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Mid-term evaluation of the Recovery and Resilience Facility

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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Mid-Term Evaluation of the Recovery and Resilience Facility: Strengthening the EU through ambitious reforms and investments

{COM(2024) 82 final}

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Glossary

Term or acronym	*Meaning or definition*
ALMP	Active Labour Market Policies
CID	Council Implementing Decision
CSR	Country-specific recommendation
DNSH	Do no significant harm
ECA	European Court of Auditors
EFC	Economic and Financial Committee
EPC	Economic Policy Committee
ERDF	European Regional Development Fund
FTE	Full-time equivalent
GDP	Gross domestic product
IPCEI	Important Projects of Common European Interest
ISG	Inter-service steering group
NGEU	NextGenerationEU
ROI	Return on investment
RRF	Recovery and Resilience Facility
RRP	Recovery and resilience plans
SoA	Statement of assurance
SMEs	Small and medium-sized enterprises
STEP	Strategic Technologies for Europe Platform
SDGs	Sustainable Development Goals
S.M.A.R.T.	Specific, measurable, assignable, realistic, and time-related
SWD	Staff Working Document
TSI	Technical Support Instrument

1. INTRODUCTION

The Recovery and Resilience Facility ('RRF') was established in February 2021 by Regulation (EU) 2021/241[1] (hereafter referred to as 'RRF Regulation') to help the Union recover from the COVID-19 crisis and is time-bound until 2026. The Facility was set up as a new, innovative, demand-driven performance-based instrument, providing direct financial support to Member States against the implementation of a combination of reforms and investments. Unlike other EU instruments (such as CRII[2], REACT-EU[3] or SURE[4]) that were set up for crisis-management purposes, the RRF was created to address the unprecedent impact of the COVID-19 crisis and make the Union more resilient and better prepared for the future. With an envelope of EUR 724 billion[5] (in current prices), the scale of financial support is unprecedented in the Union's history.

As required by the RRF Regulation, the purpose of this evaluation is to provide, at the half-way point, a mid-term assessment of how the RRF is delivering on its objectives, in particular to which extent the Facility has been providing financial support to Member States against the implementation of pre-agreed reforms and investments (specific objective) that promote the Union's economic, social and territorial cohesion (general objective). In line with the RRF Regulation (Article 32), it will assess in particular *"to which extent the objectives have been achieved, the efficiency of the use of the resources and the European added value", as well as "the continued relevance of all objectives and actions*" and "*the implementation of the REPowerEU chapters and their contributions to the REPowerEU objectives*".

This mid-term evaluation covers the evaluation requirements set out in the RRF Regulation (Article 32(2)) and the five evaluation criteria set out in the European Commission's Better Regulation Guidelines and the Inter-institutional Agreement on Better Law-Making[6]. In particular, it seeks to assess: (i) to which extent the objectives of the RRF have been achieved or progress has been made since the start of the implementation period (i.e. **effectiveness**); (ii) how do the costs and benefits of the Facility compare, including an assessment of potential unnecessary administrative burden and complexity (i.e. **efficiency**); (iii) to what extent the RRF is and continues to be relevant in view of its objectives, needs and new emerging challenges (i.e. **relevance**); (iv) the interplay between the RRF and other Union's policies and instruments (i.e. **coherence**);

1 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/eli/reg/2021/241/oj/eng.

2 The Coronavirus Investment Initiative (CRII) and the Coronavirus Investment Initiative plus (CRII+).

3 Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU).

4 The European instrument for temporary Support to mitigate Unemployment Risks in an Emergency ('SURE').

5 EUR 338 billion in non-repayable support and EUR 385 billion in loans.

6 *European Commission Better Regulation Guidelines* (2021), available at: https://commission.europa.eu/system/files/2021-11/swd2021_305_en.pdf.

and (v) whether the RRF yield results that go beyond what could be expected by individual actions of Member States (i.e. **EU-added value**).

The scope of this mid-term evaluation covers the design of the recovery and resilience plans ('RRPs') and the ongoing implementation of the Facility in all Member States until 1 February 2024[7]. It covers the full scope of the Facility specified in the RRF Regulation, i.e. the following six pillars structuring the policy areas of European relevance: (i) green transition, (ii) digital transformation, (iii) smart, sustainable and inclusive growth, (iv) social and territorial cohesion, (v) health, economic, social, and institutional resilience, (vi) policies for the next generation. The adopted REPowerEU chapters and their contributions to the REPowerEU objectives are also in the scope of this mid-term evaluation. The funding strategy to finance the RRF, and NextGenerationEU ('NGEU') more generally, is outside the scope of this evaluation.

It is important to acknowledge that the nature and timing of this report comes too early for the report to be able to deliver a fully-fledged impact evaluation. The mid-term evaluation can only report and assess the implementation of the RRF until 1 February 2024. Given that most measures, particularly investments, have not yet reached the level of full implementation, it is not feasible at this point to provide a systematic assessment of results and impacts of the Facility. This impact analysis will be included in the 2028 'ex-post evaluation', when the measures supported by the RRF will have been fully implemented. The ex-post evaluation will provide a "*global assessment of the Facility and its impact in the long term*", as specified by the RRF Regulation (Article 32(4)).

This report therefore takes stock of the progress in the implementation of the Facility halfway through its implementation and evaluates its impact where possible. It presents the progress made to date in reaching the RRF's specific objective (i.e. to provide Member States with financial support in order to achieve specific milestones and targets that represent steps in the implementation of reforms and investments). It also illustrates how the achievement of milestones and targets has, in some cases, already translated into the implementation of reforms and investments by Member States. This in turn contributes to achieving the RRF's general objective, i.e. to promote the Union's economic, social and territorial cohesion.

Two innovative features of the RRF are of particular interest in the context of this mid-term evaluation. First, the RRF combines financial support for both investments and reforms. It provides financial incentives for the delivery of key reforms, as identified in

[7] The information provided in this Staff Working Document is based on the content of the adopted plans, as assessed by the Commission, on the data reported by Member States until October 2023 as part of their bi-annual reporting obligations, on data from the Recovery and Resilience Scoreboard as of 1 February 2024 and on developments in the implementation of the Facility until 1 February 2024, unless otherwise specified. The data reflects the latest recovery and resilience plans for Estonia, France, Luxembourg, and Slovakia and the plans following the first revisions for Germany (adopted on 14/02/2023), Ireland (adopted on 14/07/2023), Italy (adopted 19/09/2023), and Finland (adopted on 14/03/2023). It does not reflect the latest plans for Belgium, Bulgaria, Czechia, Denmark, Germany (following the second revision), Ireland (following the second revision), Greece, Spain, Croatia, Italy (following the second revision), Cyprus, Latvia, Lithuania, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Finland (following the second revision) and Sweden as data for these Member States was not yet fully available.

the context of the European Semester. A second innovation concerns the fact that disbursements to Member States are related to the achievement of 'milestones and targets'[8]. This evaluation pays particular attention to assessing this so-called 'performance-based' approach, which is defined in the literature as "*aiming to improve the efficiency and effectiveness of public expenditure by linking the funding of public sector organisations to the results they deliver, making systematic use of performance information*"[9]. The 'performance-based' approach of the RRF differs from the 'cost-based' approach generally applied for the European Structural and Investment Funds. As a performance-based instrument, the RRF disburses funds against the achievement of milestones and targets, which measure the progress towards the achievement of concrete *results*, which are the delivery of the agreed reforms and investments in each national RRP.

As is the case with a mid-term evaluation of any instrument, more information is available at this stage on outputs than on results and impacts. This is particularly relevant for the RRF since measures are usually covered in the RRPs by more than one milestone and/or target, and the final deadline for milestones and targets to be completed is 31 August 2026. Particularly for investments, the milestones and targets that have been achieved at the mid-term point often cover initial steps, such as a launch of calls for tender, or signing of procurement contracts; whilst the final milestones and targets due in the second half of the Facility's lifetime will increasingly cover final investment outputs.

The results of the evaluation will serve two aims. First, they can help identify possible improvements in implementing the RRF over the remaining period (until end 2026)[10]. Second, the early assessment of the novel performance-based nature of the Facility will be a pertinent reference point to inform discussions on EU funding instruments in view of the next EU Multi-annual Financial Framework starting in 2028.

This Staff Working Document ('SWD') presents the Commission staff's views on the mid-term evaluation of the RRF, building on multiple sources. The assessment is primarily based on an independent external evaluation report (hereinafter referred to as 'supporting study') contracted by the Commission and prepared by a consortium comprising CEPS, ECORYS, NIESR, CSIL and Wavestone (for further information see the Annex to this SWD). The supporting study was concluded in November 2023 and is published together with this SWD. Given the unprecedented scale and scope of the RRF, the study takes a comprehensive approach and is complemented by eight case studies[11] that provide an in-depth assessment of selected policy areas. Moreover, the Commission organised a call for evidence and an open public consultation, with a limited response

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8 Disbursements of RRF funds are conditional on the satisfactory fulfilment of milestones and targets proposed by the Member States for the implementation of the measures in their national recovery and resilience plans and approved by the Council.

9 IMF Working Paper Series, Volume 2009: Issue 084, "Accrual Budgeting and Fiscal Policy", available at https://www.elibrary.imf.org/view/journals/001/2009/084/001.2009.issue-084-en.xml?Tabs=toc-102773.

10 Article 32 (3) of the RRF Regulation provides that "where appropriate, the evaluation shall be accompanied by a proposal for amendments to this Regulation".

11 The topics of the eight case studies are: (a) Energy efficiency in buildings; (b) digitalisation of healthcare; (c) support to SMEs; (d) active labour market policies; (e) rule of law reforms; (f) early childhood education and care; (g) cross-border projects; (h) interaction between the RRF and other EU funds.

rate[12]. The reports of the European Economic and Social Committee[13] and of the European Committee of the Regions[14] feed into this evaluation as well.

Overall, the evaluation process went as planned, and the data gathered are considered reliable. No significant difficulties were encountered in reaching key stakeholders involved in the design and implementation of the RRF. An appropriate and diverse range of tools was used, with different sources of evidence enabling triangulation of findings and converging sufficiently to support the assessments made. Therefore, even with the limitations linked to the early state in the RRF's implementation, the conclusions and lessons learned can be considered sufficiently robust for a mid-term evaluation.

To ensure the quality of the evaluation, a Commission inter-service steering group ('ISG') oversaw the evaluation process. The ISG provided information, expertise and quality assurance in line with evaluation standards and provided a useful steer to both the external study and this SWD. The members of the ISG came from a broad range of Commission services[15] that are responsible for EU-policies relevant to the RRF.

This SWD is organised as follows: Section 2 summarises the objectives and expected outcomes of the RRF, whilst Section 3 describes how the situation has evolved since the inception of the RRF in 2021. Section 4 presents the main findings of the evaluation by criteria and the final Section 5 provides conclusions and lessons learned. The annexes provide additional information about the methodology and analytical models used, about the stakeholder consultation conducted, and about the procedure followed for this mid-term evaluation.

2. WHAT WAS THE EXPECTED OUTCOME OF THE INTERVENTION?

2.1. Description of the intervention and its objectives

2.1.1. Context of the intervention

The RRF is at the core of the EU's answer to the unprecedented crisis resulting from the COVID-19 outbreak in early 2020. The pandemic fundamentally transformed the European and global economic, social and budgetary situation. Economic activity in Europe and around the world suffered a series of severe shocks in 2020 as lockdowns and public health measures were introduced to limit the spread of the COVID-19 virus and manage the severe health emergency. The EU was pushed into recession, with output

12 See Annexes II and V for further information on the open public consultation.

13 European Economic and Social Committee (2023), *Mid-term evaluation of the Recovery and Resilience Facility*, available at: https://www.eesc.europa.eu/en/our-work/opinions-information-reports/information-reports/mid-term-evaluation-recovery-and-resilience-facility.

14 European Committee of the Regions (2023), *Review Report on the Implementation of the Recovery and Resilience Facility*, available at: https://cor.europa.eu/en/our-work/Pages/OpinionTimeline.aspx?opId=CDR-4212-2022.

15 The ISSG is composed of representatives of DG AGRI, BUDG, CLIMA, CNECT, COMM, COMP, DEFIS, DIGIT, EAC, EMPL, ENER, ENV, FISMA, GROW, HOME, JRC, JUST, LS, MOVE, OLAF, REFORM, REGIO, RTD, SANTE, TAXUD and TRADE.

falling by 5.6% in real terms in 2020 as a whole[16]. This drop was even larger than the one recorded in 2009 during the Great Financial Crisis (-4.3%). The economic recovery hinged upon the successful implementation of vaccination campaigns allowing for the gradual lifting of restrictions, and the ability to structurally recover while avoiding long-term scars.

The EU considered that a rapid, coordinated and large public intervention was needed to maintain confidence and ensure a balanced economic recovery[17]. Member States needed significant fiscal space to mitigate the social and economic impact of the crisis, and to foster the resilience of their economies and social structures. Coordinated action at EU level was necessary to prevent a lasting loss in productive capacity and employment ("hysteresis" effects), financial fragmentation within the Union, as well as a distortion of the level playing field of the Single Market. Previous crisis experiences had shown that a lack of resilience can lead to negative spill-over effects across Member States, and that investments are drastically cut. It was clear that such reductions in public spending would drag on the economic and social recovery, and that investment efforts should be accompanied by complementary reforms responding to pre-existing and emerging challenges in the Member States. At the same time, the recovery strategies put in place by the Member States needed to be consistent with the Union's common priorities, including as regards the green and digital transitions, by fostering ambitious investments and reforms in these areas.

2.1.2. Objectives of the intervention

The RRF, established by Regulation (EU) 2021/241 of 12 February 2021, is the centrepiece of NGEU, the EU response to mitigate the economic and social impact of the pandemic and to emerge stronger from the crisis. The Facility was set up to offer large-scale financial support for a combination of public investments and of reforms that would make Member States economies more resilient and better prepared for the future. It was designed to help Member States address existing economic and social challenges that had been exacerbated by the crisis in various areas, such as social, employment, skills, education, research and innovation, health issues, but also issues related to the business environment, including public administration and the financial sector. The combination of reforms and investments is a key innovative feature of the RRF. Importantly, the Facility was also designed to ensure that these investments and reforms address the challenges identified in the relevant country-specific recommendations ('CSRs') issued in the context of the European Semester, as well as the challenges and investment needs related to common EU priorities, including the green and digital transitions, thereby ensuring a sustainable recovery and helping to make the Union more resilient, including by diversifying key supply chains and strengthening the strategic autonomy of the Union.

[16] See European Economic Forecast – Autumn 2023, available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en.

[17] More details in Commission Staff Working Document (SWD(2020) 98 final/2) on identifying Europe's recovery needs, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0098(01).

The general objective[18] of the RRF is to promote the Union's economic, social and territorial cohesion, by: *"[…] improving the resilience, crisis preparedness, adjustment capacity and growth potential of the Member States, by mitigating the social and economic impact of that crisis, in particular on women, by contributing to the implementation of the European Pillar of Social Rights, by supporting the green transition, by contributing to the achievement of the Union's 2030 climate targets [...], by complying with the objective of EU climate neutrality by 2050 and of the digital transition, and by increasing the resilience, security and sustainability of the Union's energy system through the necessary reduction in dependence on fossil fuels and diversification of energy supplies at Union level, including by means of an increase in the uptake of renewables, in energy efficiency and in energy storage capacity, thereby contributing to the upward economic and social convergence, restoring and promoting sustainable growth and the integration of the economies of the Union, fostering high quality employment creation, and contributing to the strategic autonomy of the Union alongside an open economy and generating European added value."*

To achieve this general objective, the specific objective[19] of the Facility is "*to provide Member States with financial support with a view to achieving the milestones and targets of reforms and investments* *as set out in their recovery and resilience plans […] in close and transparent cooperation with the Member States concerned*".

The RRF Regulation also establishes six pillars that define the scope of the Facility, namely: (i) green transition; (ii) digital transformation; (iii) 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'); (iv) social and territorial cohesion; (v) health, and economic, social and institutional resilience with the aim of, inter alia, increasing crisis preparedness and crisis response capacity; and (vi) policies for the next generation, children and the youth, such as education and skills.

Green and digital policy efforts are mainstreamed in the RRF. This reflects the importance of tackling climate change, in line with the EU's commitments to implement the Paris Agreement and the UN Sustainable Development Goals. Beyond the mandatory compliance with the "do no significant harm" principle (except for a targeted derogation under REPowerEU), the Regulation established that measures accounting for at least 37 % of the total allocation of Member States' RRPs should contribute to the green transition, including biodiversity or addressing the resulting challenges, based on an agreed methodology for climate tracking. Similarly, the Regulation establishes that measures contributing to the digital objectives of the Regulation should account for an amount that represents at least 20% of the RRPs total allocation.

18 As defined in Article 4 of the RRF Regulation.

19 As defined in Article 4 of the RRF Regulation.

The RRF Regulation defines a specific allocation key for the Facility[20], in order to ensure a meaningful financial contribution for each Member State commensurate to the actual needs. The allocation key was a tailored solution to consider the specific crisis circumstances and the uncertainty related to the effects of the pandemic. It was first applied to 70% of the EUR 338 billion in non-repayable support, based on the population, the inverse of GDP per capita of 2019 and the relative average unemployment rate of each Member State. An adjusted allocation key was later applied to 30% of the non-repayable support, also taking into account the change in real GDP in 2020 and 2021. This was to ensure the allocation of resources was well aligned with the objective of the Facility. Non-repayable support would be particularly beneficial to Member States with a lower per capita income and with a high unemployment rate, reflecting the high economic and social challenges that the pandemic aggravated. The RRF Regulation, also provided for an update of the maximum financial contribution available to each Member State in June 2022, to reflect the actual depth of the economic crisis across the Member States and the aggregated impact on real GDP during the period 2020-2021.

The RRF also provides loans that complement non-repayable support and cover additional financing needs linked to reforms and investments. RRF loans of maximum EUR 386 billion are characterised by long maturities and favourable interest rates. They are of particular interest and benefit to Member States that faced higher borrowing costs. The total amount of loans on offer to each Member State is determined by the assessment of its loan request and should ordinarily not exceed 6.8% of its 2019 gross national income[21].

With its wide scope and anchor in the European Semester, the RRF is expected to contribute to all Sustainable Development Goals (‘SDGs’). The SDGs are an integral part of the analysis conducted under the European Semester for the Country Reports and the identification of key challenges. On a country-specific basis, this analysis feeds in the CSRs. Since all or a significant subset of the CSRs need to be tackled in the RRPs, RRPs are expected to contribute to achieving the SDGs.

2.1.3. Functioning of the Facility

National Recovery and Resilience Plans (‘RRPs’)

To access financial support under the Facility, Member States had to prepare RRPs setting out a national agenda of reforms and investments to be implemented gradually until 31 August 2026. The Commission assessed each plan with a view to 11 criteria set out in Article 19(3) of the RRF Regulation. Notably, the Commission assessed whether the plans contributed appropriately to the six pillars defining the scope of the Facility, whether they met the minimum green and digital targets (respectively 37% and 20% of the total’s allocation contributing to the green and digital transitions), whether they contributed to addressing all or a significant subset of challenges identified in the relevant

[20] See Annex I, II and III of the RRF Regulation.

[21] There is however a possibility to go beyond the 6.8% threshold in exceptional circumstances subject to available resources.

CSRs issued in the context of the European Semester, whether they ensure that no measure does significant harm to environmental objectives, and whether they provide for an effective and efficient control system for the protection of the financial interests of the Union. Once a RRP is approved by the Council upon proposal by the Commission, the plan's content becomes a legally binding act[22] that includes the milestones and targets against the fulfilment of which payments should be made.

