolled migration is a potential societal threat for each state; however, the risk perception can differ as it could have been seen across the EU. In regards to this, the V4 has rejected European unity on migration despite criticism. Hence, the V4 can be considered a sceptical actor towards incoming migrants and consequently decided to frame migration as a considerable security threat. When it comes to the migration crisis in 2015, In 2016, the V4 came up with a new project — the migration crisis response mechanism (MCRM) — which should coordinate activities linked

Distribution of defence expenditure (%) by main category: Equipment, (percentage of total defence expenditure)



Source: The Secretary General's Annual Report, 2020

to the migration. The MCRM is open to all EU states, but it is more an informal forum doubling EU activities; therefore, it is not expected that the MCRM would have some viable impact. In further negotiations, V4 states refused the mandatory quota to protect the homogenous societies, religious values and state sovereignty. In the view of V4, state sovereignty determines its definition of solidarity. The common denominators of the V4 towards migration were the fear of terrorism and Islamisation.

If we have a look at the latest document the V4 produced on the topic in 2020 — a non-paper concerning the joint position of the V4 which is being followed by Estonia and Slovenia, called the 'New Pact on Migration and Asylum' — it specifies and elaborates in detail the thoughts drawn up between 2015–2019. The non-paper calls for several ways how to manage migration, especially by calling for a coherent and common approach for the V4.

If we think of the V4 way to manage migration, it would be plausible to follow the cross-sectional approach to seek coherency in mutual policies. Such an approach should be accompanied by policies resulting in an efficient

and crisis-resilient system which would not only be acceptable for the V4, but for the rest of the EU as well. By doing so, the V4 would have a significant chance to pursue the V4 original approach in the EU policies. Additionally, the crisis-resilient system should emphasize EU border protection and international protection to those in need while ensuring rapid returns of others. Moreover, the V4 shall preemptively emphasize at the EU level the necessity to strengthen cooperation with North Africa and the Western Balkans and other areas of instability such as Ukraine to avoid further unwanted migration risks.

Energy security

The V4 share similar energy mixes, mainly dependent on non-renewable natural resources. Consequently, energy security also belongs among the essential topics within the V4, especially concerning the energy supplies from Russia, such as the Nord Stream II pipeline. Furthermore, although each state chooses a different approach to ensure stable energy supplies for affordable prices based on the

Three Seas initiative, we can observe to create energy infrastructure (and also digital and transport infrastructure) to connect the V4 with further signatory parties.

But if we firstly take a look at the gas and crude oil supplies (we will primarily focus on crude oil and natural gas, which are highly accentuated in the energy discussion due to Russian energy supplies), the Czech Republic has not been dependent on the Russian energy supplies since 2019 — when the Czech side stopped accepting Russian gas and crude oil, which was mediated via the Druzhba pipeline — and has begun purchasing energy resources in the energy stock exchange Rotterdam to purchase gas and crude oil for market prices to avoid the dependency on bilateral price negotiations; it cannot also happen the Russia would use the short termination of gas as a hard foreign policy instrument since many other gas exporters (Norway, Algeria etc.) trade their gas in Rotterdam. While Slovakia has been seeking to diversify the energy supplies - but still dependent on Russian gas by 65 %, Hungary is generally dependent on Russian supplies, and Poland is working to reduce its dependence on Russian energy imports and follow energy policy with European Union regulations.

As illustrated above, the dependency on Russia is still considerable, but all states set in their energy strategies to diversify the energy supplies in the lenses of neoliberalism. Such an attitude also overlaps with the EU approach, which overall energy policy aims to diversify energy supplies; hence, the EU seeks to 'expand infrastructure that can bring gas to the EU from the Caspian Basin, Central Asia, the Middle East, and the Eastern Mediterranean Basin' (European Commission 2020b). Moreover, NATO also promotes energy diversification, meaning the missing supplies in one state can affect the member and partner states. In terms of V4 cooperation, between 2015–2016, they have come up with an idea to establish an effective distribution network among the states through the North-South Corridor; the first links have already been established between Hungary and Slovakia.

As briefly sketched in the first paragraph, the Three Seas initiative and Nord Stream II significantly impact the V4. By following suit in the Three Seas initiative, the V4 and further signato-

ries states seek to contribute to the creation of a geopolitical format which would be resilient to future energy or economic challenges. In terms of Nord Stream II, the V4 has graduated stances towards the project since gas supplies are crucial for V4 policies. But on the other side, they also share concerns over the future situation in Ukraine which has been an important actor in Russian gas transmissions to the EU. However, if we zoom on in the V4 discussion in V4, the opinions of individual V4 states are far more complex. Hungary and the Czech republic pragmatically welcome the initiative while realising the negative impact for Ukraine. On the other hand, Poland perceives Nord Stream II as an indirect threat to the domestic gas market and its future expansion - Poland would prioritize some possible connection of Norwegian gas supplies through Denmark to Poland. At the end Slovakia fears the due to Nord Stream II the Russian gas supplies through Ukraine might shrink since Slovakia has signed until 2028 two key contracts with Gazprom - so far the Gazprom reassured Slovakia that continuation of Slovak-Gazprom cooperation will remain unchanged.

