

STUDY

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The Added Value of the Recovery and Resilience Facility

A Preliminary Analysis of Plans from
Estonia, Hungary, Poland, and
Romania



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Abstract

This study examines the value added by the Recovery and Resilience Facility (RRF) funding in four specific countries: Estonia, Hungary, Poland, and Romania. Focusing on each country's national plans for utilising the funding, we identify where national plans may have generated value added and where additional work is needed to make RRF funding more effective.

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LIST OF ABBREVIATIONS

API	Active Pharmaceutical Ingredients
AUR	Alliance for the Unity of Romanians
CAP	Common Agricultural Policy
CSR	Country-Specific Recommendation
EDP	Excessive Deficit Procedure
ESA	European System of Accounts
EU	European Union
FEAD	Fund for European Aid to the Most Deprived
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GNI	Gross National Income
IPCEI	Important Project of Common European Interest
KAS	Krajowa Administracja Skarbowa
MEP	Member of the European Parliament
MFF	Multiannual Financial Framework
MIPE	Ministry of Investment and European Projects (Romania)
MP	Member of Parliament
NGEU	Next Generation EU
NGO	Non-Governmental Organisation
PNL	National-Liberal Party (Romania)
PSD	Social Democratic Party (Romania)
RRF	Recovery and Resilience Facility
RRP	Recovery and Resilience Plan
SME	Small and Medium-Sized Enterprise
UDMR	Democratic Alliance of Hungarians in Romania
USR	Save Romania Union

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EXECUTIVE SUMMARY

Background

The Recovery and Resilience Facility (RRF) was instituted in February 2021 as a response to the ongoing deleterious effects of the COVID-19 pandemic. At the same time, the RRF had broader ambitions for additional systemic transformation based on larger European Union (EU) plans to “build back better”, including moving towards “green and digital transitions” in a post-COVID world (along with other pillars of development), under the heading of “Next Generation EU”. This study examines the Recovery and Resilience Plans (RRPs) of four specific countries in eastern, central, and south-eastern Europe, namely Estonia, Hungary, Poland, and Romania, chosen for their shared heritage as transition economies and relatively new members of the EU, but also for their diversity. Using five specific criteria – complementarity of RRP with existing national priorities, breadth of plans, regional dispersion, possibility of spillovers, and political support – we show where value has been added by the RRP and where work still needs to be done.

The Experience with RRP in Central and Eastern Europe

Complementarity with Existing Plans

The four country cases are very divergent in the extent of their RRP complementarities, mainly due to their different conditions. **Estonia** provides an example of planned utilisation of RRP money which attempts to expedite already planned initiatives, as the funding of its RRP private sector programmes might not have been forthcoming or might have been of a smaller scale if RRF funding had not been available. **Hungary**, on the other hand, has a less clear record in terms of its RRP, with a mixture of new initiatives and, in certain cases, financing for projects included in already existing long-term strategies. By contrast, the plan from **Poland** has brevity and a low specificity of the measures planned under the RRP, especially the ones that foresee financing of the projects selected at a later stage, and thus there are worries that the RRP is substituting for government expenditures. The **Romanian** RRP promotes the principle of additionality of the RRP’s expenditure, although, as with Poland, there is not enough information to know if the RRP is distinct from or overlapping with existing programmes. Romania’s fiscal difficulties also make it more likely that the sustainability of RRF-funded projects will be tenuous.

Breadth of Plans

All four country plans show highly ambitious investment programmes albeit they are not strictly comparable, also due to their initial conditions. The **Estonian** RRP exhibits substantial breadth, with approximately 42% of the spending allocated for green transition projects and 22% for the digital transition, while the remaining 36% targets other priorities, mainly infrastructure and health measures. The **Hungarian** RRP is also ambitious, addressing many different areas, and the RRP – in line with EU recommendations – tries to address various bottlenecks in the two priority areas of climate-related green investments and digitalisation. The **Polish** RRP is also quite extensive, with its planned undertakings corresponding with the main areas in which the European Commission recommended to act in 2019 and 2020, including strengthening investment-related economic policy on digital infrastructure, (clean) energy infrastructure, and education and health. Finally, the over 700 pages of the **Romanian** RRP provide the image of a very ambitious set of reforms and investments in various fields such as sustainable transport, energy, taxation, health, and education. The proposed interventions in the RRP respond to a significant number of the long-term structural challenges

identified by the 2019 and 2020 country-specific recommendations (CSRs), including streamlining macroeconomic stability, improving the efficiency of the public administration, and reforming the health and education systems.

Regional Dispersion of Funding

For some of the Member States examined here, regional dispersion is a more pressing issue than for others. **Estonia**, as a small country, would be expected to have less weighting on regional dispersion but, despite its small size, there is nevertheless substantial regional heterogeneity. While the Estonian RRP exhibits some regional dispersion of funding, the plan does not fundamentally address regional inequalities. The **Hungarian** RRP has a more explicit focus on regional issues, but this component represents just slightly more than 3% of the total RRP budget and is focused mainly on strengthening the resilience of local economies to crisis. In the planning of the RRP, consultations with local and regional authorities during this process were often insufficient. The **Polish** RRP has a similar approach to formulating projects to address rural regions, urban areas, or areas particularly affected by the effects of the pandemic, scattering them throughout the plan thematically. Much as with Hungary, the Polish plan does not specify which proposals from local stakeholders were taken into consideration. With regional disparities in **Romania** among the highest in the EU, their RRP includes a dedicated component on regional issues with reforms and/or investments targeting social services in regions.

Cross-border Spillovers

Across all four Member States, there was an underestimating of cross-border effects within RRP's while, at the same time, a lack of focus on explicit cross-border projects. The **Estonian** RRP does not identify specific items of investment where spillovers across sectors or regions are particularly prevalent. In addition to the openness of **Hungary** providing a channel for spillovers, specific cross-border spillovers are delineated in the Hungarian RRP, and the **Polish** plan also explicitly mentions the possibility to undertake international projects; moreover, the Polish plan contains several initiatives that could possibly have beneficial cross-border spillovers that have not been explicitly planned. While the **Romanian** RRP contains several initiatives that could possibly have beneficial cross-border spillovers, these effects are not planned nor are they quantified.

Political Support

Preparation of the **Estonian** RRP started in the autumn of 2020 and various stakeholders were consulted in the process through meetings and virtual round tables. In connection with the **Hungarian** RRP, there has been little engagement across the political spectrum for the plan.

Regarding **Poland**, the Polish plan does not include information about the engagement of parliamentary political parties in the preparation of the RRP, but it does provide a description of the consultation process in which political institutions took part and had an opportunity to comment on the draft version. **Romania** was a special case with regard to political support, as the elaboration of the RRP was frequently marked by tensions within the coalition government, and the new government has called for "renegotiating" some of the RRP's key points.

Conclusions and Recommendations

As a result of this analysis, we note some themes and suggestions for countries going forward in the implementation of their RRP.

- Fiscal prudence allows for more ambitious RRP and also may increase the likelihood of the successful implementation of these plans.
- Comprehensive timetables for the delivery of funding (from the EU side) and for the elaboration of projects (from the national government side) should more explicitly consider the institutional abilities of Member States, reflecting different absorptive capacity of Member States.
- Cross-border spillovers may occur as a result of the implementation of the RRP, but they should be explicitly targeted in implementation.
- While supporting public transport (bus and railway) is included in nearly all RRP, this support needs to be tied to local needs and especially take into consideration the uneven access to transport in remote areas.
- Diversifying and shortening the supply chain of agricultural and food products – and building the resilience of those involved in the chain – would have significant benefits across these four countries as part of RRP implementation.
- For projects aimed at strengthening the research base for medicine and health sciences, it is recommended to consider international cooperation in the implementation of research projects, following best practices from other Member States where similar initiatives were undertaken.
- Components of RRP supporting the green transition should also take care to support the protection of biodiversity in their implementation.

These suggestions and recommendations, while diverse in their focus, may help to improve the value-added nature of the RRP in assisting these Member States in their recovery from ongoing economic shocks and building sustainable growth for the future.

BACKGROUND

The Recovery and Resilience Facility (RRF) was instituted in February 2021 as a response to the ongoing deleterious effects of the COVID-19 pandemic, including the decision by European governments to institute stringent limits on various types of economic activities (“lockdowns”) to fight the disease. Facing fiscal difficulties in keeping Member State economies in a form of stasis – alive but not moving – the grants and loans package of the RRF was meant to supplement, rather than replace, national-level spending plans. At the same time, the RRF had broader ambitions for additional systemic transformation based on larger European Union (EU) plans to “build back better”, including moving towards “green and digital transitions” in a post-COVID world, under the heading of “Next Generation EU” (NGEU). Amassing an arsenal of nearly EUR 724 billion (at current prices) as authorised (including EUR 385.8 billion in loans and EUR 338 billion in grants), the RRF is the first example of spending financed via borrowing by the European Commission dedicated solely to underpinning fiscal and energy transformation through 2026.¹

While the RRF itself is an unprecedented move to confront the specific collective action problem of the pandemic response (Bekker, 2021), the modalities of the RRF resemble more regular standard operating procedures within and among Member States, especially with regard to the political compromises made to bring the RRF into fruition. For example, the overall funding available to each country was determined via a complex formula related to population, country income levels, unemployment rates, and recent growth history (Dias et al., 2021). And in order to access this funding, Member States are required to submit national Recovery and Resilience Plans (RRPs) to the European Commission, detailing how the funding will be utilised over the five-year window of the Facility (2021-2026) and outlining how the RRF will add value to national spending plans (Corti and Ferrer, 2021).

With the COVID-19 pandemic entering another wave due to new variants, and the possibility of continued support made manifest through additional lockdowns and restraints, it is too soon (as of January 2022) to determine if the RRF has made a difference in the economies of EU Member States. However, the way in which it has influenced national level spending plans, and, in particular, the development of RRPs, can give an early indication of the effectiveness of the RRF in adding value to specific countries and their development coming out of the pandemic. Is the RRF and its unprecedented capital allowing for fiscal breathing space for ailing countries and, if so, is this being reflected in the fiscal frameworks of various Member States? Is the RRF seen as a way to fill holes in the budget opened up by COVID, adding value at the national level but not having the same tangible impact in pursuit of broader shared EU goals?

The purpose of this analysis is to examine these questions in the context of four specific countries in eastern, central, and south-eastern Europe, namely Estonia, Hungary, Poland, and Romania. These countries were chosen for their shared heritage as transition economies and relatively new members of the EU, but also for their diversity. Estonia is a world leader in digitalisation and an advanced economy (as well as a eurozone member). Hungary is a smaller country in the heart of Europe with serious institutional challenges to overcome (including ongoing disputes with the EU over the rule of law), but it also entered the pandemic with a strong fiscal position. Similarly, Poland is also experiencing an ongoing rift with the Commission on institutional issues but remains the largest economy in the region and one of the most successful transition case studies in the post-1989 transformation of Europe. Of late, however, its fiscal policy has become concerned with building Polish industries

¹ EU financing pre-NGEU was also intended to support broader EU goals and policies, as in the area of financial stability or in support of neighbouring countries. However, this is the first to focus specifically on structural transformation within the EU.

determined to be strategic, funnelling investment to high-tech industries as part of the plan of Prime Minister Morawiecki. Finally, Romania, a non-euro area Member State (like Poland and Hungary), is the most recent country from the grouping to accede to the EU but remains one of the poorest EU members in terms of per capita GDP, while facing the legacy of an already expansionary fiscal policy occurring before the pandemic.

In addition to the diversity of fiscal positions across these four countries, there has been a divergence related to the development of RRFs under the RRF. Poland, for example, has the fourth largest allocation under the RRF in absolute terms and sent its plan in May 2021, while (as of this writing – February 2022), Hungary's RRF remains before the Commission. Similarly, Estonia submitted a plan, approved in October 2021, of approximately EUR 989 million, while Romania had its much more expansive plan of EUR 29 billion approved by the Commission in October 2021. In each instance, the domestic political processes that led to these RRFs were also very different, especially in relation of RRFs to domestic – as well as European – priorities.

This paper uses this divergence as the starting point for understanding the value added of the RRF for these four countries. The paper proceeds as follows: the next section, Section 2, outlines the basic methodology for exploring the possible value added of the RRF in each country, while Section 3 presents an examination of how these criteria for value added have been implemented in the plans of the four countries under examination. Section 4 offers a summation and lessons learned, along with some suggestions for the implementation of RRFs going forward.

METHODOLOGY

As noted in the previous section, the fact that the RRF has only been in existence since the beginning of 2021 – and the reality that approvals of RRFs began in July 2021 and are still ongoing at the time of this report – means that there is very little that can be done at this stage in a quantitative sense to fully assess the impact of the RRF on Member States' economies. Facing this state of affairs, we must instead focus on the first order procedural and decision-making impacts of the RRF on the budgeting and fiscal processes within the four Member States examined here. Indeed, in order to understand the possible value added of the RRF and its funding to the development of these countries, we must examine the national level RRFs, how they were designed, and how they have incorporated (or not) the RRF approach to supplementing national priorities with European ones.

This overarching framework for examining the national RRFs and their possibility for value added will concentrate on five important criteria:

1. Complementarity with existing national fiscal policies;
2. Breadth of plans (ambition), including alignment with the European Council's country-specific recommendations (CSRs);
3. Adequate regional dispersion of funds;
4. Possibility of beneficial spillovers across borders;
5. Political support for the RRF.

We believe that these attributes are the most important features of a national RRF if it is to deliver value above and beyond the regular functions of Member State governments and – and this is crucial – in the context of a plan to recover from the pandemic in a sustainable manner. Indeed, in this sense, we consider "value added" to be the marginal benefits at a structural level which come from the absorption of RRF funding, above and beyond the capabilities of Member States pre-pandemic; to put it another way, we are viewing the success or weakness of an RRF in its ability to be a "force multiplier" in achieving broader sustainability and development goals. These criteria will form the basis of the analysis of the country experiences explored in Section 3.

Complementarity with Existing National Fiscal Policy

The temptation is likely to be large in many Member States to backfill fiscal holes with infusions from the RRF, but such an approach would be swapping one form of debt for another (with small benefits for the RRF country, see Bańkowski et al., 2021). Moreover, this would also create an incentive for moral hazard the likes of which bedevilled the EU during the eurozone crisis (European Commission, 2012). This reality is perhaps why the most prominent directive from the Commission regarding the formulation of RRFs is that they must not be used to replace national spending, and this should form the first criterion for assessing the value added of the RRF. In particular, national RRFs should be based on new projects which support and expand upon, but do not fund, existing initiatives. While add-ons and follow-ups from national programmes may be contemplated – and, in fact, consistency with existing initiatives is required by the Commission – it has been stressed by the Commission that duplication of effort is to be avoided entirely and, in particular, funds should not be used for recurring regular expenditures from a Member State's budget.

In order to assess this criterion, the national RRFs must be examined against national spending priorities including those stated in regular budget documents and, especially, in medium-term budgetary plans prior to the COVID-19 pandemic. Relying on public pronouncements and party

platforms, as well as enacted budget plans, we will be able to see if there have been overlaps and duplication of effort or, as the Commission counsels, a Member State was able to find complementarity through consistency.