Payment requests and disbursement process

The RRF is a performance-based instrument where disbursements are made against the satisfactory fulfilment of milestones and targets. Once a Member State has fulfilled the milestones and targets of the relevant instalment, as detailed in the respective Council Implementing Decision ('CID'), it submits a duly justified payment request to the Commission. The Commission then has two months to assess the satisfactory fulfilment of the relevant milestones and targets. The Commission's preliminary assessment is then subject to a committee consultation[23] followed by a Commission Implementing Decision to disburse.

Reporting framework on the implementation of the RRPs

With its comprehensive set of milestones and targets, the RRF provides a solid tool to monitor outputs and results. The Facility's monitoring framework corresponds to its approach, which links disbursements to the satisfactory fulfilment of concrete milestones and targets, as set out in the CIDs. In the context of the European Semester, Member States report twice a year on the implementation of milestones and targets to measure the progress towards the achievement of reforms and investments.

The monitoring framework of the RRF also includes 14 common indicators to be reported upon by Member States to track the progress of the Facility[24]. The common indicators were agreed in a delegated act to help monitoring the progress made with the implementation of the RRF. While bearing in mind the additional data collection and reporting obligations for Member States, the common indicators were chosen to offer a condensed picture of the different national RRPs across the six pillars of the Facility. According to the RRF Regulation, the common indicators (described in Box 1) are meant to monitor and evaluate the Facility towards the achievement of the general and specific objectives. They measure outputs and results (but not impacts) to the extent possible.

[22] Once the Commission concluded a positive assessment of a RRP, it made a proposal for a Council Implementing Decision ('CID') approving that assessment. The CIDs include the milestones and targets to be fulfilled for payments, accompanied by a SWD analysing the content of the respective plan. The Council then endorsed the CIDs.

[23] The Economic and Financial Committee ('EFC'), with the support of the Economic Policy Committee ('EPC'), subsequently provides its opinion on the Commission's preliminary assessment. The Commission takes the EFC opinion into account for the preparation of its implementing decision approving Member States' payment requests, which, as provided for in Article 35 of the RRF Regulation, are adopted under a comitology procedure with the involvement of an RRF Committee (composed of representatives of all Member States).

[24] See Commission Delegated Regulation (EU) 2021/2106 of 28 September 2021 on supplementing Regulation (EU) 2021/241 of the European Parliament and of the Council establishing the Recovery and Resilience Facility by setting out the common indicators and the detailed elements of the recovery and resilience scoreboard, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?toc=OJ%3AL%3A2021%3A429%3ATOC&uri=uriserv%3AOJ.L_.2021.429.01.0083.01.ENG.

Unlike key performance indicators that are usually linked to specific and measurable targets, the RRF common indicators are used for reporting on the progress of the Facility as a whole, and most of them are relevant for more than one pillar.

Box 1: The 14 common indicators under the RRF

1. Savings in annual primary energy consumption (pillar 1 and 3)
2. Additional operational capacity installed for renewable energy (pillar 1 and 3)
3. Alternative fuels infrastructure (refuelling/recharging points) (pillar 1 and 3)
4. Population benefiting from protection measures against floods, wildfires, and other climate related natural disasters (pillar 1 and 4)
5. Additional dwellings with internet access provided via very high-capacity networks (pillar 2 and 4)
6. Enterprises supported to develop or adopt digital products, services and application processes (pillar 2 and 3)
7. Users of new and upgraded public digital services, products and processes (pillar 2 and 5)
8. Researchers working in supported research facilities (pillar 3)
9. Enterprises supported (of which small – including micro, medium, large) (pillar 3)
10. Number of participants in education or training (pillar 2, 4, 6)
11. Number of people in employment or engaged in job searching activities (pillar 3 and 4)
12. Capacity of new or modernised health care facilities (pillar 4 and 5)
13. Classroom capacity of new or modernised childcare and education facilities (pillar 4 and 6)
14. Number of young people aged 15-29 years receiving support (pillar 6)

The Commission publishes a wide array of data on the implementation of the RRPs on the Recovery and Resilience Scoreboard[25]. The Scoreboard provides up-to-date information on the disbursements and progress made by Member States, including on the fulfilment of milestones and targets disaggregated by Member State and by RRF pillar. It also includes thematic analyses on the status of the implementation of the RRF and information on the 100 final recipients receiving the highest amount of RRF funds in each of the 27 Member States[26].

2.1.4. Intervention Logic

The RRF intervention logic frames the purpose, actions, and expected outcomes of the Facility. It is presented below in Figure 1 and captures the consecutive steps of the RRF from the initial needs to be addressed to the ultimate goals to be achieved. Individual Member States' RRPs comprise measures with a varying thematic focus, in a wide range of policy areas, designed to cater for Member States' specific needs within the common

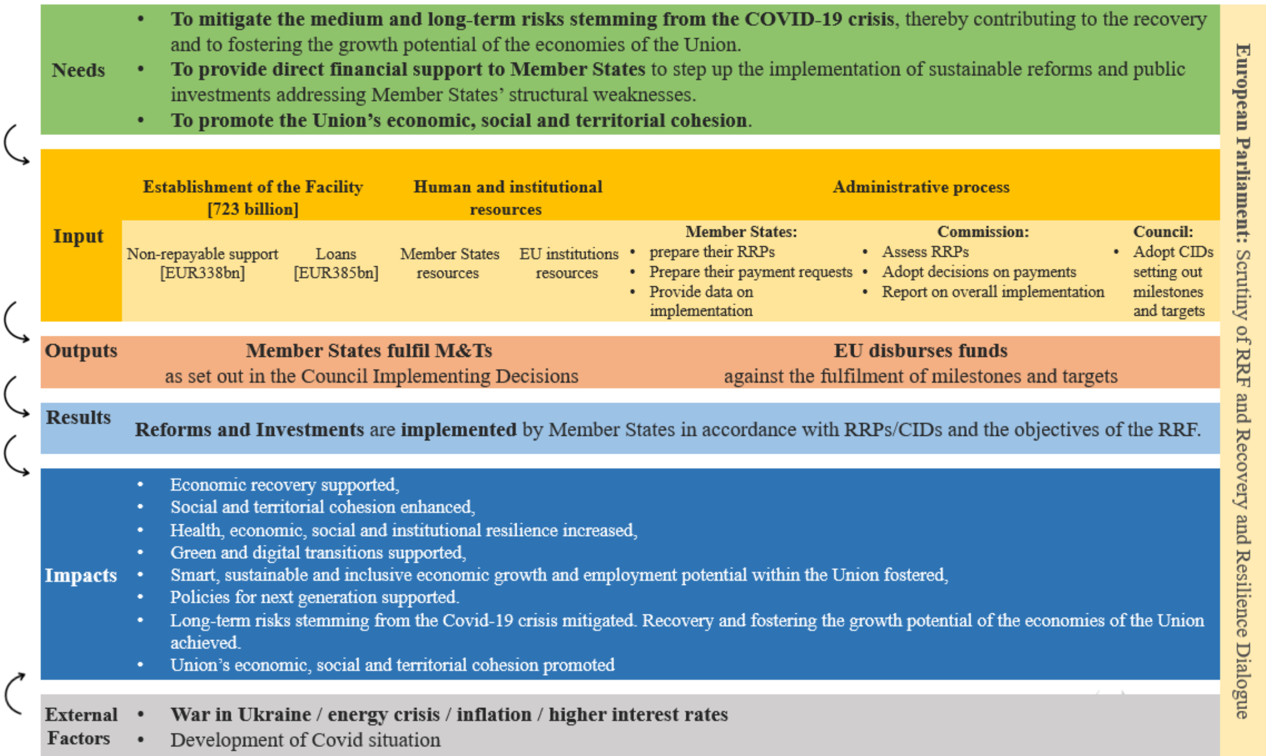
[25] See https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html.

[26] The Commission also publishes 'annual reports' on the implementation of the Facility. Moreover, an interactive map on the RRF website displays examples of projects supported by the Facility in the different EU Member States, see https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en#map.

overall frame of the Facility's six pillars. Given its broad scope and large financial envelope, the RRF's general and specific objectives are defined in broad terms. They do not provide the kind of specific and measurable objectives that are typically assigned to smaller and more targeted programmes within the EU's budget. Moreover, they do not fulfil the S.M.A.R.T. criteria[27].

The intervention logic of the RRF corresponds to its design: the delivery of financial support against the implementation of reforms and investments. The RRF is designed to support reforms and investments in the Member States. Progress made on reforms and investments is demonstrated by the achievement of milestones and targets of the plans. To assess the progress achieved to date in concrete and measurable terms, it is possible to precisely assess the financial support disbursed, the number and type of milestones and targets fulfilled (which track the implementation progress of the reforms and investments supported by the RRF), and the common indicators (that monitor progress towards the achievement of the RRF's general and specific objectives).

Figure 1: Intervention logic for the RRF mid-term evaluation



Source: European Commission

The intervention logic, as outlined in Figure 1, comprises the following elements:

1) **Needs** as described in the RRF Regulation (e.g. recital 6). The extent to which the RRF is addressing the needs is assessed under the **relevance** criterion.

2) **Objectives** as stated in Article 4 of the RRF Regulation. The extent of the RRF's contribution to these objectives is assessed under the **effectiveness** criterion, while the relation of the RRF objectives/measures to other instruments (e.g. Cohesion

[27] They cannot be considered as specific, measurable, assignable, realistic, and time-related ('S.M.A.R.T.').

Policy financing and national instruments) is reviewed under the **coherence** criterion.

3) **Inputs** refer to the financial inputs (non-repayable financial support and loans) as well as the human resources and administrative processed needed to manage and implement the RRF. Issues related to the disbursements are included in the **effectiveness** analysis, while cost and administrative issues are covered in the **efficiency** analysis.

4) **Outputs** are defined as the disbursements performed and the achievements of milestones and targets. These are the first elements that are assessed under **effectiveness**.

5) **Results** are emanating from the reforms and investments implemented by Member States, in accordance with the plans and the objectives of the RRF. They are discussed in the analysis of **effectiveness** and **coherence** (e.g. on the reinforcement of investments and reforms).

6) **Impacts** of the RRF are expected to be as wide as the identified objectives and needs. Given that this mid-term evaluation is performed early in the implementation of the RRF, impacts cannot be expected to have significantly materialised yet. The analysis on **effectiveness** includes considerations on the contribution of the RRF to the expected impacts.

7) **External factors** have also affected the implementation of the RRF and are captured in this mid-term evaluation.

2.2.Point(s) of comparison

Without decisive and coordinated policy action, the EU economy was facing serious risks of a long-lasting severe contraction after the COVID-19 outbreak, risks of investment being drastically cut, risks of a lasting loss in productive capacity and employment, risks of financial fragmentation, as well as risks of a distortion of the level playing field of the Single Market, which could have led to increasing economic divergences in the Union and aggravated Europe’s long-term growth challenges. The financial support needs identified at the time, stemming from investment gaps and equity losses, were very large[28].

The RRF aimed at addressing these risks and needs through a strategic and coordinated policy response that provided large-scale financial support for public investments and reforms. The fact that this response came swiftly and was designed as a common EU initiative was significantly different from the more gradual and fragmented response to the euro area crisis of 2010. This time, a clear political agreement was reached to react in a decisive and coordinated manner, to avoid a severe contraction of the EU economy and mitigate the associated risks.

[28] More details in Commission Staff Working Document (SWD(2020) 98 final/2) on identifying Europe's recovery needs, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020SC0098(01).

As a first possible point of comparison, EU Cohesion Policy is being considered. Cohesion Policy is the EU investment tool that is the most comparable in terms of the size of its financial support (EUR 543 billion over 2021-2027 period). In addition, Cohesion Policy also finances investments that support the EU's economic, social and territorial cohesion and links support of investment to an agenda of enabling reforms (previous 'ex ante conditionalities' or 'enabling conditions'). At the same time, the Cohesion Policy Instruments are not comparable to the design and management of the RRF. Key novelties of the RRF are the performance-based approach, where payments are made upon the fulfilment of milestones and targets, and the strong incentives to implement long-standing CSRs in the context of the European Semester.

Hence, the main point of comparison to assess the implementation and expected impact of the RRF relates to the counterfactual situation of what would have happened in its absence. The milestones and targets as well as the related disbursements embedded in the RRF's design provide one point of comparison against which to assess its implementation.

The macro-economic simulations conducted as part of this evaluation aim to illustrate ex-ante the expected impact of the RRF compared to a baseline or counterfactual characterised by the absence of the RRF or NGEU. The models consider the impact on EU GDP that can be attributed to the investments financed by the RRF, as well as the consequences of reduced interest rate spreads on sovereign bonds.

Integrating up-to-date information on loan requests, inflation, and expected spending profiles, the simulations with the Commission's QUEST[29] model suggest sizable macroeconomic effects of NGEU investment[30]. The model's results show that NGEU[31] has the potential to increase EU real GDP by up to 1.4% in 2026 above a no-NGEU scenario (Figure 2a)[32] According to the simulations, the peak GDP effect for the EU would materialise in 2026. The model simulations also suggest a sizeable, short-run increase in

[29] QUEST is the global macroeconomic model that the Directorate General for Economic and Financial Affairs (DG ECFIN) uses for macroeconomic policy analysis and research. It is a structural macro-model in the New-Keynesian tradition with rigorous microeconomic foundations derived from utility and profit optimisation and including frictions in goods, labour and financial markets. For further information on DG ECFIN's QUEST model, see Annex II for further information or see https://economy-finance.ec.europa.eu/economic-research-and-databases/economic-research/macroeconomic-models/quest-macroeconomic-model_en.

[30] To estimate the macroeconomic impact of the RRF, the European Commission has produced stylised ex-ante assessments of the macroeconomic impact of NGEU investment. These model simulations are not an ex-post evaluation of the actual impact, but rather an ex-ante model prediction based on stylised assumptions. Nonetheless, the simulations presented here integrate up-to-date information on loan requests, inflation, and expected spending profiles. They focus on investments as the macroeconomic effects of structural reforms is much more challenging to model. For further information, see in particular, Pfeiffer P., J. Varga and J. in 't Veld (2023) Quantifying spillovers of coordinated investment stimulus in the EU, *Macroeconomic Dynamics* (27), p. 1843–1865. See also the ECFN Discussion Paper (2021): https://economy-finance.ec.europa.eu/publications/quantifying-spillovers-next-generation-eu-investment_en.

[31] The QUEST model results have been computed based on NGEU and not RRF investments. However, the investments (loans and non-repayable support) based on the RRF make up for around 90% of NGEU investments.

[32] Please see Annex II for a detailed discussion of the assumptions and model specifications.

EU employment (by up to 0.8%). Moreover, the results yield persistently higher real wages in the medium term, reflecting potential productivity gains of productive investment[33].

The estimated results of the NiGEM[34] model used in the evaluation study broadly confirm these findings, albeit with some differences due to a different model design. Overall, both modelling approaches find a substantially positive economic impact of NGEU/RRF. The NiGEM analysis additionally assesses the effects of a reduction spreads and government borrowing costs, which is a further benefit of the RRF. At the same time, the productivity gains of public investment appear to be lower in the NiGEM model (partly due to the model's assumptions) and below those reported by Ramey (2021)[35].

Quantitatively, the results of the NiGEM model suggest that, as a result of the RRF disbursements, EU GDP was 0.4 per cent higher in 2022 than it would have been in the absence of RRF spending. RRF disbursements had stronger effects in the Southern and Eastern Member States than in the Northern and Western ones with relatively higher levels of GDP. The initial disbursements lowered unemployment in the European Union by around 0.2 percentage points relative to what it would have been in the absence of the RRF.

The importance of positive cross-country spillovers and reductions in interest rate spreads are central to these overall findings. The simultaneous implementation of investment by all Member States generates an added value for the EU that amounts to between one-fourth and one-third of the total impact of the RRF (hereafter referred to as spillovers). These positive spillover effects have shown in the QUEST assessments and are also relevant in the NiGEM simulations. Moreover, the NiGEM estimations yield that reducing spreads has been an important positive side effect, which helped mitigate risks of financial fragmentation at the time of the COVID shock (for details, see section 4.4.3. regarding the impact on spreads).

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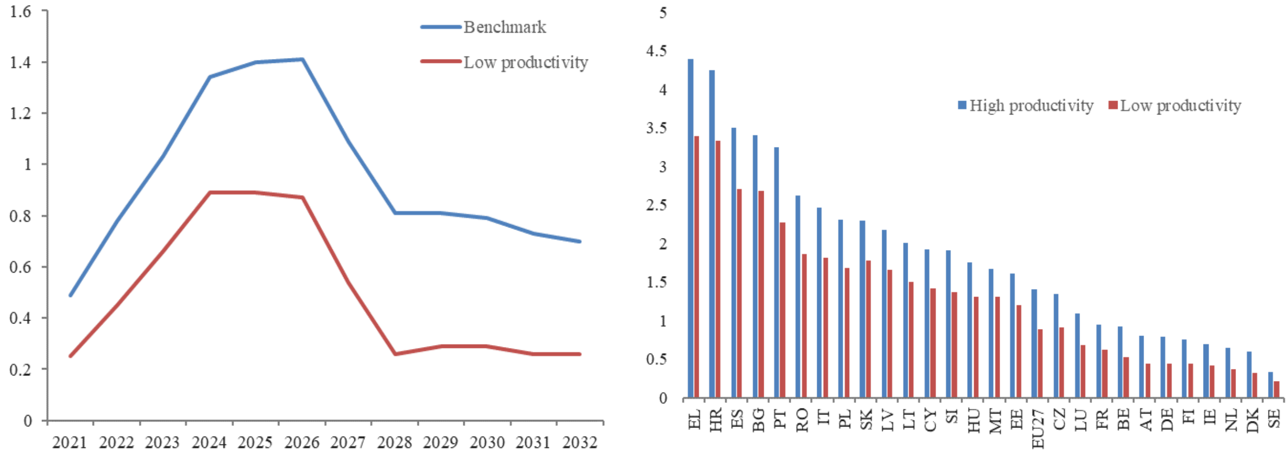
33 Note that because the simulations focus on public investment (without accompanying labour-market reforms), the employment effects are relatively short-lived and real wage increases reflect most medium and long-run labour market benefits in the simulations. By contrast, reforms targeting labour markets and increasing participation, which are included in numerous RRPs, can lead to large employment gains in the medium and long run.

34 The National Institute Global Econometric Model (or 'NiGEM') is a global macroeconomic model developed and maintained by the National Institute of Economic and Social Research. For further information, see https://www.niesr.ac.uk/nigem-macroeconomic-model.

35 As acknowledged in the evaluation report, the long-run GDP gains from government investment multipliers appear to be below the QUEST estimates, partly because government investment is "treated as 'consumption' and so does not add to the economy's capital stock, which is the main way that government investment raises GDP in the long run" (see page 21 of the supporting study). On the multiplier effects of government investment, see also Ramey, V. (2021) 'The Macroeconomic Consequences of Infrastructure Investment' in Glaeser, E.L., and Poterba, J.M. (Eds.), *Economic Analysis and Infrastructure Investment*, pp. 219-268.

Figure 2: GDP effects (in % of a no-NGEU scenario), QUEST model scenarios

a. EU GDP Dynamics, % of GDP *b. Peak GDP effects, % of GDP*



Notes: All results are expressed in per cent deviation from a no-NGEU scenario. In the left panel (a), the blue line reports real EU GDP effects in the benchmark scenario, while the red line depicts the low-productivity scenario. The right panel (b) depicts the respective peak GDP effects for each country. Blue (red) bars report GDP effects in the benchmark (low-productivity) scenario.

Source: European Commission

With its allocation key, the RRF was designed to support lower-income and more vulnerable Member States, which had also been hit the hardest by the pandemic. The RRF's allocation of funding thus helps counteract economic divergence, fostering economic stability and growth where it is most needed. Given the allocation key, the QUEST simulations indicate that Member States with below-average GDP per capita are expected to experience the largest boost to GDP levels because of the significant RRF investments (see Figure 2b). For the benchmark (high productivity) model calibration, the increase in output reaches almost 4.5% in Greece, more than 4% in Croatia, and around 3.5% in Spain and Bulgaria compared to the EU average impact of 1.4%. The model-based analysis does not explicitly cover reforms, which are expected to have a long-term positive impact and can further lay the groundwork for long-term economic convergence within the EU[36].