An interesting dynamic can also be seen in the discussion on nuclear policy. V4 states generally agree that nuclear energy can be an alternative source to cope with the EU strategies to reduce coal supplies to achieve environmental goals. However, the crucial questions remain whether the nuclear plants economically pay off given the extraordinary initial costs and which state should build those nuclear plants. The recent discussion has primarily dealt with whether Russian or Chinese companies should be involved in critical infrastructure such as nuclear areas. For instance, Hungary has been cooperating with Russia since 2017 to build new nuclear plants, Paks II. In contrast, the Czech government implemented new legislation which does not allow Russian or Chinese companies to be part of nuclear tenders.

Defence Cooperation

Defence cooperation is closely connected with activities within NATO and the EU. The long-term perspective focuses on establishing multinational formations and contributing to



multinational forces and initiatives, defence planning, capability development, training and exercises. Moreover, due to the simultaneous membership in NATO and the EU, the V4 had to ensure complementarity and eliminate duplicates based on security and defence commitments.

We can find several successful projects, for example, the V4 Battle Group, HQ V4 Joint Logistics Support Group, and multinational NATO Capability target or close cooperation in international missions, e.g. in Kosovo (Czechs and Slovaks), Cyprus (Hungarians and Slovaks) and Iraq (Poles and Slovaks).

On the other hand, there were several unsuccessful projects due to disconnected modernisations and armaments programmes, where countries seem to insist on specifications, sched-

ules, etc., which are not compatible; for example, the Counter Intelligence Centre of Excellence was opened in Krakow, 3D mobile radars, the anti-aircraft military radar system and the Slovak-Polish project aiming for common production of the combat armed vehicles (SCIPIO project).

The amount of defence expenditures is an essential condition for V4 countries in order for them to be able to take part in modernisation projects, building familiar entities and contributing to international operations. Only Poland keeps its spending about 2% of GDP in the long-term perspective.

Although we can see the increase in expenditure in the V4 countries, the question is to what extent this trend will be maintained, especially regarding the effect of COVID-19.

Special Report - Our Future: Visegrad 2025

Visegrad Insight is the main Central European analysis and media platform. It generates future policy directions for Europe and Transatlantic partners. It also identifies, strengthens, and links emerging pro-democratic opinion leaders in the region by holding Visegrad Insight Breakfasts – a series of networking events across the region. Established in 2012 by the Res Publica Foundation.

Stratpol – the Strategic Policy Institute is an independent think-tank established for the research of international relations and security policy. Its primary focus lies in European security, Transatlantic relations, the European Neighbourhood and Global Affairs.

The **Robert Schuman Institute** (RSI) is the European educational centre for politicians and parties belonging to the political family of the European People's Party (EPP). RSI is unique in focusing on the European level, with seminars, trainings, and conferences involving participants, speakers and cooperating partners from several countries.

CSAP (Center for Security Analyses and Prevention) is a group of Czech and foreign professionals from the state sector, security services, management, consulting, law companies, advisors and academics who form a unique team capable of responding to any task and providing any advisory service related to political and economic consulting in the field of risk-management and security issues.

This report was made possible by a grant from the **International Visegrad Fund**, an international donor organisation promoting development of closer cooperation among the Visegrad Group countries.

A very special thanks to report and logistics coordinator **Kristína Urbanová**.

Concept development with support from “the Team” and associates including Marysia Ciupka, Quincy Cloet, Magda Jakubowska, Wojciech Przybylski, and Valdonė Šniukaitė.

Photos:

Cover photo by Giu Vicente.

Photo of European flags on page 4 by Alexandre Lallemand.

Photo of “drought” on page 20 by Charl van Rooy aka redcharlie.

Photo of “security cameras” on page 29 by Matthew Henry.

All photographs (retrieved from unsplash.com), infographics and charts were free for reuse and distribution by CC on the date of publication: 15.10.2021.

www.visegradinsight.eu

PARTNERS

WISEGRAD / INSIGHT

STRAT|POL

**ROBERT
SCHUMAN
Institute**

CBAP

• Visegrad Fund
•
•