

# VISEGRAD / INSIGHT

SPECIAL EDITION  
3 (15) | 2019

ISSN 2084-8250



## EUROPEAN #FUTURES

*Scenarios for cohesive growth*

IN COOPERATION WITH

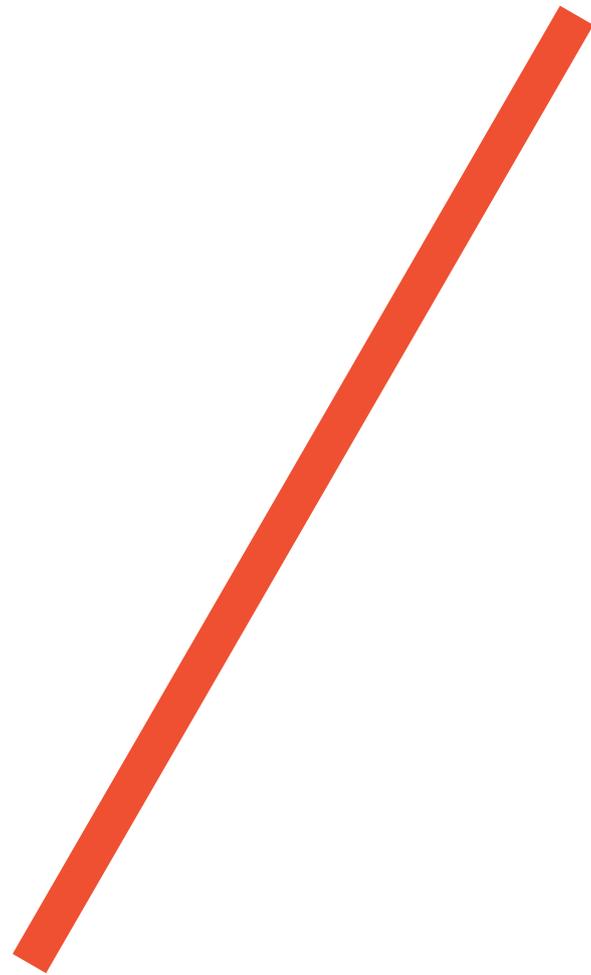


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This report has been  
developed in cooperation  
with the Centre for  
European Policy Studies  
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# EUROPE

## *Whole and Free*



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**T**his year the negotiations about the next Multiannual Financial Framework (MFF) will enter a critical moment. In the face of an imminent Brexit and the fallout from global turmoil, the EU has to reflect on its guiding principles and take decisions to fulfil the promise of a united Europe.

For the last 30 years, the EU has been delivering an unprecedented degree of liberty and prosperity to all the nations on the continent. Yet, complacent optimism about the next decade would be largely misplaced. The block needs to find strategies for uncertain times concerning the liberal world order, the climate crisis, the digital age and social solidarity.

In the European #Futures series, we are looking at scenarios that go beyond the current status quo. In November 2018 the first Central European Futures report was released jointly with the German Marshall Fund of the U.S. The report explained how global trends, amplified in the region, could play out and define the future shape of Europe.

Fostering cohesion is one of the main aims of the European Union. A notable part of the EU's budget is thus devoted to Structural Funds, the purpose of which it is to provide poorer regions and countries with the means to catch up with others.

New Europe has benefitted from substantial allocations of Structural Funds since they joined in 2004 and 2007. This applies in particular to the Visegrad Four (Czechia, Hungary, Poland and Slovakia) which have received between two and three per cent of their GDP in cohesion funds. This allocation has contributed greatly to the catch-up process.

In principle, EU regional support is destined mainly for “lagging regions”, defined as those with a GDP per capita at PPP below 75 per cent of the EU average. Transition regions, with a GDP per capita between 75 and 90 per cent of the EU average, can also benefit but not to the same degree.

The strong growth performance of the Visegrad Four (V4) has already ensured that for two of them, Czechia and the Slovak Republic, the national average is above 75 per cent (80 for SK and 90 for CZ). This implies that most of the regions inside these countries are, or soon will become transition regions. By contrast, the GDP per capita of Poland and Hungary is still somewhat below the 75 per cent threshold, although the capital cities are already above.

The budget of the European Union is determined by two major mechanisms, which give a differing, and at times contradictory, picture. The starting point is the MFF which, in principle, provides an overall cap to spending (usually expressed as a per cent of EU GDP) for the next seven years and indications of the spending by broad overall categories.

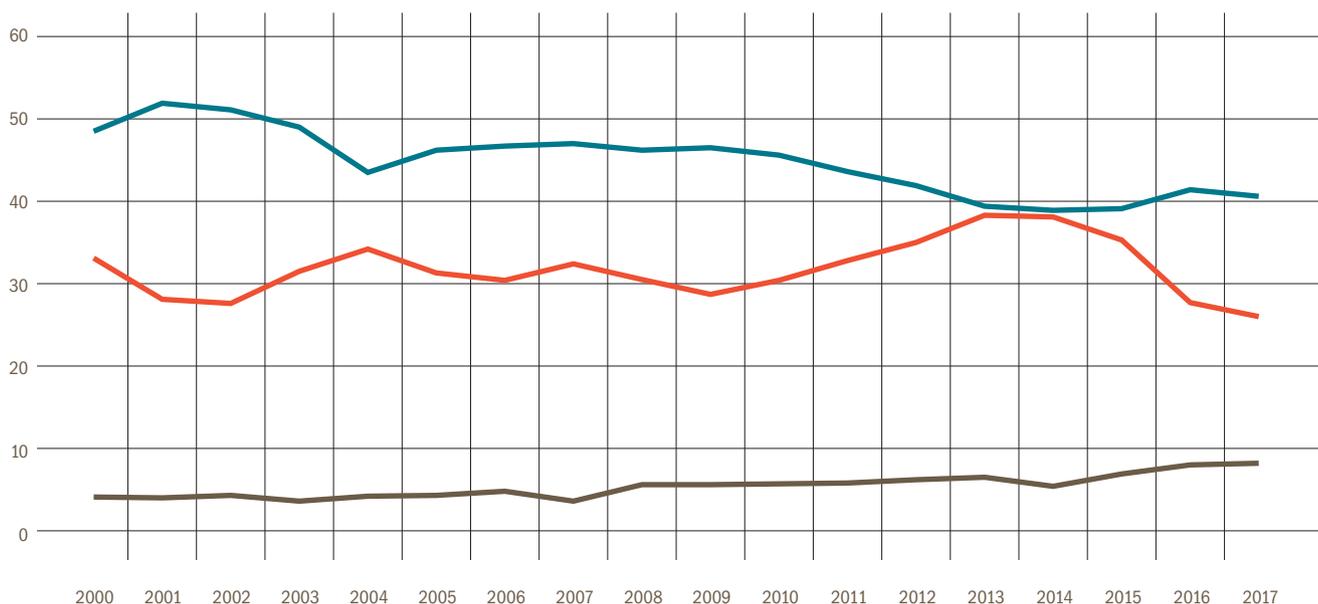
However, actual spending is then determined by the annual budgets, which sometimes diverge substantially from the patterns laid down in the MFF some years earlier. This has been the case over the last couple of years when emergencies led to a redirection of funds not yet spent from the 2014-2020 MFF, which is still in force.

The variability of actual spending relative to the one foreseen in the MFF is particularly pronounced for the Structural Funds or, more generally, for cohesion spending. The reason for this is that disbursement under the Structural Funds requires the presentation of detailed projects followed by the implementation at the regional level. However, the planning, approval and implementation of projects take years to accomplish. EU budget expenditures are authorised only at the very end.

This implies that actual cohesion spending is rather variable and often extends beyond the end of the MFF. Under the so-called N+2 rule funds can be disbursed up to two years later.

Actual cohesion spending has increased from about 25 billion euros per annum in the early 2000s – just before enlargement – to about a peak of close to 60 billion euros in 2012-2013 but has since fallen back to below 30 billion euros in 2017, the last year with comparable data available. However, these absolute values are misleading since the budget has increased and the EU has enlarged from 15 to 28 members.

The chart below provides an overall view in terms of the shares of EU spending (not the sums allocated under the MFF). It shows that the share of spending on agriculture has declined over the last decades from about 50 to 40 per cent of the total, whereas spending on Research and Development has increased from 4 to 8 per cent of the total.



Cohesion spending has been more volatile. For about the first ten years (2000-2011) it remained roughly constant at slightly above 30 per cent of total EU spending. This was followed by a peak towards the end of the last MFF (2013) when cohesion spending reached 40 per cent of the total, and then a fall to below 30 in 2017. It remains to be seen whether cohesion spending will pick up towards the end of the current MFF (2020).

The 2014-20 MFF had foreseen that each year between 2014 and 2017 the commitment appropriations should be higher for cohesion spending than for agriculture. However, this has not materialised so far.

Overall, if one analyses actual spending as opposed to official plans, it appears that cohesion funding has de facto maintained a roughly constant share of total EU spending (a bit below one third).

The decline in the share of agriculture has been matched by an increase in other areas. R&D spending has roughly doubled its share, but it remains, at below one-tenth, much smaller than cohesion spending.

With this background in mind, we may consider the scenarios developed below.