The ex-ante macroeconomic simulations also predict that the simultaneous implementation of the RRF by all Member States generates sizeable positive spillover effects, leads to economic convergence and is helping to reduce unemployment. In line with the estimates based on QUEST[37], the absence of joint and coordinated action (counterfactual) would have substantially reduced the average GDP impact (see Figure 3). While all Member States are estimated to benefit from sizable cross-border spillover effects because of rising demand across the integrated EU economy, the joint investment impulse from the RRF is also supporting the upward economic convergence in the EU. The results predict that Member States with below-average GDP specifically gain from

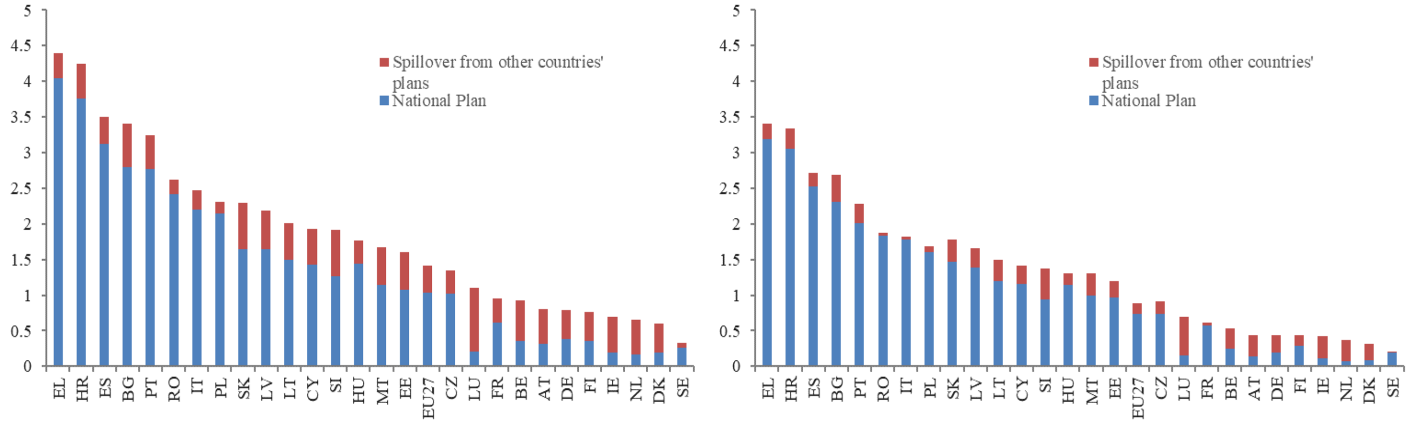
36 See Pfeiffer, P., Varga, J, and in 't Veld, J. (2023) *Unleashing Potential: Model-Based Reform Benchmarking for EU Member States*, available at: https://economy-finance.ec.europa.eu/publications/unleashing-potential-model-based-reform-benchmarking-eu-member-states_en.

37 See Pfeiffer, P., Varga, J, and in 't Veld, J. (2023) *Unleashing Potential: Model-Based Reform Benchmarking for EU Member States*, available at: https://economy-finance.ec.europa.eu/publications/unleashing-potential-model-based-reform-benchmarking-eu-member-states_en.

these spillover effects, as they spur enhanced economic activity and cross-border trade. This analysis is reinforced by the simulations undertaken using the NiGEM model. It shows that the collective effect on EU GDP is greater than the sum of the direct effects of RRF spending if each Member State (counterfactually) implemented the investments on its own. The NiGEM simulations also suggest that the initial disbursements lowered unemployment in the European Union by around 0.2 percentage points relative to what it would have been in the absence of the RRF.

Figure 3: GDP effects (in % from a no-NGEU scenario), spillover effects

a. High productivity scenario, % of GDP *b. Low productivity scenario, % of GDP*



Notes: All results are expressed in per cent deviation from a no-NGEU scenario. Blue bars show simulation results from unilateral plans (counterfactually assuming that only one Member State implements the investment plan at a time). Spillover (red) is defined as the difference of the coordinated simultaneous NGEU stimulus in all Member States and the standalone simulations of the national plans. The left (a) and right (b) panels depict the benchmark and low-productivity scenarios, respectively.

Source: European Commission

RRF loans, if used to finance additional projects, are estimated to contribute to the positive real GDP impact. These gains are largest for Member States with significant amendments to loan requests (as of 2023), while all Member States can benefit from other Member States' investment through spillover effects.

The RRF's cumulated long-run impact on GDP can be expected to exceed the total disbursed RRF funds. According to DG ECFIN's model-based macroeconomic simulations[38], the (undiscounted) cumulative impact on EU GDP of NGEU budget[39] can be about three to six times as large in the long run, depending on the productivity effects of RRF investment. The long-run benefits of the RRF are confirmed by the supporting study, whose NiGEM analysis suggests that the cumulative impact on EU GDP by 2041 of the RRF funds disbursed up to end July 2023 is almost twice as large as the value of these disbursed funds. The study further suggests that the cumulative impact on EU GDP by

38 Pfeiffer, P., Varga, J., in't Veld, J. (2023) *Quantifying spillovers of coordinated investment stimulus in the EU*, Cambridge University Press, available at: https://www.cambridge.org/core/journals/macroeconomic-dynamics/article/quantifying-spillovers-of-coordinated-investment-stimulus-in-the-eu/FFCCAAA20BD98AC50A93A4F24562EAD4.

39 NGEU budget considered in the simulations is around EUR 700 billion.

2041 of the entire RRF package of non-repayable support and loans is expected to exceed twice the total RRF funds[40].

It is important to note that the overall macroeconomic impact calculated by the simulations depends on the assumptions on the productivity effects and additionality of the financed investment projects. Notably, the macroeconomic impact could be considerably smaller if investment projects yielded lower productivity gains. In the low-productivity scenario of the QUEST model, the simulated EU-wide GDP gains are smaller (see Figure 3b). While sizeable growth effects remain, the changes across assumptions are noteworthy (as reflected in the estimated multipliers shown in Annex II). For the purposes of modelling and as a stylised simplification, the simulations assume that Member States utilise all non-repayable support (100%) and half of loans (50%) for additional public investment. The assumption of reduced loan additionality reflects a conservative approach taken in the analysis (for details, please see Annex II). Similarly, the GDP effects could also be smaller in case of lower additionality of non-repayable support since, in this case, not all resources would be used for additional public investment[41].

3. HOW HAS THE SITUATION EVOLVED OVER THE EVALUATION PERIOD?

While the RRF was established during the COVID-19 pandemic to help Member States recover faster and become more resilient, its implementation is taking place in a constantly evolving context. Nearly a year after the entry into force of the RRF, the international context experienced another radical change following Russia's illegal war of aggression against Ukraine. This caused renewed pressures on supply chains as well as on global energy and food markets, which to a large extent resulted in high levels of inflation, with the European Union being particularly affected. These external factors have had an impact on the implementation of the RRF, both as concerns implementation speed and the need to use the Facility to tackle emerging challenges. The REPowerEU Plan, presented by the Commission in May 2022 as the EU's response to the energy crisis, paved the way for an amendment of the RRF Regulation less than two years after its entry into force. The RRF became a key financial tool to deliver on the REPowerEU objectives. It increased the amount of EU funds made available to the Member States through the RRF, and enabled Member States to adjust their RRPs by putting forward additional reforms and investments to rapidly phase-out the EU's dependence on Russian fossil fuels, accelerate the clean energy transition, support the reskilling of the workforce, and address energy poverty.

This section describes how the European economy and the RRF implementation have evolved over the evaluation period and presents the state of play to date.

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40 See page 215 of the supporting study.

41 QUEST ex-ante simulations estimate that the impact on EU GDP is roughly proportional to the assumed additionality. The additional investment stimulated by the RRF could be lower than assumed due to the short period allocated for implementation and the overlap with projects fundable by Cohesion Policy instruments. In an alternative scenario where only 25% (Northern and Western Europe) and 60% (other Member States) of non-repayable support and loans were spent on additional investment, the GDP gains would be reduced by a little over a quarter (based on simulations with NiGEM). This alternative scenario is presented and discussed in the supporting study.

3.1. Economic developments since the start of the RRF

As the RRF's general objective is to promote the Union's economic, social and territorial cohesion, the way in which the EU economy developed since the COVID-19 pandemic crisis provides an important context for the evaluation.

Following a steep fall in economic activity in the first half of 2020 due to pandemic-related restrictions, a vigorous and synchronised economic rebound started in the second half of 2020. The robust rebound in economic activity brought the EU economy back to its pre-pandemic output level (fourth quarter of 2019) in the third quarter of 2021. By the end of 2022, the volume of EU output was 3.2% higher compared to pre-pandemic levels, while the EU's aggregate public investment-to-GDP ratio is expected to increase from 3.0% in 2019 to 3.3% in 2023[42]. In contrast with previous macroeconomic shocks, public investment hence remained robust during the COVID-19 pandemic and the energy crisis.

The resilience of the EU economy was tested again following Russia's unprovoked aggression against Ukraine. Russia's aggression against Ukraine exacerbated the supply-side disruptions that had started to push up global commodity prices in 2021. Due to its geographical proximity to the war and heavy reliance on gas imports from Russia, the EU economy was expected to fall into a recession in winter 2022-2023. While this recession was avoided by a margin, the economic momentum slowed down significantly since the end of 2022. Based on the Commission's Winter 2024 interim Forecast, the conditions for a gradual pick-up in economic activity are still in place[43].

3.2. State of play of the RRF implementation

3.2.1. Adoption of RRPs and operational documentation

At the half-way point, the implementation of the Facility is under way in all Member States. The RRF Regulation entered into force on 12 February 2021. In 2021 and 2022, the Commission supported Member States to put forward ambitious plans with clear and realistic milestones and targets to monitor their progress during the implementation and was in close contact with them to conduct a comprehensive assessment of each plan. The Commission assessed each plan in a consistent and transparent manner, following the 11 criteria set out in Article 19(3) of the RRF Regulation. With this assessment, the Commission has ensured that the measures included in Member States' RRPs contribute to meeting the objectives of the Facility[44].

[42] See European Economic Forecast – Winter 2024 interim, available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/winter-2024-economic-forecast-delayed-rebound-growth-amid-faster-easing-inflation_en.

[43] See European Economic Forecast – Winter 2024 interim, available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/winter-2024-economic-forecast-delayed-rebound-growth-amid-faster-easing-inflation_en.

[44] For further information, see Report from the Commission to the European Parliament and the Council on the implementation of the Recovery and Resilience Facility (COM(2022) 75 final), available at: https://commission.europa.eu/system/files/2022-03/com_2022_75_1_en.pdf.

By December 2022, the positive assessment of all 27 Member States' initial RRPs had been proposed by the Commission and adopted by the Council. The adoption timeline varied across Member States, with the first CID adopted in July 2021 and the last in December 2022. The median duration between the submission of original RRPs by Member States and the adoption of CIDs by the Council was 70 calendar days, although the assessment for the plans submitted by Bulgaria, Hungary, Poland, and Sweden took significantly longer. Information on the dates of submission of RRPs and adoption of CIDs of each Member State is provided in Annex VI.

Financing agreements, (where relevant) loan agreements, and operational arrangements also needed to be concluded with each Member State. The financing and loan agreements define the rights and obligations of the parties. This includes the protection of the financial interests of the Union, requirements for Member States' control systems and a commitment of the financial contribution and of the loan support. The Commission also concluded operational arrangements with most Member States, which further specify the modalities for monitoring and cooperation, as well as the verification mechanism for each milestone and target (discussions are still ongoing with two Member States[45]). The signing of operational arrangements is a pre-requisite for submitting a first payment request.

3.2.2. REPowerEU and amendment of the RRF Regulation

The amended RRF Regulation, integrating revisions related to REPowerEU, entered into force in March 2023. The amendments provide additional financial support for new or scaled-up reforms and investments dedicated to diversifying energy supplies (in particular gas imports), increasing energy savings, accelerating the clean energy transition and ultimately increasing the resilience, security and sustainability of the Union's energy system. Corresponding REPowerEU objectives were also introduced[46].

The amendments to the RRF Regulation also strengthened transparency by requiring Member States to publish data on the 100 final recipients[47] receiving the highest amount of funding for the implementation of measures under the RRF. Further information is provided in Section 3.3.1. below.

3.2.3. Revisions of RRPs and submission of REPowerEU chapters

The external factors related to the war in Ukraine, energy crisis, high inflation and supply chain disruptions impacted the implementation of the RRPs. Faced with cost increases, supply chain shortages, uncertainty and the need to divert administrative resources to tackle external emergencies, Member States found that they could not implement some of the measures as initially planned in their RRPs. This impacted the

45 By 1 February 2024, the Commission has concluded operational arrangements with all Member States but two (the Netherlands and Hungary).

46 See Article 21c of the RRF Regulation.

47 In the context of the RRF, a final recipient is understood as the last entity receiving funds under the RRF that is not a contractor or a subcontractor, for example, citizens, regional or local authorities, or SMEs, and as such can be either a legal or a natural person.

speed of implementation of the Facility and generated a need to introduce targeted revisions to the RRPs (under Article 21 of the RRF Regulation). These revisions came on top of the revisions related to the updated maximum contribution (see Section 2).

By 1 February 2024, all Member States had submitted a request to modify their RRPs and 23 had also submitted a REPowerEU chapter (Table 1). 31 modified RRPs, 23 of which including REPowerEU chapters, were assessed by the Commission and then adopted by the Council (Table 1).

Table 1: State of play on the submission of modified RRPs and REPowerEU chapters by 1 February 2024

	BE	**BG**	**CZ**	**DK**	**DE**	**EE**	**IE**	**EL**	**ES**	**FR**	**HR**	**IT**	**CY**	**LV**	**LT**	**LU**	**HU**	**MT**	**NL**	**AT**	**PL**	**PT**	**RO**	**SI**	**SK**	**FI**	**SE**
27 plans approved by the Commission and adopted by the Council																											
31 revised plans submitted to the Commission					2x		2x					2x														2x	
23 revisions including a REPowerEU chapter																											
31 revised plans assessed by the Commission					2x		2x					2x														2x	
31 revised plans adopted by Council					2x		2x					2x														2x	

Source: European Commission

3.2.4. Submission and assessment of payment requests

By 1 February 2024, the Commission received 54 payment requests from 24 Member States and disbursed close to EUR 225 billion. This figure includes EUR 157.2 billion disbursed upon the submission of payment requests and satisfactory fulfilment of milestones and targets, EUR 56.6 billion in RRF pre-financing granted to 21 Member States until 31 December 2021, and EUR 10.4 billion of REPowerEU pre-financing disbursed to 21 Member States between December 2023 and 1 February 2024 (see next paragraphs). EUR 144.0 billion of the total amount disbursed to Member States concern non-repayable support and EUR 80.2 billion concern loans. Table 2 provides an overview of the submission of payment requests by the Member States and the corresponding total disbursements by the Commission, covering both non-repayable support and loans[48],

[48] RRF loans were disbursed to Greece on 09/08/2021 (EUR 1.7 billion in pre-financing), on 08/04/2022 (EUR 1.8 billion), on 19/01/2023 (EUR 1.8 billion) and on 28/12/2023 (EUR 1.9 billion); to Cyprus on 09/09/2021 (EUR 26.0 million in pre-financing); to Italy on 13/08/2021 (EUR 15.9 billion in pre-financing), on 13/04/2022 (EUR 11 billion), on 08/11/2023 (EUR 11 billion), on 09/10/2023 (EUR 8.5 billion), and on 28/12/2023 (EUR 14.5 billion); to Portugal on 03/08/2021 (EUR 350.9 million in pre-financing), on 09/05/2022 (EUR 609 million), on 08/02/2023 (EUR 108.8 million), and on 28/12/2023 (EUR 585.2 million); to Romania on 13/01/2022 (EUR 1.9 billion in pre-financing), on 27/10/2022 (EUR 789.7 million) and on 29/09/2023 (EUR 893.3 million); and to Slovenia on 28/12/2023 (EUR 310.0 million). In addition, loans were disbursed to the following Member States as part of pre-financing relating to REPowerEU funds under the RRF: Belgium on 25/01/2024 (EUR 43.0 million), Croatia on

following a positive assessment of the milestones and targets covered by the respective payment request.

Pre-financing for the initial RRPs was disbursed to all requesting Member States whose plans were adopted by the legal deadline of 31 December 2021. To ensure that the financial support provided by the RRF was frontloaded in the aftermath of the COVID-19 crisis, Member States could request up to 13% of their total financial allocation as up-front payment in the form of so-called ‘pre-financing’. This was however only possible where the relevant RRP was adopted by the Council before the deadline of 31 December 2021, as set in the RRF Regulation[49]. The disbursement of this pre-financing was not directly linked to the fulfilment of milestones and targets, unlike subsequent disbursements that are conditional upon the fulfilment of the relevant milestones and targets. The amounts disbursed under pre-financing are deducted over time from regular payments to Member States. Any potentially remaining amount can be recovered by the Commission at the end of the Facility’s lifetime, including if the Member State does not fulfil the requirements established in the CID. All Member States whose initial plans were adopted by end-2021, except Ireland, requested and received pre-financing, which amounted to EUR 56.6 billion (see Table 2 below). Pre-financing payments were executed within six business days after the signing of the Financing (and/or Loan) Agreements (where relevant), and well ahead of the 2-month period mentioned in the RRF Regulation[50]. Two Member States for which no payment request has been processed yet (Belgium and Finland) have nonetheless received RRF funding, in the form of pre-financing. As the RRPs submitted by Bulgaria, Hungary, the Netherlands, Poland and Sweden were adopted after the legal deadline, those five Member States were unable to request pre-financing for their initial plans.

By 1 February 2024, EUR 10.4 billion was disbursed as REPowerEU pre-financing to the 21 Member States that requested it (see Table 2 below). In the same spirit as the 2021 round of pre-financing and to ensure that financial support is frontloaded to better respond to the energy crisis, Member States that modified their RRPs to include a REPowerEU chapter had the possibility to request up to 20% of the additional funding requested to finance their REPowerEU measures until the end of 2023[51]. 21 Member States requested and received REPowerEU pre-financing. Bulgaria, Germany, Ireland and Luxembourg are not eligible for REPowerEU pre-financing since their REPowerEU chapters were not adopted by the Council by end-2023 – as they were still under preparation. The Netherlands and Sweden did not request any REPowerEU pre-financing.

Progress in RRF implementation is underway in all Member States, but with differences. While some Member States are progressing fast with the roll-out of their payment requests, others are facing diverse challenges. Hungary, the Netherlands, and

25/01/2024 (EUR 529.9 million), Spain on 25/01/2024 (EUR 340.0 million), Hungary on 28/12/2023 (EUR 779.5 million), Lithuania on 28/12/2023 (EUR 109.8 million), and Poland on 28/12/2023 (EUR 4.5 billion).

49 See Article 13 of the RRF Regulation.

50 See European Commission (2022) *Report from the Commission to the European Parliament and the Council on the implementation of the RRF (COM(2022) 75 final)*, available at: https://commission.europa.eu/system/files/2022-03/com_2022_75_1_en.pdf.

51 See Article 21d of the RRF Regulation.

Sweden have not yet submitted a payment request to the Commission. For Hungary and Poland, the authorities need to take necessary steps to implement the milestones related to the protection of the financial interests of the Union – no regular payment under the RRF is possible without the fulfilment of these milestones. In contrast, eight[52] Member States have submitted three or more payment requests.