Breadth of Plans and Alignment with Country-Specific Recommendations

As a facility is intended to assist in broader EU common goals, including digital and green transformation, social protection, and a myriad of other high-level goals (as noted in Article 4 of the RRF regulation), the national level plans must also be ambitious in terms of their goals and projected impact. Specifically, the RRF funding should enable countries to undertake targeted spending in areas which would not necessarily be possible given existing fiscal constraints and the impact of the pandemic on public finances. This does not mean that the RRFs need to have lofty or unrealistic goals to transform an entire economy in the short term, nor does it mean that the fiscal planning surrounding the expenditure of RRF funds should be seen as extraordinary without considering the sustainability of future expenditures (i.e., that policy changes fall by the wayside once 2026 is reached). Rather, this criterion means that the measures included in the national plans are targeted at specific bottlenecks and coordination issues which may prevent achievement of the disparate and widely dispersed goals listed in the RRF regulations, effecting structural or systemic change²; in practice, this means the extent to which the RRF is adequate and/or relevant to fill in the gaps identified in the EU's CSRs³.

Examples of such plans which would score high under this criterion, focusing on the Six Pillars of the RRF authorising documents, include (i) large-scale infrastructure for digitalisation, especially in areas which have been underserved by traditional network providers; (ii) revitalisation of e-government services to lessen burdens on businesses; (iii) moves to improve health system resilience, including via IT upgrading and an emphasis on medical supply chain improvement; (iv) overhauling of internal government processes with an emphasis on digitalisation; (v) undertaking new structural changes in education delivery; or (vi) upgrading of state-owned enterprises and facilities to be greener and eco-friendlier. In each of these examples, there are large start-up costs related to infrastructure and processes, which need to be undertaken in order to effect major change, a cost that might not otherwise be borne by national governments. On the other hand, the benefits that might be garnered from these initiatives could be substantial in the longer term. In this case, projects which would have high value added would "think big" and be able to demonstrate a use of funds with a high multiplier of already existing projects.

A final point should be noted here: strictly speaking, the ambition of each country RRF should be measured against its own starting position, as the four countries noted here have very different initial conditions. Thus, the plans for Estonia may appear more ambitious than Romania, but this could be a function of Estonia's more developed status. This makes a comparative analysis of breadth more problematic.

² As noted in the RRF legislation, the purpose of the facility is to generate "reforms based on solidarity, integration, social justice and a fair distribution of wealth ... with the aim of creating quality employment and sustainable growth, ensuring equality of, and access to, opportunities and social protection, protecting vulnerable groups and improving the living standards of all Union citizens."

³ These are the so-called "Six Pillars", which encompass "green transition; digital transformation; smart, sustainable and inclusive growth, including economic cohesion, jobs, productivity, competitiveness, research, development and innovation, and a well-functioning internal market with strong small and medium enterprises (SMEs); social and territorial cohesion; health, and economic, social and institutional resilience with the aim of, inter alia, increasing crisis preparedness and crisis response capacity; and policies for the next generation, children and the youth, such as education and skills."

Adequate Regional Dispersion of Funds

The EU has made a speciality of ensuring that funding is not just concentrated in urban centres or in capital cities, but that funding is dispersed across a country. The use of EU regional funds since the 1990s have aided the transformation of the Central and Eastern European countries, especially in the area of infrastructure, and a similar impact could be made through the use of the RRF, which is nevertheless designed exclusively as a nation-wide instrument. We argue that one of the key criteria for understanding the value added of the RRF, as manifested in an RRP, is that national plans for utilising the RRF should show a similar awareness of regional issues and be focused on resolving bottlenecks spatially as well as those within power structures. While the intent of the RRF is to be nation-wide (and territorial cohesion is an explicit RRF objective), the uneven concentration of economic activity in every Member State means that some regions may require specific and targeted interventions which the RRF can help to provide. This can mean the use of RRFs to spread infrastructure to rural and underserved communities, to better integrate peripheral regions with core industrial and economic centres, to improve health and educational resilience in rural and underserved areas, and to keep an eye on regional disparities and how they can be alleviated. While this criterion may be less important for smaller countries, for larger countries it is absolutely critical.

A major point to consider in the development of RRFs with an explicit regional component is also if these plans are done with local and community input. While the EU is governed by the subsidiarity principle, there still is an inertial tendency in many countries to have the federal or highest level of government dictate regional policy with little input from the regional actors themselves. When considering the value added of an RRF, we will evaluate if any regional components took into account local needs and conditions when such a component was designed. Like criterion 2.5 below (political support), the true value added for a regional project financed by the RRF – and its potential sustainability – is that it has buy-in from potential stakeholders.

Possibility of Beneficial Spillovers across Borders

This criterion is perhaps the most crucial for assessment. As Pfeiffer et al. (2021) argued, the largest indicators of value added from EU spending come not necessarily from the direct effects of national spending plans but from spillover effects. Positive spillovers may refer to positive effects on sectors, regions, and policy areas that are not explicitly targeted by a programme but benefit from it indirectly. For example, regions neighbouring those where investments are planned may indirectly benefit from increased business activity through input-output linkages, growth of demand, greater access to connecting infrastructure, cleaner air, and the provision of good practice examples, among others, depending on the nature of the original projects. Spillovers may also be country wide if, for example, the projects contribute indirectly to country-wide improvements in conditions in broad policy areas such as green economy, social conditions, industry 4.0, or digitalisation.

An important distinction must thus be made under this criterion between spillovers related to cross-border effects which occur as a result of planned cross-border projects and those which result due to the nature of the project but are not explicitly planned for. With regard to the planned nature of spillover, leverage effects can be generated as a result of cross-border and EU-wide coordination explicitly targeted in an RRF, meaning not only programmes in which policymakers “think big” within the confines of one Member State, but those plans which can utilise comparative advantages across countries to generate even more impact. For this area, we will examine the use of cross-border projects in RRFs and how they may be expected to have benefits for each of the countries involved in the planned expenditures.

However, in some areas (as in environmental protection), explicit coordination may not even be necessary for beneficial spillovers to occur; for example, a plan for waterway clean-up can have positive externalities in other countries which utilise the water resources, even if no formal cross-border project is planned under an RRP. Recognising this possibility, we will also examine national plans which may span a region or multiple regions to generate economies of scale/have a multiplier effect beyond the country borders of an RRP and which are not directly planned for by the national authorities. While Pfeiffer et al. (2021) provide a framework for understanding macroeconomic spillovers, our analysis will attempt to encompass spillover effects beyond the macro level and also possible spillovers at the micro level.

Although it may be one of the most important criteria for determining value added, the idea of spillovers is also one of the most difficult to address on an *ex-ante* basis. Much of this is due to the fact that, in the case of cross-border spillovers, national RRP are likely to focus, as does the national budgeting process, on national initiatives only. National parliaments cannot be responsible for spending money in other countries or on the behaviour of other countries in the EU, unless cross-border cooperation is explicitly envisaged as part of the project. Realistically as well, unplanned cross-border spillovers are only truly observed *ex-post*, for the aforementioned reason that such spillovers occur as a result of projects and are not accounted for in planning. Thus, to be able to discuss these potential spillovers requires some assumptions about the likelihood of a plan to create the conditions for cross-border cooperation or unplanned spillovers, rather than noting if such coordination is explicitly mentioned. This will also require a close reading of national level plans to see if their orientation comports with regional and/or neighbourhood initiatives. Moreover, while anticipating cross-border spillovers may be difficult, it is less the case with cross-sector or cross-regional spillovers, and we will thus also attempt to keep an eye on these other types of spillovers.

Political Support for the RRP

Fiscal policy, but especially expenditure policy, benefits from political consensus to be able to change in a coherent direction (Bos et al., 2013), a point supported by the protracted budget negotiations which governments engage in on an annual basis (even if budgets just require a simple majority to pass). The normal budget process often centres on scarcity of resources, requiring prioritisation, trade-offs, and, above all, a matching with revenues in order for a programme to be enacted. With the budget constraint softened via the RRF, the scarcity issue has been alleviated somewhat, but this does not eliminate the inherently political process which is budgeting, and even something as extraordinary as an RRP is likely to be influenced heavily by existing political rivalries, schisms within a government, and the need to build extraordinary coalitions across all political parties when political forces are dispersed.

This criterion examines the role of the political process to this point in the development of the national RRP, including the extent to which different stakeholders within political institutions were involved in the preparation and decision-making of the allocation of funds, and whether or not there has been substantial support for the direction of the plan or if disagreements remain. The success of such a large fiscal plan – and especially a determinant of whether or not a policy will be sustainable – must come from broad agreement (von Hagen and Strauch, 2001) and support within national governments (note: this does not necessarily mean support from citizens, who in general have had little opportunity to deliberate on national plans, but instead refers to agreement among political actors). For some of the countries under examination, the divisions have been more substantial than in others, meaning a much higher risk to the implementation of the RRP (and the chance of a much lower value added) than in countries where most political actors are behind the additional projects.

Summary of Evaluation Criteria

In sum, in our understanding, for an RRP to have “value added”, it must exhibit complementary to national spending plans, think big, have sufficient political ownership across the broad spectrum of society, and have an impact across the entirety of a Member State, while also having linkages regionally and across the EU. Although, realistically, it is a stretch to ask for all these criteria to be fulfilled by a slow-moving budgetary process, we believe that these attributes are crucial to ensure that the RRF is a useful tool and not just a way to introduce moral hazard to Member States’ fiscal policies.

As a final note, this list is, of course, not exhaustive, and several other criteria are proposed in the EU’s guidance to Member States, including gender equality and inclusion, climate tracking, and strengthening the resilience of Member States’ institutions. Although some of these criteria are undoubtedly important – building resilience stands out as one of the most important criteria of all those proposed in the EU document – they either are longer-term processes which must be examined *ex-post* rather than *ex-ante* or they are relatively less important in terms of assessing the possible effects of the RRF on Member States’ economies. Nonetheless, where applicable, we will also attempt to incorporate these metrics into our examination, although they will be sub-components of criteria 3 on breadth of plans rather than as stand-alone criteria.

AN ASSESSMENT OF RRP'S ACROSS FOUR MEMBER STATES

Given the five criteria we have outlined in the previous section to judge the value added of a Member State's RRP, Section 3 will apply this methodology to four specific Member States in the EU: Estonia, Hungary, Poland, and Romania (more detail on each country's RRP is shown in the Annex). As noted above, these Member States were chosen for their diverse paths both before and after EU accession, and this diversity has continued in the development of RRP's. This section will examine each of the criteria noted above separately, ascertaining how it has or has not been achieved in each of these countries. While there is great divergence in the scope, timing, and planning of the various RRP's across these (and other) Member States, we attempt to compare these plans taking these differences into account. A summary of this assessment is shown in Table 1.

Table 1. Summary of Country Assessment by Criterion

Criteria	Estonia	Hungary	Poland	Romania
Complementarity with existing fiscal policy	Utilises national planning for broader plans, going beyond national capabilities	Mixture of new initiatives and existing, unfunded initiatives	Unclear if additionality or substitution with respect to existing national plans	Unclear if additionality or substitution with respect to existing national plans
Breadth of plans/Alignment with CSRs	Highly ambitious, comports with CSR	Highly ambitious, comports with CSRs, worries about relationship with other EU funds	Ambitious and comports with CSRs	Comports with long-standing CSRs, worries about relationship with other EU funds
Regional dispersion of funds	Heavily centralised in capital city	Explicit local component but lack of consultation with regional and local governments	Regional initiatives enter the RRP thematically; lack of clarity on incorporation of local needs	Explicit local component but unclear on implementation
Cross-border spillovers and projects	Little reference to cross-border spillovers or projects	Large potential spillovers but small-scale projects planned	Explicit cross-border projects mentioned, potential unplanned spillovers	Large potential spillovers but only one multi-country project planned
Political support	Parliamentary agreement on the RRP with public input	Overall agreement on the plan but with critiques from local and regional administration	Cross-partisan agreement on the desirability of the plan	Political tension within ruling coalition, new government which wishes to "re-negotiate" the RRP

Complementarity with Existing National Fiscal Policy

As noted above, there is a fine line between an RRP which supplements far-reaching plans that comports with existing frameworks and an RRP which backfills existing programmes with new funding and does not propose new initiatives. Thus, a key motivator of the breadth of plans created under the RRF was likely tied to a country's pre-existing fiscal stance, even though the EU funding was meant to support

entirely new initiatives. For countries which had difficulty laying the groundwork for priority projects before the pandemic, the shock of coronavirus and the lockdowns likely made it much more difficult to continue to fund even foundational aspirations.

This reality means that, across the four countries we have chosen to survey, there is naturally a diversity of experiences in structuring the RRFs and, given the divergent views of how existing national fiscal policies should be run (even before the pandemic), there is also naturally a similar divergence in plans under the RRF. Moreover, it is important to note that all four analysed countries have heavily benefitted from EU funds since their accession in either 2004 and 2007, and these funds have been a key component of national spending; therefore, it is often difficult to draw a clear dividing line between the EU-funded and domestic initiatives. In certain instances, the line between complementarity with existing fiscal policy and substitution for national funding is indeed blurry.

This is demonstrably not the case in **Estonia**, which provides an example of planned utilisation of RRF money which attempts to expedite already planned initiatives. The Estonian RRF provides additional resources of approximately EUR 982 million, amounting to around 3.2% of projected GDP in 2021. Several of the items planned in the RRF (see Table 2 in the Annex) pertain to projects that have been under consideration for an extended period, but where it has been difficult to find sufficient national funding and thus have not been started. This applies, for instance, to the modernisation of the government's digital capacities, the multi-modal railway terminal in Ülemiste, the new hospital in Tallinn, and the purchase of new ambulance helicopters. It is likely that these projects would have been funded from the national budget if the RRF had not become available, but the projects would in that case likely have been spread over a longer time period as resources would have become available nationally.

Other items in Table 2 in the Annex for Estonia were considered only to a limited extent in concrete policy planning before the introduction of the RRF, particularly in the support for the digital and green transitions in the private sector. The funding of these private sector programmes might not have been forthcoming or might have been of a smaller scale if RRF funding had not been available. Finally, some of the spending items in the Estonian RRF may stimulate further government spending over time, in particular the items where funding covers government projects. This may be the case for several of the sustainable transport projects and the health and social cohesion projects, where the running costs may be substantial overtime.

Hungary, on the other hand, has a less clear record in terms of its RRF, with a mixture of new initiatives and, in certain cases, financing for projects included in the already existing long-term strategies of Hungary (Hungarian RRF, 2021, pp. 25-29) for which funding was not available or not foreseen in the near future. In terms of new initiatives, completely new elements in the RRF include large infrastructure projects matched with RRF funding but which have not been realised in national budgeting before. In addition, the importance of certain projects has been highlighted by the pandemic, such as, for example, digitalisation in the education or healthcare systems, also addressed in the RRF. Component 7 is a further example of how the Hungarian RRF attempts to comport with national strategies but goes beyond existing programmes, addressing issues connected with the circular economy.

Combined with these new initiatives is funding earmarked for already existing and on-going initiatives, such as the combatting of informal payments ("gratitude money") for certain services provided in the healthcare system, which is also included in the RRF. Similarly, the reform and reorganisation of tertiary education, social housing, and water management was also long planned and/or overdue but was consistently postponed due to the lack of available sources. Finally, the Hungarian RRF also has hybrid

programmes, where RRF sources are complemented by spending from the Hungarian budget, especially in Component 8 on health (Csiki, 2022).