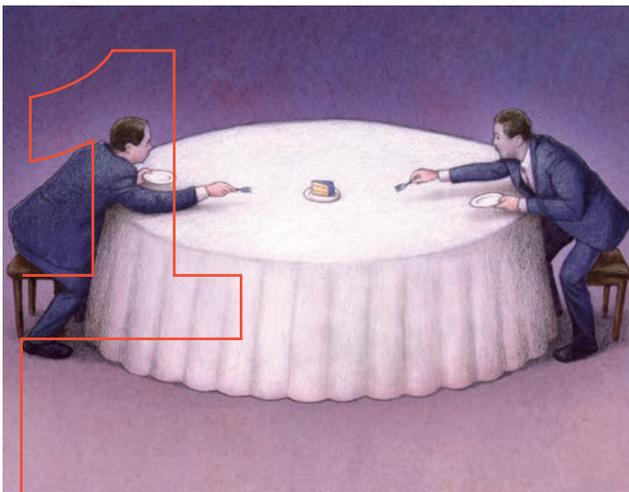
## EU expenditure on R&D

SOURCE: CEPS based on European Commission data



# 4 SCENARIOS

## *for Europe*



### Cohesion with an expiry date

Setting a potential expiry date on cohesion funds for regions that are lagging behind would mobilise both the EU Commission and the member states to innovate and find new ways to help convergence.

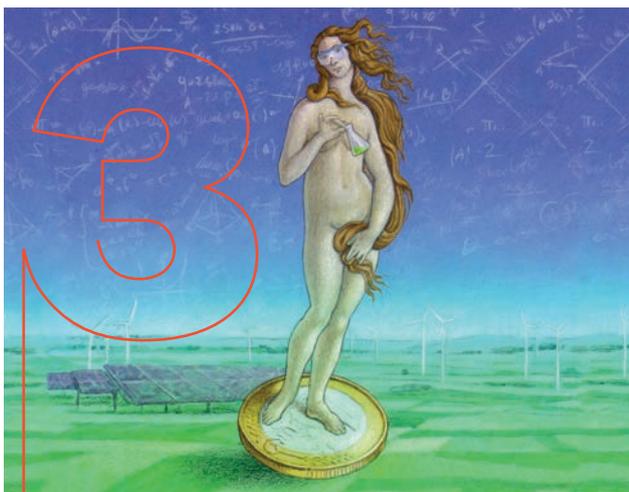
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### Paving the green ways

While the EU sets its eyes on the urgent goal of zero emissions, it must acknowledge a diversified paths along geographical and industrial differences.

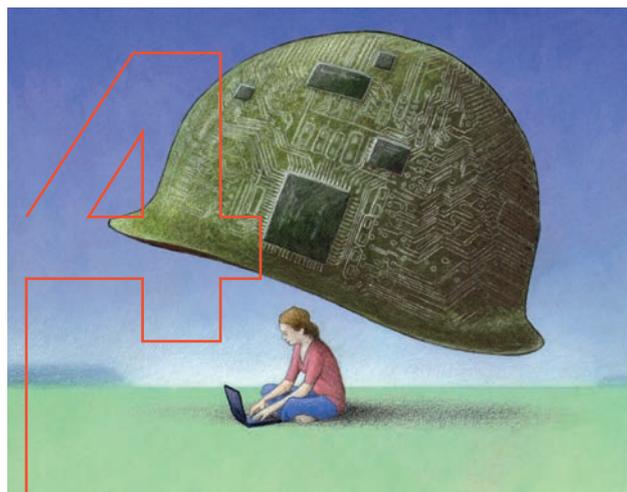
PAGE 8



## Leapfrogging to smart R&D

The aim is not an immediate increase in R&D spending, but rather building modern research institutions, which can bypass legacy problems and are competitive at a global level.

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## From Venus to Mars

While the EU is making first steps in the right direction towards building up its defence collaboration, there needs to be more focus on common procurement, a diversity of partnerships and an increase of funds to incentivise real change

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## POLICY RECOMMENDATIONS

### Main Takeaways

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## TRENDS

### Supporting data

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# 1 Cohesion with an expiry date



Cohesion funding has been a point of contention for years and will reach fever pitch with the new Multiannual Financial Framework (MFF). The net contributors have expressed concerns about funding new member states, who have made considerable strides in convergence; especially since there are regions in net contributor countries which have slipped below the cohesion threshold, and their domestic governments would rather allocate funding to them than to the greater European pot. The situation is exacerbated by Brexit, which will reduce the available total for the EU budget. This emboldens Eurosceptic politicians from across the continent to question the benefits of European Union membership. What would happen if the EU reconsiders its stance and introduces a more hands-on approach to cohesion funding?

By contrast, the South has witnessed a divergence from a previously superior position (over 83 per cent of the EU average in 2000 to below 70 in 2017, and thus below the current level of the V4).

The narrative behind the Structural Funds has been simple, from their inception in the 1990s. Lagging regions are held to be poorer because they do not have the appropriate infrastructure. It should thus be sufficient to build enough roads, ports, or airports to ensure that these areas can catch up to the level of the rest of the Union. The support for infrastructure has been massive. In the V4 countries, the EU has financed around one half of all public spending on infrastructure under cohesion funding.

The effectiveness of EU cohesion spending to foster growth in lagging regions was a hotly contested issue for a long time, mostly with regard to spending in the EU-15. Many regions in old member states have been receiving Structural Funds for a long period (25

**T**he Brexit crisis has amplified the funding dilemma in the EU. Regardless of promises for increased support from countries like Germany, the total budget for cohesion spending will decrease, and all the member states are forced to accept the reality on the ground.

A decrease will especially hit the V4 as cohesion spending is principally aimed at the so-called “lagging” regions (i.e., those with a GDP per capita below 75 per cent of the EU average). The national averages of the V4 countries have

already passed or are very close to passing this threshold.

At present, Hungary records some of the highest growth rates, but it is still only at 70 per cent of the EU average although some time ago it had a higher income than Poland and Slovakia. However, all of the V4, along with the majority of New Europe overall have higher growth rates than the EU average and thus can be expected to continue catching up with the Union’s average. In this sense, enlargement is viewed as a success.

and more years) but did not manage to converge as documented above. This is particularly the case in countries which have experienced an overall crisis; for example, Greece has fallen back from a GDP per capita of over 85 per cent of the EU average to about 67 today. Portugal has also fallen back.

At the present speed of convergence, most of New Europe (and all of the V4) would enter the transitional regime (between 75 and 100 per cent of the EU average) during the next MFF based on their national averages. But some of their regions as well as those in old member states seem set to continue to qualify for support.

This reversal of fortunes has brought to the EU a solemn realisation that cohesion funding can be used either for catching up or for preserving inefficient economic models. The question is: should cohesion support continue indefinitely, even when there is no evidence that it always has led to convergence?

The Commission noted that *“The potential of the EU budget can only be fully unleashed if the economic, regulatory and administrative environment in the Member States is supportive. This is why, under the current Multiannual Financial Framework, all Member States and beneficiaries are required to show that the regulatory framework for financial management is robust, that the relevant EU regulation is being implemented correctly, and that the necessary administrative and institutional capacity exists to make EU funding a success.”*

These are several of many factors deciding whether funding is effective or not. In fact, most of them are hard to quantify and control by the EU at a central level. However, the EU has decided that access to cohesion spending should be subject to member states following sensible macroeconomic policies and providing a supportive administrative and regulatory environment. An even more important move was to shift the responsibility for the effectiveness of spending to the local communities.

The real long-term issue for cohesion spending is rather what to do with regions that despite large transfers do not catch up with the EU average. Continued financing does not make sense in these cases. Therefore, a tempo-

rary limitation for cohesion funding has been introduced. It is based on the time it takes a region to reach 75 per cent of EU GDP per capita based on a normal convergence scenario.

So far, the experience with the new member states confirms that convergence proceeds at about 2.5 percentage point per annum (i.e. the difference between starting GDP per capita and that of the EU average is reduced each year by about 2.5 per cent). Based on this regular pattern, which has also been found to hold for the US until the 1990s, one can estimate the time it would take to reach 75 per cent of EU GDP per capita for regions, which are still below this threshold today. A country or region which stands at the beginning of the evaluation period at 70 per cent of the EU average, should need only about seven years, or one full MFF period, to reach 75 per cent. A region starting at 63 per cent today would be expected to need 14 years, or two MFF periods to reach 75 per cent.

When a region or country fails to catch up on time, the Commission commences a closer investigation of the reasons for the underperformance. It may extend the catch-up period up to 50 per cent if the cohesion funding has been properly spent or in case there exist additional factors, which could explain the under-performance and justify continued EU support. Otherwise, access to funding is first limited and then stopped

altogether, under a moratorium, until access can be reconsidered on the basis of a repair plan put forward by the local authorities.

The V4 countries had few problems with this approach and the path of gradual cohesion continues, with substantial support from the EU budget. It will progress at about the present rate for the next MFF, but then will diminish gradually as more and more regions cross the 75 per cent threshold. Falling cohesion spending in the V4 should not be considered as a failure, but rather as a sign of success.

With such rules in place, cohesion spending fell on two accounts over time. The still robust catch-up process of the new member states in general, and the V4 countries in particular, brought them above the threshold of lagging regions. Moreover, in other regions that have not shown any growth effects despite decades of support, the usefulness of continuing cohesion spending was reduced. This development freed up resources for other types of EU spending.

However, this created disturbances in the regions that were failing to catch up. Cohesion spending remained an important factor in their financing. The political pressure on the Commission resulted in long extensions. Efficiency gains were much slower than anticipated. Eventually, some of the lagging regions were forced to adapt.