Table 2: State of play on implementation of RRF payment requests, by 1 February 2024

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	HR	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE
27 plans approved by the Commission and adopted by the Council																											
21 pre-financing disbursed before 31 December 2021 and excluding REPowerEU pre-financing (EUR 56.6 billion)		▲					*										▲		▲		▲						▲
21 REPowerEU pre-financing disbursed (EUR 10.4 billion)		●			●		●									●			■								■
25 Operational Arrangements signed																											
54 payment requests submitted to the Commission, including loans where relvant		2x	2x	2x		2x		3x	4x	3x	4x	5x	2x	2x	2x			2x				3x	3x	2x	4x		
36 payments disbursed (EUR 157.2 billion)								3x	3x	2x	3x	4x										3x	2x	2x	3x		

Note: * No pre-financing was requested by Ireland. ▲ As prerequisite for pre-financing, the CID had to be adopted by 31 December 2021. ● Bulgaria, Germany, Ireland, and Luxembourg have not submitted a REPowerEU chapter and are thus not eligible for REPowerEU pre-financing. ■ The Netherlands and Sweden did not request any REPowerEU pre-financing.

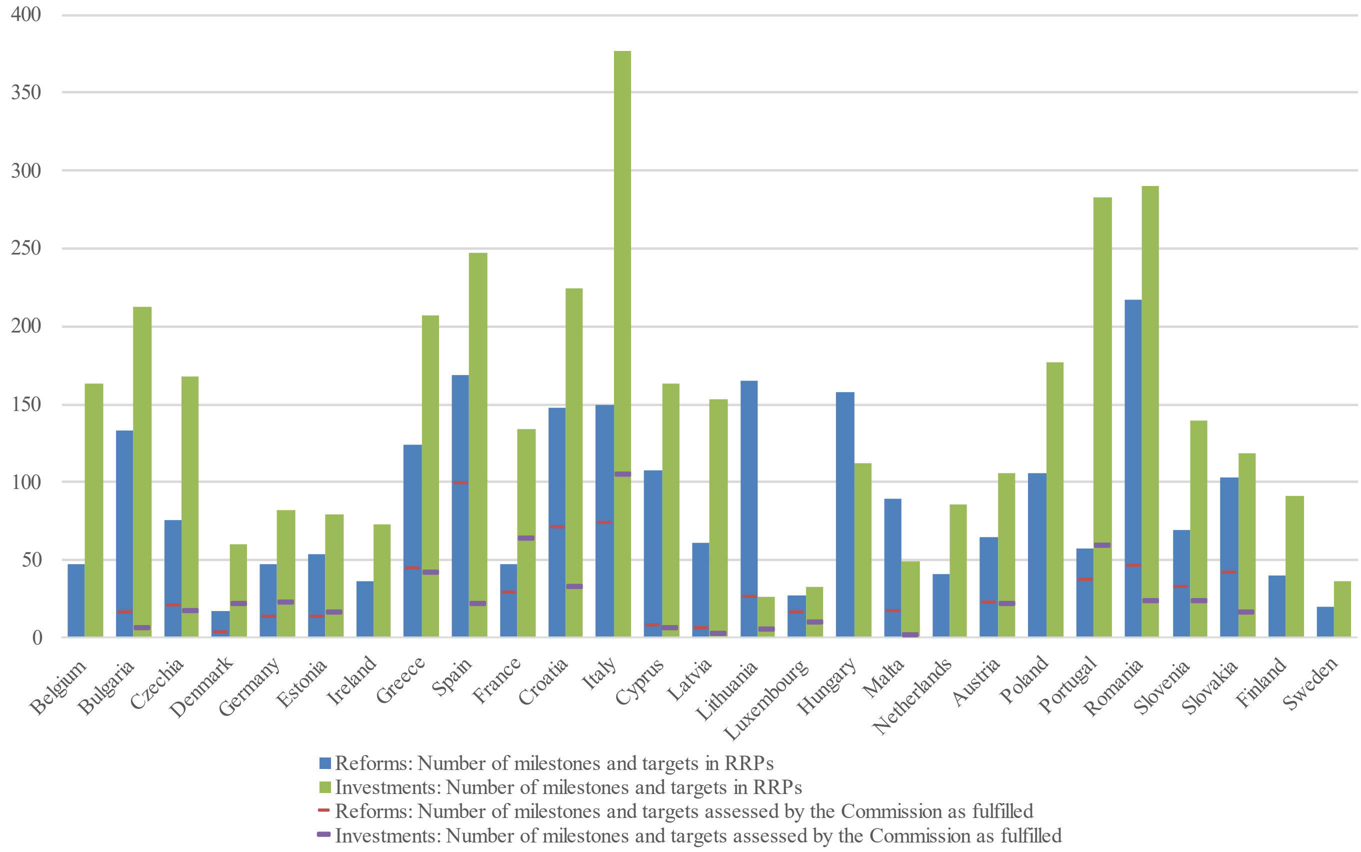
Source: European Commission

By 1 February 2024, 1,153 milestones and targets out of a total of 6,266 to be achieved by 2026 had been assessed as satisfactorily fulfilled and an additional 1,238 had been reported by Member States as completed. This represents a progress rate of approximately 38% of the total number of milestones and targets under the RRF (with 18% of all milestones and targets assessed as satisfactorily fulfilled). Around 75% of the milestones and targets planned to be achieved by end 2023 were either assessed by the Commission as satisfactorily fulfilled or reported as completed by the Member States. Furthermore, on 1 February 2024, the Commission is in the process of assessing 18 payment requests that, if positively assessed, will significantly increase the amount of milestones and targets satisfactorily fulfilled by Member States in the near future. Of the 1,153 milestones and targets satisfactorily fulfilled, 632 contribute to reform-related RRF measures and 521 to investment-related measures. Italy, Spain, and Croatia have fulfilled

[52] The eight Member States are Greece, Spain, France, Croatia, Italy, Portugal, Romania and Slovakia.

the highest amounts of milestones and targets, with 178 (out of a total of 527), 121 (out of 416), and 104 (out of 372) fulfilled milestones and targets, respectively (Figure 4). As the Commission's assessment is still ongoing for the first payment requests submitted by Belgium, Ireland, Poland, and Finland, no information is available on fulfilled milestones and targets for these Member States yet. The number of milestones and targets fulfilled by Bulgaria, Czechia, Denmark, Estonia, Spain, France, Croatia, Italy, Cyprus, Latvia, Lithuania, Malta, Romania and Slovakia does not yet reflect the milestones and targets under assessment on 1 February 2024, following the payment requests submitted by these Member States. No milestone or target initially assessed as satisfactorily fulfilled by the Commission has subsequently been reversed by a Member State so far. Further details on Member States' progress in fulfilling milestones and targets for reforms and investments is provided in Figure 4, and a breakdown across all six policy areas is included in Annex VI.

Figure 4: Number of fulfilled milestones and targets for reforms and investments, per Member State[53]

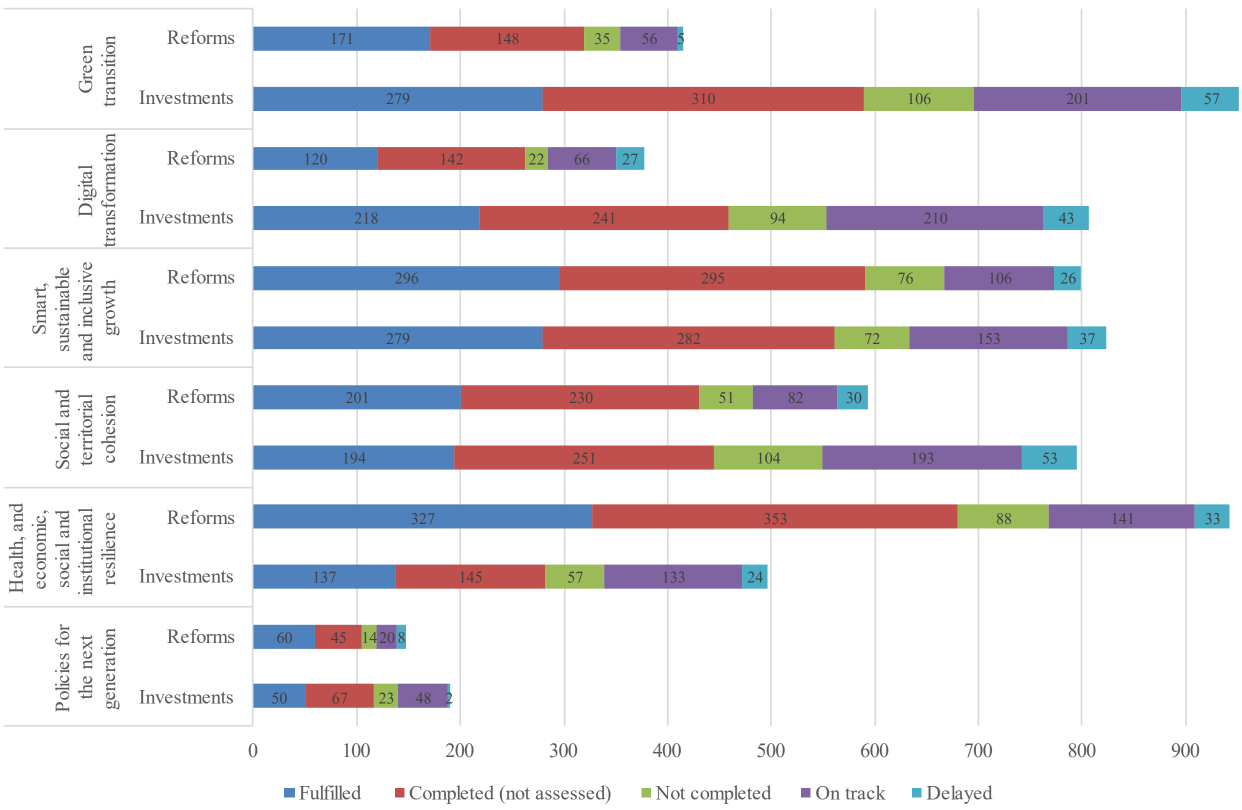


Source: Recovery and Resilience Scoreboard

53 The information provided in this Figure reflects the latest RRPs for Estonia, France, Luxembourg, and Slovakia and the RRPs following the first revisions for Germany (adopted on 14/02/2023), Ireland (adopted on 14/07/2023), Italy (adopted on 19/09/2023), and Finland (adopted on 14/03/2023). It does not reflect the latest plans adopted for Belgium, Bulgaria, Czechia, Denmark, Germany (following the second revision), Ireland (following the second revision), Greece, Spain, Croatia, Italy (following the second revision), Cyprus, Latvia, Lithuania, Hungary, Malta, the Netherlands, Austria, Poland, Portugal, Romania, Slovenia, Finland (following the second revision) and Sweden as data for these Member States was not yet fully available.

Member States report good progress in implementing their RRPs across all six pillars (Figure 5). Self-reported progress by Member States, which takes place twice a year, indicates that the vast majority of milestones and targets due by October 2023 are either fulfilled or reported as completed (Figure 5). The progress of upcoming milestones and targets is also encouraging, with a significant number of milestones and targets reported as on track or already completed (Figure 5). When providing explanations in the bi-annual reporting for non-completion or delays, Member States reported difficulties in meeting deadlines for signatures of contracts and/or unexpected time lags in construction works. In general, Member States did not consistently provide detailed explanations for non-completion or delays and did not generally consider these delays as substantial[54].

Figure 5: Progress of milestones and targets, per RRF pillar



Note: Milestones and targets which have already been assessed as satisfactorily fulfilled by the Commission in the context of a payment request have the status 'fulfilled'. The progress status of each backward-looking milestone and target (i.e. those planned to be achieved up to the quarter before the reporting date) can be either 'completed' or 'not completed'. The status of forward-looking milestones and targets (i.e. those planned to be achieved in the quarter of the reporting date and the three following quarters) milestones and targets can be 'completed', 'on track', or 'delayed'.

Source: European Commission.

A detailed analysis on the speed of disbursements and on the progress in implementing milestones and targets by policy area is included in Section 4.1.

[54] See European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

3.3. Improvements in RRF implementation over the evaluation period

Since the adoption of the RRF Regulation, the Commission has been in close contact with Member States and also with other EU institutions, notably the European Parliament and European Court of Auditors (described in Section 3.4.), to discuss implementation challenges as they emerged. Against the background of constant dialogue and feedback, the Commission has taken various steps, as described below, to improve the implementation of the Facility within the mandate of the Regulation.

3.3.1. Increasing transparency on the RRF implementation

Since the establishment of the RRF, the Commission has provided a range of guidance documents to help Member States prepare their RRPs[55] and has further clarified how it implements the RRF Regulation and which frameworks it uses to do so. In February 2023[56], the Commission published its framework to assess the fulfilment of milestones and targets as well as the methodology to be used to calculate the suspended amounts in case of non-fulfilment of a milestone or target. Stakeholders, notably Member States authorities, the European Parliament and the European Court of Auditors, broadly welcomed this step that increased transparency and clarified the Commission's methodology[57]. In September 2023[58], the Commission also published its framework for dealing with potential situations where milestones and targets initially assessed as satisfactorily fulfilled by the Commission would subsequently be reversed by a Member State.

Information on the state of implementation of the RRF and on final recipients is continuously being made available. The Commission has set up a website dedicated to the RRF – which includes the individual RRPs in dedicated country pages – as well as the Recovery and Resilience Scoreboard[59] that provides real-time information on the disbursements and progress made by Member States, as well as additional data, indicators and thematic analyses. To further increase the visibility and transparency of the RRF, the Commission has launched an interactive map[60] of projects supported by the RRF in each

[55] See European Commission (2021) *Guidance to Member States – Recovery and Resilience Plans (SWD(2021) 12 final)*, available at: https://commission.europa.eu/system/files/2021-01/document_travail_service_part1_v2_en.pdf (Part (1/2) and https://commission.europa.eu/publications/guidance-member-states-recovery-and-resilience-plans-part-2_en (Part 2/2); European Commission (2021) *Technical guidance on the application of "do no significant harm" under the Recovery and Resilience Facility Regulation (C(2023) 6454 final)*, available at: https://commission.europa.eu/publications/dnsh-technical-guidance-amended-october-2023_en; and European Commission (2023) *Guidance on Recovery and Resilience Plans in the context of REPowerEU (2023/C 80/01)*, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023XC0303%2801%29&qid=1677849385817.

[56] See European Commission (2023) *Communication from the Commission to the European Parliament and the Council on the Recovery and Resilience Facility: Two years on (COM(2023) 99 final)*, available at https://commission.europa.eu/publications/communication-implementation-recovery-and-resilience-facility-0_en.

[57] See page 79 of the supporting study.

[58] See Report from the Commission to the European Parliament and the Council on the implementation of the Recovery and Resilience Facility: Moving forward (COM(2023) 545 final/2) available at https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

[59] See https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html.

[60] See https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en#map.

Member State. Furthermore, following the entry into force of the amended RRF Regulation, the Commission has been publishing the data provided by the Member States on the 100 final recipients receiving the highest amount of funding on the Scoreboard. By 1 February 2024, all Member States have provided corresponding data.

A series of joint communication activities on the RRF and 25 Annual RRF Events organised by 22 different Member States have taken place. In collaboration with Member States, the Commission has organised communication and Annual Events to bring together key institutions, stakeholders (including social partners and civil society representatives) and recipients of RRF support, among others, to discuss the progress in implementing the various projects proposed by Member States in their national RRPs. The European Parliament Liaison Offices in the Member States, the European Economic and Social Committee national representatives and the Committee of the Regions are also invited to participate in these events.

3.3.2. Strengthened robustness of the RRF control framework (audit and control)

Since the inception of the RRF, the Commission has further strengthened the robustness of the RRF control framework, including its ex-post audit work. The Commission has notably increased the pace and scope of system audits related to the protection of the financial interests of the Union. It now also verifies that Member States regularly check compliance of RRF funded expenditure within the framework of Public Procurement and State Aid rules.

The RRF control framework[61] is tailored to the unique nature of the RRF as an EU spending programme and is built upon two main pillars: on the one hand, the legality and regularity of transactions, which is the main responsibility of the Commission, and on the other hand the protection of the financial interests of the Union, which responsibility lies mainly with the Member States but on which the Commission also carries out specific checks.

Since the inception of the RRF, the Commission carried out both ex-ante controls before payments were made and ex-post audits thereafter. By 1 February 2024, the Commission assessed 36 payment requests including over 1,150 milestones and targets and concluded that all but seven[62] milestones and targets had been satisfactorily fulfilled. In 2022-2023, the Commission also carried out 17[63] risk-based ex-post audits on milestones and targets to obtain additional assurance that the information provided by the Member

[61] See European Commission (2022) *DG ECFIN Annual Activity Report 2022*, available at: https://commission.europa.eu/system/files/2023-06/ECFIN_AAR_2022_en.pdf.

[62] See European Commission's partially positive preliminary assessment of Lithuania's first payment request under the RRF, available at: https://ec.europa.eu/commission/presscorner/detail/en/IP_23_1286, European Commission's partially positive preliminary assessment of Romania's second payment request under the RRF, available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_23_3496., and European Commission's partially positive preliminary assessment of Portugal's third payment request under the RRF, available at: https://ec.europa.eu/commission/presscorner/detail/en/ip_23_6827.

[63] In 2022 and 2023, the Commission carried out ex-post audits on milestones and targets regarding payment requests submitted by Austria, Czechia, Denmark, Greece, Spain, France, Croatia, Italy, Luxembourg Portugal, Slovakia, and Romania.

State was correct. Based on final audit reports issued, the Commission's audits confirmed the previous positive assessments that the relevant milestones and targets had been satisfactorily fulfilled.

The Commission also conducted system audits that draw upon information available within the Commission as well as in audit summaries, management declarations and payment requests submitted by the Member States. In the context of the system audits, the Commission checks the procedures in place in Member States to prevent, detect and correct fraud, corruption, and conflict of interest, as well as 'double-funding' arising from the possible simultaneous funding of project-related costs by different EU programmes. In the period 2022-2023, the Commission audited all Member States at least once, issuing where relevant recommendations with strict implementation deadlines.

3.4. Inter-institutional scrutiny

European Parliament Working Groups

Since the beginning of the RRF implementation, the Commission has closely engaged with the European Parliament and the Council. The Commission shares all RRPs and modified plans, as well as all preliminary assessments of payment requests, with both the European Parliament and the Council in full respect of its inter-institutional obligations. This ensures a transparent flow of information with a high level of engagement between the institutions throughout the implementation phase.

The Commission holds regular exchanges to discuss horizontal topics concerning the RRF with the European Parliament. Since the setting-up of the RRF, the Executive Vice President responsible for an Economy that Works for People and the Commissioner for Economy participated by 5 February 2024 in 14 high-level Recovery and Resilience Dialogues. Moreover, the Commission engages regularly with the standing Working Group of the joint ECON-BUDG Committees and participated overall in 33 meetings. In addition, the Commission is invited on a regular basis to various other committees to exchange views on matters related to the RRF, including the REGI, CONT and ENVI committees.

Council

The Council is involved at all stages of the Facility's implementation. The Council approves the 'Council Implementing Decisions' setting out the reforms and investment projects to be implemented by the Member State, including the milestones and targets to be fulfilled for each payment requests, and the financial contributions – based on a Commission proposal reflecting the RRP of each Member State. In the context of each payment request, once the Commission has adopted its preliminary assessment regarding the satisfactory fulfilment of milestones and targets, the Economic and Financial Committee ('EFC'), which is composed of senior officials from national administrations and central banks, subsequently provides its opinion[64]. The Commission also provides regular updates on the Facility's implementation to the ECOFIN Council.

Informal expert group on the implementation of the RRF

The Commission has also set up an informal expert group to exchange views and good practice with Member States on the implementation of the RRF. By 1 February 2024, 24 meetings of the expert group had taken place. This group provides an important forum to discuss cross-cutting aspects on the RRF, among the experts from the Member States as well as the Commission. The Council and the European Parliament are invited to observe all these meetings. The topics discussed in this format show a great variety and range from financial matters to governance and audit and control, as well as issues related to specific policy areas. All relevant information from the meetings is published online[65].