The case of **Poland** is one (as we shall see throughout our criteria) where the brevity and low specificity of the measures planned under the RRP, especially the ones that foresee financing of the projects selected at a later stage⁴, do not make it possible to clearly determine whether these measures expand investments already part of multiannual plans launched before 2021 or whether the RRP is meant to fund them entirely. For example, several investments planned under the RRP in the health system foresee support for the reconstruction, expansion, and modernisation of health care providers, as well as the purchase of medical equipment, coinciding with national plans; in particular, the existing “National Oncology Strategy for 2020-2030” passed in 2020 (Resolution No. 10 of the Polish Council of Ministers of February 4, 2020), calls for investments in the oncological care system in both infrastructure and equipment, just as in the RRP. However, the generality of the descriptions in both documents does not permit us to determine if the planned measures overlap.

Similar doubts exist in determining whether the projects planned in the RRP extend or fund existing initiatives concerning investments in public e-services (C2.1.1 in the Polish RRP). The planned investments in this sphere involve the construction or development of public administration systems targeting the quality and effectiveness of the work of administrators. This proposal is incredibly similar to the multiannual plan “Modernisation of National Revenue Administration (Krajowa Administracja Skarbowa, KAS) for 2020-2022” passed in 2019 (Resolution No. 44/2019 of the Polish Council of Ministers of May 28, 2019), which includes improving the efficiency of KAS operation by ensuring access to networks and computer equipment. In contrast to Estonia, it is unclear if the RRF funding is thus substituting for already planned national-level spending rather than accelerating transformative changes via larger-scale projects.

Finally, **Romania** saw fiscal troubles well before the pandemic began, with expansionary fiscal policy during 2017-2019 (a period of strong economic growth). Romania thus became the only country under the Excessive Deficit Procedure (EDP) during the COVID-19 pandemic crisis, with its public deficit exceeding the 3% of the GDP threshold (reaching 4.3% of GDP). On the basis of fiscal support measures taken during the pandemic crisis (together with lower tax revenues), the government budget deficit (in the European System of Accounts, or ESA, terms) amounted to 9.4% of GDP in 2020, almost 5 percentage points of GDP higher than in the previous year (Ministry of Finance of Romania, 2021). On the other hand, general government debt also increased substantially, from 35.3% of GDP in 2019 to 47.3% of GDP in 2020, to 49.7% of GDP in 2021, and it is expected to continue increasing in the coming years (European Commission, 2021a). Consequently, the fiscal measures agreed by the Romanian government from 2020 onwards (Romanian Government, 2021a) must also consider the rigors of the EDP and the timetable set by the Council⁵.

The Romanian RRP promotes the principle of additionality regarding the RRP’s expenditures, although, as with Poland, there is not enough information to know if the RRP is distinct from or overlapping with existing programmes. Indeed, there are several governmental programmes covering RRP objectives,

⁴ The Polish RRP includes many measures of that type, for example: “A2.1.1. Investments supporting automation and innovation in enterprises” – the measure will support strategic projects that best fit the objectives and assumptions of the reform, without further specification of selection criteria, or “B1.2.1 Energy efficiency and renewable energy sources in enterprises – investments with the highest capability of reducing greenhouse gases emission” – the measure will support the project with the highest level of preparation for their substantive implementation, but the precisely defined requirements are not provided.

⁵ According to Romanian officials (Ministry of Finance of Romania, 2021), in order to mitigate the effects of the COVID-19 crisis, the package of fiscal measures put in place in 2020 was equivalent to 4.85% of GDP (3.65% for measures to prevent the pandemic and 1.20% for measures to combat the pandemic) and in 2021 it decreased to 3.81% (1.29% for prevention and 2.52% for combating the negative effects of the pandemic).

including in the fields of transport and energy infrastructure, the thermal renovation of buildings, and housing construction. In some cases, however, the duplication of financial efforts is clear. For example, according to official data, the National Nursery Programme, implemented by the Ministry of Development, Public Works, and Administration, aims to finance the construction of 60 nurseries (the construction of the last eight being approved on 31 January 2022; Edupedu, 2022), while Component 15 of the RRP – Education, investment 1 – also mentions the realisation of 110 nurseries by the end of 2025.

A possible lack of additionality of RRP support might emerge from the implementation of the primary Romanian investment programme – the new multiannual National Development Programme “Anghel Saligny”. Through this investment programme, 50 billion lei (approximately EUR 10 billion) will be distributed by the Ministry of Development, Public Works, and Administration to local authorities (mayors and local councils) between 2021-2028. This money will be used to finance projects of local interest in the fields of transport and energy infrastructure, but there is no clear demarcation between RRP projects and existing funding plans. Similarly, in the business environment component (Component 9, Investment 3, RRP, p.341), it is envisaged to supplement the budget of ongoing state aid schemes through a system of grants of up to EUR 100,000 per firm to support small and medium-sized enterprises (SMEs) that adopt digital technologies to increase their competitiveness. In conclusion, since the Romanian Plan does not provide detailed cost information for each component, the risk of overlapping and duplication of efforts by covering the same reform or investment costs may be considerable.

A final point needs to be made about Romania: the danger of overlap can occur not only with national budgeting but also with existing EU funding. Many of the RRP’s strategic objectives (for example, regarding transport, digitalisation, energy, health, education, social inclusion, social protection, and employment) have already been financed or continue to be financed by the long-term EU budget (through the European Regional Development Fund, the Cohesion Fund, the European Social Fund plus, and other instruments). This can be seen clearly in Component 4 of the RRP (Sustainable Transport), which is highly complementary with investments included in the Operational Programme Large Infrastructure from the Multiannual Financial Framework (MFF) 2021-2027 (but also within the Operational Programme Transport from the MFF 2014-2020). It can also be seen in Component 13 (Social Reforms), where the social reforms and investments envisaged are similar to investments financed by the European Social Fund (in particular regarding the provision of services for people at risk, including children and people with disabilities). As the Partnership Agreement for the period 2021-2027 is still in the negotiation stage, the establishment of stronger demarcation lines must be considered during the finalisation of the discussions on the Partnership Agreement and especially of the Cohesion Policy programmes, in order to avoid any undesired overlapping.

Breadth of Plans and Alignment with Country-Specific Recommendations

As with many of the plans described here, as we will see, the **Estonian** RRP exhibits substantial breadth in its ambitions. Approximately 42% of the spending of the Estonian RRF is allocated for green transition projects and 22% for the digital transition while the remaining 36% targets other priorities, mainly infrastructure and health measures (European Commission, 2021f). When compared to the developed Northern European EU Member States, the Estonian RRP contains relatively less spending on the key green and digital transitions and relatively more on other RRF priorities (Darvas et al., 2021).

The breadth of the Estonian RRP arises also from the role of the private sector. Substantial sums are earmarked for direct support for private sector initiatives and for streamlining and easing the administrative burden of businesses. Meanwhile, the Estonian RRP also supports initiatives that directly benefit individuals, including entry to the labour market by the young, improved public transportation, faster IT-connections in the countryside, and better healthcare.

The assessment of the Estonian RRP by the European Commission argues that there are two areas where the Estonian RRP lacks scope (European Commission, 2021f). First, whereas substantial investments in the energy transition are planned, the Estonian RRP does not have provisions for the investments needed to ensure CO2 neutral energy production in Estonia in the longer term. Second, the RRP funds are typically earmarked for specific projects and not for broader reform efforts and policy changes. The European Commission argues (on p. 5) that “the RRP is stronger on investment than on reforms”. These concerns should of course be held up against the need for national ownership of the RRP and the relatively limited funding made available.

The spending priorities of the Estonian RRP align to a large extent with recent policy recommendations from the European Commission, including the CSRs from 2019 and the 2021 Stability Programme of Estonia (European Commission, 2020c). This applies in particular for the need for increased investment, for the acceleration of the green transition and the digital transformation, and for the improvement of health provision. It may be argued that there is relatively little weight on measures to improve inclusion, social protection, and broader welfare measures in the Estonian RRP (also see: European Commission (2021g))

Compared to Estonia, the **Hungarian RRP** is perhaps even more ambitious in its breadth (accepting the caveat noted in Section 2 above), addressing many different areas through the various components involved (see Table 3 in the Annex). The RRP – in line with EU recommendations – tries to address various bottlenecks in the two priority areas of climate-related green investments⁶ and digitalisation-related issues, for example, increasing the supply of laptops and various educational applications to schools (an important bottleneck during COVID-19 lockdowns). In terms of climate-related issues, various infrastructure projects in water management or transport, circular economy projects, and awareness raising aim to address bottlenecks. Numerous planned activities are in accordance with Hungary’s CSRs: for example, Components 1 and 2 address improving the adequacy of social assistance and ensuring access to essential services and quality education for all. Alternatively, the green and digital transition, in particular, the clean and efficient production and use of energy, sustainable transport, water and waste management, research and innovation, and digital infrastructure for schools (European Commission, 2020c), is addressed by Components 1 through 7.

As Table 3 in the Annex shows, infrastructure projects especially try to address bottlenecks in these areas (especially in energy, transport, and water management). At least 18% of RRP spending is aimed at infrastructure projects; on the other hand, in other areas, reforms, reorganisation, and acquisition of lacking assets, goods, applications, or tools are of higher importance compared to infrastructure. Similarly, the breadth of the RRP is relatively wide in terms of the regional dispersion of funds. However, the private business sector is not directly involved in these activities, though it can be an important indirect beneficiary through improved education, innovation, and healthcare activities, the increased mobility of workers and infrastructure, and taking part in infrastructure projects.

A “special” component of the Hungarian RRP is the horizontal component (Component 8), which tries to address issues raised by the CSRs in 2019 and 2020 (European Commission, 2020c). According to the

⁶ According to the Green Recovery Tracker, the climate-related share is just 37%, see <https://www.greenrecoverytracker.org/country-reports/hungary>.

2020 CSR, in its Component on “Determined systematic action to prosecute high-level corruption is lacking” (p. 10). Component 8 concentrates on tackling corruption-related problems, especially in healthcare and in public procurement. However, the elements seem to be diffuse and do not deal with the problem systematically and in all areas. This is especially problematic from the point of view of EU funds, because their use is also potentially affected.

Like Hungary, the **Polish** RRP is quite extensive, with its planned undertakings corresponding with the main areas in which the European Commission recommended to act in 2019 and 2020 (Economic Governance Support Unit, 2021a; European Commission, 2019). These include, *inter alia*, strengthening investment-related economic policy on digital infrastructure, (clean) energy infrastructure, and education and health (see examples of projects in the previous section), as well as considering regional disparities, strengthening the innovative capacity of the economy, and lessening the regulatory burden on firms.

Components B and C of the Polish RPP, respectively named “Green energy and reduction of energy consumption” and “Digital transformation”, cover EU priorities with respect to the European Green Deal and a digital future (European Commission, 2019b). These components also provide for specific recommendations including improvement of digital skills, promotion of the digital transformation of companies and the public administration, and investment in the green and digital transition with a particular focus on decarbonisation of the economy (especially in coal-dependent regions). The large-scale investments for digitalisation planned under Component C will address the most pressing challenges that the government had identified, such as low digital literacy, low digitalisation of Polish companies, and inefficient access to the Internet, all of which constitute barriers to sustaining a high rate of productivity growth in the Polish economy (CASE, 2020). The investments boosting the digitalisation of Poland include, *inter alia*, the provision of Internet access in the most disconnected areas, equipping schools with portable multimedia devices, and infrastructure for cybersecurity, data processing, and the delivery of digital services.

The upgrading of utilities and facilities to be greener and eco-friendlier under Component B will be addressed with several investments, for example, investments in heating systems, improvements of the energy efficiency of schools and local social activity facilities, as well as the country-wide development of transmission networks. The Polish plan envisages that the green transformation will also take place in the multi-family housing sector, although the goals of this investment are twofold: not only will it reduce households’ negative impact on air quality, it will also work to resolve the housing shortage (via the construction of low-emission multi-family residential buildings with renewable energy installations).

Under Component A, the CSRs to increase labour market participation are directly addressed by the following: “Effective institutions for the labour market”; “Reforms to improve the situation of parents on the labour market by increasing access to care for children up to 3 years of age”; “More flexible forms of employment, including the introduction of remote work”; and “Solutions for a longer stay in the labour market of middle-aged and older people (50+)”. While the CSRs to enhance the investment climate and involve social partners in the policymaking process are partially addressed by the reform “Increasing the quality of law-making and developing partnerships with community organisations”, fiscal recommendations as well as the recommendation to strengthen the role of public consultation in the legislative process are neglected in the Polish RRP.

As noted above, national level plans should be ambitious in terms of their goals, and in Poland, innovation activity has historically lagged behind other countries, leaving the country locked in the

labour-intensive manufacturing segments of value chains⁷. The Polish plan envisages the whole section to be focused on the development of a national innovation system, consisting of several reforms aimed at strengthening the mechanisms of cooperation between science and industry and facilitating the digitalisation of companies with special tax reliefs. Also envisaged are investments supporting automation and innovation in enterprises and the construction of research facilities and infrastructure for research institutes. This deficiency of the Polish economy is also addressed by the section, “Development of the pharmaceuticals and medical devices sector – investments related to the production of Active Pharmaceutical Ingredients in Poland”. This programme hopes to improve a promising functional specialisation of Poland that can shift it towards more productive parts of global value chains (see, e.g., Ambroziak et al., 2019; FES, 2021).

At first glance, the over 700 pages of the **Romanian** RRP provide the image of a very ambitious set of reforms and investments in various fields such as sustainable transport, energy, taxation, health, and education. The proposed interventions in the RRP respond to a significant number of the long-term structural challenges identified by the 2019 and 2020 CSRs (European Commission, 2020c). Many of the recommendations, such as those on streamlining macroeconomic stability, the efficiency of the public administration, and health and education sector reform, can be also found in previous CSRs. Regarding macroeconomic stability, the CSR mentioned the need for a prudent fiscal policy and strengthening tax collection (CSR 1). Moreover, as the high government deficits recorded before the COVID-19 crisis have risen due to pandemic, in 2019, the Council asked Romania to ensure the sustainability of the public pension system to reduce overall risks to the sustainability of public finances in the medium and long term (CSR 2.2). Consequently, Component 8 (Tax and Pension Reforms) of the RRP includes reforms and investments aiming to address the recommendations related to fiscal policy, such as the full digitalisation of the fiscal administration and the reform of the public pension system.

Other CSRs focused on the quality of health services, specifically on the need to improve access to these services and the transition to outpatient care (2019 CSR 3.7), as well as strengthening its resilience, including for medical workers and with medical products (2020 CSR 1.3). Healthcare reforms, accompanied by digitalisation investments, are expected to improve access to and the cost-efficiency and resilience of the healthcare system (ibidem, p. 39). Component 12 (Health) mentions, along with other categories of investments in public hospital infrastructure, “partial” financing for the construction or modernisation of 25 new hospitals or health units. Although the Romanian RRP (p. 37) notes that “partial financing” involves RRP funds covering a share between 60% to 95% of the total value of the project, the wording is vague enough to give way to various interpretations. While the positive impact of this new financial envelope is unquestionable and there is a chance, at least theoretically, to overcome previous institutional deadlocks given the EUR 2.455 billion allocated to Component 12 (Health), there remain questions about the ability of the system to absorb such a large amount of funding (Andreea, 2021).