Setting a potential expiry date on cohesion funds for regions that are lagging behind would mobilise both the EU Commission and the member states to innovate and find new ways to help convergence. Take-aways from this policy recommendation on page 14

# 2 | Paving the green ways



The majority of EU countries recognise the need to address the ever worsening climate crisis and support the goal of a Europe with zero emissions by 2050. A few notable holdouts feel the transformation would be too costly for their economies and populations in the short term. However, these countries were to persist in this opposition they would be left behind by the new industries and technologies necessary to be developed during this “green” transformation. Thus, to avoid a divergence along old, familiar lines policies must be forward, not backward-looking.

**T**he new Commission President follows through with her promise to work towards the EU becoming the first major area with zero emissions. However, this goal is not shared by all member states, especially by some from New Europe. Since the V4 had already expressed their reservations to the European Council the last time it discussed a tightening of the emission reduction targets for 2030, there is an increased danger of developing an East-West divide over the topic. This a worrying sign, since the EU has staked much of its global reputation on being a thought leader and taking decisive action concerning the climate crisis.

Four member states have objected to a tightening of the EU’s intermediate climate goals, especially those for 2030, which becomes immediately relevant for the next MFF. These countries are also the ones with the highest emission intensity (CO<sub>2</sub> emissions per unit of GDP).

The objecting member states argue that more ambitious climate goals would put an undue burden on them, taking into account their high emission intensities and their (still lower) income. They fear high costs of new technology that would impose relatively high costs – impairing their ability to catch up their western counterparts. Although CEE

countries would have higher economic costs in the short run, the overall costs of the adjustment would need to be reduced. Moreover, the member states with the most stringent environmental standards might also gain technological leadership in key sectors, while those failing to adapt will fall further behind if they cling to their old industries.

To avoid this East-West clash on climate policy, the EU decides to reshape cohesion spending in order to help the most emission dependent countries reorient their economies in exchange for an agreement to speed up their transition towards zero emissions.

Experience suggests that the cost of reducing emissions is lower in what are currently high emission industries and countries. Given the high starting point in terms of emission intensity, industry in the V4 should have a lower cost of abatement compared with other areas of Europe. The V4 are, therefore, regarded as low cost producers of emission reductions rather than high volume emitters;

a distinction that allows them profit from EU climate policy mechanism.

Industrial emissions represent an area where the relative cost of abatement plays the biggest role. Before the change in cohesion funding, the main focus was on the European Emission Trading System (ETS), which covers the power sector and industry and accounts for about 40 per cent of all emissions. This is a truly EU policy instrument with a EU-wide cap and EU-wide annual reduction goals. The established goal already foresees zero allowances by 2050, meaning that, for these two sectors, a path has already been set towards carbon neutrality.

But the ETS is also a very decentralised policy, since it mainly works through a price signal and it allows for national specific situation in terms of the allocation of free allowances and other mechanisms.

Importantly, the new cohesion funding funnelled into switching to greener energy sources is just a part of the approach adopted by the Commission. Brussels accepts that a total switch to green technology is not always possible or feasible in the short run. The fate of old installations is not decided in Brussels, but by a market mechanism. Some installation with “dirty” coal technology might continue for some time. But the owners of other installations might close them down because they get more from selling the allowances than by operating old, inefficient plants.

The V4 governments realise that early action is less costly than attempting to keep old, inefficient, industrial structures alive as long as possible. A combination of Structural Funds and auction revenues is redirected to support the rapid reduction of carbon emissions in heavy industries towards higher energy efficiency and wholesale restructuring towards greener industrial structures.

Coal mines represent another challenge. Regions where employment used to depend heavily on the mining of coal are awarded special assistance for the requalification of the miners and a restructuring of the local industry. Fortunately, total employment in the industry is rather limited (less than 200 thousand for the EU), so the transformation of these regions is performed quite

easily despite the political tensions arising from coal legacy.

After contending with these specific sectors, the biggest sources of emissions are transport and household heating. Transport is a priority for drastic reductions via the advent of electric cars, which are increasingly competitive and can be complemented by smarter approaches to mass transport. The latter will be massively supported by new cohesion funds and benefits from the fact that it is much cheaper to build a low carbon mass transport infrastructure from scratch, rather than trying to reshape existing one.

This leaves household heating, which is very much linked to the places where people work and live. With a focus on the 2050 goal, household heating might represent a more difficult challenge because of seasonal variations in heating demand. Partially, it has been addressed by cohesion funds directed at thermo-modernisation of households and replacement of ineffective heating systems. Following the logic that the funds should go where the cost is highest, these funds were allocated by objective factors, such as the average temperature or the number of days in the year requiring heating. Nevertheless, heating – especially in the north – is a difficult issue, and there is only so much that can be done to limit emissions. Some emissions are bound to remain.

The solution to reach zero emissions for the EU overall is achieved by allowing emissions related to household heating to be created in certain countries or regions which are then offset by negative emissions or “sinks” in other parts. In concrete terms, the heating necessary in the northern part of the EU

(which still requires limited emissions) is offset by carbon sinks fed by solar installations in the south. For the planet, all that matters is the EU total. That is why the new cohesion policy also takes into consideration such regional perspectives and only funds renewables where they are most efficient. Since national targets have been eliminated, the EU no longer tries to force renewable installations in suboptimal regions.

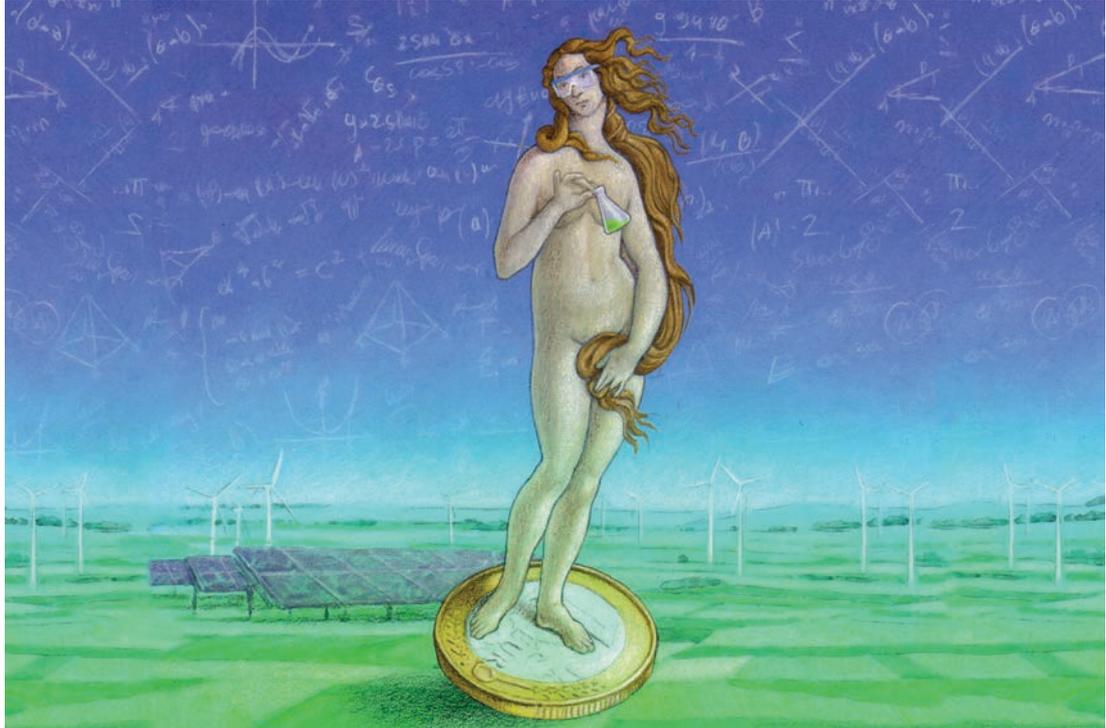
These approaches have several effects on the EU as a whole. In the first place, it helps to alleviate the political tension between old and new member states. The new cohesion policy makes sure that the cost of the green transformation was distributed in a fair fashion. This smart and flexible approach allowed the EU to create a broad policy that plays on regional strengths. Unavoidable or hard-to-immediately-reduce emissions were offset by sinks, such as efficient renewable installations where conditions are most favourable and large, widespread forestation efforts. At the same time, this pragmatic approach recognised cases in which the immediate departure from coal was not feasible and in such cases funding was directed towards increasing efficiency which yielded fast emission reductions where they were easiest to reap. This applied mostly to the highly coal dependent V4 industry.

A focus on climate change and emissions does not have to leave the poorest regions unhappy. On the contrary, they might benefit from new cohesion funding with a high quality, low carbon economy and infrastructure. It is only in those areas where these opportunities are not seen and used that a surge in support for populist parties is witnessed.



While the EU sets its eyes on the urgent goal of zero emissions, it must acknowledge a diversified paths along geographical and industrial differences. See main points summarising the proposal on PAGE 15

# 3 | Leapfrogging to smart R&D



Since the 2004 enlargement and beyond, New Europe has been on a solid path of convergence with its western counterpart. There has been success in many sectors, but these central and eastern regions have struggled to catch up in the area of technology, including research and development (R&D). While the national governments of new member states systematically underfund R&D, their researchers feel that they do not do well and suffer from imbalances in the competitive nature of EU grants. If this trend continues, the division between old and new member states will be prolonged perpetually, causing further divisions to develop and swell.