Audits undertaken by the European Court of Auditors

In addition to the audits carried out by the Commission itself, the RRF is scrutinised by the European Court of Auditors ('ECA'), notably through Statement of Assurance ('SoA') audits, and Performance audits on a number of thematic areas. By 1 February 2024, the ECA has finalised two SoA audits on the RRF, which aim to assess annually the legality and regularity of payments disbursed by the Commission to Member States upon satisfactory fulfilment of milestones and targets. The main findings are presented in the ECA annual reports of 2021[66] and 2022[67]. In addition, three performance audits specifically dedicated to the RRF have been finalised as of 1 February 2024, namely on the Commission's assessment of RRPs, the design of the Commission's control system for the RRF, and on the framework put in place by the Commission to monitor the performance of the RRF. Another eight[68] ECA audits focusing on the RRF are ongoing and are expected to be finalised by end 2024, and while RRF-related matters are also considered in other reports. The ECA has also issued a comparative analysis on Cohesion Policy funds and the RRF.

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64 If, exceptionally, one or more Member States consider that there are serious deviations from the satisfactory fulfilment of the relevant milestones and targets, they may request the President of the European Council to refer the matter to the next European Council.

65 See https://ec.europa.eu/transparency/expert-groups-register/screen/expert-groups/consult?lang=en&groupId=3772&fromMeetings=true&meetingId=31814.

66 Available at https://www.eca.europa.eu/en/publications/annualreports-2021.

67 Available at https://www.eca.europa.eu/en/publications/AR-2022.

68 As regards on-going performance audits, eight are currently focusing on the RRF and are expected to conclude in 2024. They cover inter alia the green transition and digital transformation dimensions of the RRF, the RRF contribution to the rule of law, the absorption of RRF funds, labour market and, separately, business environment reforms included in the RRPs, the Member States' control systems, and the prevention of double funding between the RRF, Cohesion Policy and Connecting Europe Facility. Other performance audits and reviews may also touch on the RRF or RRF supported measures. All ECA special reports are complemented by official replies of the Commission, which are public and available on the website of the ECA.

4. EVALUATION FINDINGS (ANALYTICAL PART)

To what extent was the intervention successful and why?

4.1. Effectiveness

This section presents an assessment of how successful the RRF has been, mid-way through its lifetime, in progressing towards its specific objective, which is "*to provide Member States with financial support with a view to achieving the milestones and targets of reforms and investments as set out in their recovery and resilience plans*". The section then also illustrates, with the results of specific case studies, how the achievement of milestones and targets feeds into the elements of the RRF high-level general objective.

The achievement of milestones and targets in and of itself represents progress towards achieving both the RRF specific as well as general objective, respectively. Milestones and targets represent concrete progress made towards the achievement of the reforms and investments committed to by Member States in their RRPs. This in turn corresponds to progress towards the achievement of the RRF specific objective which has been construed, by design of the instrument, to deliver on the RRF high-level general objective "*to promote the Union's economic, social and territorial cohesion*". Milestones and targets follow the different implementation steps of a measure. Each measure (reform or investment) included in Member States' RRPs has been selected on the basis that it fulfils all assessment criteria of the RRPs and is in line with the relevant EU priorities and the RRF general objective, while being tailored to Member States' specific needs.

Since this is a mid-term evaluation, it is too early to systematically assess the impact of the RRF. At the mid-term point of the Facility, and as per the set-up of the RRF, the milestones and targets that have been achieved so far often cover initial steps, such as a launch of calls for tender or signing of procurement contracts in particular for investments. Most measures have not yet reached the last milestone or target (i.e. their completion) which would enable a first evaluation of the results, as defined in the intervention logic (i.e. the full implementation of the measures included in the RRP). The milestones and targets due in the second half of the Facility's lifetime will increasingly cover final steps in reform implementation and investment outputs. It is the implementation of these reforms and investments, included in the RRPs, that will allow for an assessment of the full impact of the intervention.

Accordingly, it is too early to conclude on the extent to which progress towards milestones and targets has translated into reaching the general RRF objective. This section therefore presents the progress made to date in implementation rather than a fully-fledged impact evaluation. The latter will be possible only ex-post, once the measures are fully implemented by the end of 2026. However, some telling examples of completed reforms or investments are already available and have been analysed in specific case studies. It is therefore possible to illustrate how the achievement of milestones and targets translates into the implementation of reforms and investments by Member States (results in the intervention logic) that are delivering on the RRF general objective.

The most complete available information at this point in time relates to the financial support provided (i.e. amounts disbursed by the Commission) and to the achievement of milestones and targets (assessed as satisfactorily fulfilled by the Commission when assessing payment requests). The indicative timeline for achieving the milestones and targets and the resulting planned disbursements were determined, together with the Member States, in the annex to the Council Implementing Decision approving each plan and in the "operational arrangements". This information is publicly available and referenced on the Recovery and Resilience Scoreboard[69].

4.1.1. Progress towards the RRF specific objective

The specific objective of the Facility is to provide Member States with financial support for the achievement of milestones and targets of reforms and investments, as set out in their RRPs. Both the achievement of milestones and targets as well as the disbursement of funds represent outputs in the intervention logic (Figure 1) used for the evaluation.

A. Providing financial support to Member States

i. RRF disbursements to Member States

This section presents the progress in disbursing RRF funds in the first three years of the Facility's lifetime (2021-2023). Overall, the RRF has been effective in disbursing funds quickly post-crisis, notably thanks to pre-financing. By 1 February 2024, close to **EUR 225 billion** has been disbursed under the RRF, including EUR 157.2 billion disbursed upon the submission of payment requests and satisfactory fulfilment of milestones and targets, EUR 56.5 billion in RRF pre-financing granted to 21 Member States until 31 December 2021, and EUR 10.4 billion of REPowerEU pre-financing granted to 21 Member States between December 2023 and 1 February 2024. EUR 144.0 billion of the total amount disbursed to Member States concerns non-repayable support and EUR 80.2 billion concerns loans. Pre-financing provided fast direct support to Member States, playing a stabilising role in the aftermath of the unprecedented economic and social shock caused by the COVID-19 pandemic, thereby also helping to kick-start the recovery[70]. Compared to the baseline scenario of no-RRF, the RRF provided immediate additional fiscal space. The additional pre-financing agreed by co-legislators in the context of REPowerEU seeks to achieve the same goals. Many stakeholders, notably Member States authorities, interviewed consider that pre-financing has been an effective feature of the RRF: it supports public finances and boosts the progress of the instrument[71].

69 All documents are available on: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/country_overview.html?lang=en.

70 See page 268 of the supporting study.

71 See pages 48 to 56 of the supporting study.

The speed of disbursement is considered as one of the most effective features of the RRF[72], also in comparison with disbursements made under Structural Funds[73]. The validity of comparing disbursement speed under Structural Funds with that under the RRF is however limited. This is because of, first, the larger amount of pre-financing over the total allocation under the RRF to date, second, the different disbursement mechanisms and, third, given that a larger share of reforms compared to investments has been implemented during the first years of the RRF implementation, which is therefore not comparable to cohesion funding[74]. However, overall, the RRF features, with substantial pre-financing and payments also linked to preparatory and intermediate steps of measures implemented on the ground, have enabled quicker disbursement to Member States than instruments where payments have been linked to expenditure already incurred, including Structural Funds, and thus have been effective in creating fiscal space in Member States in the aftermath of the COVID-19 crisis.

The speed of disbursement in the first two years of operation of the RRF has followed the indicative yearly timetable for disbursements shown in the operational arrangements[75]. Approximately 27% of the RRF budget was paid out via pre-financing and regular payments in the period 2021-2022, which is almost aligned with what was foreseen at the time of adoption of the plans (28% of budget was planned for the same period)[76]. Similarly, Member States have largely adhered to the planning of the first payments in 2021 and 2022, requesting their payments at the time initially foreseen, reinforcing close alignment between planned and disbursed financing in the first two years of the RRF.

The revisions of the RRPs and the addition of REPowerEU chapters, in response to the war in Ukraine, have impacted the disbursement schedule of RRF funds in 2023, creating delays between actual disbursements and initially planned disbursements for 2023. The first half of the year 2023 has seen a slowdown in the submission of payment requests, with Member States focusing their efforts on the revision of plans and the addition of REPowerEU chapters. As a result, many Member States with a payment request indicatively planned for the first part of 2023 have pushed back the indicative timing by one to three quarters. As detailed in Section 3, the revisions of the RRPs (not only to factor in the updated maximum contribution, but also the impact of inflation and supply chain disruptions) and the addition of REPowerEU chapters (as a response to the war in Ukraine and energy crisis) are the direct consequences of external factors, which have affected the implementation of the Facility.

As the revisions of the RRPs advanced, the submission of payment requests significantly picked up pace in the second half of 2023. Between May and December

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[72] See page 268 of the supporting study.

[73] Zorell, N., and Tordoi, S. (2021) *Towards an effective implementation of the EU's recovery package*, ECB Economic Bulletin, Issue 2/2021 available at: https://www.ecb.europa.eu/pub/economic-bulletin/focus/2021/html/ecb.ebbox202102_07~7050ed41dd.en.html.

[74] See case study on the functioning of the RRF and other EU funds included in the supporting study.

[75] Evidence in this paragraph is sourced from pages 48 to 54 of the supporting study.

[76] According to the supporting study, see page 52.

2023, 26 payment requests were submitted and EUR 60.9 billion disbursed following the satisfactory fulfilment of milestones and targets. With most revised RRPs having been adopted, this catching-up effect is expected to continue as Member States have continued to implement the measures of their RRP. For example, 18 payment requests have been submitted very swiftly after the plans' revisions and were being assessed by the Commission in January 2024. It is therefore a challenging, but still an achievable task to catch up on the delays experienced in the first half of 2023 in the time available until the end-2026 deadline.

Progress has been made towards achieving the RRF specific objective despite heterogeneous implementation of the RRF across Member States. Within the overall progress in the disbursement of RRF funds explained above, the situation varies across Member States. Notably, to date, three Member States have not yet submitted a payment request (Hungary, the Netherlands and Sweden). No pre-financing requests were received in 2021 from any of these three Member States, as a result of the late adoption of these Member States' CIDs in 2022, after the legal deadline for pre-financing of 31 December 2021. Hungary has however received REPowerEU pre-financing in December 2023. In contrast, eight Member States have already submitted three or more payment requests. In line with the performance-based nature of the RRF, payments can only be made where concrete progress towards the achievement of reforms and investments, and thereby towards the RRF's specific objective, has been made.

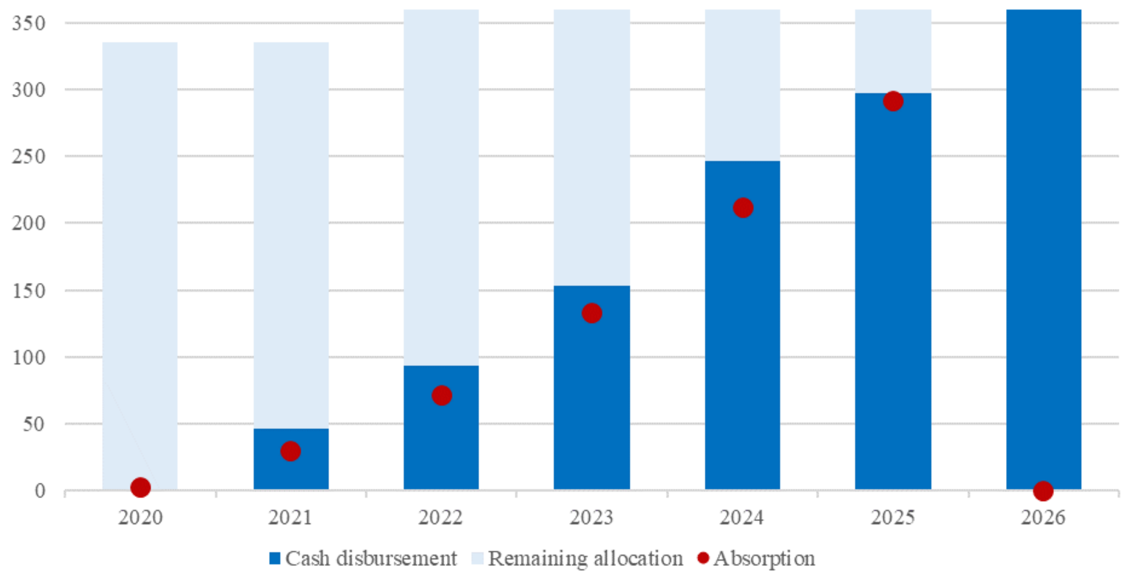
ii. Comparison of RRF disbursements and RRF-related Member States' expenditure

As expected, in the first years of the RRF, disbursements do not translate immediately into actual RRF-related Member States' expenditure. Figure 6 shows that the Member States' expenditure for the implementation of RRF measures is slightly lower than the amount disbursed to them under the RRF. The term 'RRF-related expenditure' refers to the occurrence of all types of costs for the general government, for the financing of measures supported by RRF non-repayable support. The data is included in the Commission's Autumn 2023 Forecast[77], building on Member States' reporting in national accounts, which is recorded on an accrual basis, i.e. when the actual expenditure (or other costs) takes place and impacts on economic activity[78].

[77] Available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en.

[78] This reporting ensures that, in the case of RRF non-repayable support, the recording of revenue follows the statistical principle of 'neutrality on net lending/borrowing', which is achieved by recording revenue in the same reporting period as the underlying expenditure.

Figure 6: RRF disbursements, remaining RRF allocation and RRF-related Member States' expenditure in EU-27, in EUR billion



Source: European Economic Forecast – Autumn 2023, available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en.

The first RRF disbursements included pre-financing payments that created fiscal space for Member States. Until 31 December 2021, Member States had the possibility to request pre-financing of up to 13% of their initial allocation, which was disbursed without any links to the fulfilment of milestones and targets, in order to kick-start the economy. Moreover, the performance-based nature of the RRF implies that the amounts linked to instalments do not reflect the underlying costs of the implemented measures. This holds in particular for reforms (with lower or no budgetary cost) and the preparatory or intermediary steps for both reforms and investments, such as feasibility studies and contracting/procurement steps, that tend to be concentrated in the earlier instalments of the RRPs. This implies that the RRF provided Member States with important fiscal space early on[79] after the COVID-19 crisis. The expenditure of RRF support is expected to increase and catch up with disbursements over the forecast horizon. For the EU as a whole, expenditure of RRF non-repayable support is set to reach 0.4% of GDP in 2023 (from 0.2% in 2021 and 0.3% in 2022), and to stabilise at that level in 2024-25[80].

B. Achievement of milestones and targets

To assess the progress achieved in the implementation of reforms and investments supported by the RRF, the analysis first considers milestones and targets.

[79] In designing the payment profile for each Member State, the Commission ensured that financial incentives are kept until the end of the RRF lifetime to deliver on reforms and investments until the end of the period (2026).

[80] European Economic Forecast – Autumn 2023, available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en.

Data related to the progress with milestones and targets builds on (i) self-reported data by the Member States providing an indication of implementation progress, as well as on (ii) data on the number of milestones and targets assessed as satisfactorily fulfilled by the Commission[81]. Member States report twice per year on the progress with milestones and targets. The Commission assesses the fulfilment of milestones and targets in the context of the relevant payment requests, whilst the implementation of milestones and targets covered in subsequent payment requests is progressing simultaneously. To assess the progress made by Member States in fulfilling milestones and targets, the analysis therefore considers both datasets.

Table 4 below provides an overview of the state of implementation of the milestones and targets, presenting, for each of the elements of the RRF's general objective and their related pillars, the 'progress rate' of the milestones and targets – calculated by aggregating the milestones and targets assessed as "satisfactorily fulfilled" by the Commission or reported as "completed" by Member States. It shows that the implementation of the Facility has progressed steadily across the six pillars, with around a third of the milestones and targets contributing to each objective and pillar being 'fulfilled' or 'completed'. More information per pillar is provided in the next section.

Midway through implementation, it is too early to fully[82] assess how far the progress with milestones and targets (i.e. output in the intervention logic) has translated into the actual implementation of reforms and investments (i.e. results in the intervention logic). As per the RRF's design, implemented measures, in particular investments, are still in the early stages with milestones capturing first steps in the implementation. Investments included in the RRPs are spread over the RRF timeline, but most are planned to be completed in 2025/2026. It is therefore too early to fully assess the RRF's effectiveness towards reaching the Facility's general objective. Examples of investments or reforms already implemented (outlined in section 4.1.2.B) are however available. They represent concrete results that have already been achieved and help illustrate the RRF's intervention logic, from the achievement of milestones and targets to the impact on the ground, in line with the elements of the RRF's high level objective laid down in Article 4 of the RRF Regulation.

4.1.2. Progress towards the elements of the RRF general objective

The general objective of the Facility, as defined under Article 4 of the RRF Regulation, is "*to promote the Union's economic, social and territorial cohesion*",

- by (i) "*improving the resilience, crisis preparedness, adjustment capacity and growth potential of the Member States*",

[81] Data on satisfactorily fulfilled milestones and targets is published on the Recovery and Resilience Scoreboard and available at: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/milestones_and_targets.html?lang=en.

[82] This will be assessed in due time in the 2028 ex-post evaluation.

- by (ii) "*mitigating the social and economic impact of that crisis, in particular on women, by contributing to the implementation of the European Pillar of Social Rights*",

- by (iii) "*supporting the green transition*" and (iv) "*the digital transition*",

"*thereby contributing to the upward economic and social convergence, restoring and promoting sustainable growth and the integration of the economies of the Union, fostering high quality employment creation, and contributing to the strategic autonomy of the Union alongside an open economy and generating European added value".*

This section first presents the results available to date on the common indicators, which were agreed by co-legislators to report on the progress of the Facility towards the achievement of its objectives. It then presents, for each of the four elements of the RRF general objective laid down in Article 4 and described above, the progress achieved and the evidence available to date on the results that the measures supported by the RRF are having on the ground.

A. Common indicators

A first analysis of the data reported by Member States on the common indicators[83] sheds light on the overall progress made under the Facility. To date, the data of four reporting rounds have been reviewed to ensure comparability[84] and published on the Recovery and Resilience Scoreboard[85], covering the progress achieved in the period from February 2020 to June 2023[86]. At this early point in time, the common indicators data cannot be complete. The picture will become clearer once the implementation of RRPs progresses further and in particular investments become operational, allowing Member States to report more advanced and mature data.

Table 3: Common indicators – progress as of 06/2023, EU level

Common indicator	Stock[87] or flow[88]	Contribution to RRF pillars	Measurement unit	Value as of 06/2023	Reporting Member States

83 The common indicators represent a set of 14 indicators that were established by *Commission Delegated Regulation 2021/2106 of 28 September 2021 on supplementing Regulation (EU) 2021/241 of the European Parliament and of the Council establishing the Recovery and Resilience Facility*, to display the overall performance and progress of the Facility towards its objectives. The common indicators cover elements which are common to most RRPs, but they are not designed to capture all aspects of the plans, in view of their significant heterogeneity and limited number. Two caveats apply to the collection and statistical treatment of the common indicators data: (i) The data is provided and quality assured by the Member States, while the Commission only conducts some plausibility checks. Hence, there may be differences among Member States in how the data is selected, compiled, and processed. (ii) In cases where a direct observation of numbers is not possible, the data is based on estimations, which are also prepared by each Member State according to their own statistical processes.

84 The Commission has no legal basis to audit or verify the quality of the data submitted by Member States nor to alter or refuse specific reporting by Member States.

85 See https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html.

86 As per the delegated Regulation 2021/2106, Member States report by 28 February (covering the reporting period of July and December of the previous year) and by 31 August (covering the reporting period of January to June of the same year).

87 A stock indicator, which means that numbers are added cumulatively, and its values can only increase over time.

88 This indicator is a flow indicator, which means that reported numbers represent the current situation in the reporting round and its values can fluctuate over time.