Among the European Semester’s recommendations, administrative challenges are repeatedly highlighted (2019 CSR 5, 2020 CSR 4). Although EU funding (during the 2007-2013 and 2014-2020 MFFs) has proven to be an important investment source for administrative capacity building, there are still many necessary reforms to be developed related to the quality of civil servants or the digitalisation of public services. As Gheorghe and Common (2011) noted a decade ago, civil servants are frequently recruited via informal connections and politicisation, which have increased distrust in Romania’s public administration, and this has not improved in the intervening time. Consequently, a number of reforms

⁷ See, e.g., NBP, 2016 for an in-depth diagnosis of the Polish innovation policy, Hagemeyer and Ghodsi, 2017 for the analysis of the position of Polish economy in the GVCs, Piątkowski, 2018 for a thorough description of Polish growth model and Kordalska and Olczyk, 2021, Kruminas et al., 2019 as well as Stölinger, 2021 for the analysis of current functional specialisations of Poland.

and investments included in Component 14 (Good Governance) address these specific recommendations, aiming at improving the decision-making process, introducing a new national recruitment and promotion system for civil servants, and improving the public procurement process, including through digitalisation and capacity building.

Adequate Regional Dispersion of Funds

For some of the Member States examined here, regional dispersion is a more pressing issue than for others. **Estonia**, as a small country with a territory of only 45,000 km² and a population of 1.3 million, would be expected to have less weighting on regional dispersion, but, in spite of its small size, there is nevertheless substantial regional heterogeneity. As elsewhere in the EU, the capital region exhibits the highest income and the lowest unemployment rate, while the eastern and south-eastern regions exhibit the lowest incomes and the highest unemployment rates. There is substantial internal migration to the capital region from the poorer regions in the country and regional inequalities have been the subject of debates in Estonia; as a result, some incipient regional policy measures have been introduced in recent years.

A large part of the funds under the Estonian RRP will support the green and digital transitions of the private sector, and these will more often than not be situated in the capital region. The government's IT investments will similarly be concentrated in the capital. The same applies to most of the investments in sustainable transportation and the construction of the new central hospital in Tallinn. Given these uncertainties, it is very difficult to estimate the share of funding that will go to the capital region, but it could be as much as half of the total RRF funding.

However, there are also a number of initiatives that target regions outside Tallinn (or at least provide new opportunities for these regions). Various energy projects, including renewable energy projects, might be placed in the countryside and away from urban centres. Support to firms for exporting may be particularly useful for firms outside Tallinn, where few firms engage in exports and prefer to serve the large market at their doorstep. Renovation of buildings and improving their energy efficiency may also benefit the countryside where the construction of new buildings has been limited. Improved internet connections and help towards digitalising companies and training IT experts may also help businesses in the countryside. The railway from Turba to Rohuküla will improve public transportation in the western part of Estonia. The purchase of helicopters will improve health services in particular on the islands in the western part of Estonia. All these points are, however, not concrete in terms of their regional effects, and much will depend upon the implementation of the RRP.

As an additional point, the Estonian RRP exhibits some emphasis on regional funding in its RRP, but it is clear that the plan will not fundamentally address regional inequalities in the country. The overall assessment is that whereas the Estonian RRP affords new opportunities for businesses and individuals outside the capital region, the support will not be able to reverse the trend towards the centralisation of economic activities in the capital region in Estonia.

The **Hungarian** RRP more explicitly addresses regional issues in Component 3, entitled "Catching-up of municipalities and regions". However, this component represents just slightly more than 3% of the total budget and is focused primarily on strengthening the resilience of local economies to crisis via support provided to constructing and renovating social housing, improving housing conditions, and producing and using renewable energy (e.g., social solar power).

Additional components in the Hungarian RRP also have a regional dimension, mainly because they address problems which have a regional character, such as water management, transport, or energy. Furthermore, some components address problems in which there are large regional disparities (e.g.,

education, health). For example, regarding Component 1, “Demography and Public Education”, increasing *crèche* capacities has a regional and local dimension and is more vital in rural communities. Regarding public education, there are also large regional disparities, especially in locations with a relatively high Roma population. Concerning the component “Highly Skilled, Competitive Workforce”, the regional dimension is ensured through the fact that leading universities can be found in many different regions throughout the country (besides Budapest, Miskolc, Debrecen, Szeged, Győr, and Gödöllő, among others).

Several other components have regional aspects, including water management (Component 4), which plans investments across the country⁸. In the health component, regional differences are identified in different access to health services and different endowments in workers/doctors. The reform elements (among others, an increase in wages) plan to address these differences through introducing a level playing field and more equal access to health services in all regions. And regional disparities in waste management infrastructure are to be addressed by Component 7. However, in other Components, the regional aspect is much more negligible. For example, in Component 5, “Sustainable green transport”, developments in Budapest dominate (affecting around 3 million people directly – 30% of Hungary’s population), though regional transport network developments represent close to one-fifth of the costs. Moreover, Budapest, which is usually excluded from EU funds due to its high level of development⁹, will directly receive around 10% of RRP-related spending through the development of the metropolitan rail network.

Indeed, despite the myriad of regional effects which can be expected in the Hungarian RRP, a glaring issue in the RRP’s scope can be seen in the way in which local and regional stakeholders, especially in less developed areas, were involved in the planning process. The decreasing funding for local governments since 2010 – which became acute during the pandemic – induced many local and regional governments to seek financing from the RRP for their long planned local development goals, and local governments presented potential projects which were especially important for them. In particular, representatives of cities of various sizes, such as Baja, Érd, Ózd, Jánoshida, Pécs, Tatabánya, Budaörs, and Gödöllő, and counties, such as Szabolcs-Szatmár and Hajdú-Bihar, submitted comments on the first draft of the plan¹⁰. However, a critique posted on the website of the Hungarian plan by local governments¹¹ underlines that the consultations with local and regional authorities during this process were insufficient.

The **Polish** RRP has a similar approach to formulating projects to address rural regions, urban areas, or areas particularly affected by the effects of the pandemic, scattering them throughout the plan thematically. The examples of this regional allocation of funds may be found in projects such as the proposal to increase access to childcare with funds from the RRF; this planned investment will support the construction of childcare facilities among all municipalities based on a special algorithm¹² to ensure

⁸ Investments are planned to affect mainly Danube-Tisza Sandhaven (Duna-Tisza-közi Homokhátság, region: Central Hungary and Southern Great Plain); Eastern Main Channel (Keleti Főcsatorna, region: Northern Great Plain) and Rábaköz-Tóköz (in the north-western part of the country; region: Western Transdanubia).

⁹ According to Eurostat data, in terms of the GDP per inhabitant in PPS in % of EU27, Budapest (HU11) was at 151% in 2019. The second best performing Hungarian region, Nyugat-Dunántúl (Western Transdanubia, HU22) was at 71%. The worst performing Hungarian region was Észak-Alföld (Northern Great Plain, HU32) at 47%. See: https://ec.europa.eu/eurostat/cache/RCL/myregion/#?reg=HU11&ind=17-2_nama_10r_2qdp

¹⁰ The comments are available in Hungarian at <https://www.palyazat.gov.hu/helyreallitasi-es-ellenallokepessegi-eszkoz-rrf-velemenyezés>

¹¹ The comments can be found at <https://www.palyazat.gov.hu/helyreallitasi-es-ellenallokepessegi-eszkoz-rrf-velemenyezés>

¹² The Polish national recovery and resilience plan does not specify the algorithm.

that the regions with limited access to childcare will not be omitted¹³. Additionally, a series of reforms under “Clean air and energy efficiency” pay particular attention to the implementation of renewable energy sources in small and medium-sized cities for which such investments may be an opportunity for development¹⁴. Similarly, the projects undertaken to support the green transformation of cities will be viewed more favourably at the evaluation stage if they are directed towards cities losing social and economic functions¹⁵. Investments regarding the infrastructure of specialised care facilities and other medical entities should also comply with the map of health needs resulting from regional differences. These projects planned under the RRP also ensure regional dispersion in terms of the distribution of health workers¹⁶ and access to high-speed Internet¹⁷ in remote and rural areas.

To evaluate plans against the criterion of the adequate regional dispersion of funds, local and community input is critical. Under the Polish RRP, the consultation stage involved local actors as described in Chapter III, Part 5 of the plan; this included a publicly available online comment form through which comments to the whole plan or individual components could be submitted, debates with experts, and open meetings for representatives of local authorities, non-governmental organisations (NGOs), and other interested stakeholders during which they provided their opinions regarding the RRP. In Chapter III, Part 3 on the RRP, Poland also reports that in July and August 2020, the Ministry of Development Funds and Regional Policy carried out, in accordance with the bottom-up approach, a selection of project proposals for the RRP from three different sources: ministries, local government, and social and economic partners (e.g., Social Dialogue Council). These submitted projects were, according to government-provided information, an inspiration for further work on the preparation of the Polish RRP (Polish Ministry of Development Funds and Regional Policy, 2021).

It is important to note, however, that the RRP does not specify which proposals from local stakeholders were taken into consideration. In fact, during the consultation activities with the Joint Commission of the Government and Local Authorities, the representatives of local stakeholders reported that local governments were not due to be involved in implementing the RRP and that large cities were being discriminated against¹⁸. Similar voices may be found in the media¹⁹, which may suggest that, while local input was present at the planning stage, it may not have been sufficient nor representative.

Finally, regional disparities in **Romania** are among the highest in the EU. In 2019, in terms of regional GDP per capita, the gap registered between the richest Romanian region and the poorest region was about 100 percentage points (135% of national GDP per capita in the capital region, Bucharest-Ilfov, versus 39% in the Nord-Est region). The level of regional competitiveness, which closely depends on employment and productivity rates, reflects also serious lags in all regions of Romania, except the

¹³ See, e.g., Magda, 2019, for an analysis of limited availability of childcare services posing an obstacle to employment for women living in rural areas.

¹⁴ See, e.g., Kurtyka, 2021 and Sala, 2018 for the crucial role of cities in the energy transition in Poland.

¹⁵ The cities losing social and economic functions in Poland were identified in Śleszyński P., 2016, Delimitacja miast średnich tracących funkcje społeczno-gospodarcze (Delimitation of medium-sized cities losing socio-economic functions), Institute of Geography and Spatial Organisation Polish Academy of Sciences, as cities in which after Poland’s accession to the EU in 2004 the absolute or relative decline of their socio-economic functions were observed. The decline of socio-economic functions is observable through, *inter alia*, increasing unemployment rate, decreasing number of business premises located in a city, or depopulation.

¹⁶ See, e.g., Rosik et al. (2020) and Wiśniewski et al. (2021) for analyses of limited health care accessibility in remote areas of Poland.

¹⁷ See, e.g., GUS (2020) for the identification of the rural and least urbanised areas as the areas with the lowest access to the Internet

¹⁸ *Ibidem*, p. 477.

¹⁹ Media information about the involvement of local stakeholders: <https://www.teraz-srodowisko.pl/aktualnosci/krajowy-plan-odbudowy-opinie-eksportow-10137.html>; <https://www.gdansk.pl/wiadomosci/krajowy-plan-odbudowy-samorzadowcy-krytycznie-o-rzadowych-propozycjach,a,194805>; <https://oko.press/nie-bedzie-pieniedzy-z-kpo-bez-porzadnych-konsultacji/>

capital. Regional disparities are also driven by the low quality of infrastructure and related public and private investments outside of Bucharest.

To address this pressing issue, different components of the Romanian RRP include reforms and/or investments aiming to improve the business environment, access to basic public services in health, education, and social-leisure, access to connectivity and digital skills, innovation and technology, and transport. A dedicated component to regional issues, Component 10 (Local Fund), in particular includes measures that ultimately should support the economic and social convergence process, attempting to reduce disparities between regions and urban and rural areas through investments in local infrastructure and support of vulnerable people²⁰.

Considering these serious territorial vulnerabilities, expectations regarding the role of the Romanian RRP in improving regional development should not be overestimated. The adequate implementation of Romanian RRP reforms and investments, in conjunction with programmes funded by Cohesion Policy and other EU funds, can stimulate regional economic growth, but the risk is that the RRP will exacerbate regional disparities with its focus on the comparatively richer regions.

Possibility of Beneficial Spillovers across Borders

Each of the four Member State RRP explicitly take into account spillovers, albeit to wildly varying degrees. For example, the **Estonian** RRP has been designed to address the green and digital priorities of the EU and to fund various investments in public transportation and health care. Consequently, there has not been an attempt to identify specific items of investment where spillovers across sectors or regions are particularly prevalent.

The investments in the green and digital transitions may afford spillovers within the supply chains of these sectors. Furthermore, they may allow firms to exploit economies of scale and hence increase value-added in the relevant sectors. Neighbouring Member States such as Sweden and Denmark are among the leaders in the green and digital transitions, and they have seen large companies emerge in response to demands for new technology. There may also be spillovers from the support under the RRP to new business models and skills upgrading, but the challenge here is also to attain sufficient scale, for instance, through the clustering of businesses and the effective exchange of information.

Improved health care and new public transportation possibilities may also have spillover effects in the form of improved mobility and higher labour supply, and the upgrading of skills across employees may have similar effects. It is probable, however, that these effects will be relatively small given that Estonia already has relatively high labour force participation and comparatively low unemployment.

The scope for spillovers may also depend on the business cycle of the Estonian economy when the investment and other spending components of the RRP take place. The Estonian economy suffered a relatively mild and temporary downturn after the onset of the coronavirus pandemic. The additional spending may thus be unleashed at a time when the output gap of the Estonian economy is negligible or even positive. This carries the risks that there will not be sufficient capacity readily available in the economy and thus RRF spending will, to an extent, crowd out other types of investments or lead to inflation and loss of competitiveness. There may be an inherent tension between, on the one hand, the

²⁰ *Ibidem*.

objective of timing RRF spending to stabilise the business cycle and, on the other hand, the firm targets and milestones of the Council Implementing Decision²¹.

On a much broader note, the European Commission estimates that the Estonian RRP will raise GDP by 0.8-1.3% and create a net of 4,000 jobs by 2026 (see European Commission, 2021g). The Commission also estimates that the spillover effects of the RRP of other EU Member States will lead to a further GDP increase of 0.5% in Estonia in 2026. Given the size of the Estonian economy, the demand spillovers from Estonia to other countries are likely to be comparatively small²².

The **Hungarian** RRP, addressing the many more bottlenecks present in the economy and society, may thus have more substantial spillovers than the Estonian case; indeed, according to the estimation of a study from the EU (European Commission, 2021e), the macroeconomic spillovers of the NGEU are significant. Cross-border/international spillovers are present towards other Member States of the region (Bulgaria, Croatia, Czechia, Poland, Romania, Slovenia, and especially with Slovakia) as well as with Austria, Germany, and France. The same countries, plus Belgium, Greece, Italy, Portugal, and Spain can “send” spillovers to the Hungarian economy. The authors base their estimation on direct trade effects and exchange rate effects. Due to an increase in domestic demand and production, using imported inputs and final products, this benefits especially export-intensive economies, such as Hungary, which is highly integrated in European value chains²³.

In addition to the openness of Hungary providing a channel for spillovers, specific cross-border spillovers are delineated in the Hungarian RRP for the component “Highly skilled and competitive workforce”. In particular, the internationalisation of higher education, cooperation between higher education institutions and foreign entities, and the development of innovation ecosystems may result in an indirect impact of increasing cross-border R&D cooperation. Additionally, other components may also result in cross-border spillovers, due to their character, e.g., the water management component without doubt can benefit downstream countries. Similarly, the component “Sustainable green transport and infrastructure developments related to the Trans-European Transport Network” will also have a positive impact on cross-border transportation. Finally, the regional component “Catching-up municipalities and regions”, aimed at the least developed regions of Hungary based on per capita income levels²⁴, will primarily benefit areas which are close to the borders with Slovakia, Romania, and Ukraine – here again, cross-border spillovers may be present.