**T**here remains a large East-West gap in research and technology, which has created a feeling of “technological colonialism”. Various regions of New Europe have witnessed cases of unfair competition with big research institutions from old member states, to attract funds and hire the best performing scientists. As a consequence, there are calls to redirect EU spending to promote research excellence and technological development in the new member states.

While the V4 countries do receive approximately 2-3 per cent of their GDP in cohesion funding support, very little

of the EU spending on R&D goes to New Europe.

The new member states lag in national spending on R&D – currently amounting to approximately 1 per cent of GDP on average for the V4, which is about one half of the EU average of 2.1 per cent of GDP and way below the EU target of 3 per cent. Moreover, less than one-fifth of the funds come from public (national) R&D spending (i.e., less than 0.2 per cent of GDP).

Therefore, even a modest section of cohesion support redirected towards R&D translates into a very significant boost to public spending on R&D.

However, a unique component to EU funding for R&D is that it is one of the few budget items which does not have a national “flag” attached. This is essential given that all major EU research programmes like Horizon 2020 or the European Research Council work on a competitive basis. This means that the only criterion whether to fund a project or a researcher is scientific excellence, not the nationality of the researcher or the country where the project should take place.

Due to this competitive allocation of EU funds for research, it is unavoidable that researchers or research institutions in some countries receive a larger share than others. New Europe, in particular, does not seem to be able to compete strictly on the criterion of scientific excellence.

Part of the reason for these significant disproportions between the best and worst performers is not necessarily the level of funding or available talent but rather infrastructural deficiencies.

Of course, all EU countries have a network of universities and other tertiary education institutions. However, in many countries – especially in the new member states – they are plagued by a swarm of legacy problems resulting often in low levels of teaching and research capabilities, not to mention an inability to cooperate with the private business sector.

All the V4 countries have made some progress in terms of business R&D. The level remains below the EU average of (now) 1.4 per cent, but Czechia and Hungary are not far behind. In Poland, business R&D is at 0.7 per cent of GDP, half of the EU average, but it has increased more than three-fold over the last 10 years. If that growth continues, Poland would reach the EU average by about 2025. The available data thus suggest that R&D investment by the private business sector is still low, but will increase in the next years.

This has led to calls to foster more indigenous research. One important indicator on which the new member states are still lagging is that of having top universities. For example, in the Times Higher Education global ranking of 2019, there are 224 universities from EU countries among the top 500 places, which is over 40 per cent of the global total, attesting to the strength of the EU in higher education. Yet, only one of these is from the V4 (Semmelweis University in Budapest). In other words, universities in New Europe would appear at the very bottom of any European ranking.

There have been voices the European Parliament arguing that the “imbalance” in EU R&D spending should be addressed, perhaps by adding some cohesion element into the EU research programmes. However, this creates a severe conflict with other member states who feel that their researchers won by means of a fair competition. Moreover, it would risk a devaluation of these EU research programmes because the quality of output is likely to suffer if scientific excellence is no longer the sole criterion.

Recipient countries or regions can of course redirect part of the funds they receive towards universities and research centers. Under present rules, member states have to create smart specialisation strategies and the cohesion funds have to finance the development of addition-

al research capacity. However, in reality this has resulted chiefly in spending on new buildings rather than on attracting the best talent.

Formally, this builds capacity in physical terms, but in reality, it is not clear whether this type of financial support is supplementary or whether the Structural Funds merely finance expenditure which would have taken place anyway. The same problem applies to funding for training and education or innovation investment supported by the European Investment Fund. The global university ranking mentioned above suggests that so far little improvement has materialised.

A majority in the European Parliament recognises that if nothing immediately changes, the imbalance will become more pronounced and would be a point of contention that Eurosceptic parties could use to drum up support.

To counter this inert “development”, a new funding policy is set up that is different from Horizon 2020 and other funding programmes. Funding from R&D cohesion funds now targets the construction of modern research institutions mostly independent of existing legacy institutions. In principle, these new organisations are supposed to be specialised in particular areas vital to the economy or problems of a particular country.

The goal is to build excellence centres capable of competing with old member states research centres for R&D grants. Importantly, domestic authorities have accepted that if the aim is to establish high quality R&D centres on their territories, most of the personnel would come from abroad.

As mentioned previously, this is not because there are no high-level scientists in New Europe. The key reason is simple: high quality science is by its nature global. Even in the US, the majority of the faculty of the best universities are not US-born.

High quality research centres can be established in the V4 countries only if they hire the best people and not the ones appointed through nepotism. This allows the institutions to bring quality research and smart innovation that attracts high tech industries for collaboration.

This approach instigates a conflict with other member states who feel that their researchers won through a fair competition and claim that these new institutions supported by EU cohesion funds are making future grants harder to obtain. This complaint was only partially true as the competition was not really “fair”, since applications from new member states suffered from the handicap of inefficient and rigid institutions that often suppressed innovative ideas and competition from young scientists in order to secure a position of entrenched professors. A truly fair competition was only possible after the appearance of new institutions.

Despite the initial protests from the old member states, these policy shifts also turned out to be beneficial to them. The fiercer competition forced old member states to evaluate and improve their own approach to scientific excellence and technological development. As a result, the quality of research output increased across the entire EU.



The aim is not an immediate increase in R&D spending, but rather building modern research institutions which can bypass legacy problems and are competitive at a global level. Read what “smart open innovation strategy” would bring along with new EU budgetary perspective on PAGE 16

# 4 | From Venus to Mars



One of the key challenges for the European Union is the protection of its citizens. While security issues are still the main responsibility of individual member states, those on the border bear the brunt while those inland enjoy protection without having to endure the personal, economic and societal costs. At the same time, feelings of insecurity are on the rise across the Union, and these are strengthened by fringe and extremist groups, which are gaining in popularity, and lead to greater political instability. With Brexit, the EU is losing a member state that contributed half of the overall funding on defence R&D. If nothing is done to reverse this trend, the bonds between the member states will become ever more tenuous.

**M**ember states reach a political consensus regarding the benefits of EU action on security. The rationale for such a decision stems from the unequal exposure to threats among member states, which requires joint action and EU wide solidarity so that the burden does not fall mainly on the border countries – which have become de facto protectors of the whole EU.

Subsequently, the EU decides a series of concrete action targeted at improving overall security and equalising the burden of security provision for all

member states. These initiatives included various aspects: general defence, cyber security and border control.

In terms of defence, the EU accepts that the current budget cannot finance a “European army” but there are areas of defence spending where the EU decides to refocus its attention to make important contributions.

The EU budget amounts to about 1 per cent of GDP. By comparison, the average defence spending of the 28 Member States is now around 1.5 per cent of GDP (against a NATO commitment of 2 per cent of GDP). However,

most of the military expenditure goes on personnel, only about one fifth of military spending, worth about 0.3 per cent of GDP goes towards equipment. To offset this, the EU invests in common procurement that buttresses the domestic security forces and increases the level of cohesion across the militaries of Europe.

However, one of the weakest points in Europe remains defence-related R&D. According to the European Parliament, the total annual defence R&D spending in the EU-28 does not even reach six billion euros, a fraction of the US spending level. Moreover, one half of the EU-28 total is in the UK, and over three-fourths of the remaining three billion euros are undertaken by France and Germany (with around 1.2 billion euros each).

There is very little defence R&D in the new member states. Poland is the only country among the V4 which undertakes at least some defence R&D, but at a much lower scale, around 50 million euros (per annum).

The Commission proposes that part of the EU budget to be redirected into joint R&D defence-related projects. The proposed amount of 13 billion euros is negligible relative to the EU economy, amounting to only two billion each year of the coming MFF. But this is still a substantial sum, given that annual defence R&D in the remaining EU27 amounts to only six billion euros.

During negotiations, MEPs from border states stress that where the defence R&D spending takes place should not be the main concern; it is more important to increase security for all EU members through the availability of better and more efficient weapons systems.

The new EU spending on R&D will be tendered competitively. Initially the incumbents in the three largest Member States take a lion's share of this. But over time competition kicks in and firms in all member states, including the V4 can get a growing share of the pie. The smaller and more exposed countries thus end up with a "double dividend": their industries can participate in a market until now closed to them and their citizens benefit from improved security.

EU spending on defence R&D will presumably not be on developing the next heavy tank, but on future oriented projects which integrate new technologies, such as AI or nanotechnology in defence.

Cyber security is another important area for closer coordination. Cyberattacks continue to increase in frequency and severity, threatening the operation of critical European infrastructure. The power grid, the transport network and information and communication systems are all essential to maintain basic societal functions.

It also seems that foreign (mostly Russian) intervention is now based on digital means. Promoting fringe and extremist groups, sowing discontent, fear and general unrest are the main strategies used to weaken the EU. Both Brexit and the success of anti-EU parties are attributed to direct actions of foreign governments, which are not limited to funding but also involve advanced socio-technology implemented by farms of Internet trolls.

The importance of cyber security has been recognised at all political levels. However, action within the

EU has been insufficient. The recent Network and Information Systems (NIS) Directive has reaffirmed the primacy of national responsibility and action, allocating only a slightly increased role (and budget) for the existing European Union Agency for Network and Information Security (ENISA), which will henceforth be known as "the EU Agency for Cybersecurity".

The EU contribution to Cyber Security is too limited. A recent report "Strengthening the EU's cyber defence capabilities" notes that the main limitation of the current EU cyber defence set-up is that it is an advisor, not an actor. ENISA does not have any operational competences and its budget is less than 20 million euros.