1: Evolution of savings in annual primary energy consumption	Stock	Pillar 1 (green transition) and pillar 3 (smart, sustainable and inclusive growth)	Megawatt-hour/Year	**28 282 262**	15
2: Additional operational capacity installed for renewable energy	Stock	Pillar 1 (green transition) and pillar 3 (smart, sustainable and inclusive growth)	Megawatt	**54 204**	10
3: Evolution of Alternative fuels infrastructure (refuelling/recharging points)	Stock	Pillar 1 (green transition) and pillar 3 (smart, sustainable and inclusive growth)	Refuelling/recharging points	**531 995**	15
4: Population benefiting from protection measures against floods, wildfires, and other climate related natural disasters	Stock	Pillar 1 (green transition) and pillar 4 (social and territorial cohesion)	Population	**8 976 469**	7
5: Additional dwellings with internet access provided via very high-capacity networks	Stock	Pillar 2 (digital transformation) and pillar 4 (social and territorial cohesion)	Dwellings	**5 605 735**	7
6: Enterprises supported to develop or adopt digital products, services and processes	Flow	Pillar 2 (digital transformation) and pillar 3 (smart, sustainable and inclusive growth)	Enterprises	**587 398**	15
7: Users of new and upgraded public digital services, products and processes	Flow	Pillar 2 (digital transformation) and pillar 5 (health, and economic, social and institutional resilience)	Users	**308 728 697**	21
8: Researchers working in supported research facilities	Flow	Pillar 3 (smart, sustainable and inclusive growth)	Researchers (in FTEs)	**17 551**	17
9: Enterprises supported (of which: small – including micro, medium, large)	Flow	Pillar 3 (smart growth, sustainable and inclusive growth)	Enterprises	**1 959 338**	26
10: Number of participants in education or training	Flow	Pillar 2 (digital transformation), pillar 4 (social and territorial cohesion) and pillar 6 (policies for the next generation)	Participants	**8 701 973**	20
11: Number of people in employment or engaged in job searching activities	Flow	Pillar 3 (smart, sustainable and inclusive growth) and pillar 4 (social and territorial cohesion)	People	**1 311 931**	13
12: Capacity of new or modernised health care facilities	Stock	Pillar 4 (social and territorial cohesion) and pillar 5 (health, and economic, social and institutional resilience)	Capacity	**45 788 233**	9
13: Classroom capacity of new or modernised childcare and education facilities	Stock	Pillar 4 (social and territorial cohesion) and pillar 6 (policies for the next generation)	Capacity	**246 037**	7
14: Number of young people aged 15-29 receiving support	Flow	Pillar 6 (policies for the next generation)	Young people	**5 779 581**	18

Source: Recovery and Resilience Scoreboard

Methodological caveats apply to the common indicators. While their purpose is to report on the overall performance and progress of the Facility towards its objectives, they do not comprehensively cover all investments included in the RRPs and do not fully capture the contribution of reforms, which is difficult to measure using quantitative indicators. The collection methodology of the common indicators' underlying data makes it at times impossible to disentangle their specific origin and contribution to RRF objectives[89], particularly as there is no comparison point (counterfactual in the absence of the RFF). Furthermore, the common indicators do not include final target values, which limits their use in the context of an evaluation and in determining RRF effectiveness[90]. This point has been echoed by feedback received from Member States, who argue that the purpose and design of such type of common indicators should be discussed[91]. Because of these limitations, common indicators' data is only used in this mid-term evaluation to complement the information gathered on the fulfilment of milestones and targets presented above.

B. Progress in the implementation of reforms and investments supporting the RRF's general objective

The following section presents, for each element of the RRF general objective, evidence of the progress achieved to date and first available results providing indications of the impact on the ground of some reforms and investments supported by the RRF. The examples used stem from the dedicated case studies carried out in the context of the external support study. The purpose is to illustrate how the progress with achieving milestones and targets (output) has translated into the implementation of reforms and investments (results) that contribute to the RRF general objectives (impact).

Table 4: Progress rate of milestones and targets per RRF objective and pillars[92]

Objective	Related pillars	Progress rate of milestones and targets[93]
A. Improving the resilience, crisis preparedness, adjustment capacity and growth potential of the Member States	Smart, sustainable and inclusive growth (pillar 3)	Progress rate of **41%** (approximately 21% assessed in payment requests), with 1,152 of 2,780 milestones and targets completed or fulfilled.
	Health, and economic, social and institutional resilience (pillar 5)	Progress rate of **42%** (20% assessed in payment requests), with 962 of 2,317 milestones and targets completed or fulfilled.
B. Mitigating the social and economic impact of that crisis, in particular on women, by contributing to the implementation of the European Pillar of Social Rights	Social and territorial cohesion (pillar 4)	Progress rate of **34%** (15% assessed in payment requests), with 876 of 2,590 milestones and targets completed or fulfilled Of the 256 milestones and targets with a focus on gender equality in the 27 RRPs, 83 are already reported as completed or assessed as fulfilled, representing a 32%

89 This point is confirmed by the supporting study, see pages 40 to 41.

90 This point is confirmed by the supporting study, see pages 40 to 41.

91 See pages 134 to 136 of the supporting study.

92 Each milestone or target contributes towards two of the six policy pillars, although some milestones or targets can contribute towards the same pillar as both primary and secondary. The total number of fulfilled milestones and targets across all six individual pillars, when added together, thus exceeds 1,153 (which is the number of milestones and targets assessed by the Commission as fulfilled by 1 February 2024).

93 Milestones and targets reported as completed by Member States or assessed as fulfilled by the Commission.

		progress rate (approximately 13% positively assessed).
	Policies for the next generation, children and the youth, such as education and skills (pillar 6)	Progress rate of **35%** (17% assessed in payment requests), with 222 of 636 milestones and targets completed or fulfilled
C. Supporting the green transition	Green transition (pillar 1)	Progress rate of **35%** (17% assessed in payment requests), with 908 of 2,625 milestones and targets completed or fulfilled.
D. Supporting the digital transition	Digital transformation (pillar 2)	Progress rate of **31%** (approximately 15% assessed in payment requests), with 721 of 2,297 milestones and targets completed or fulfilled.

Source: European Commission

i. *Improving the resilience, crisis preparedness, adjustment capacity and growth potential of the Member States*

The RRF has contributed to preserving public investment in the EU, in sharp contrast with other crisis episodes. It is expected to boost investment going forward, thereby providing support to Member States' growth potential. The EU's aggregate public investment ratio is expected to rise to 3.5% of GDP in 2025, having increased from 3.0% in 2019 to an expected 3.3% in 2023, according to the Commission's 2023 Autumn Forecast[94]. In contrast with previous macroeconomic shocks, public investment remained robust during the COVID-19 pandemic and the energy crisis. The 2023 Autumn Forecast also finds that approximately half of the increase in public investment between 2019 and 2025 is related to investment financed by the EU budget, particularly by the RRF. By the end of the forecast horizon, national budgets in most EU Member States are projected to devote more resources to investment than they did prior to the pandemic, with Slovenia, Portugal and Italy expected to record the largest increases. In contrast, Hungary, and to a lesser extent the Netherlands, are set to reduce their nationally financed investments compared to 2019.

The RRF supports a wide range of measures contributing to the objective "*to improve the resilience, crisis preparedness, adjustment capacity and growth potential of Member States*". The measures are diverse and cover various policy areas, from health- and long-term care to the effectiveness of judicial systems and anti-money laundering supervision[95].

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94 See European Economic Forecast – Autumn 2023, available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en.

95 For further information, see European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

The RRF also supports measures that directly contribute to fostering the growth potential of Member States, ranging from reforms to support the business environment or competitiveness, to research and development and innovation, or to the cultural sector. This view is supported by the academic literature, with some authors[96] considering that the contribution of the RRF in support of institutional resilience mostly come from investments and reforms aimed at modernising public administrations and improve the effectiveness and integrity of public governance institutions. They show that 39% of the reforms supported by the RRF in euro area countries relate to the public sector, notably reforms in health care, in the judiciary and tax administration – and note that, before the introduction of the RRF, progress in these areas was particularly slow[97]. A majority of respondents in the public consultation[98] also agreed that the RRF fosters the growth potential of the EU to some or a large extent.

The balance between reforms and investments varies across policy areas. There are more investments aimed at strengthening the Member States' strategic autonomy (33 investments versus four reforms)[99], improving their crisis preparedness (39 investments versus 11 reforms) or modernising and strengthening health care (196 investments versus 94 reforms). In contrast, there are more reforms than investments in areas related to fiscal policy (65 reforms versus seven investments), taxation (70 reforms versus 11 investments), rule of law (39 reforms versus two investments) and fraud prevention (54 reforms versus 14 investments) or interventions to improve the effectiveness of public administrations (290 reforms versus 208 investments).

There has been significant progress in implementing measures related to resilience and growth potential, with over 40% milestones and targets contributing to these RRF objectives reported as completed by Member States or assessed as satisfactorily fulfilled by the Commission (see Table 4). 962 of 2,317 milestones and targets contributing to resilience and 1,152 of 2,780 milestones and targets contributing to growth are reported as completed by Member States or assessed as fulfilled by the Commission (680 milestones and targets for reforms and 282 for investments contributing to resilience; 591 milestones and targets for reforms and 561 for investments contributing to growth), which yields a progress rate of 41% (over 20% assessed in payment requests) for both pillars combined. As aforementioned, it is too early to assess in how far this progress (an output) has translated into the actual implementation of reforms and investments. However, some evidence points to the results achieved so far.

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96 Bankowski, K., Bouabdallah, O., Domingues Semeano, J., Dorrucci, E., Freier, M., Jacquinot, P., Modery, W., Rodríguez-Vives, M., Valenta, V., and Zorell, N. (2022) *The economic impact of NextGenerationEU: a euro area perspective*, available at: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op291~18b5f6e6a4.en.pdf.

97 See Bankowski, K., Bouabdallah, O., Domingues Semeano, J., Dorrucci, E., Freier, M., Jacquinot, P., Modery, W., Rodríguez-Vives, M., Valenta, V., and Zorell, N. (2022) *The economic impact of NextGenerationEU: a euro area perspective*, available at: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op291~18b5f6e6a4.en.pdf.

98 European Commission (2023) *Summary Report of the Public Consultation concerning the Mid-term evaluation of the Recovery &Resilience Facility (RRF)*, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13608-Recovery-and-Resilience-Facility-2020-2024-mid-term-evaluation/public-consultation_en.

99 These figures and all other in this paragraph include RRF sub-measures.

Business organisations had an overall positive view of the EU's efforts in addressing the post-COVID economic challenges[100]. RRP measures designed to bolster economic recovery and resilience, while overall relevant, have however not always addressed the needs of SMEs. Progress in implementing SME-related measures varies across Member States, with some SME stakeholders raising issues related to the slow speed of RRF funds in reaching the ultimate recipients and pointing to the complexity of RRF supported programmes, designed at national level, which negatively affects SMEs participation[101]. The issues conveyed by SMEs primarily need to be addressed at Member States level. In its proposal for a Strategic Technologies for Europe Platform ('STEP') from June 2023, the Commission proposed a single 'Sovereignty portal' where SMEs, as well as other businesses, would be able to find all information about existing funding opportunities for STEP-related investments, including under the RRF, and relevant contact details of national authorities[102].

Data on the common indicators[103] point to positive results in the areas of improving the effectiveness of public administrations and increasing healthcare capacity. 21 Member States have reported approximately 309 million users of new or upgraded public digital services supported by RRF measures, although the data cannot exclude that the same person has used the service multiple times. As regards the increase in healthcare capacity (in terms of the maximum number of patients per year), nine Member States have reported a total of 45.8 million additional capacity of new or modernised healthcare facilities supported by the RRF. The common indicators also show that over 17,500 researchers have been supported by the RRF across 17 Member States.

Numerous resilience-enhancing measures in the health sector have already been implemented and led to tangible results[104]. For example, in line with its RRP, Spain has made progress in purchasing and installing new medical equipment. In Estonia, a regulation expanding the list of healthcare services and pharmaceutical products reimbursed by the Estonian Health Insurance Fund entered into force on 1 April 2023. The digitalisation of healthcare is also included in many RRPs, and the use of e-consultations and digital tools has improved patient care and access to specialists in some Member States[105], thereby positively impacting the national healthcare systems. For example, Croatia has already procured and deployed medical and computer equipment to 40 primary healthcare locations in remote and rural areas, via the *Telecordis* project. The equipment

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100 See BusinessEurope (2022) *Reform Barometer: Taking Stock of the EU's Competitiveness After 2 Years of the Pandemic*, available at: https://www.businesseurope.eu/sites/buseur/files/media/reports_and_studies/reform_barometer_2022/2022-03-23_reform_barometer_2022_final.pdf. This is also confirmed by the results of a survey of SMEs and SME support organisation in the EU, conducted as part of the case study on SME included in the supporting study.

101 See the case study on SMEs included in the supporting study.

102 See European Commission Proposal for a Regulation of the European Parliament and of the Council Establishing the Strategic Technologies for Europe Platform ('STEP') (COM(2023) 355 final), 20 June 2023, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52023PC0335.

103 See data on common indicators (7), (8), and (12) amongst others.

104 Evidence in this paragraph is sourced from the supporting study (see pages 89 to 92) and from the associated case study on the digitalisation of healthcare.

105 See the case study on the digitalisation of healthcare included in the supporting study.

installation has resulted in 356 telemedicine services provided, allowing for the reading and interpretation of diagnostic results. The project has also resulted in improved access to diagnostic services, quicker diagnosis, and enhanced healthcare quality in rural areas.

More generally, some resilience-enhancing reforms implemented to date are already showing positive results, although it is too early to evaluate their full impact on resilience, crisis preparedness, adjustment capacity and growth potential of the Member States. For example, in line with their RRP, Croatia has implemented[106] various legislative measures that aim to establish a legal, organisational, and technological framework to reduce backlogs, shorten proceedings in civil and commercial courts[107] and strengthen the transparent and efficient administration of cases. Despite the short time since the adoption of the measures (in 2022 and 2023), there are already some results in terms of reduction of the duration of litigation in civil and commercial cases: the time taken to resolve a civil case has been reduced by almost 100 days at the end of 2022, compared to 2020 figures. The time needed to resolve a commercial case has also been reduced by more than 50 days, which illustrates[108] In Italy, several measures related to a series of structural public administration reforms[109] have already been implemented to date, in particular the activation of the 'Recruitment Portal'. This is a single platform where administrations, employees and those interested in entering the civil service can find all data concerning job opportunities in the public sector, access procedures and their implementation[110]. The effect of this public administration, combined with other upcoming structural reforms[111] included in the Italian RRP, is expected to have a positive impact on GDP, on aggregate investment and consumption, on labour productivity, as well as well as a range of positive social impacts[112].

The RRF also supports structural reforms aimed at strengthening the rule of law, and in particular judicial independence. These structural reforms outlined in the

[106] The following measures have been implemented as of the second quarter 2023: i) the introduction of electronic tools and adequate administrative capacities for the State Judicial Council and the State Attorney's Council; ii) the amendments to the Bankruptcy Act and the Consumer Insolvency Act; iii) the amendments to the Code of Criminal Procedure; iv) the amendments to the legislative framework in the area of justice; v) the new Non-contentious Procedure Act; and vi) the start of six new training programmes introduced in the framework of the judicial training programme.

[107] This example refers specifically to civil and commercial courts in Croatia, not to criminal or corruption cases. This this without prejudice to the Commission's analysis on criminal courts included in the 2023 Rule of Law report.

[108] See page 68 of the supporting study.

[109] The reform aims to i) improve access with the simplification and digitisation of recruitment procedures, (ii) to reduce the time of administrative procedures and administrative burden for businesses and citizens, (iii) upskilling to better align knowledge and organisational skills with the needs of a modern and effective administration.

[110] See pages 71 to 72 of the supporting study.

[111] The Italian structural policy measures studied by D'Andrea et al (2023) are grouped by the authors into five areas of reforms: i) public administration; ii) justice; iii) competition (which also includes the reform of the procurement system); iv) education and research; and v) labour market policies and training. For further information, see D'Andrea, S., D'Andrea, S., Di Bartolomeo, G., D'Imperio, P., Infantino, G., and Meacci, M. (2023) *Structural reforms in the Italian National Recovery and Resilience Plan: A macroeconomic assessment of their potential effects*, available at: https://www.dt.mef.gov.it/export/sites/sitodt/modules/documenti_it/analisi_progammazione/working_papers/WP-2-marzo-2023.pdf.

[112] See D'Andrea, S., D'Andrea, S., Di Bartolomeo, G., D'Imperio, P., Infantino, G., and Meacci, M. (2023) *Structural reforms in the Italian National Recovery and Resilience Plan: A macroeconomic assessment of their potential effects*, available at: https://www.dt.mef.gov.it/export/sites/sitodt/modules/documenti_it/analisi_progammazione/working_papers/WP-2-marzo-2023.pdf.

Semester CSRs are relevant to protect the EU financial interests and strengthen the business environment in the Member States concerned and are expected to have an impact on its growth potential[113]. For example, Hungary, Romania and Poland have included in their RRPs reforms aimed at strengthening judicial independence. Whilst it is too early to assess the results of these reforms, particularly since the content of these reforms has not yet been notified to or assessed by the Commission by February 2024, the mere fact of having included them in their respective RRPs can be considered as a positive step[114]. This view is supported by academic authors[115] who discuss the potential role of the European Semester and the RRF to address rule of law issues and conclude that the RRF has become a powerful tool to make progress to protect the rule of law.

ii. Mitigating the social and economic impact of the crisis, in particular on women, by contributing to the implementation of the European Pillar of Social Rights

One of the objectives of the RRF is to mitigate the social and economic impact of the COVID-19 crisis. The Regulation specifically calls for the RRF to improve the social and economic situation, while making a particular reference to the effect on women. In order to analyse the progress achieved in this area, this evaluation first discusses the progress achieved with the implementation of milestones and targets in the areas of *social and territorial cohesion* as well as *policies for the next generation, children and the youth, such as education and skills.* Furthermore, it looks at measures contributing to *gender equality*.

The RRPs coverage of social and territorial cohesion is more present in some plans than others, with good overall progress. In some Member States (e.g. Spain and Italy) social and territorial cohesion is streamlined across all components of the RRP. 876 of the 2,590 milestones and targets contributing to social and territorial cohesion are already reported as completed by Member States or assessed as fulfilled by the Commission (431 milestones and targets for reforms and 445 for investments), representing a 34% progress rate (15% assessed in payment requests).

Progress is also tangible for the milestones and targets contributing to policies for the next generation, children and the youth, such as education and skills. So far, 222 of 636 milestones and targets are already reported as completed by Member States or assessed as fulfilled by the Commission (105 milestones and targets for reforms and 117 for investments), which yields a progress rate of 35% (17% assessed in payment requests). Positive advancement has also been shown as regards milestones and targets for measures related to the cultural and creative sectors, with 62 of 195 milestones and targets reported as completed by Member States or assessed as fulfilled by the Commission.

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113 See Council (2023) *European Semester 2023: country-specific recommendations agreed*, available at: https://www.consilium.europa.eu/en/press/press-releases/2023/06/16/european-semester-2023-country-specific-recommendations-agreed/.

114 This is confirmed by the findings of the supporting study, see page 92 of the study.

115 Fromont, L.; and Van Waeyenberge, A. (2021) *Trading rule of law for recovery? The new EU strategy in the post-Covid era*, available at: https://doi.org/10.1111/eulj.12426.

Member States are also progressing with the implementation of measures with a focus on gender equality and equal opportunities for all. The 27 plans adopted contain 134 (sub-)measures with a focus on gender equality, and many reforms and investments that are explicitly aimed at contributing to equal opportunities in general[116]. Of the 256 milestones and targets with a focus on gender equality in the 27 RRPs, 83 are already reported as completed or assessed as fulfilled, representing a 32% progress rate (approximately 13% positively assessed).