With regard to planned cross-border projects, the **Polish** plan explicitly mentions the possibility to undertake international projects in Component C, “Digital transformation”, as a part of Important Projects of European Interest (for example, the EU cloud federation), Joint Undertakings (for example, European High-Performance Computing or quantum technology), the Digital Europe Programme, or the Connecting Europe Facility 2, as well as other cross-border projects which are in line with goals of Polish RRP. However, the plan does not indicate which cross-border projects will be sought after during the implementation of the RRP. The RRP also states that financial support ensured by investments

²¹ The Autumn 2021 Economic Forecast for Estonia by the European Commission posits small negative output gaps for 2022 and 2023. No published forecasts beyond this horizon are available; the Estonian economy has exhibited very strong business cycles over the last three decades.

²² This also applies to Estonia’s immediate neighbours. In 2019, the goods export to Estonia amounted to 2.7% of the total goods export for Finland, 11.7% for Latvia, and 5.1% for Lithuania, cf. data from the World Bank available at <https://wits.worldbank.org/CountryProfile/en/>. The goods trade for Latvia amounted around 42.3% of GDP in 2019.

²³ See e.g., OECD, Global Value Chains (GVCs): Hungary, available at <https://www.oecd.org/sti/ind/GVCs%20-%20HUNGARY.pdf>

²⁴ See Penzcentrum (2020)

under Component C will contribute to the development of the European Blockchain Services Infrastructure, both at the national and EU level, but once again without specifying particular projects.

On the other hand, like the Hungarian example, the Polish plan contains several initiatives that could possibly have beneficial cross-border spillovers that have not been explicitly planned. The projects addressing climate change, such as the construction of offshore wind farms or investments in renewable energy heating systems in households and non-residential and public buildings can not only accelerate the Polish energy transformation but also provide necessary reductions in energy-related carbon emissions. Emissions in particular have been a long-standing problem²⁵, making it difficult for Poland to achieve the goals of the European climate policy (see e.g., Jankowska, 2016), but these investments may also have a beneficial impact on air quality in neighbouring countries. Similarly, the initiatives focused on the neutralisation of hazardous and toxic waste found in the Baltic Sea will have positive externalities on the whole Baltic Sea region, not only on Polish coastal waters.

Overall, positive cross-border externalities may also arise as an effect of the reforms and investments aimed at increasing the effectiveness and resilience of the Polish economy, such as investments in strengthening food supply chain resilience, investments in infrastructure for the traffic management of unmanned aerial vehicles, or investments supporting automation and innovation in enterprises. Investments related to the production of active pharmaceutical ingredients (API) in Poland may also contribute to gaining independence both for Poland and the EU in the provision of API for the internal and European market in the event of outbreaks of other infectious diseases having an impact on global trade. The assumed increased resilience of the Polish economy resulting from such planned initiatives may also contribute to the enhanced competitiveness of the whole European market, albeit this spillover is very far removed from RRP planning.

In **Romania**, according to the European Commission's simulation (European Commission, 2021c), the RRP's additional investment expenditures are expected to support GDP growth by 1.8% to 2.9% by 2026. Romania's 2021 Convergence Programme²⁶ mentions an additional effect on economic growth created by the RRP financial envelope of about 1.1 percentage points over this same period²⁷. However, regarding planned cross-border projects, only one multi-country project is explicitly mentioned – a EUR 500 million project under Component 9 (Business support, research, development, and innovation) to support Romania's involvement in the EU microelectronics sector. This project is planned to be implemented as an Important Project of Common European Interest (IPCEI) on low-power processors and semiconductor chips²⁸.

On the other hand, the Romanian RRP contains several initiatives that could possibly have beneficial cross-border spillovers, although these effects are not planned nor are they quantified. Overall, positive cross-border externalities may arise as an effect of reforms aimed at increasing the effectiveness and resilience of the economy, while projects addressing climate change may accelerate Romania's energy transformation and have a beneficial impact on air quality in neighbouring countries. In particular, the coal phase-out reform (Component 6, Energy) is crucial for the decarbonisation of the energy sector

²⁵ According to Climate Change Performance Index 2022, Poland is among the worst-performing countries when it comes to climate protection performance. Poland ranks 52nd out of 64 assessed countries, which puts it in the penultimate position among EU member states. See <https://ccpi.org/download/climate-change-performance-index-2022-2/>.

²⁶ Romanian Government (2021b), p.29.

²⁷ However, it should be noted that these forecasts consider a balanced absorption of RRP's funds (about 40% of 29.2 billion euros for 2021-2024 and the rest until in 2026),

²⁸ Romanian Government (2021b), p. 29 and p. 61.

and for greenhouse gas (GHG) emissions reductions in Romania and is expected to also have a significant positive long-term impact on environmental objectives in neighbouring countries.

Despite the previously generous allocations from EU funds for transport infrastructure during the MFF 2007-2013 and MFF 2014-2020, progress has been slow and road infrastructure remains inadequate (for instance, Romania has the lowest density of motorways in the EU, only 38 kilometres per 1 million inhabitants). Moreover, Romania is poorly connected to the EU's main transport corridors and the Romanian sections of the central TEN-T, Rhine-Danube, and East-East Mediterranean corridors are not yet complete²⁹. The RRP seeks to rectify this with important investments along the Trans-European Transport corridors, for example through the development of at least 315 kilometres of the European Rail Transport Management System, to allow interoperability with the rail systems of other Member States (Component 4, Sustainable Transport). Additionally, Component 10 (Local Fund) includes significant investments in rail infrastructure and rolling stock in sustainable urban transport as well as in electric vehicle recharging infrastructure, which are also expected to reduce the environmental impact of new motorways. These investments might contribute to improving the sustainability of the transport system and its connectivity at the European level, providing substantial spillovers³⁰.

Political Support for the National RRP

The preparations of the **Estonian** RRP started in the autumn of 2020 and various stakeholders were consulted in the process through meetings and virtual round tables. Further in-depth dialogue took place at the end of March 2021 with more than 30 different umbrella organisations and around 1,000 participants involved. There were in total five thematic seminar days and 46 different round table discussions³¹. The preliminary plan of the government was put out for public consultation over the period 20 May – 4 June 2021, but the resulting changes were small before the programme was submitted to the European Commission³².

Despite these opportunities, there was limited public debate of the RRP for Estonia. The consultations and hearings from December 2020 to June 2021 did not enter debates in newspapers and social media to any noticeable extent. This may be due to the relatively short time provided, the numerous immediate challenges stemming from the COVID-19 pandemic, and perhaps also the fact that Estonia is a relatively large recipient of RRF funding. The limited public debate of the Estonian RRP may also indicate little or no opposition to the plan.

The RRP itself also was not subjected to a vote in Parliament but was instead endorsed by the government in the autumn 2021. The Estonian RRP was however placed under the umbrella of the *Eesti 2035* strategic programme; the government's draft RRP was placed as an appendix to the *Eesti 2035* programme when it was put up for parliamentary debate and vote. The *Eesti 2035* programme was passed by Parliament on 12 May 2021. In total, 95 of 101 members of Parliament participated in the vote; 71 voted for the programme, 18 voted against, 3 voted abstain, and 3 did not vote³³. This large majority for the *Eesti 2035* programme should ensure some political support for the Estonian RRP in the future.

²⁹ Sinteza Programului Operațional Transport 2021-2027, <https://mfe.gov.ro/wp-content/uploads/2020/07/7809a76648585e195992ef0239798351.pdf>

³⁰ *Ibid.*, p. 58

³¹ *Eesti Taastekava avalik konsultatsioon ja taastekava eelnõu* [Public consultation of the Estonian recovery plan and the draft recovery plan], available at https://rf.ee/wp-content/uploads/2021/05/RRP-Taastekava-eelnou_200521.pdf.

³² See Ministry of Finance of Estonia, *Eesti pea miljardine taaskäivitamise kava läks avalikule konsultatsioonile*, available at <https://www.rahandusministeerium.ee/et/uudised/eesti-pea-miljardine-taaskaivitamise-kava-laks-avalikule-konsultatsioonile>.

³³ See Riigikogu, available at <https://www.riigikogu.ee/tegevus/tooulevaade/haaletused/?startDate=12.05.2021>.

Whereas the political and public debates of the Estonian RRP have been fairly limited, the *Eesti 2035* programme has been subject to some public debate, including at the *Arvamusfestival* [opinion festival] in 2019 and also in later years. *Eesti 2035* focuses on social welfare and places great emphasis on areas such as the environment, governance, and health. The placing of the Estonian RRP under *Eesti 2035* could imply a certain degree of public support. Indeed, as noted above, the Estonian RRP includes funding for public transportation and improved health services, areas likely to affect many Estonians as they experience improved health provision and easier transportation. These very tangible results may help contribute to public support for the Estonian RRP (conversely, some of the other funding priorities in the RRP may affect only a relatively small number of people or may have benefits that are long term and not very tangible).

It should be noted that the NGEU is advertised in online media in Estonia targeting young audiences, including in YouTube ads that are dynamic and in which the green credentials are emphasised³⁴. The advertising campaign provides knowledge of the NGEU and may shore up public support for the NGEU. The wider political repercussions of the advertisement campaign are uncertain, but acknowledgment of the programme among the public may garner public support for the NGEU and the Estonian RRP.

In connection with the **Hungarian** RRP, there has been little engagement across the political spectrum for the plan, with only one parliamentary debate held in March 2021 on “The use of EU funds for the 2021-27 cycle” initiated by opposition Members of Parliament (MPs, Hungarian National Assembly, 2021). According to the national debate, all MPs agreed on the importance of the RRP-related financial support for the Hungarian economy and society. Polarised views were expressed otherwise on the relative efficiency of the various Hungarian governments in using these funds, with opposition MPs suggesting giving the funds directly to local governments and spending more on climate-related issues. Furthermore, the MPs missed certain elements which would be important from the climate point of view (e.g., insulation of houses). Another important critique of the opposition was that the Hungarian government decided not to require access to loans (Magyar Önkormányzatok Szövetsége, 2021)).

An especially strong critique was formulated by the Association of Hungarian Local Governments (Magyar Önkormányzatok Szövetsége), with dominant members from the opposition but also including mayors from the governing party, on the planning process and the lack of consultation with stakeholders, especially local governments, about the Hungarian RRP (Molnar, 2021). One of the leading figures of this association is Budapest’s mayor. There was only one official consultation between the national government and the local government of Budapest on the RRP (Ambrus, 2021), but a very detailed comment on the plan was submitted by the local government of Budapest after this consultation³⁵. Furthermore, the Metropolitan Public Development Council (Fővárosi Közfejlesztések Tanácsa, a consultation, decision-making, and coordination forum between the Municipality of Budapest and the Government) discussed in detail the issue in March 2021³⁶. Additional comments were solicited via the Internet (see Section A2.3 in the Annex).

With regard to **Poland**, the Polish plan does not include information about the engagement of parliamentary political parties in the preparation of the RRP, but it does provide a description of the consultation process in which political institutions, such as national government units or representatives of local and regional governments, took part and had an opportunity to comment on

³⁴ The YouTube adds provide links to information in Estonian about the NGEU; see https://europa.eu/next-generation-eu/make-it-green_et?utm_source=youtube&utm_medium=video&utm_campaign=NextGenEU&utm_content=ron-branding-trueview-15seconds.

³⁵ See <https://www.palyzat.gov.hu/helyreallitasi-es-ellenallokepességi-eszköz-rrf-velemenyezes>

³⁶ See Fővárosi Közfejlesztések Tanácsa, 2021, available at <https://budapest.hu/Lapok/2020/fovarosi-kozfejlesztések-tanacsá.aspx>

the draft version. The plan also reports the degree to which the remarks received in the consultation process were taken into consideration in the final version of the RRP submitted to the European Commission.

According to a survey on the degree of involvement of national parliaments in the preparation and adoption of RRP conducted by the European Centre for Parliamentary Research and Documentation (Economic Governance Support Unit, 2021b), both houses of the Polish Parliament had the opportunity to familiarise themselves with preliminary directives and priorities for the definition of the RRP at the preparation stage³⁷. However, the process of ratifying the NGEU package, including the RRF, did not run smoothly, and the members of the ruling coalition (led by the Law and Justice (PIS) party) were not unanimous in their backing of the RRP. The junior coalition party, United Poland, was actually opposed to the fund³⁸. Despite the lack of consensus within the ruling coalition, the package was backed on 4 May 2021 by 290 members of Parliament, with 33 against and 133 abstaining³⁹. It is also worth noting that the legislative process of the approval of the RRF was relatively fast, with the act being submitted on 28 April and all the three hearings and the work of the responsible committees being completed on 4 May 2021. Moreover, the second chamber of the Parliament (Senat), where the majority is held by the opposition, did not introduce any changes and approved the bill. We believe that this indicates strong support for the RRP, despite the official vote tally, mainly due to the plan's comportment with issues long noted as problematic in the Polish economy; thus, even a change of government may not threaten the continuity of the RRP in the country.

Romania was a special case with regard to political support. Like other countries examined here, a stakeholder and inter-ministerial consultation followed by a brief presentation of the draft in the Parliament was organised by the Romanian authorities before the submission of the RRP to the European Commission. The RRP describes the consultation process and mentions that the result of these consultations was considered in the preparation of the plan, with a special focus on the environment, public administration reform, and social components⁴⁰.

However, the development of the RRP was frequently marked by tensions within the (now former) coalition between the National-Liberal Party (PNL) and the Save Romania Union (USR). The Ministry of Investment and European Projects (MIPE), then coordinated by an USR minister, carried out the coordination of the entire process. However, the dismissal of two USR ministers (the Minister of Health in May and the Minister of Justice in September) was followed, at the end of September 2020, by the withdrawal of the USR from the ruling coalition. At the beginning of October 2021, a censorship motion signed by the Social Democrats, the Save Romania Union, and the nationalist opposition party Alliance for the Unity of Romanians (AUR) was adopted in the Romanian Parliament and led to the dismissal of the Cățu government. After complicated political negotiations, a new political majority consisting of the Social Democratic Party (PSD), the PNL, and the Democratic Alliance of Hungarians in Romania (UDMR) allowed the formation of a new Government, led by Prime Minister Nicolae Ciuca, which took office on 25 November 2021.

³⁷ The cut-off date for replies in the survey was 12 April 2021. The Polish government submitted the national RRP to the European Commission in May 2021.

³⁸ Media information about the lack of consensus within the ruling coalition, available at <https://balkaninsight.com/2021/04/30/democracy-digest-holdup-in-eu-recovery-fund-averted-as-polish-parties-strike-deal/>, <https://www.politico.eu/article/poland-sejm-parliament-eu-recovery-fund-mateusz-morawiecki/>, <https://tvn24.pl/polska/fundusz-odbudowy-zbigniew-ziobro-o-stanowisku-solidarnej-polskie-w-sprawie-glosowania-w-sejmie-5085083>.

³⁹ See the voting details, available at <https://www.sejm.gov.pl/sejm9.nsf/agent.xsp?symbol=glosowania&NrKadencji=9&NrPosiedzenia=29&NrGlosowania=18>.