To make matters worse, fragmentation of competences among the member states is accompanied by serious concerns over staffing and resources at the EU level. For example, the European Cybercrime Centre (EC3) has a successful track record on cybercrime, but it currently has a staff of only 52 people. The European External Action Service (EEAS) and European Defence Agency (EDA) combined currently have 12 people focusing on this area, while ENISA has a staff of 65 and CERT-EU has a staff of 30. In all of these organisations combined, the EU has a current staff of 159 individuals tasked with cyber security. The total might increase towards 200 with the recent budget increases for ENISA, but EU resources remain clearly insufficient compared to those of the US, for example.

In the case of the US, the staff of just one of the institutions tasked with cyber security and defence – the US Cyber Command's (USCYBERCOM) Cyber National Mission Force Headquarters (CNMF-HQ) – is close to 2,000. The corresponding 133 Cyber Mission Force (CMF) teams have now over 6,000.

The EU decides to reach a similar degree of cyber security, which means that the resources dedicated to cyber security are increased by a factor of 30. A force of about one thousand specialists became the initial starting point at a cost of around 200 million euros per annum, or less than one euro per inhabitant.

After this newly invested institution thwarts an attempt to disrupt the rail service in Poland, funds are increased yet again and regional command centres are built in Madrid, Warsaw and Copenhagen.

The control of borders is another area where the EU shifts funding to make an important contribution. The central problem is with sea "borders", which are difficult to secure as the experience with the Mediterranean continues to show.

After the refugee crisis of 2015, the EU has set up what is called a Common Coast and Border Guard in the form of a substantially beefed up Frontex, based in Warsaw, which is scheduled to achieve a staff of several thousands of people over the next few years. The budget of Frontex amounts now to somewhat more than 300 million euros. A multiple of that is spent on cyber security in the form of ENISA; this still represents only a fraction of one percent of the overall budget.

As the number of migrants is bound to increase from the ongoing effects of the climate crisis, border security is just a part of a bigger story.

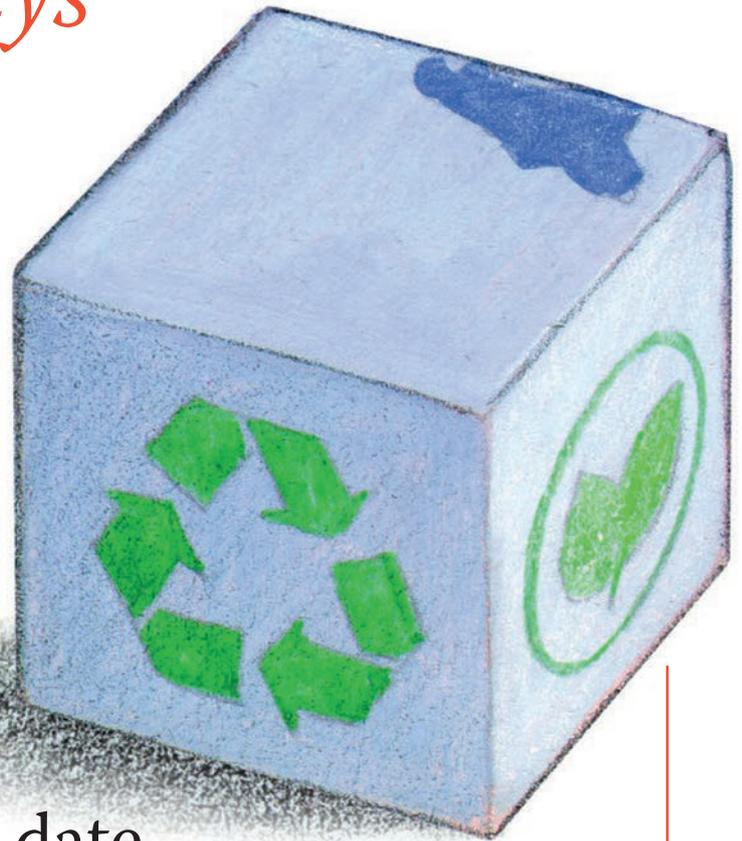
The need for border infrastructure to detain, process and potentially settle migrants cannot be the sole responsibility of the southern countries. Therefore, the EU decided to redirect funding into promoting the voluntary participation of member states in common migration policies, after the previous relocation plan clearly was a failure.



While the EU is making first steps in the right direction towards building up its defence collaboration, there needs to be more focus on common procurement, a diversity of partnerships and an increase of funds to incentivise real change. Main points explained on page 17

# POLICY RECOMMENDATIONS

## *Main Takeaways*



### SCENARIO 1

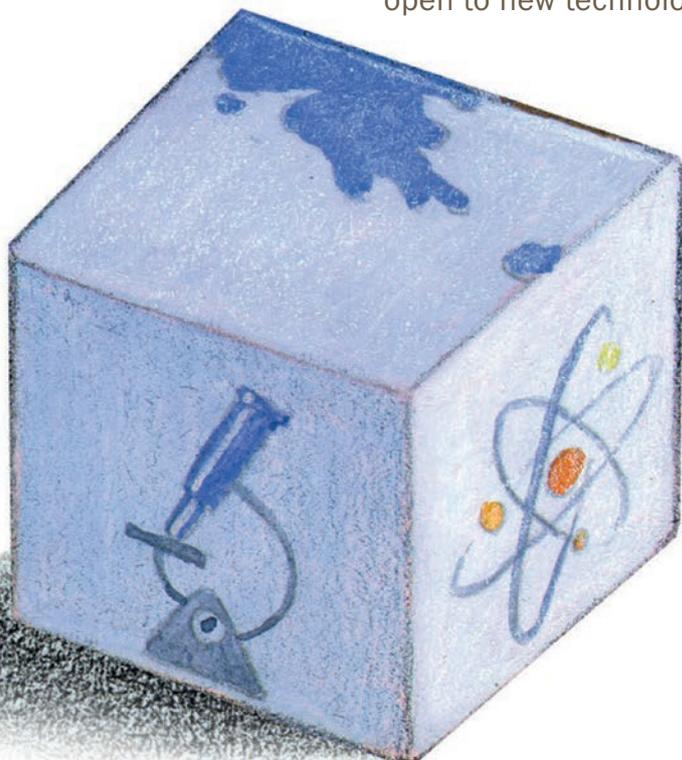
## Cohesion with an expiry date

- 1** — The European Commission should assess each region regularly on an individual basis, highlighting all the factors that affect lagging regions, such as corruption and ossified institutions.
- 2** — When a region is identified as underperforming, the Commission provides management and assistance to improve the region's administrative and institutional capacity.
- 3** — If regions are unable to improve their economic standing due to institutional flaws or inadequate macroeconomic planning, the cohesion funding should be suspended. When the issues persist or the provided guidance is ignored, a moratorium on future funding ought to be considered.

## SCENARIO 2

# Paving the green ways

- 1** — An important part of the cohesion funds should go to regional programmes that are focused on the transformation to green means of technology and energy production.
- 2** — High emission countries working towards a green transformation should not be penalised for their old industrial structures and current inefficiencies. Instead, these countries preferably would be incentivised to retrofit their current power generation plants to reach the highest levels of efficiency possible until the transformation is complete.
- 3** — Regional and environmental differences should be taken into account. The Commission needs to consider that areas in the north will be higher emitters during the winter months while areas in the south can act as “sinks” to absorb the addition of carbon emissions.
- 4** — Greater reliance of market-based incentives can help to reduce the cost of reductions in carbon emissions. This applies also to private transport where the old member states heavily subsidise electric cars, which they want to produce. The race for low carbon transport should remain open to new technologies.



### SCENARIO 3

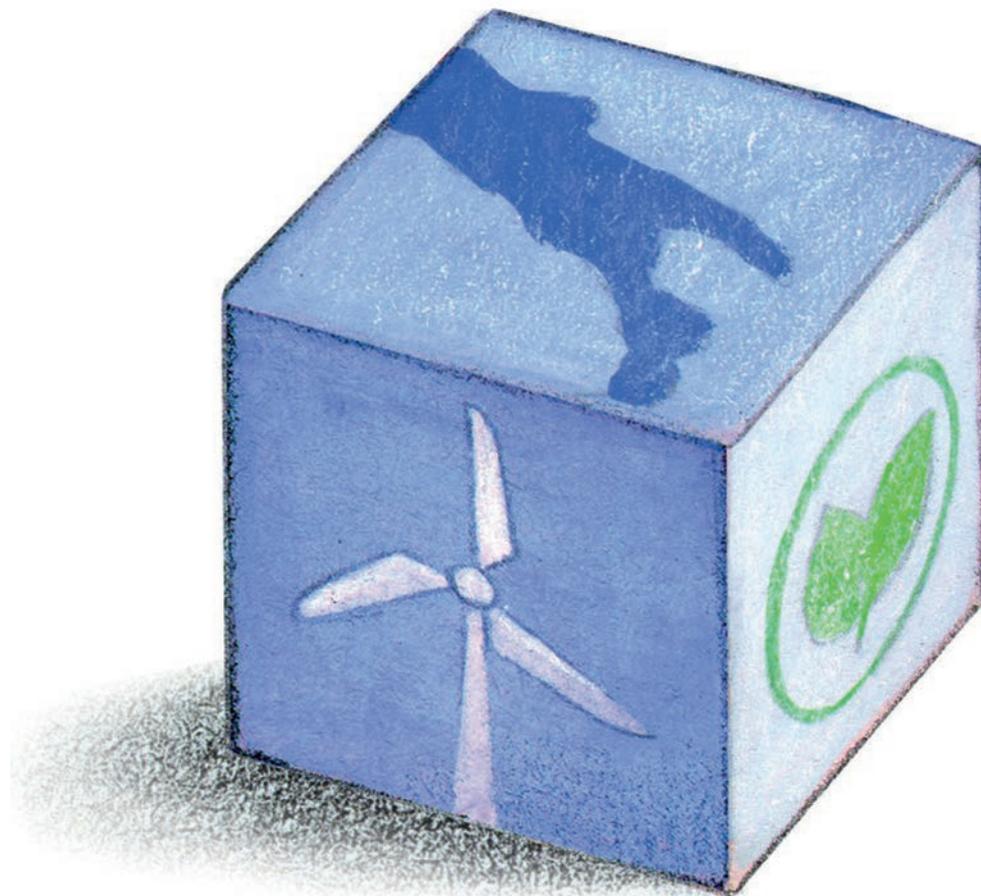
# Leapfrogging to smart R&D

**1** — Part of the cohesion funds should be allocated to the set-up of modern and independent research institutions in the various regions of New Europe. These institutions should not be staffed primarily with locals and should focus on specific areas where it is possible to foster research excellence rather than broad-spectrum science projects.