Data on the common indicators[117] point to positive results in improving social, economic and territorial resilience following the pandemic. With support received through the RRF, 13 Member States have reported that over 1.3 million people have either found employment or engaged in job searching activities and 20 Member States reported that over 8.7 million have participated in education and trainings to improve their skills. In addition, classroom capacities of childcare and education facilities have increased by over 246,000 persons per year across the seven Member States who reported on this.

The RRF has helped in addressing social, economic and territorial challenges, in line with the relevant European Semester CSRs. For example, Spain, France, Italy and Croatia have included 'Active Labour Market Policies' ('ALMP') that address a number of key labour market challenges in line with their CSRs in 2019 and 2020.

The final labour market impact of measures cannot be evaluated at this stage, given the short time horizon and the time lag in observing impacts on the labour market, but first examples of results are emerging. Therefore, further monitoring and evaluation of the ALMP measures will be needed[118]. Nonetheless early evaluations for the youth subsidy measure in France, which was satisfactorily fulfilled in the context of France's first payment request, suggests that the measure had a positive effect on the quality, if not quantity, of employment for young people[119]. Research on France's youth hiring subsidy measure shows that it was associated with a 6% increase in the number of subsidised contracts of long duration – i.e. the contracts eligible for the youth hiring subsidy. Despite this increase, the measure did not have effects on the total employment of young people, as the new contracts substituted for non-salaried and substitute employment. The measure did, however improve the quality of employment, in line with the objective of the measure to reduce labour market segmentation[120]. Another example concerns Spain, which adopted in December 2021 a labour market reform that generalised the use of open-ended contracts

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116 For further information, see European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

117 See data on common indicators (10), (11), and (13) amongst others.

118 Evidence in this paragraph is sourced from the case study on 'Active Labour Market Policies' the included in the supporting study.

119 Dubost, C.L. (2023) *Les effets sur l'emploi de l'aide à l'embauche des jeunes instaurée en 2020*, Dares Document d'Étude No. 266, available at : https://dares.travail-emploi.gouv.fr/sites/default/files/38c480360da2174e6f710964628cb188/DE%20266_Effet%20AEJ.pdf.

120 France Stratégie (2021) *Comité d'évaluation du plan France Relance: Premier rapport*, available at: https://www.strategie.gouv.fr/publications/comite-devaluation-plan-france-relance-premier-rapport#:~:text=Pour%20ce%20premier%20rapport%2C%20le,la%20rénovation%20énergétique%20des%20bâtiments.

and incentivised the internal flexibility of firms, striking a long-awaited balance between workers' protection and firms' flexibility. Recent data from the Bank of Spain[121] confirms that the reform was successful in meeting its objectives of increasing the number of open-ended contracts and reducing the number of temporary or fixed-term contracts.

iii. Progress on supporting the green transition

The green transition is a key focus of the RRF and has been allocated a significant amount of RRF funding across all Member States. The total number of (sub-)measures contributing to the green transition is 983 (sub-)measures (262 reforms and 721 investments), including over 2,600 milestones and targets (576 for reforms and 2,046 for investments)[122]. The biggest expenditure supporting the in all the RRPs has been allocated to sustainable mobility (31%), followed by energy efficiency (29%) and renewable energy and networks (14%). In addition, all Member States's RRPs have exceeded the target of 37% of total allocation set in the RRF Regulation, with the total estimated climate expenditure amounting to EUR 275 billion or over 40% of the total plans' allocations. Several Member States are even dedicating over half of their total allocation to climate objectives, such as Austria, Bulgaria, Denmark, Estonia, Luxembourg, Malta, and Finland.

Progress in implementing measures related to the green transition has been good overall. Over third of milestones and targets have been reported as completed or assessed as satisfactorily fulfilled by the Commission. Specifically, 908 of 2,625 milestones and targets related to the green transition are already reported as completed by Member States or assessed as fulfilled by the Commission (319 milestones and targets for reforms and 589 for investments), which yields a progress rate of approximately 35% (17% assessed in payment requests). Given that final effects will only materialise in the longer term, it is too early to assess the RRF's impact on the green transition overall and to gauge the impact of green-transition measures more specifically. Nonetheless, the already fulfilled 'green' milestones and targets have helped increase momentum for the green transition[123], as exemplified below.

Data on the common indicators[124] point to positive results in the areas of energy savings and deploying renewable energy infrastructure. 15 Member States have reported already achieving about 28 million Megawatt-hours of savings in annual primary energy consumptions, 10 reported over 54,000 Megawatt of additional operational capacity for renewable energy, and 15 reported installing over 530,000 new or upgraded

[121] Banco de España (2023) *El aumento de los contratos indefinidos y su posible impacto en el gasto*, available at : https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/InformesBoletinesRevistas/BoletinEconomico/23/T1/Fich/be2301-art19.pdf.

[122] For further information, see European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

[123] See pages 92 to 97 of the supporting study.

[124] See data on common indicators (1), (2), and (3) amongst others.

refuelling and recharging points for clean vehicles. Overall, the primary energy savings achieved so far approximately correspond to the installed electricity capacity in Belgium.

Whilst it is too early to draw conclusions on impacts of measures addressing energy efficiency in buildings, some examples of results are emerging. For example, whilst France and Romania are making good progress towards implementing their milestones and targets for energy efficiency in buildings, Latvia is experiencing some delays, and Bulgaria is lagging behind[125]. France is one of the few Member States that already reports energy savings, with 3.0 Terawatt-hour in savings reached by end of 2022, mostly via schemes concerning heating and domestic hot water. Energy efficiency measures are however long-term construction projects by nature, and it is too early to draw firm conclusions about energy savings impacts for most other Member States, despite their achievement of various outputs laid down in the milestones and targets in the Council Implementing Decisions (such as published calls for tender, applications to energy-efficiency calls for tender, granted projects etc). Other examples illustrate how RRF-supported measures are having an impact on the ground. For instance, with the aim to develop clean mobility solutions to decarbonise the transport sector, Germany adopted a reform on a ten-year tax exemption for purely electric vehicles. Data from the German Federal Motor Transport Authority[126] demonstrates that there has already been a steady growth in pure electric vehicles in Germany, suggesting that the measure is delivering good results in this sector in Germany. Overall, most respondents in the public consultation[127] consider that the RRF has contributed or will contribute to the green transition (62%) and the European Green Deal (64%) to some or to a large extent.

Member States recognise the Do No Significant harm ('DNSH') principle as a new feature that has strengthened the 'green' dimension of RRF reforms and investments and helps achieve the RRF's green objectives, according to the results of the public consultation and a survey of key RRF stakeholders[128]. EU and national respondents expressed their satisfaction with the novelty of the principle and its potential to shape investments in line with the European Green Deal objectives, noting that the principle could have positive "spillover effects" into national policy systems and improve the environmental sustainability of Member States' public investments.

Box 2: REPowerEU

Most Member States have already added specific chapters to their RRPs in order to finance key investments and reforms which will help achieve the REPowerEU objectives. So far, 23 Member States have seen their REPowerEU chapters adopted by the end of 2023,

[125] Evidence in this paragraph is sourced from the supporting study (see pages 92 to 97) and from the associated case study on the green transition.

[126] See Box 3 on 'German reform on ten-year tax exemption for purely electric vehicles' on pages 69 and 70 of the supporting study.

[127] See European Commission (2023) *Summary Report of the Public Consultation concerning the Mid-term evaluation of the Recovery &Resilience Facility (RRF)*, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13608-Recovery-and-Resilience-Facility-2020-2024-mid-term-evaluation/public-consultation_en.

[128] See page 97 of the supporting study.

while the remaining four are expected to be adopted in 2024. It is too early to assess the implementation of REPowerEU chapters as payment requests related to these chapters will start in 2024. It is however expected that the measures will help Member States move to a more reliable, secure, and sustainable energy supply. More than EUR 60 billion from the approved REPowerEU chapters is allocated to contribute to save energy, substitute fossil fuels and address immediate security of supply needs, while diversifying away and reducing dependency on Russian fossil fuels.

The REPowerEU chapters are expected to contribute to the REPowerEU objectives of enhancing the resilience, security and sustainability of the European Union´s energy system. This should be achieved by reducing reliance on fossil fuels and diversifying energy sources across the EU through measures to boost the uptake of renewables, to improve energy efficiency and to expand energy storage capacity. Overall, the REPowerEU chapters aim at allowing for the enabling of at least 20 Gigawatt of renewable energy by 2026, on top of 40 Gigawatt in the existing plans. In addition, the revised plans include long-lasting energy efficiency interventions which, once implemented, will reduce energy bills for at least one million households. More than EUR 12 billion will be made available to decarbonise our industry, including EUR 2.5 billion for renewable hydrogen production. Strategic clean-tech investments in electrolysers, batteries and solar panels will be fostered, together with dedicated green skills training of more than 100,000 individuals.

Save Energy

One of the main objectives of REPowerEU is to save energy and enhance energy efficiency as the cleanest and cheapest way to address the energy crisis. Relevant investments are expected to support the delivery of national ambitions to reduce (by at least 30%, in most cases) energy consumption from buildings and industry[129] and to reduce the climate impact as much as possible by accelerating the transition from fossil fuels (by complementing energy efficiency renovation with solar rooftops, heat pumps and phasing out of fossil fuels in heating)[130]. Energy efficiency will also protect households from higher bills and provide targeted support to help energy poor and vulnerable consumers[131]. One-stop-shops are expected to bridge the gap between the fragmented supply and demand side to facilitate the delivery of energy efficiency measures[132].

Diversifying Energy supplies and enhancing the resilience of energy networks

REPowerEU investments are expected to strengthen energy infrastructure, address immediate needs of security of supply and bottlenecks in both internal and cross-border transmission and distribution networks. Limited support[133] is provided to targeted infrastructure for tackling the immediate security of gas supply and for reducing dependency on Russian fossil fuels. Moreover, REPowerEU also contributes to the EU´s energy independence

129 See for example the REPowerEU chapters of Belgium, Croatia, Czechia, Denmark, France, Greece, Hungary, Lithuania, the Netherlands, Portugal, Romania, Slovakia, and Sweden

130 See for example, the REPowerEU chapters of Denmark, Greece, Italy, and Poland.

131 See for example, the REPowerEU chapters of Romania.

132 See for example, the REPowerEU chapters of Czechia, Romania.

133 See for example, the REPowerEU chapters of Croatia, Italy and Poland.

by supporting the manufacturing of strategic net-zero technologies such as electrolysers, batteries and solar panels[134].

Fast forwarding the clean energy transition

The REPowerEU chapters aim to increase the share of renewables by delivering 8.4 Gigawatt of power from offshore/onshore wind and solar by 2026[135], speed up the permitting procedures[136] and secure appropriate grid connections[137] by investing in smarter, more flexible, digitally enabled grids[138] to unleash the full potential of renewable energy sources. Electricity storage[139] and biomethane/renewable hydrogen generation[140] are expected to be rolled out and scaled up rapidly. On green skills, the revised plans include measures to ensure that qualifications are in-line with labour market needs by mapping, reviewing, and updating them. A system of accessible, tailored training aligned with market needs should ensure that specialised workforce is available to meet the challenge of the transition to net zero economy[141].

Following the adoption of most REPowerEU chapters in the final months of 2023, Member States will have three years to implement the relevant measures. In view of the careful selection of measures for inclusion in the chapters, Member States are optimistic about the timelines for implementation, as evidenced by interviews and surveys[142]. The limited remaining lifetime of the RRF however, which expires on 31 December 2026, has restricted the types of investment projects that Member States have selected in their plans, particularly regarding the deployment of technologies and infrastructures that requires a longer timeframe.

iv. *Progress on the digital transition*

The RRF supports various measures contributing to the digital transformation in the Union. RRPs cover a range of measures, including deployment of next generation digital infrastructures and advanced technologies, digital skills development for the population and the workforce, and support to the digitalisation of enterprises as well as of public services[143]. Member States have exceeded the target of 20% of total allocation set in the RRF Regulation, with the total estimated digital expenditure amounting to EUR 130 billion or 26% of the total plans' allocations.

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134 See for example, the REPowerEU chapter of Portugal.

135 See for example, the REPowerEU chapters of Czechia, Hungary, Lithuania, Poland, Portugal, Romania, and Slovenia.

136 See for example, the REPowerEU chapters of Austria, Belgium, Czechia, France, Portugal, Romania, Slovakia, Slovenia, and Spain.

137 See for example, the REPowerEU chapters of Belgium, Czechia, Greece, and Poland.

138 See for example, the REPowerEU chapters of Czechia, Italy, Poland, and Romania.

139 See for example, the REPowerEU chapters of Greece, Hungary, Malta, Poland, Portugal, and Spain.

140 See for example, the REPowerEU chapters of Belgium, Croatia Estonia, Italy, France, and Spain.

141 See for example, the REPowerEU chapters of Czechia, Italy, Poland, Romania.

142 Evidence in this paragraph is sourced from the supporting study, see pages 114 to 116.

143 For further information, see European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

Member States have made significant progress in implementing measures related to the digital transformation, and nearly a third of related milestones and targets are reported as complete or assessed by the Commission as fulfilled. 721 of 2,297 milestones and targets related to the digital transformation are already reported as completed by Member States or assessed as fulfilled by the Commission (262 milestones and targets for reforms and 459 for investments), which yields a progress rate of 31% (approximately 15% assessed in payment requests).

Data on the common indicators[144] point to positive results related to the digital transformation. Seven Member States reported that an additional 5.6 million dwellings had received internet access via high-capacity networks with support received under the RRF. In addition, 21 Member States reported that the number of users of new or upgraded public digital services had increased to almost 309 million users[145].

Some of the measures implemented in the digitalisation of health are already showing results on the ground[146]. The digitalisation of health has been a top priority for the EU in recent years and many Member States – Belgium, Croatia, Czechia, Denmark, and Estonia amongst others – have already implemented measures related to the digitalisation of national healthcare systems as part of their RRPs. These measures include eHealth services, telemedicine solutions, and improvements in healthcare data management and they have been effective in achieving their objectives, such as empowering patients, optimising healthcare delivery, and fostering innovation[147]. As aforementioned in Section 4.1.2.B.i., these measures have also positively impacted healthcare systems, including the use of e-consultations and digital tools to improve patient care and access to specialists in Croatia and in other Member States[148].

While investments in the digital sector are still in the early stages, a number of reforms supporting the digital transformation have been implemented and are starting to have an impact on the ground. For example, Romania adopted a reform to accelerate the national roll-out of 5G networks, in accordance with security regulations, and to provide broadband coverage for white areas (small rural municipalities, isolated localities, disadvantaged inhabited areas), tackling the rural-urban digital divide, reducing the administrative burden and streamlining procedures and fees, creating the prerequisites

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144 See data on common indicators (5), (7), and (10) amongst others.

145 As data is collected on the numbers of users (and not of persons), in some instances, the same person might have used the relevant digital public service multiple times.

146 Evidence in this paragraph is sourced from the case study on the digitalisation of healthcare included in the supporting study.

147 Evidence in this paragraph is sourced from the case study on the digitalisation of healthcare included in the supporting study.

148 See section above on '*on improving the resilience, crisis preparedness, adjustment capacity and growth potential of the Member States*'

for equal access to digital services and internet access[149]. Belgium's 5G reform introduced in 2021, and supported by the RRF, led to a significant increase in 5G traffic in 2022[150].

Many RRPs contain measures to develop digital skills and some have already been implemented[151]. Over 25,000 people in France have signed up for a training for digital skills thanks to an investment contained in the French RRP to top-up individual learning accounts for digital skills. In turn, the Italian RRP aims for 700,000 individuals at risk of digital exclusion to have benefitted from facilitation and education services for the development and improvement of digital skills by the end of 2025.

4.1.3. Effectiveness in supporting reforms: a key feature of the RRF

Progress on the implementation of country-specific recommendations

The RRF's ability to support the implementation of reforms can be considered as one of the most effective features of the instrument[152], and the RRF has proven to be a key tool to deliver on the European Semester's CSRs[153]. In line with the RRF Regulation, Member States were required to effectively address in their RRPs all or a significant subset of the challenges identified in the relevant CSRs. In addition, milestones related to the protection of the financial interests of the Union in all Member States must be satisfactorily fulfilled before any RRF payment can be disbursed following a payment request. There is unanimous agreement between Member States and the various EU institutions, including the European Parliament[154] and the European Court of Auditors[155], that the RRF has been effective in supporting CSR-related reforms[156]. Relevant literature[157] confirms this view, recognising that the RRF has contributed effectively to the support of reforms that otherwise would not have been implemented. Most stakeholders interviewed[158] also confirm that the RRF has contributed to putting on the agenda long-awaited reforms linked to the CSRs that would otherwise have had little chance of being implemented.

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149 See European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

150 See Box 4 'Introduction of 5G reform in Belgium' on pages 70 and 71 of the supporting study.

151 Evidence in this paragraph is sourced from the case study on 'Active Labour Market Policies' included in the supporting study.

152 According to stakeholders consulted in the context of the supporting study, see pages 74 to 76 of the supporting study.

153 See pages 74 to 76 of the supporting study.

154 See European Parliament resolution of 10 May 2023 with observations forming an integral part of the decisions on discharge in respect of the implementation of the general budget of the European Union for the financial year 2021, Section III – Commission and executive agencies (2022/2081(DEC)), available at: https://www.europarl.europa.eu/doceo/document/TA-9-2023-0137_EN.html.

155 European Court of Auditors (2022) *Special Report: The Commission's assessment of national recovery and resilience plans: Overall appropriate but implementation risks remain*, available at: https://www.eca.europa.eu/Lists/ECADocuments/SR22_21/SR_NRRPs_EN.pdf.

156 See pages 251 to 252 of the supporting study.

157 See pages 251 to 252 of the supporting study.

158 See pages 74 to 76 of the supporting study.

The RRF has significantly accelerated policy action to implement CSRs which was considered slow in the past[159]. The European Court of Auditors[160] found that, over the 2011-2017 period, only 1.6 % of CSRs were deemed to have been 'fully implemented' within one year after issuance, and that only 26 % of the CSRs have been implemented over the full 2011-2018 period. In the two years preceding the RRF, the share of 2016-2017 CSRs reaching at least 'some progress' increased by only six percentage points from 53% in 2018 to 59% in 2020. In comparison, the share of 2019-2020 CSRs reaching at least 'some progress' increased by 17 percentage points from 52% in 2021 before the RRF to almost 69% in 2023, after two years of RRF implementation (see Figures 7[161] and 8). Since the start of the implementation of their RRPs, Member States have made most progress on access to finance and financial services, followed by labour market functioning, anti-money laundering and business environment. At the same time, in the first years of implementation of the RRF, progress has been less visible in the areas of the single market, competition and State aid, housing, long-term care and pension systems, even if relevant reforms are foreseen in the RRPs and are expected to be implemented in the years ahead. Progress in the implementation of the recommendations adopted in 2022 has also been substantial. Member States have made at least 'some progress' in almost 52% of the recommendations addressed to them in July 2022.