⁴⁰ *Ibid.*, p. 28

In the new government, the issue of the RRP “renegotiation” is often discussed, especially on the initiative of the PSD ministers. The leader of the PSD, Marcel Ciolacu, declared just before the installation of the new government that the RRP must be “optimised”, with “optimisation” meaning a revision through negotiations on some specific aspects (Ernst, 2021). One sensitive issue which could be renegotiated is the closure of coal mines by 2032, which is a sore subject in Romania. Romanian Member of the European Parliament (MEP) Carmen Avram, a member of the SDP, obliquely referenced this when she noted – rejecting the idea of renegotiating the whole RRP – that some aspects needed to be changed because “those who drafted the document put in place some plans that cannot be implemented” (Chirileasa, 2021). Additional criticism of the broader tenets of the RRP which comported with the National Programme came about because of “unclear criteria for awarding the funds and a lack of control over the spending process”⁴¹; it was noted that the priorities under the RRP were considered more a discretionary reward for the political support of the local administration than a real investment tool.

⁴¹ Liberals endorse Romanian PM's new state-financed local development programme, *Romania Insider*, 19 August 2019, <https://www.romania-insider.com/liberals-support-pm-development-program>

CONCLUSIONS

This paper has examined the RRP of four relatively new Member States – Estonia, Hungary, Poland, and Romania – based on five separate criteria, in order to ascertain where value has been added by national level RRP. By focusing on complementarity, breadth of plans, regional dispersion, spillovers, and political support for the RRP, we have demonstrated the divergence and the substantial similarities in these RRP and in their approaches.

This analysis also allowed us to draw some conclusions salient for countries in designing and implementing RRP going forward. Based on the country-specific experiences described in Section 3, we can note that:

- *Fiscal prudence allows for more ambitious RRP and also may increase the likelihood of the successful implementation of these plans.*

A key finding from our analysis appears to be that countries which were on track with their fiscal programmes prior to the crisis already appear to have the institutional capacity to handle additional ambitious funding. This was most evident in the Estonian case, where fiscal prudence allowed for relatively higher-level planning and ambitions in a way to add value; that is, to enable for an expansion of programmes along the lines of the Six Pillars and with little worry that the RRF funding would be substituting for national funding. This also was the case, to a lesser extent, in Poland, which has provided an RRP which comports with overall strategies, but there is not enough information available on some specific planned investments to discern the additionality of RRF funding. The counterfactual to this is provided by Romania, which has been undergoing fiscal distress since 2017 and which has an RRP which offers few clues as to how its planned investments will work in the framework of existing policy or if it will fund priorities which the Romanian government should be funding. Hungary represents an intermediate case between these extremes, having shown good fiscal restraint over the pandemic but with a wish list of priorities and which have been unable to be funded under regular national budgets.

The importance of this point is that countries which do not have their fiscal houses in order are less resilient and less able to fend off a shock (and thus any continued exogenous shocks such as pandemic or invasion would end up costing extraordinary funding sources such as the RRF more than in fiscally prudent countries). Perhaps more importantly for the short term, the goals of the RRF would be less achievable in countries without the fiscal space to ensure that these programmes will continue. Romania remains an example here: according to 2021 Romanian Convergence Programme, the impact of the investments and reforms financed by the RRF through its grant component represents 0.1% of GDP in 2021, 0.6% of GDP in 2022, 1.2% of GDP in 2023, 1.2% in 2024, 0.9% in 2025, and 0.9% in 2026, while loans will amount to 2.3% of GDP in 2025 and 2.5% of GDP in 2026 (Romanian Government, 2021b). However, an independent report drafted by the Romanian National Committee for Macroeconomic Supervision (2021, p. 22), draws attention that the use of loans will increase the volume of additional public expenditure (compared to grants, loans are not accompanied by compensatory entries on the revenue side) and will lead to the exacerbation of public debt. This, given the need to ensure an orderly and continuous financing of the debt, could also lead to a reduction of financial resources available for new investments in the private sector (i.e., crowding out). Romanian authorities have also expressed concerns regarding the risk of non-compliance with the RRP's various

deadlines and the eventuality the government be forced to take over the respective costs to the state public budget⁴².

- *Comprehensive timetables for the delivery of funding (from the EU side) and for the elaboration of projects (from the national government side) should more explicitly consider the institutional abilities of Member States, reflecting different absorptive capacities.*

In many ways, this is an adjunct of the previous point, namely that countries which have had difficulties in managing their fiscal affairs in the past will not suddenly be able to perfectly implement the RRFs just because it is an extraordinary facility. Institutional shortcomings in members such as Hungary, Poland, and Romania mean that milestones and targets need to be considerate of more than just standard cohesion fund language; it also means that *process-related* milestones must also be in place, to ensure that capacity is built along with the disbursement and usage of funds.

We return to the Romanian case to illustrate this point, as Romania has a poor track record in managing EU funds to this point. Although Romania is one of the largest beneficiaries of support from the EU budget under MFF 2021-2027 (a similar situation during previous MFFs, from 2007-2013 and 2014-2020), its historical path of absorption of EU funds is not very encouraging⁴³. This can be seen especially in the health sector: speaking about a project of three regional hospitals which had to be completed during the 2014-2020 MFF, Corina Crețu, former Commissioner of Regional Policy between 2014-2020 and current MEP, declared that she is profoundly surprised “by the fact that, 6 years after the contract was signed for the three regional hospitals in Romania and two years after the money was transferred” not even a construction pit “has been dug”⁴⁴. Therefore, the realism of some of the proposed investments (as those concerning the construction/modernisation of the 25 new hospitals) should be considered with caution if there are no additional measures taken from the EU side to help improve this absorptive capacity.

- *Cross-border spillovers may occur as a result of the implementation of the RRFs, but they need to be explicitly targeted in RRF implementation.*

A consistent theme runs through these countries and their RRFs, and that is the fact that plans may allow for cross-border spillovers but the actual externalities which may accrue from RRF spending are, if anything, underestimated. In a highly integrated area such as the EU, the spillover effects of NGEU investments should be significant, mainly through cross-border trade flows (higher public spending in one EU Member State can stimulate demand for the import of goods and services in other EU Member States). Pfeiffer et al. (2021) showed that a simple aggregation of the national effects of national plans would underestimate the impact of the NGEU, in fact, at the EU level the effects on GDP are about one-third greater than the sum of the measures taken by each individual country (European Commission, 2021e). Similarly, cross-border cooperation in areas such as the green transition offer natural areas for multiplier effects and should be built into national plans more comprehensively. In this manner, the value added of the RRF can be made much clearer, while allowing for leveraging of various country's comparative advantages.

⁴² DG24, Map of Romania's roads at the end of 2021. What about the Moldovan Highway and when we will drive on the Transylvania Highway, 04.12.2021, <https://www.digi24.ro/stiri/externe/ue/harta-drumurilor-romaniei-la-final-de-2021-cum-ramane-cu-autostrada-moldovei-si-cand-vom-vor-circula-pe-autostrada-transilvaniei-1752215>.

⁴³ More specifically, in the next long-term budget covering 2021-2027, Romania will benefit from around EUR 60 billion, EUR 30.3 billion through the EU Cohesion Policy, under the 2021-2027 MFF, and EUR 29.2 billion from the RRF, under the NGEU. Previously, in the MFF 2014-2020, Romania benefited from EUR 47 billion (EUR 24.1 billion through Cohesion Policy and Fund for European Aid to the Most Deprived (FEAD) and about EUR 22.4 billion through the Common Agricultural Policy (CAP) and Integrated Maritime Policy) and, given that, currently the absorption rate is only slightly above 50%, significant amounts must be also absorbed in the next two years.

⁴⁴ Corina Crețu, about regional hospitals: I don't think there is any country where not even a construction pit has been dug, after 6 years, 27 November 2021, <https://247newsbulletin.com/politics/26543.html>

- *While supporting public transport (bus and railway) is included in nearly all RRP, this support needs to be tied to local needs and, especially, take into consideration uneven access to transport in remote areas.*

This point is an analogue to the idea of cross-border spillovers just noted, but instead emphasises the reality of internal spillovers, i.e., across regions within a country. As noted earlier in our analysis, we are aware that territorial cohesion is one of the fundamental pillars of the RRF but, as also shown in Section 3, regional issues have not been explored fully by Member States. Along these lines is the reality that most of the RRP we have explored here focus on capital cities for public transport (see Hungary) due to their density and ability to support such transport. We believe that RRP would also help to generate value added if these funds could focus on transport alternatives in the most “transport excluded” areas (i.e., similar to the dispersion of funding supporting health care facilities in rural areas). The lack of imagination in approaching this issue is a shortcoming of existing RRP, especially in countries such as Estonia, where regional inequalities are prevalent and where migration to the capital city could be limited via better transport links.

- *Diversifying and shortening the supply chain of agricultural and food products - and building the resilience of those involved in the chain – should be part of RRP implementation.*

Initiatives which are planned under this area could involve cross-border projects undertaken with other EU Member States and represent a much more holistic approach to agricultural policy post-pandemic. Focusing on agri-business as a recipient of digitalisation efforts and especially as part of circular economy reforms would have significant benefits across these four countries (and within the EU).

- *For projects aimed at strengthening the research base for medicine and health sciences, it is recommended to consider international cooperation in the implementation of research projects, following best practices from other Member States where similar initiatives were undertaken.*

Finally with regard to the idea of generating synergies and the multiplication of RRF funding, much of the emphasis on existing RRP across countries has been focused on bricks and mortar-type investments. In order to generate truly innovative projects, especially in the green transformation and digitalisation, however, research and development and innovative spaces need to be developed. We envision that this will occur in cross-border international cooperation, much as with medical research and in health services provision (as in the Polish plan). These universal issues can perhaps find solutions via the leveraging of researchers across the EU, generating more impact than in a narrow, single-country approach to R&D.

- *Components of RRP supporting the green transition should also take care to support the protection of biodiversity.*

As a last note, given the emphasis of the RRF on the green transition, we believe a missing component of national RRP needs to be stressed. While there has been an emphasis on economic resilience, ecological resilience is also a point which can be considered as part of ambitious green planning. Of the four countries noted above, only Romania has this explicitly included in its RRP, and Poland conspicuously avoids any mention of biodiversity. In a world of spatially differentiated climate change effects, maintaining ecological resilience will be a key facet to mitigate adverse effects. Understanding how various innovative and sustainable approaches to biodiversity can accompany the green transition can also help to involve the private sector (through private conservation efforts and market pricing) and could be an important part of the small-scale initiatives in implementation leading to larger-scale outcomes. In sum, an inordinate amount of work has gone into the national RRP, and they have been subjected to parliamentary debate, public scrutiny, and EU approval. Having analysed the

experiences of four specific Member States, we believe that these points will help to improve the implementation of RRFs and also help to avoid some of the pitfalls seen in the crafting of these plans across countries. More importantly, by our criteria, these suggestions will also help to increase the value added of the RRF to these Member States.

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ANNEX: COUNTRY STUDIES

A1. ESTONIA

A1.1 Background: key numbers and facts

The European Commission announced on 5 October 2021 that it had accepted the Estonian Recovery and Resilience Plan (RRP). The estimated total costs of the Estonian RRP are EUR 982 million in nominal terms. While the total maximum grant from the EU is EUR 969 million, the Estonian government has pledged to finance any shortfalls that may occur (European Commission, 2021f). The frontloaded first tranche amounting to EUR 126 million was paid out to Estonia on 21 December 2021.

The Estonian government began the formal preparations for the national RRP in October 2020⁴⁵. The resulting RRP was endorsed by the Estonian government on 16 June 2021 and submitted to the European Commission on 18 June 2021. The RRP programme is described in detail in the document *Taaste- ja vastupidavuskava (EE)* [Recovery and Resilience Plan (EE)] which is 464 pages long⁴⁶. At the time of writing in February 2022, the document has not been translated into English, but several shorter descriptions of the programme are available.

The Estonian RRP was assessed by the European Commission and the assessment was made public on 5 October 2021 (European Commission, 2021f). Although the assessment was overall positive, Estonia received only average scores for the justification of the costs and the overall coherence of the programme.

A unique feature of the Estonian RRP is its direct linkage to *Eesti 2035*, which is the medium-term development strategy for Estonia adopted in June 2021. *Eesti 2035* specifies numerous objectives for societal and economic development in Estonia until 2035 and additionally comprises an action plan⁴⁷. *Eesti 2035* centres on human and societal development, including environmental protection, communication, and innovation. The Estonian RRP is subsumed in *Eesti 2035* and may be seen as a means of providing resources towards the realisation of the *Eesti 2035* objectives.

A2.2 The Estonian RRP

The RRP of the Estonian government provides detailed programming for expenses amounting to EUR 982 million in nominal terms, of which RRP grants in the autumn 2021 were envisaged to finance EUR 969 million. The final total allocation of RRP grants to Estonia will however be determined only in June 2022, when updated data on the Estonian economy are available (as in all other Member States). The EU has committed to paying at least EUR 758 million to Estonia irrespective of economic developments. The relatively mild setback the Estonian economy after the outbreak of the pandemic suggests that the pay-outs to Estonia may be somewhat smaller than the EUR 969 million set out in the autumn of 2021⁴⁸.

⁴⁵ For a detailed discussion of the preparations of the RRF programme for Estonia, see “Estonian Recovery and Resilience Plan”, available at https://rrf.ee/wp-content/uploads/2021/05/RRF_EE_overview_200521.pdf.

⁴⁶ See *Taaste- ja vastupidavuskava (EE)*, 17 June 2021, available at <https://rrf.ee/wp-content/uploads/2021/06/RRP-Taastekava-170621-VIISi.pdf>.

⁴⁷ See <https://valitsus.ee/en/media/4269/download> for the plan with the objectives and broad policy prescriptions and <https://valitsus.ee/en/media/4271/download> for the action plan.

⁴⁸ See *Taaste- ja vastupidavuskava (EE)*, 17 June 2021, p. 345, available at <https://rrf.ee/wp-content/uploads/2021/06/RRP-Taastekava-170621-VIISi.pdf>.

Table A-1. Allocations in the Estonian Recovery and Resilience Plan

	EUR million	% of 2021 GNI	% of Total RRP Expenditure
1. Digital transition in business sector	116	0.39	11.8
Supporting digital transformation in SMEs	73	0.25	7.6
Reforms to raise competitiveness of SMEs in foreign markets	33	0.11	3.3
Improving digital skills	10	0.03	0.9
2. Green transition in business sector	220	0.74	22.4
Greentech Fund	100	0.34	10.3
Resource efficient green technologies, valorisation of bioresources	38	0.13	3.9
Greentech development programmes	8	0.03	0.9
Redesigning business models	9	0.03	0.9
Green hydrogen pilot projects	50	0.17	5.1
Improving green skills	15	0.05	1.5
3. Digital Estonia	122	0.41	12.4
Core government IT services and infrastructure: taking <i>digigov</i> to cloud	43	0.14	4.2
Proactive and seamless digital service delivery	51	0.17	5.1
Connectivity	24	0.08	2.4
Improving anti money laundering (AML) IT-capacities	4	0.01	0.3
4. Energy and energy efficiency	92	0.31	9.4
Fostering the uptake of renewable energy	45	0.15	4.5
Energy efficiency of buildings	47	0.16	4.8
5. Sustainable transport	96	0.32	9.7
Municipal investments in safe cycling paths	5	0.02	0.6
Construction of Turba-Rohuküla railway line	34	0.11	3.3
Construction of Tallinn Old Harbour tram line	26	0.09	2.7
Multimodal terminal in Ülemiste for Rail Baltica	31	0.1	3.0
6. Health and social cohesion	336	1.13	34.1
Enhancing resilience of health system of Estonia	280	0.94	28.4
Improvement of medical emergency service availability	46	0.15	4.5
Measures for youth unemployment	10	0.03	0.9
Total	982	3.31	100.0

Source: Calculations based on Programming Recovery and Resilience Facility in Estonia, May 2021, available at https://rrf.ee/wp-content/uploads/2021/05/RRF_EE_overview_200521.pdf. A more detailed breakdown is available in Analysis of the Recovery and Resilience Plan of Estonia, European Commission, 5 October 2021, pp. 62-64 available at https://ec.europa.eu/info/sites/default/files/swd2021_285_en.pdf. The allocations in per cent of the 2021 gross national income (GNI) are computed using the nominal GNI forecast for 2021 in the Autumn 2021 Economic Forecast for Estonia, European Commission, available at https://ec.europa.eu/economy_finance/ameco/Ameco.