**2** — Closer cooperation between research institutions and the private business sector must be encouraged. Cohesion support helps to boost public spending on R&D but should also focus on overcoming infrastructural deficiencies that hinder cooperation with businesses.

**3** — It would be wise for the Commission to engage in a robust campaign to convince the old member states how this funding will encourage competition and raise the overall level of excellence across the Union.





#### SCENARIO 4

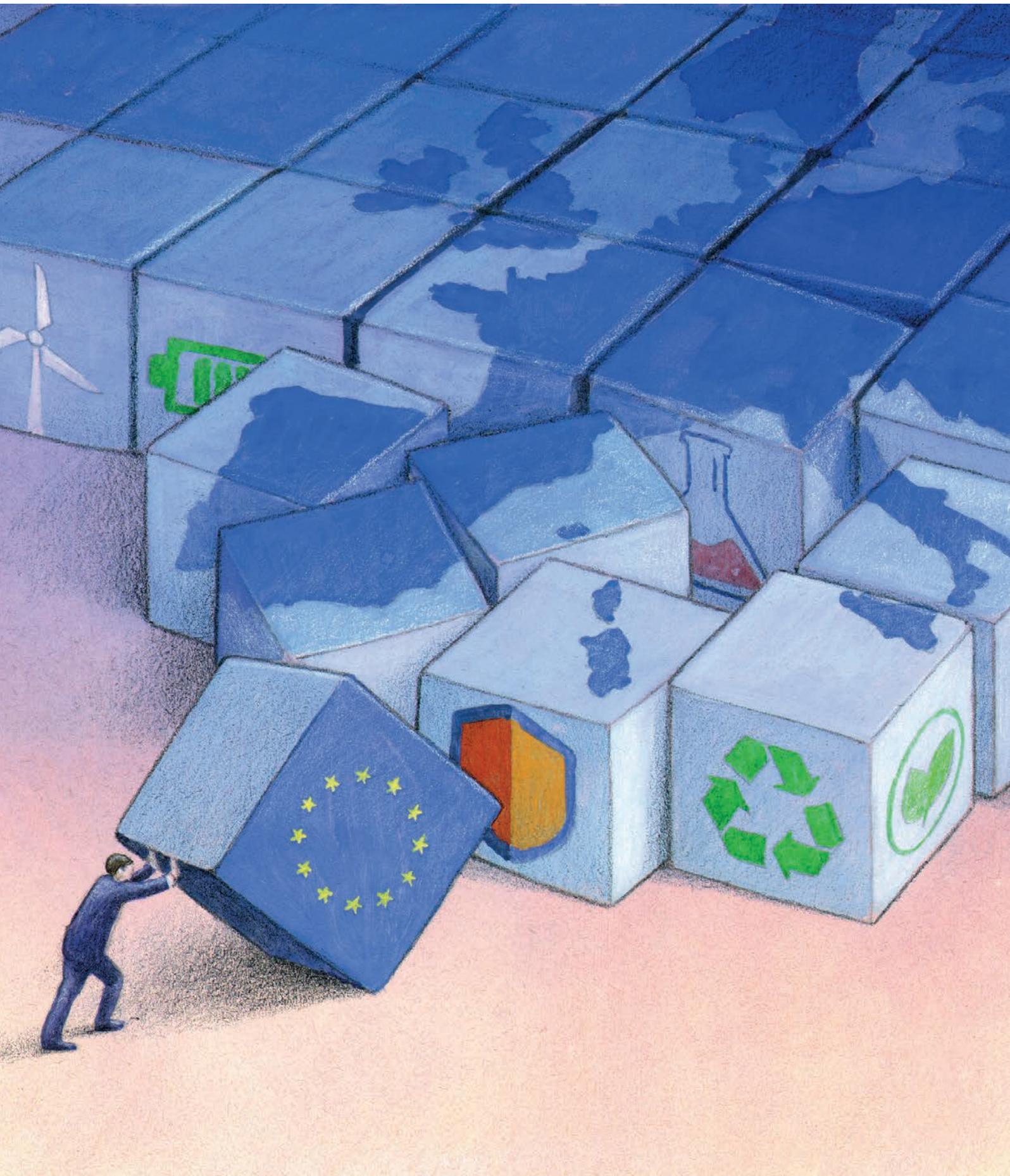
## From Venus to Mars

**1** — The EU needs to invest in common procurement which will improve domestic security forces as well as strengthen the degree of European cohesion in the areas of security and defence.

**2** — Additional funding from the EU budget should target defence R&D, which today is performed almost exclusively in large Member States. EU funding, will, over time, lead to a greater geographical spread of capabilities in these areas.

**3** — The current funding levels for cybersecurity must be dramatically increased to approach the levels of investment in the US and in Asia.

**4** — In the area of border controls, funding can be allocated to promote the voluntary participation of member states in common migration policies, such as an acceptable relocation plan.

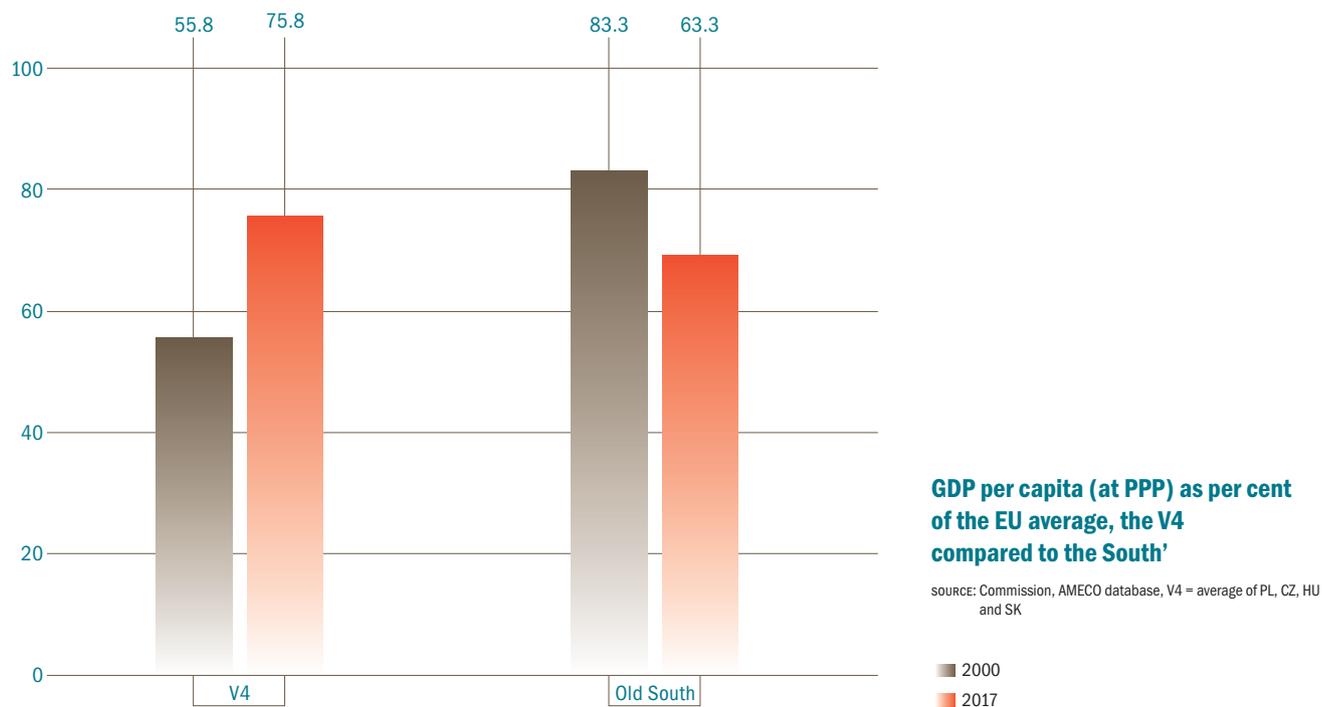


# Trends

**C**urrently, three of the four Visegrad countries have already passed, or are very close to passing the cohesion threshold. Only Hungary is still at 70 per cent of the EU average although some time ago it had a higher income than Poland or the Slovak Republic.

Although the national averages of the V4 countries are above or close to the cohesion threshold, they will continue to benefit from cohesion spending as most of their regions remain below the threshold. The relative success of the V4 countries is illustrated in the figure below, which shows a jump of 20 percentage points (from 55 to 75 per cent of the EU GDP per capita average) made by these countries since 2000.

The support for infrastructure has been massive. In the V4 countries the EU has financed around one half of all public spending on infrastructure under cohesion funding. In Poland, this ratio was even somewhat above

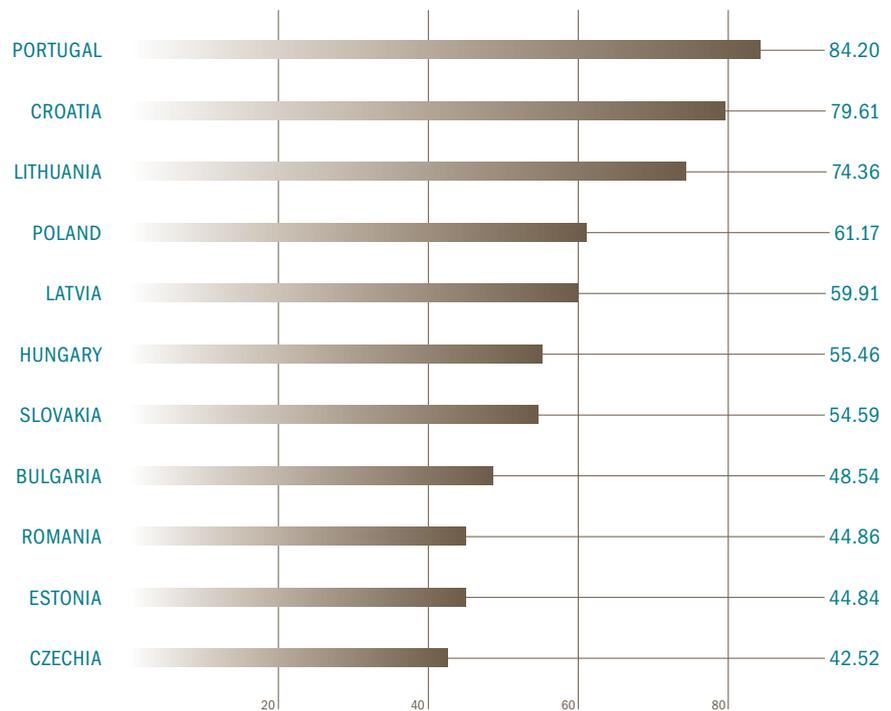


60 per cent, for the Czech Republic it is still above 40 (although one has to keep in mind that these figures also contain a fraction that is co-financed by country itself). Most of New Europe has benefited considerably; but they are not the only ones, as the highest relative contribution to public sector infrastructure is in Portugal.

### Share of Cohesion Fund in total public spending on infrastructure

SOURCE: CEPS based on European Commission data

■ 2015-2017, in per cent



The effectiveness of EU cohesion spending to foster growth in lagging regions was for a long time a hotly contested issue, at least among the EU-15. Many regions in the old member states have received Structural Funds for a long time, but have not converged. This is particularly the case in countries, which have experienced an overall crisis, like Greece, which has fallen back from a GDP per capita of over 85 per cent of the EU average to about 67 per cent today. Portugal has also fallen back, but by a much smaller amount. By contrast, all of New Europe has achieved some degree of success at approaching the European average.

At the present speed of convergence, most of New Europe (and all of the V4) would enter the transitional regime (between 75 and 100 per cent of the EU average) during the next MFF based on their national averages. But some of their regions and a number of regions in old member states seem set to continue to qualify for support for a number of lagging regions.

### *Individual concerns*

Brexit, however it finally materialises, has already exacerbated the funding issues with the MFF. It is reminiscent of Rahm Emanuel's oft-quoted witticism, "you never want a serious crisis to go to waste", and Brexit has sparked fundamental questions over how funding is deployed within the bloc, and who exactly deserves – or needs – to benefit over the next cycle.

Though the Commission President and Budget Commissioner want to promote an MFF which can actively target areas of social concern in line with EU policy, the "frugal four" (Austria, the Netherlands, Denmark and Sweden) are loath to agree, considering a smaller EU as automatically resulting in a smaller budget. The V4, meanwhile, think member states should contribute more.

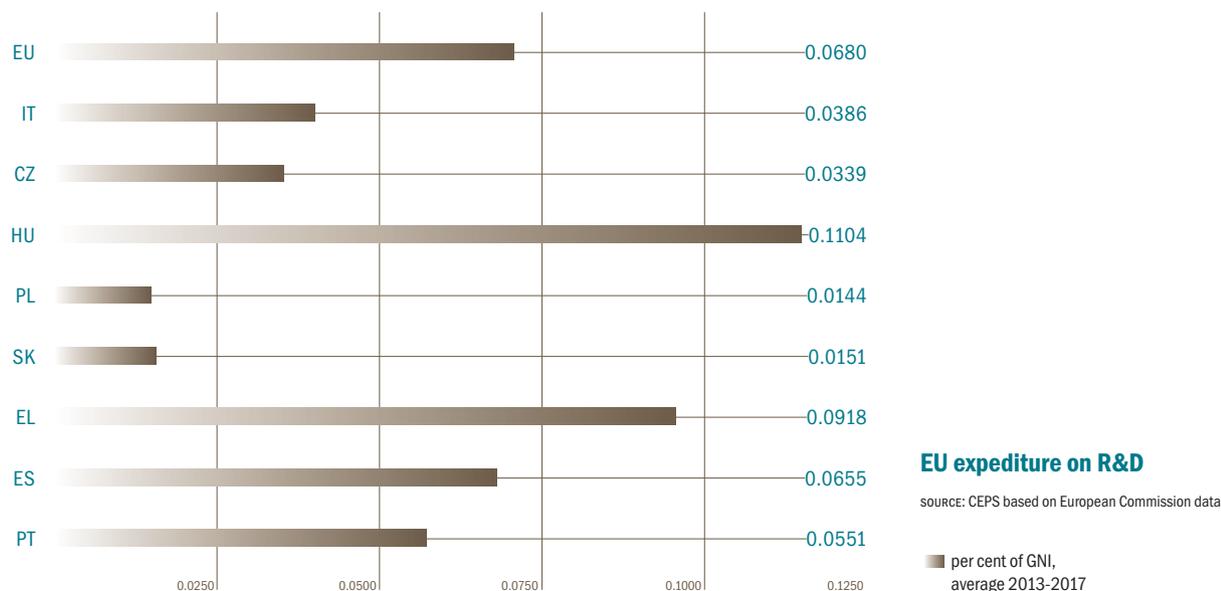
Initially inconspicuous tensions are beginning to come to the surface in this season's budget: in July, it was reported that southern EU nations wanted to prioritise stabilisation in the MFF, whereas their northern counterparts saw structural reform as its central tenet. As ever, the EU has to negotiate the national interests of each individual member – which is always a daunting task.

This was only amplified with a French push for a eurozone budget within the MFF – a situation made even worse when the EU introduced a fiscal policy bearing more than a passing resemblance to Macron's dream, a "budgetary instrument for convergence and competitiveness for the euro area". Of course, this threatens to isolate those countries which have not adopted the single currency, though soft loans are a suggestion to ameliorate segregation.

And, as commentators have noted, it is the contributions of and impact for individual nations, rather than any bloc-based spending, which leaches from public dialogue. The MFF may be, realistically, a supple groundwork to EU strategy in the coming years, posing only 1 per cent of GDP across member states and leaving much of the scaffolding of financial decision-making to national governments, but it certainly has tangible effects. For the previous MFF, policies were actually put in place to enable further flexibility for budgeting, allowing finances to be moved to critical areas.

## R&D

One of the major priorities for increased funding in the upcoming MFF is Research and Development (R&D). The darling of European R&D is the Horizon 2020 programme, which intends to close the “innovation gap” by supporting innovative development – it constituted 7 per cent of the seven-year budget framework over the last cycle. Part of its work, the European Research Council, found last year that nearly one in five funded projects resulted in a scientific breakthrough.



But other pioneering work in R&D across the EU is also being supported by the MFF – with the adjunct that, as funding is EU-wide, competition between different projects within the bloc is fostered. National funding, by contrast, consists of smaller amounts; constrained to domestic projects and institutions, a developing European – and global – research scene is unsupported. With the EU looking towards selecting valuable projects to invest a potentially smaller sum of funding towards, R&D offers bountiful opportunities: some even argue that the EU should be seeking more risky enterprises, in order to make headway with international-level development.

This, however, raises an obvious question: where would the EU place a risky portfolio? If the European Research Council’s progress is anything to go by, a high risk usually equates to a high return, with only 10 per cent of the aforementioned breakthrough projects having a low risk, and that more than 50 per cent of projects also boasted a social impact. This may be a reason behind experts’ calls for MFF budgeting to support scientific interconnection across Europe.

R&D cannot be limited to domestic growth – it, of course, requires qualified scientists. As, across the EU, there is a disparity between prioritising university education or more vocational careers, and with convergence in education levels still incomplete, the need to develop global R&D connections is vital. Investment to encourage high-quality researchers to come to less-developed areas may catalyse technology improvements and collaborative opportunities, which in turn spurs domestic R&D climates. One prominent EU scheme promoting such international networks is the Erasmus programme – which supports the EU’s policy to achieve 20 per cent student mobility by 2020.