Table A-1 shows a breakdown of the total RRP grant of EUR 982 million stipulated in the Estonian RRP. The breakdown is shown in EUR millions and in per cent of 2021 gross national income (GNI) forecast for Estonia. A key feature of the Estonian RRP is the substantial involvement of the private sector. The items in Points 1 and 2 comprise the direct financial support to the digital and green transitions in the private sector. The funding to the private sector will in large part take place through funds that will be set up and to which the businesses will be able to apply for support for digitalisation and environmental projects.

Point 3 comprises projects aimed at modernising and centralising public digital services and to facilitate easier access to these services by businesses and individuals. Financing will also be made available for the establishment of high-speed internet connections in the countryside. Point 4 comprises a range of projects to enhance energy efficiency in private buildings and to expand and strengthen the electricity grid in preparation of increased electricity production from alternative energy sources.

Point 5 focuses on sustainable transport and provides funding mainly for a number of public transportation projects including new tram and train lines. Finally, Point 6 considers projects within health and social welfare. Most of the money will go towards the financing of a new large-scale hospital in Tallinn and to the purchase of at least two ambulance helicopters to provide better emergency health services in the countryside.

A2. HUNGARY

A2.1 Background: key numbers and facts

Hungary submitted its recovery and resilience plan (RRP) to the European Commission on 11 May 2021. According to these initial plans, Hungary may receive a maximum grant allocation of HUF 2,511 billion (EUR 7.2 billion, 2.13% of the total allocation) in current prices (European Commission, 2020a). In terms of per capita amounts, Hungary is ranked 13th among the 27 member countries, with EUR 737 per person. This represents an average of 6.7% of 2021 GNI (grants) and 0.28% of 2021 GNI (loans) (Darvas, 2020). However, according to the Ministry of Finance, the rapid recovery and higher than expected economic growth in 2021 has led to a reduction in the size of grants, to around HUF 2,070-2,080 billion (Ministry of Finance of Hungary, 2021).

In terms of the size of its plan, the Hungarian RRP ranks 17th among all the Member States that have already submitted an RRP at 427 pages, making it among the “shorter” ones across the EU (European Commission, 2020a). Similar to other Member States, Hungary set out in its RRP the reforms and investments that the country aims to implement by 2026. Hungary’s RRP has not yet been accepted by the European Commission (as of February 2022), with the reason given being that the plan does not sufficiently respond to the country-specific recommendations previously (in 2019 and 2020) made to Hungary, especially in guaranteeing the prevention of corruption, fraud, and conflict of interest in the use of funds (Budapest Business Journal, 2021). Thus, Hungary is among the five Member States which have not received the green light for their RRP.

The Hungarian RRP is set up in a way that it is inserted to a web of various other development plans which are financed from various EU sources and the Hungarian budget. The RRP presents investments or reforms in related areas, which are either additional or supplementary to previously existing projects.

A2.2 The Hungarian RRP

Hungary is among the 20 Member States who do not intend to take loans (only grants) in the framework of the RRF (however, the country may still request loans until 31 August 2023; in this case, the request shall be accompanied by a revised RRP, including additional milestones and targets⁴⁹). In Government Decree 1037/2021 (II. 5.) on the Economic Recovery Action Plan (Magyar Közlöny, 2021),

⁴⁹ See Article 14(2) of the REGULATION (EU) 2021/241 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 February 2021 establishing the Recovery and Resilience Facility at <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R0241&from=EN>.

the Plan identified the following priorities or programme areas for the preparation of the RRP, related to the Six Pillars set up by the European Commission:

- *Demography and public education*: the main goal is to create competitive public education in a 21st century technological environment, ensuring that the new generations leave school with digital skills and an eco-conscious approach. Expanding early learning opportunities not only helps to reduce social inequalities but also increases employment opportunities for parents;
- *A highly skilled and competitive workforce*: the RRP aims to modernise higher education and increase cooperation between universities and businesses by developing R&D and innovation capacities, modernising higher education, and improving the infrastructure and skills of practice-oriented higher education courses. An important element of this component is the development of 21st century vocational training institutions and the National Central Accredited Examination Centre, as well as the development of digital curricula for vocational training⁵⁰;
- *Helping municipalities and regions catch-up*: the RRP focuses on the overall development of underdeveloped regions through constructing and renovating social housing and improving housing conditions to strengthen social inclusion as well as promoting and supporting community-based renewable energy production and use (e.g., social solar power)⁵¹;
- *Water management*: the main aim here is conservation of nature and promoting related awareness, while also introducing 21st century solutions in water management through the development of new networks and systems and the establishment of an effective monitoring system;
- *Sustainable green transport*: the RRP aims to contribute to a sustainable and efficient transport system by removing transport bottlenecks and includes several elements (e.g., the modernisation of suburban and inter-urban transport and the development of regional transport networks, including cycle routes) that may contribute to increasing labour market mobility and improving quality of life in rural areas;
- *Energy (green transition)*: the aim is to ensure a resilient and secure electricity network to integrate weather-dependent renewable energy sources; moreover, support for residential solar photovoltaic panels and heating retrofitting will also contribute to efficient energy management;
- *Circular economy*: the RRP plans to diffuse innovative solutions through interventions such as the chemical recycling of waste or the development of infrastructure to promote waste pre-treatment and recovery;
- *Health*: the aims of the component are extending the health years of workers, shortening patient distance to healthcare, and reducing the number of physical doctor-patient appointments by introducing advanced digital solutions at all levels of the system through digitalisation reform (digitisation of care processes, eHealth functions for the population, and development of a centralised health app, among others). In addition, development of the

⁵⁰ This component was changed, as originally it was aimed at reorganising Hungarian higher education. However, the assets of the majority of Hungarian universities were transferred to "independent" (in reality, Fidesz-related) foundations and that is why the European Commission opposed the financing of these foundations from RRF grants. For example, see: <https://www.portfolio.hu/unios-forrasok/20210424/kideru-lt-miert-utazott-penteken-brusszelbe-orban-viktor-beleketott-az-europai-bizottsag-a-gigantikus-magyar-eu-s-terv-tobb-fontos-elemebe-480130#>. Originally, HUF 880 billion were requested for higher education, which was later reduced to HUF 64.2 billion, see <https://magyarnarancs.hu/kulpol/mikor-hagyja-jova-brusszel-a-magyar-helyreallitasi-tervet-241455>

⁵¹ Again, the emphasis was changed in this component to emphasise social housing and green issues.

hospital network and phasing out of the gratuity system will be key elements in creating the conditions for 21st century healthcare;

- *Horizontal measures*: the RRP envisions upgrading the systems of the prosecution service by supporting data-driven decision-making and legislative processes; combating health care bribery; strengthening competition in public procurement; and the introduction of a software licence management system⁵².

Exceeding the EU requirements, 41% goes to climate-related green investments (though according to many sources, this share only equals the required 37%⁵³) and 23% to digitalisation-related⁵⁴ issues (Table A-2).

⁵² This component seems to specifically react to the main critiques from the European Commission and Parliament concerning judicial independence, bribery, and corruption. This is one of the main reasons why the European Commission has not given a green light to the Hungarian RRP – and indicates that the inclusion of this component and its elements are evaluated as insufficient for addressing the above-mentioned issues, see <https://magyararancs.hu/kulpol/mikor-hagyja-joval-brusszel-a-magyar-helyreallitasi-tervet-241455>. This is in line with the opinion of Transparency International Hungary on the previous version of the RRP, which underlines that the planned projects will not be able to increase the capability of the prosecution service in its fight against corruption, to increase judicial independence, to address tailor-made procedures in public procurement, and to cut back gratuity payments in the healthcare system, see: <https://transparency.hu/wp-content/uploads/2021/05/Transparency-HET-Eng.pdf>

⁵³ See the Green Recovery Tracker: <https://www.greenrecoverytracker.org/country-reports/hungary> which explains the difference in methodological reasons, i.e., that vaguely formulated elements are not included.

⁵⁴ See European Commission (2020a), Hungarian RRP (2021), tables on p. 20 (climate/green) and on p. 23 (digital).

Table A-2. Allocations in the Hungarian Recovery and Resilience Plan

	EUR million	% of 2021 GNI	% of Total RRP Expenditure
1. Demography and public education	643	0.4	9.2
2. Highly skilled, competitive workforce	784	0.5	11.2
3. Catching-up of municipalities and regions	216	0.1	3.1
4. Water management	124	0.1	1.8
5. Sustainable green transport	1760	1.2	25.1
6. Energy (Green Transition)	732	0.5	10.5
7. Circular economy	287	0.2	4.1
8. Health	2390	1.6	34.1
9. Horizontal	68	0.0	1.0
Total	7005	4.8	100.0

Source: Hungary RRP, based on pp. 20 and 23. The allocations in per cent of the 2021 gross national income (GNI) are computed using the nominal GNI forecast for 2021 in the Autumn 2021 Economic Forecast for Estonia, European Commission, available at https://ec.europa.eu/economy_finance/ameco/Ameco.

The Hungarian RRP contains 49 reforms/investments, as shown in Table A-2. An important characteristic of the Hungarian RRP is that there is no substantial involvement of, or funding for, the private/business sector, despite the private sector (indirectly) expecting substantial benefits from the planned investments and reforms. To assess the relevance the RRP's components, one must consider that a key impediment to Hungary's competitiveness is its lack of a suitably skilled (including digital skills) and healthy workforce. The planned activities, through improving education, health, and infrastructure, may lessen these problems.

Furthermore, the RRP is in line with the majority of the CSRs for 2019 and 2020 (see Table A-3)⁵⁵, such as: maintaining momentum for investments, especially in key areas (digitalisation, energy, transportation, water, waste management, innovation, and digital infrastructure for schools), improving access to health and education services, and increasing competition in public procurement. CSRs *not* addressed in the RRP include protecting employment through enhanced short time working arrangements and effective active labour market policies and extending the duration of unemployment benefits. Another area not included is ensuring liquidity support to small and medium-sized enterprises – this has been addressed by other policy tools and programmes.^{56,57}

⁵⁵ See EUR-Lex, Recommendation for a COUNCIL RECOMMENDATION on the 2020 National Reform Programme of Hungary and delivering a Council opinion on the 2020 Convergence Programme of Hungary COM/2020/517 final, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1591720698631&uri=CELEX%3A52020DC0517>

⁵⁶ See: Minden adott a magyar kkv-k dinamikus növekedéséhez, Portfolio 13 December 2021, available at: <https://www.portfolio.hu/unios-forrasok/20211213/minden-adott-a-magyar-kkv-k-dinamikus-novekedesehez-515372>.

⁵⁷ Another area, partly addressed in the RRP is Strengthening the tax system against the risk of aggressive tax planning through the simplification of the tax system. Furthermore, unrelated to the RRP, Hungary has joined the negotiations on the agreement on a global minimum tax, see <https://www.reuters.com/business/finance/hungary-agrees-global-tax-deal-finance-minister-says-2021-10-08/>.

Table A-3. Country specific recommendations, 2019 and 2020, and RRP components

Country specific recommendations 2019	Addressed by RRP? If yes, which component?
<p>1. Ensure compliance with the Council recommendation of 5 June 2019 with a view to correcting the significant deviation from the adjustment path toward the medium-term budgetary objective.</p>	<p>No</p>
<p>2. Continue the labour market integration of the most vulnerable groups in particular by upskilling and improve the adequacy of social assistance and unemployment benefits. Improve education outcomes and increase the participation of disadvantaged groups, in particular Roma, in quality mainstream education. Improve health outcomes by supporting preventive health measures and strengthening primary health care.</p>	<p>Yes, partially. Components 1, 2, 3, and 8 (upskilling; improve education outcomes and increase the participation of disadvantaged groups, in particular, Roma, in quality mainstream education; and improve health outcomes by supporting preventive health measures and strengthening primary health care)</p>
<p>3. Focus investment-related economic policy on research and innovation, low carbon energy and transport, waste infrastructure, and energy and resource efficiency, taking into account regional disparities. Improve competition in public procurement.</p>	<p>Yes, partially. Components 2, 5, 7, and 9 (research and innovation; low carbon energy and transport; waste infrastructure; energy and resource efficiency; and improve competition in public procurement)</p>
<p>4. Reinforce the anti-corruption framework, including by improving prosecutorial efforts and access to public information, and strengthen judicial independence. Improve the quality and transparency of the decision-making process through effective social dialogue and engagement with other stakeholders and through regular, appropriate impact assessments. Continue simplifying the tax system, while strengthening it against a risk of aggressive tax planning. Improve competition and regulatory predictability in services sector.</p>	<p>Yes, partially. Component 9 (reinforce the anti-corruption framework, including by improving prosecutorial efforts and access to public information)</p>
Country specific recommendations 2020	Addressed by RRP? If yes, which component?
<p>1. In line with the general escape clause, take all necessary measures to effectively address the pandemic, sustain the economy, and support the ensuing recovery. When economic conditions allow, pursue fiscal policies aimed at achieving prudent medium-term fiscal positions and ensuring debt sustainability, while enhancing investment. Address shortages of health workers and ensure an adequate supply of critical medical products and infrastructure to increase the resilience of the health system. Improve access to quality preventive and primary care services.</p>	<p>Yes, partially. Component 8 (address shortages of health workers and ensure an adequate supply of critical medical products and infrastructure to increase the resilience of the health system and improve access to quality preventive and primary care services)</p>
<p>2. Protect employment through enhanced short-time working arrangements and effective active labour market policies and extend the duration of unemployment benefits. Improve the adequacy of social assistance and ensure access to essential services and quality education for all.</p>	<p>Yes, partially. Component 1 (improve the adequacy of social assistance and ensure access to essential services and quality education for all)</p>

<p>3. Ensure liquidity support to small and medium-sized enterprises. Front-load mature public investment projects and promote private investment to foster economic recovery. Focus investment on the green and digital transition, in particular, the clean and efficient production and use of energy, sustainable transport, water and waste management, research and innovation, and digital infrastructure for schools.</p>	<p>Yes, partially. Components 1, 2, 4, 5, 6, and 7 (focus investment on the green and digital transition, in particular, the clean and efficient production and use of energy, sustainable transport, water and waste management, research and innovation, and digital infrastructure for schools)</p>
<p>4. Ensure that any emergency measures be strictly proportionate, limited in time, in line with European and international standards, and should not interfere with business activities and the stability of the regulatory environment. Ensure effective involvement of social partners and stakeholders in the policymaking process. Improve competition in public procurement.</p>	<p>Yes, partially. Component 9 (improve competition in public procurement)</p>
<p>5. Strengthen the tax system against the risk of aggressive tax planning.</p>	<p>No</p>

Source: Country-Specific Recommendations from 2019 and 2020, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52019DC0517&from=EN> and source: <https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52020DC0517&from=EN>

A2.3 Additional information on public consultations in Hungary

The Hungarian RRP is publicly available online⁵⁸. Reactions and feedback from various associations, organisations, and citizens were collected online and accepted up until 30 April 2021⁵⁹.