Yet generalised schemes are sometimes not as lucrative as they first appear. Though national governments may support these networking initiatives, difficulties – particularly across the V4 – on a social or governmental level threaten to disrupt the progress instigated by EU investment, and include the imminent consequences of an ageing population and low rates of continued education. Poland, for example, may have risen through the ranks of the Global Innovation Index in previous years, ranking 39<sup>th</sup> in 2019, but still fails to taste the success and reputation which are the norm for countries like first-place Switzerland.

Lacking technological know-how or even basic skills, boasting few incentives and little capital, and with an impenetrable bureaucracy, it will take many years for the Polish – or even Visegrad – economy to feel the impacts of improved R&D, even if more funding is tapped towards those nations in the next cycle.

Administrative concerns aside, schemes like Horizon 2020 are beneficial because they do not pre-allocate spending to countries or regions, but if more money is propelled into struggling countries, it often only impacts cities or capital cities. Last year, human resources in science and technology in Poland’s Mazowieckie [district](#) had a 52.2 per cent share of the economically active population, considerably higher than any other

Polish region; whilst Hungary's central region displayed R&D researcher statistics at a 1.3 per cent share of the total number of persons employed, over double the statistics from any other area. Though regional variants occur across Europe – and across the world – the V4 countries are additionally impacted by the country-wide levels of lower socio-economic development, and political consternation over regional inequality is increasing.

Though recipient countries can redirect some of the EU funds they receive towards their own institutes of higher education or research, this frequently translates into spending on new buildings, rather than investing in regional support or supporting a network of talent. When cohesion funds are used to expand curricula, progress is too slow. Poland has two universities in the Academic Ranking of World Universities; whilst the Czech Republic has one. Hungary and Slovakia possess zero. Statistics also show that university openness and student satisfaction correlate with research potential – and for the V4, results are disappointing.

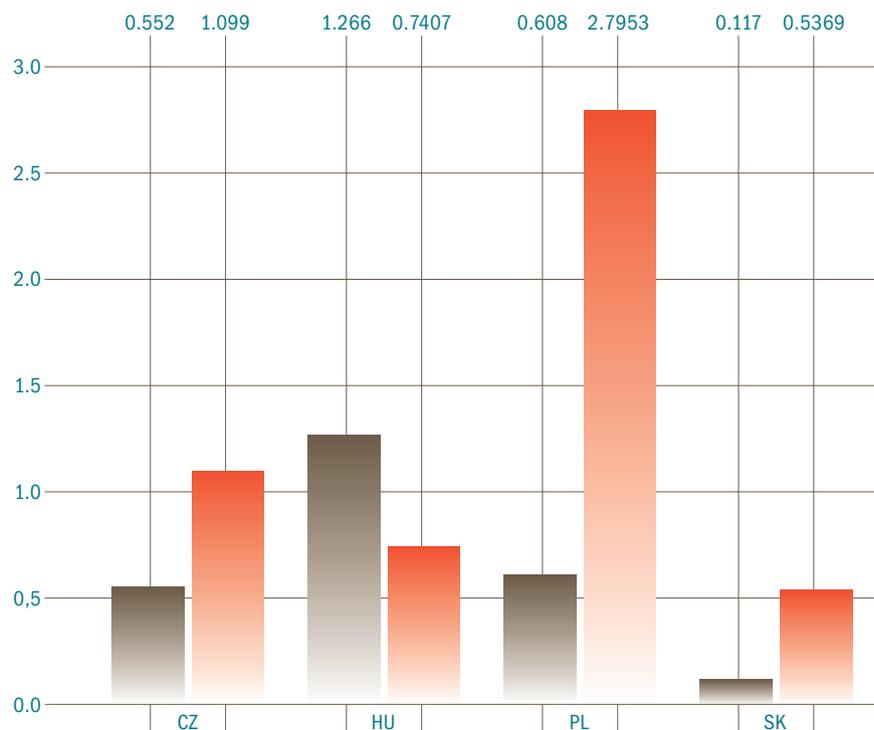
Over the last five years the share of EU spending on Research and Development going to the V4 has been only around 3 per cent of the total, while these countries account for over 6 per cent of the GDP of the EU (and thus 6 per cent of the contributions to the EU budget) and of course a much higher share of the population of the EU.

The chart below shows also that there is a considerable variation in the relative performance of the individual V4 countries. For Poland the share in EU Research funding is only 0.6 per cent, less than one fourth of its contribution to the EU economy. By contrast, Hungary is the only one among the V4 where the relative success in EU Research funding (1.27 per cent of the total) is higher than the share in the EU economy (and budgetary contributions).

### Share of contribution to R&D and GNI of the EU

SOURCE: CEPS based on European Commission data

■ Share in EU GNI  
■ Share in EU R&D



### Securing borders, securing identities

Another EU priority – heavily connected with R&D development – is that of modern security, particularly in the digital realm. Though the MFF budget, this time round, has already been successful in planning funding for sectoral programmes including Digital Europe, which will be launched in 2021 to support the digitalisation of communities across the bloc, discussions are still being held as to whether Digital Europe can support an increased focus on cyber security and digital protection. A recent report from CEPS notes the current EU cyber defence set-up is limited through fragmentation and infrequent active work.

With polls showing that terrorism and immigration are now European citizens' most pressing concerns, an emphasis on border security is an urgent issue for the MFF. Migrants may offer benefits to EU economies, with social mobility allowing for cheaper salaries, but this is tied in with political fears of foreign intervention, as well as concerns on a social or human level regarding subjugation and exploitation.

Delays in past defence strategies have meant savings with security are hard to come by; an issue which again finds itself divided along geographical lines, with large companies having a monopoly over defence production, and smaller states, like the V4, losing out.

One of the most pressing concerns, however, are sea “borders”: as the recent refugee crisis demonstrated, sea boundaries are often difficult to police – of course with the parallel threat of tragedy for any refugees who attempt the crossing. The EU has poured additional funding into its European Border and Coast Guard Agency, or Frontex, based in Warsaw – but it remains to be seen what impact these additional resources will have as well as which other strategies might be put in place on national or European levels.

## *Disasters and decisions*

The EU is contending with one of the largest challenges in history and is often perceived as a threat beyond human proportions: climate change. With eco-friendly living sweeping across Europe, one might imagine that the MFF would face a smooth road to investing in and committing to reducing emissions and scaling back the danger of a climate emergency.

Politically, however, it is a different story. In June, an EU-wide zero carbon goal was advised by various western EU leaders, pushed back to 2050 in an attempt to quell Central European scepticism about climate change. Poland, Hungary and Czechia still vetoed the suggestion. Some of their more activist western counterparts also rejected the idea, citing claims it was too vague to enact real change.

Climate change may be becoming increasingly evident across the continent and the world, but Europe is certainly not posing a united front against future damage. Convergence funds may have been redirected towards the goal of 2050 zero carbon emissions, with suggestions that 25 per cent of the upcoming budget should sponsor projects fighting climate change, but some nations are reluctant. Just as R&D and the growth of infrastructure straddled a fine line between individual domestic policy and general EU strategy, environmental policy also highlights internal divisions, split along two fronts.

The centralised European Emission Trading System (ETS) covers the power sector and industry and includes around 40 per cent of all emissions, with EU-wide annual goals. Then there are national policies about climate change, and tensions between EU policies and individual nations go even deeper. For countries like Poland, for example, whose reliance on the coal industry is a matter of heritage and legacy, it is not merely a matter of costs – probably larger than cohesion funds could cover – which discourage changes to be put in place. Industry representatives have estimated that it would take years for coal mines to be closed down fully, with restructuring of local industry needed to plug the gap; family or community ties to the mines also mean that it would be a difficult choice for many to allow the mines to disappear. Poland perceives the coal threat in remarkably more compassionate terms than in the West.

The Common Agricultural Policy is the largest element of the EU budget, though spending is set to decrease in this cycle. New plans have been aired, offering national governments increased control of agricultural policy, with the Commission having the ultimate say to avoid, for example, environmental damage – but this threatens to catalyse in-fighting between different EU nations, all of whom will be pushing for their farmers’ success alone.

In addition, there are legal queries regarding who exactly would be officialising policy, and whether the environment could be satisfactorily protected. Competition and innovation are important for driving the European economy, but the EU may still wield authority over areas in which changes must be implemented. Even with appropriate levels of funding in this cycle, the traditional pastures of EU agricultural policy make up a long-term commitment, which funding must consistently – and comprehensively – support. Only cohesive agricultural strategies enable the internal market to benefit.

In terms of targeting climate concerns more explicitly, there is still hope: experts have concluded that sustainable energy leads to economic growth, particularly in the case of currently high-emission countries, which will ultimately face low costs of reducing emissions.

These trends – real and EU-cultivated – are difficult to ignore. Though they threaten to burn through the ties holding the bloc together, if tackled correctly, they could be the very bonds that maintain the EU for years to come.

# VISEGRAD / INSIGHT

Special edition 3 (15) | 2019

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The Visegrad/Insight is the main platform of debate and analysis on Central Europe, that generates future policy directions for Europe from the region. It was established in 2012 by the Res Publica Foundation – an independent think tank in Warsaw with its flagship Polish language publication Res Publica Nowa and the New Europe 100, a network of tomorrow's leaders.

# European #Futures Forum

## REPORT LAUNCH

1 October 2019  
Brussels, Belgium

[www.futuresforum.eu](http://www.futuresforum.eu)

/organiser:

**VISEGRAD** / **INSIGHT**

/ main partner:

**CEPS** CENTRE FOR  
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