According to the RRP, the government consulted 467 partners (Hungarian RRP, 2021, p. 393), though the list of these partners is not included in the document. Furthermore, from these stakeholders, 88 provided comments on the plan: 36 on the website and 52 by postal mail (though again, these stakeholders were not named in the document). The number of comments were distributed more or less evenly among the components: Demography and public education: 45 comments; Highly educated, competitive workforce: 35; Catching-up municipalities: 36; Water management: 33; Sustainable green transport: 36; Energy (green transition): 42; Transition to a circular economy: 37; Digitalisation reform: 37; Health: 38; and Horizontal actions: 4 (Hungarian RRP, 2021, p. 375).

On the website where comments could be submitted, reactions from 36 entities are still publicly available. Among these there are: 1 citizen, 14 local governments (including Budapest), 3 chambers of commerce, 1 trade union, 5 "green" NGOs, 7 other NGOs, 2 industry associations, and 3 scientific institutions. Among these, opinions and recommendations related to catching-up municipalities and the environment (water management, green transport, energy, and the circular economy) dominate. In terms of concrete remarks, comments regarding the environment and climate-related issues (green transport and green energy transition) again dominate (Hungarian RRP, 2021, p. 377). Overall, criticism was formulated concerning the selection of projects and components, the lack of an impact assessment, and the lack of energy efficiency measures (which were included in the first version of the RRP)⁶⁰. The present mix of components and the lack of energy efficiency measures may be problematic from the climate/green point of view as well, according to green NGOs.

⁵⁸ See: <https://www.palyazat.gov.hu/helyreallitasi-es-ellenallokepessegi-eszkoz-rrf#>.

⁵⁹ <https://www.palyazat.gov.hu/helyreallitasi-es-ellenallokepessegi-eszkoz-rrf-velemenyezés>.

⁶⁰ See p. 6 in https://assets.website-files.com/602e4a891047f739eaf5dfad/60e44ecd8e040f212f79e709_GRT%20-%20HUNGARY06062021_CLEAN.pdf.

There was a media campaign to reach out to stakeholders, and consultations were organised (Hungarian RRP, 2021, pp. 375-376), but these remained without a substantial echo and were hardly observable – partly due to the short amount of time available and partly due to the pandemic. Another argument made by the Prime Minister’s office about the lack of consultations was that they used opinions and recommendations collected previously, when consultations were made concerning plans for the 2021-2027 period⁶¹.

There is no detailed information about the inclusion of (or modifications resulting from) these reactions. As we already indicated in the description of the Hungarian RRP, there were substantial changes made between the first draft of the plan and that which was submitted to the European Commission. Furthermore, detailed responses to a number of comments are available online⁶², and they indicate that certain reactions were taken into consideration in finalising the RRP. For example, the final version of the RRP includes many environmental issues that were recommended by different organisations. According to the text of the final version of RRP, nine recommendations were included in the final version (Hungarian RRP, 2021, pp. 377-378).

A3. POLAND

A3.1 Background: key numbers and facts

The Polish RRP envisages investments and reforms addressing specific challenges of Poland that will be supported by EUR 23.9 billion in grants and EUR 12.1 billion in loans. Planned undertakings are in line with the Six Pillars of the RRF and the national multiannual plans (see Section 3.3.3). The plan foresees that all the reforms and investments will be completed by August 2026. According to one of the few comprehensive quantitative studies on its possible impact, the expenditure envisaged within the plan can contribute to a gain in Polish GDP of the order of between 1.1% to 1.8% by 2026 (European Commission, 2021e). Watzka and Watt (2020) finds that the RRF will counteract further pandemic-induced economic divergence, with Poland’s cumulative GDP gains in 2026 around 4% of 2020 GDP.

When designing the plan, Polish authorities consulted national and regional social partners and stakeholders ahead of the formal submission of the plan to the European Commission on 3 May 2021. The consultation process was held between 26 February and 2 April 2021⁶³.

A3.2 The Polish RRP

The Polish RRP is structured around five components of resilience of the economy. They include business environment, innovation, and labour market policy; green energy; digital transformation; sustainable transport, and the health system. The plan proposes projects in six European flagship areas consisting of 53 investments and 42 reforms. The plan envisions support of 48.3% for climate investments and reforms and 21.5% of overall expenditures targeted at digital transition (meeting the agreed RRF targets of 37% for climate and 20% for digital spending). However, the independent analysis conducted by the Green Recovery Tracker (2021) found that the effective green spending share

⁶¹ See Atlaszto, Nemzeti helyreállítási tervek a V4 országokban: nehézkes gyakorlat, available at: <https://pcblog.atlatszo.hu/2021/02/05/nemzeti-helyreallitasi-tervek-a-v4-orzagaiban-nehezkes-gyakorlat/>

⁶² See Palyazati, Helyreállítási és Ellenállóképességi Eszköz (RRF), available at: <https://www.palyazati.gov.hu/helyreallitasi-es-ellenallokepességi-eszköz-rrf>

⁶³ The consultation and legislation process is described on a dedicated website. The consultations consisted of an online survey, public hearings, joint consultation of the national and territorial governments, as well as three debates including NGOs, academics, and representatives of different social and economic partners. See: <https://www.funduszeeuropejskie.gov.pl/strony/o-funduszach/fundusze-nalata-2021-2027/konsultacje-spoeczne-kpo/o-kpo/>.

might be lower (around 28%), since some of the investments⁶⁴ envisaged by the government to contribute to green transformation are likely to have no significant climate effect or their direction is not assessable, depending on the implementation of the relevant measures. The funds will be distributed into the five individual components as presented in Table A-4.

Table A-4. Allocations in the Polish Recovery and Resilience Plan

	EUR million	% of 2021 GNI	% of Total RRP Expenditure
A. Resilience and competitiveness of the economy	4700	0.9	13.1
B. Green energy and reduction of energy consumption	14313	2.6	39.8
C. Digital transformation	4897	0.9	13.6
D. Effectiveness, availability, and quality of the health care system	4542	0.8	12.6
E. Green, intelligent mobility	7518	1.4	20.9
Total	35970	6.6	100.0

Source: Poland's RRP. The allocations in per cent of the 2021 gross national income (GNI) are computed using the nominal GNI forecast for 2021 in the Autumn 2021 Economic Forecast for Estonia, European Commission, available at https://ec.europa.eu/economy_finance/ameco/Ameco.

The investments planned under all five components will contribute to achieving specific goals of the Polish plan, notably (i) development of an innovative economy, taking into account the digital transformation of the country and society, (ii) green transformation of cities and sustainable transport, and (iii) increase of the social capital and improvement of the quality of life, with a particular focus on the health system and educational needs of a modern economy, along with the horizontal goal to strengthen the social and territorial cohesion of the country.

A4. ROMANIA

A4.1 Background: key numbers and facts

Under the Recovery and Resilience Facility (RRF), Romania is expected to receive EUR 29.2 billion (EUR 14.24 billion in grants and EUR 14.94 billion in loans), a value which represents 13.09% of its 2019 GDP (second in the EU, after Greece, with 16.6% of GDP⁶⁵). The Romanian RRP includes 171 measures (64 reforms and 107 investments) and is structured on six pillars and 15 components. The overall number of milestones and targets to be reached is 507 (215 for reforms and 292 for investments)⁶⁶.

⁶⁴ The examples of the investments where the direction of the effects are not assessable include investments in zero and low-emission public transport ("E1.1.2.", "E1.2.1.") and improvements of the energy-efficiency of residential buildings ("B1.1.2"), which may partially support fossil fuels: fossil gas transport infrastructure and the roll-out of gas oilers for decentralised heat generation, respectively. Source: Green Recovery Tracker, 2021, Green Recovery Tracker Analysis: Poland, available at: <https://www.greenrecoverytracker.org/country-reports/poland>.

⁶⁵ European Commission, *Recovery and Resilience Scoreboard*, available at https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html.

⁶⁶ In addition to the public and official information about the Romanian RRP provided by the Ministry of Investment and European Projects (MIPE) (https://mfe.gov.ro/wp-content/uploads/2021/10/fa_cada6fdd5c00de72eecd8ab49da550.pdf)⁶⁶, other information can be found on the European Commission dedicated online platform – Recovery and Resilience Scoreboard (https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html) or on the Monitor PNRR created by the Renew Europe group from the European Parliament.

Table A-5. Timeline for completion of Romanian RRP, grants and loans, by year (% total)

	2021	2022	2023	2024	2025	2026	TOTAL
RRP grants (EUR billion)	0.2	2.4	3.1	3.3	3.2	2.0	14.24
% of total grants	1	17	22	23	23	14	100
RRP loans (EUR billion)	0.1	2.0	3.4	3.7	3.2	2.4	14.94
% of total loans	1	14	23	25	22	16	100
Total RRP value (EUR billion)	0.3	4.4	6.5	7.0	6.4	4.4	29.2
% of total allocation	1	15	22.5	24	22.5	15	100

Source: Own creation, based on EC, Assessment of action taken by Romania in response to the Council Recommendation of 18 June 2021, 24.11.2021, p.5

The Romanian Plan was presented to the European Commission on 31 May 2021 and received a positive evaluation on 27 September 2021 (with 10 A ratings and only one B rating, according to the 11 criteria set out in the RRF regulations⁶⁷). The Economic and Financial Council's approval came on 29 October 2021, paving the way for the disbursement of the EU financial support. A first pre-financing payment from the grant component, representing EUR 1.8 billion, was paid by the European Commission on 2 December 2021⁶⁸ and was followed on 13 January 2022 by a second pre-financing instalment of EUR 1.9 billion from the loan component⁶⁹. Overall, Romania has already received 13% of the total allocation under the RRF.

The breakdown of RRP spending, both for grants and loans, is presented in Table A-5. While the expected spending is largely concentrated in 2023-2025 (comprising approximately 70% of planned spending), payment disbursements from the Commission will be strictly correlated with meeting milestones and targets (European Commission, 2021h, p. 5).

A multi-level governance of the RRP is envisaged. During its preparation and negotiation, the Ministry of Investment and European Projects (assisted by the Ministry of Public Finance) was appointed as the national coordinator. At the central level, its coordination is ensured by an Inter-ministerial Committee for Coordination, which is responsible for monitoring the implementation of the plan. The implementation of the RRP is ensured by line ministries and their subordinated structures, after the conclusion of financing agreements with the MIPE (Romanian Government, 2021c).

A4.2 The Romanian RRP

In line with the Commission guidelines, the Romanian RRP addresses the objectives included in the six pillars of the RRF. Remarkably, 61.5% of the financial envelope focuses on the green transition (41%) and digital transformation (20.5%), the remaining 38.5% being allocated among the other four

⁶⁷ Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, available at <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0241>.

⁶⁸ European Commission, Press Corner, *NextGenerationEU: European Commission disburses 1.8 billion euro in pre-financing to Romania*, 2 December 2021, available at https://ec.europa.eu/commission/presscorner/detail/en/IP_21_6471.

⁶⁹ European Commission, Gaily News 13/01/2022, available at https://ec.europa.eu/commission/presscorner/detail/en/MEX_22_342

strategic priorities. With respect to the distribution of the funding among the six pillars, the distribution is rather uneven: while Pillar I (Green Transition) has the largest share, about 53% of the total financial amount (EUR 15.3 billion), Pillar II (Digital Transformation) benefits from only 6.5% (EUR 1.9 billion). For the other four pillars (Smart, sustainable, and inclusive growth; Social and territorial cohesion; Health, economic, and social resilience; and Next Generation), the percentage varies between 9% and 12% (see Table A-6).

Notably, reforms and investments included in the plan are expected to contribute to the areas of green and digital transition as well as to the sustainability of public finances and the pension system, healthcare, the public administration, the business environment, and education. In order to reach and maintain compliance with EU rules in the area of "green transition", a share of 41% of the Romanian RRP (above the limit of at least 37% of the financial allocation) will support climate change objectives (EUR 11,969.62 million of the Plan's total allocation of EUR 29,182 million). Thus, almost all components of the RRP (14 of 15) include spending that contributes to climate goals

The CSRs issued by the Council in the context of the 2019 and 2020 European Semester focused both on measures to put an end to the excessive deficit situation (currently, Romania is the only EU Member State under the Excessive Deficit Procedure) and support economic recovery and strategic reform priorities agreed at the EU level on the green and digital transition.

Table A-6. Allocations in the Romanian Recovery and Resilience Plan

	EUR million	% of 2021 GNI	% of Total RRP Expenditure
1. Green transition	15314	6.5	52.5
Water management	1462	0.6	5.0
Forests and biodiversity protection	1173	0.5	4.0
Waste management	1239	0.5	4.2
Sustainable transport	7620	3.2	26.1
"Renovation Wave"	2200	0.9	7.5
Energy efficiency of buildings	1620	0.7	5.6
2. Digital Transformation	1885	0.8	6.5
3. Smart, sustainable and inclusive growth	3016	1.3	10.3
Fiscal and pension reforms	457	0.2	1.6
Business support, R&D and innovation	2559	1.1	8.8
4. Social and territorial cohesion	2549	1.1	8.7
Local fund	2100	0.9	7.2
Tourism and culture	449	0.2	1.5
5. Health and economic and social resilience	2812	1.2	9.6
Health care	2450	1.0	8.4
Social reforms	197	0.1	0.7
Good governance	166	0.1	0.6
6. Next Generation	3606	1.5	12.4
Total	29182	12.3	100.0

Source: Own calculations, based on Romanian RRP and the EC (2021). The allocations in per cent of the 2021 gross national income (GNI) are computed using the nominal GNI forecast for 2021 in the Autumn 2021 Economic Forecast for Romania, European Commission, available at https://ec.europa.eu/economy_finance/ameco/Ameco.

Romania's RRP sets out a number of measures to contribute to the green transition, in particular in terms of sustainable transport, low-carbon energy, energy efficiency, resource efficiency, and environmental infrastructure, including in mining regions (Specific Recommendation 4 of 2019, Specific Recommendation 3 of 2020). The reforms and investments are included in Component 4 (Sustainable Transport), which notably includes investments in the construction or modernisation of electrified or zero-emission railways, totalling EUR 2,832 million. The digital transition (Recommendation 3 of 2020) is addressed through Component 7 (Digital Transformation), which includes the reforms needed to develop the government cloud and ensure interoperability, improve connectivity, strengthen the protection and cyber security of public and private entities, and enhance digital skills in the public sector.

This study examines the value added by the Recovery and Resilience Facility (RRF) funding in four specific countries: Estonia, Hungary, Poland, and Romania. Focusing on each country's national plans for utilising the funding, we identify where national plans may have generated value added and where additional work is needed to make RRF funding more effective.

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