Figure 7: Current level of implementation of 2019-2020 CSRs

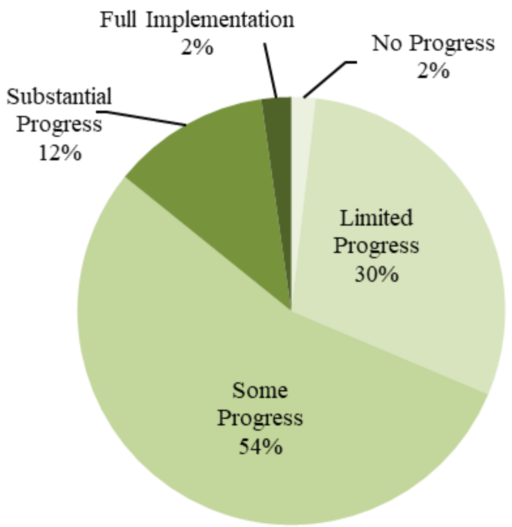
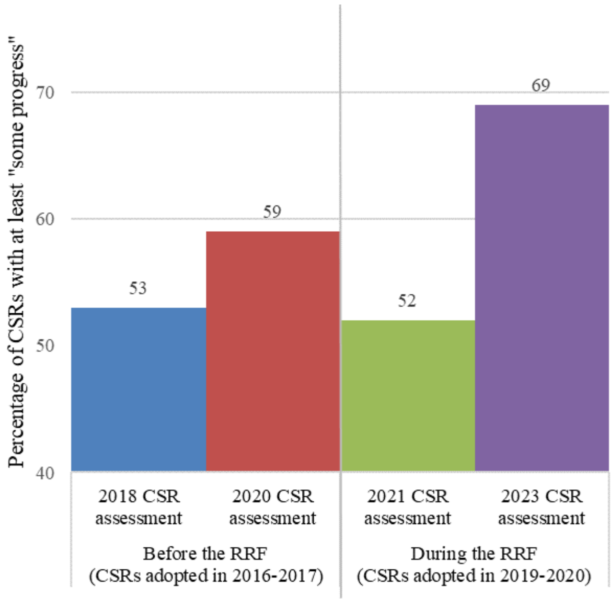


Figure 8: Share of CSRs with at least "some progress" before and during the RRF



Note: The multiannual assessment on the left graph looks at implementation of CSRs adopted 2019-2020 from the time the recommendations were first adopted until May 2023. The CSR assessment takes into account the degree of implementation of the measures included in the RRPs and of those done outside of the RRPs at the time of assessment. Measures envisaged in the Annexes of the adopted Council Implementing Decisions on the approval of the assessment of the RRPs, which have not yet been adopted or implemented but are considered as credibly announced in line with the

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159 See pages 251 to 252 of the supporting study.

160 Special report 16/2020 of the European Court of Auditors.

161 See European Commission (2023) *2023 European Semester – Spring Package (COM(2023) 600 final)*, available at: https://commission.europa.eu/system/files/2023-05/COM_2023_600_1_EN.pdf. The assessment conducted in May 2023 is backward-looking at a relatively early stage of implementation of RRPs. The results of the 2023 CSR assessment, together with those of previous years, are available at https://ec.europa.eu/economy_finance/country-specific-recommendations-database/.

CSR assessment methodology, warrant 'limited progress'. Once implemented, these measures can lead to 'some/substantial progress' or 'full implementation', depending on their relevance.

Source: European Commission

The financial incentives provided by the RRF is one of the main factors in reinforcing the implementation of CSRs[162]. The fact that financial support is conditional upon the implementation of reforms is the most relevant factor explaining the RRF's success in triggering structural reforms that address the European Semester's CSRs. This is recognised by interviewees, stakeholders and external evaluators. On average, the link between implementation of CSR-related reforms and financial support is stronger for Member States that receive a larger size of the financial support: those that receive a proportionally bigger financial envelope in terms of their GDP are more likely to commit to and implement structural reforms. Moreover, the RRF serves as an incentive for Member States to internally steer the political debate and overcome potential resistance against structural reforms. Furthermore, some observers have emphasised the positive role that the steering and incentives provided by the RRF are having on Member States, by fostering their commitment to the measures and timelines in their RRPs[163].

Some of the key reforms included in national plans have already been successfully implemented and are delivering results on the ground. A number of reforms supported by the RRF have already been introduced across a wide range of policy areas: labour market, social protection and pensions, education and training, civil and criminal justice, public administration, including digitalisation of the public administration, spending review and public finance governance, anti-money laundering, licensing simplification reforms to boost the investments in renewables, roll-out of renewable energy and sustainable transport, introduction of 5G and broadband, structural reform of the education system, anti-corruption and tax planning[164]. Some have already led to tangible results: For example, Spain adopted in December 2021 a labour market reform that generalised the use of open-ended contracts by restricting the use of temporary contracts and reducing the contract menu and incentivised the internal flexibility of firms with the introduction of the RED mechanism, striking a long-awaited balance between workers' protection and firms' flexibility. Recent data from the Bank of Spain[165] confirms that the reform was successful in meeting its objectives of increasing the number of open-ended contracts and reducing the number of temporary or fixed-term contracts (see Section 4.1.2.B.ii). As mentioned above, results also show that, for example, the justice reform implemented in Croatia is already delivering on reducing the time needed to resolve civil and commercial cases[166], or

[162] Evidence in this paragraph is sourced from the supporting study, see pages 74 to 76.

[163] See pages 74 to 76 of the supporting study.

[164] See page 12 of the supporting study.

[165] Banco de España (2023) *El aumento de los contratos indefinidos y su posible impacto en el gasto*, available at : https://www.bde.es/f/webbde/SES/Secciones/Publicaciones/InformesBoletinesRevistas/BoletinEconomico/23/T1/Fich/be2301-art19.pdf.

[166] See pages 68 to 69 of the supporting study.

that the public administration reform in Italy is expected to have a positive impact on labour productivity and labour force upskilling[167].

4.1.4. Positive externalities

The RRF had a positive effect on reducing the risks associated with sovereign-bank loops in the context of the COVID-19 crisis. Stylised simulations[168] show that the crisis response policies of the EU strongly mitigated the risks associated with sovereign-bank loops[169] in euro area countries in connection to the COVID-19 crisis. Together with the monetary policy measures taken by the ECB, the creation of the contributed to macro financial stability in the aftermath of the COVID-19 pandemic, providing a structural policy commitment and financial safety net that avoided heightened market pressure on public finances and potential financial risks.

The implementation of the RRF has also triggered positive effects for policy planning at the national level[170]. The RRF has contributed to improving inter-institutional coordination in the design of national reforms and investments[171]. In Slovenia, for example, the tight deadlines for the implementation of the RRP have helped the national government and stakeholders to jointly focus on efficient implementation[172]. In addition, relying on national implementing bodies with experience in EU funds proved useful in dealing with the Commission. In Austria, the performance-based nature of the RRP served as a blueprint and inspired the setting-up of an instrument at national level for the distribution of funds between different levels of government that is linked to pre-defined quantitative and qualitative targets. This may potentially have positive repercussions, including for decentralised States more generally[173]. Stakeholders[174] further conveyed that the performance-based approach brought predictability and accountability, resulting in a "cultural shift" in policy planning and implementation. Overall, in some Member States, the RRF has changed implementation at national level by improving national governance and coordination and by accelerating delivery with a clear medium-term deadline (2026).

The implementation of the RRF has also triggered some positive effects in terms of EU governance. With the RRF, the Commission and Member States have established a regular dialogue, based on the bottom-up nature of the instrument. This engagement has been built on more than ten years of experience with the European Semester, while

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167 See D'Andrea, S., D'Andrea, S., Di Bartolomeo, G., D'Imperio, P., Infantino, G., and Meacci, M. (2023) *Structural reforms in the Italian National Recovery and Resilience Plan: A macroeconomic assessment of their potential effects*, available at: https://www.dt.mef.gov.it/export/sites/sitodt/modules/documenti_it/analisi_progammazione/working_papers/WP-2-marzo-2023.pdf.

168 See Quarterly Report on the Euro Area (QREA), Vol. 20, No. 3 (2021), available at: https://economy-finance.ec.europa.eu/publications/quarterly-report-euro-area-qrea-vol-20-no-3-2021_en.

169 See Fontana A. and S. Langedijk (2019), 'The Bank-Sovereign Loop and Financial Stability in the Euro Area' in *JRC Working Papers in Economics and Finance 2019/10*, available at https://data.europa.eu/doi/10.2760/81563.

170 Evidence in this paragraph is sourced from the supporting study, see pages 92 to 93.

171 According to the results of a survey of Member States national administrations conduced as part of the supporting study, see pages 92 to 93 of the supporting study.

172 See page 93 of the supporting study.

173 See page 93 of the supporting study.

174 See page 99 of the supporting study.

becoming more comprehensive, detailed and practical in the context of the Commission's responsibilities for assessing RRPs and the related payment requests. Overall, stakeholders[175] confirmed that the Facility has deepened the dialogues and exchanges between Member States and the Commission on investments and reforms compared to the pre-2021 European Semester.

4.1.5. Limiting factors for the effectiveness of the Facility

Factors limiting the effectiveness of the Facility concern both the design and the implementation of the instrument, as described below.

A. Limiting factors related to the design of the Facility

The comprehensive audit and control framework enshrined in the RRF Regulation appears to have negatively affected the speed of implementation of the RRF, with some stakeholders[176], notably Member States authorities, calling for simplification[177]. Member States reported on the high workload stemming from different audit and control requirements related to the RRF. At the same time, audit and control procedures are considered complex by stakeholders and there is a perceived overlap between controls and audits by national authorities, the Commission and the ECA. Consultation responses suggest that the resulting resource needs reduce efficiency as those resources could otherwise have been dedicated to the implementation of the plans. Member States see room for simplifying control and audit procedures, ensuring better coordination among the actors involved and avoiding multiple checks. Whilst identifying potential areas of simplification is always relevant, there is also an onus on ensuring a proportionate approach to managing public money, given the scale of the budget and the relative novelty of the approach.

The inclusion of a combination of milestones and targets in each instalment ensures that balanced progress with both reforms and investments is being made, but the fixed composition of each instalment has also been reported to slow down RRF disbursements. The RRF Regulation requires Member States' RRPs to propose a combination of reforms and investments and link them to instalments. The purpose is to avoid "cherry picking" and ensure a balanced progress of both reforms and investments, including when political challenges emerge ahead of difficult structural reforms. Stakeholders, in particular Member States authorities, however report that Member States avoid submitting payment requests before all milestones and targets envisioned for the specific instalment have been fully completed, which can lead to significant delays in payments if only one or a few of the milestones and targets are pending[178]. During the stakeholder interviews, national authorities accompanied this problem description with a call for more flexibility in (re)grouping milestones and targets for a specific payment request. At the same time, it also has to be noted that in February 2023, the Commission

[175] As mentioned by stakeholders in the validation workshop organised on 24 October 2023, in the context of the supporting study.

[176] According to stakeholder consulted in the context of the supporting study, see pages 154 to 156.

[177] Evidence in this paragraph is sourced from the supporting study, see pages 154 to 156.

[178] See page 54 of the supporting study.

published a methodology for partial suspension of payments, which provides more transparency on the suspended amounts. The suspension procedure thus gives more flexibility to Member States who can (and do) now submit payment requests where not all milestones and targets have been fulfilled (yet).

B. Limiting factors related to the implementation of the Facility

Since the inception of the RRF Regulation in 2021, a range of unforeseeable external factors have markedly changed the economic and geo-political context in the EU and made the implementation of the RRF more challenging. Russia's war of aggression against Ukraine led to a spike in energy prices in 2022, exposing the vulnerabilities linked to the dependence on Russian fossil fuels. It has also driven inflation to levels unseen in decades, increasing price levels for all Member States and causing 'cost of living' difficulties for many households. The RRF has not been unscathed by the current global events, with inflation, issues in global supply-chains and labour shortages affecting the implementation of many RRF measures across the Member States.

In response to these challenges, Member States have used the opportunities offered in the RRF Regulation to amend their RRPs, which has however slowed down implementation. In response to inflation and supply-chain issues, Member States have reacted by (i) using national resources or additional RRF funding to bridge the gap between the actual current cost of their measure and what their initial RRF envelope is able to cover, (ii) adapting the targets to the increased costs, (iii) replacing investment projects that are no longer feasible from their plans, and/or (iv) postponing the initially foreseen timeline for the implementation of milestones and targets. At the same time, applying these changes to the RRPs programming takes some time and the implementation of some measures has been put on hold, resulting in delays and an overall slow-down of the implementation. It is important to note however that delays in the submission of payment request do not necessarily translate into implementation delays. The Member States' on-the-ground implementation of most investments and reforms has continued, as evidenced[179] by the number of milestones and targets reported as 'completed' by Member States even though not yet assessed by the Commission under a formal payment request (as highlighted in Figure 5 in Section 3.2.4. and as discussed throughout Section 4.1.2.), even if the submission of payment request has not followed the indicative timeline.

Limited absorption capacity[180] hampers the effectiveness of the RRF implementation in some Member States. When the RRF was adopted, several observers[181] pointed to the risk of absorption capacity of the significant RRF funding, which would come in addition to the remaining EU Structural Funds from the 2014-2020 period, and the new Structural

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[179] According to data reported by Member States as part of the RRF bi-annual reporting exercise.

[180] Commonly defined at the percentage of the total amount committed in the EU budget to a Member State that has been disbursed by the Commission to that Member State.

[181] See Darvas, Z. (2020) *Will European Union countries be able to absorb and spend well the bloc's recovery funding?*, available at: https://www.bruegel.org/blog-post/will-european-union-countries-be-able-absorb-and-spend-well-blocs-recovery-funding; and Alcidi, C., Gros, D., Corti, F. (2020) *Who will really benefit from the Next Generation EU funds?*, available at: https://www.ceps.eu/ceps-publications/who-will-really-benefit-from-the-next-generation-eu-funds/.

Funds for the 2021-2027 period. The actual payments of structural funds depend on the ability of beneficiaries to use the funds, which vary significantly across Member States[182]. Under the RRF, as payments are made upon the fulfilment of milestones and targets (related to both investments and reforms – performance-based approach), the absorption capacity is closely linked to the administrative capacity of Member States to implement the pre-agreed agenda of reforms and investments. In this context, the Committee of the Regions stressed that many Member States did not sufficiently strengthen administrative capacity at local and regional levels, which is a precondition to ensure proper implementation of the plans and an adequate take-up of the RRF funds.

The administrative work required at national and sub-national level to implement the RRF is higher than initially expected by Member States[183]. Some Member States have not been able to mitigate the increase in the workload of administrations observed at both national and local levels[184]. Overall, Member States that experience administrative and staff shortages have noted that the administrative burden has resulted in delays affecting RRP implementation. Research[185] illustrates how low administrative capacity, especially at local level, can affect the implementation of RRF-supported investments. The authors analysed the implementation of investments supported by the RRF in 'Early Childhood Education and Care' in four Member States (Italy, Spain, Germany and Portugal), which are traditionally run at local level. They found that two key obstacles in implementation relate to (i) the lack of support/technical assistance to local authorities to develop projects' proposals; and (ii) the lack of personnel especially at local level.

More generally, an adequate administrative capacity within Member States is key to supporting the effectiveness of RRF implementation. To ensure the effective implementation of their plans, some Member States put in place measures to strengthen their administrative capacity, such as reforms and investments aimed at modernising the public administration, including improving the transparency and effectiveness of tendering procedures and their compliance with EU legislation. These reforms were added in the RRPs to address specific regulatory hurdles and investment bottlenecks identified and have often been implemented early in the RRPs. Some Member States also included more specific interventions to directly support the administration to implement the plans. This comprises measures to improve the organisation, capacity and means of national administrations directly involved in the implementation of plans that can rely on the technical assistance from the Commission provided via the Technical Support Instrument ('TSI'). This capacity building support is aimed at strengthening their institutions and their capacity to implement reforms. 23 Member States have received or are currently receiving general support for the horizontal aspects of RRP implementation, including support for the revision of the plans, while all 27 Member States are benefiting from the thematic

182 See page 265 of the supporting study.

183 See pages 124 to 125 of the supporting study.

184 See page 125 of the supporting study.

185 Corti, F., Marobito, C., Ruiz, T., and Luongo, P. (2022) *The role of the Recovery and Resilience Facility in strengthening childcare policies*, available at: https://feps-europe.eu/wp-content/uploads/2022/07/RECOVERY-WATCH-Childcare-Policy-PP-1.pdf.

support linked to RRF measures' implementation[186]. In addition to the TSI, another sectoral instrument available to Member States to support them in implementing RRF reforms is the Horizon Policy Support Facility. Member States such as Romania and Croatia have already requested and benefited from this support to help them implement key structural reforms of their national R&I systems foreseen in their plans.

Local and regional authorities, as well as social partners and civil society organisations, pointed to their insufficient involvement by Member States in the preparation and implementation of the RRPs. When submitting their RRPs, Member States were required (under Article 18 of the Regulation) to include a summary of the consultation process of local and regional authorities, social partners, civil society organisations, youth organisations and other relevant stakeholders, explaining how the input of the stakeholders was reflected in their RRP. The involvement of social partners, local and regional authorities also positively contributes to the effectiveness of the RRPs' implementation**.** The involvement of social partners has played a key role in speeding up the adoption process of some key reforms, especially for labour market or social policy reforms. Relevant stakeholders (including local and regional authorities or civil society organisations) have however complained about their insufficient involvement in the national context, both in the preparation and the implementation of the plans. The European Economic and Social Committee, in its report[187] informing the mid-term evaluation of the RRF, specifically called for a greater involvement of organised civil society in the implementation of the RRF, through formal, structured consultation processes. As regards sub-national authorities, according to a survey conducted by the European Committee of the Regions[188], cities and regions reported a low involvement in the monitoring and implementation of the RRF plans. The overall low involvement of stakeholders by national governments for the preparation of the plans can partly be explained by the exceptionally condensed time available for programming of the RRPs during the COVID-19 crisis and by the various degrees of consultation.

While recognising the improvements made by the Commission, some Member States[189] consider that the Commission's guidance on the RRF was not always sufficiently timely and clear. Most Member States interviewed during the evaluation consider that the Commission's communication for the preparation of the RRPs in September 2020 was timely and clear[190]. However, with regard to the specific guidance on the DNSH principle from February 2021, a number of Member States regretted that it was published too late[191] in the drafting phase of the plans. Some Member States had to modify

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186 See https://reform-support.ec.europa.eu/what-we-do/recovery-and-resilience-plans_en for further information.

187 European Economic and Social Committee (2023) *Mid-term evaluation of the Recovery and Resilience Facility*, available at: https://www.eesc.europa.eu/en/our-work/opinions-information-reports/information-reports/mid-term-evaluation-recovery-and-resilience-facility#downloads.

188 European Committee of the Regions (2022) *Implementation of the Recovery and Resilience Facility: The Perspective of Local and Regional Authorities – Results of the CoR-CEMR targeted consultation*, available at: https://cor.europa.eu/en/engage/brochures/Documents/RRF-consultation-2022.pdf.

189 Evidence in this paragraph is sourced from the supporting study, see pages 76 to 79.

190 See page 76 of the supporting study.

191 According to stakeholders consulted as part of the supporting study, this was due to the discussions on the EU Taxonomy that were still ongoing at that time, see page 77 of the supporting study.

their plans following the publication of the guidance, which caused additional burden and slowed down the implementation process. Moreover, some Member States are also of the view that the Commission's Communication in February 2023 on the framework used for assessing milestones and targets and for the payment suspension methodology came rather late – and a majority of Member States consider that the payment suspension methodology remains unclear when it comes to reforms because of the discretion given to the Commission in applying the methodology. To a lesser extent, a number of Member States conveyed that the informal dialogue with the Commission for the preparation and revisions of the plans and ahead of the submission of payment requests add administrative burden, suggesting for example to reduce the rounds of comments by the Commission to Member States on the documentation to be submitted for payment requests. The Commission however sees this informal dialogue as a key element facilitating a smooth and swift processing of payment requests.

4.2. Efficiency

This section assesses how the costs of implementing the Facility compare with its benefits, including an assessment of administrative burden and complexity with potential areas for simplification.

4.2.1. RRF design

There are efficiency gains by supporting reforms and investments under one instrument. With RRPs combining both reforms and investments in one plan, they contribute to a more coherent sequencing between the two and encourage Member States to undertake reforms that will enhance the impact of investments. Accordingly, a majority (59%) of survey respondents[192] consider that combining reforms and investments in one instrument leads to some or significant efficiency gains. Member States also report that coordinating the two is simpler when they are combined in one planning process[193].

The performance-based approach of the RRF is a key factor in enhancing efficiency. In the implementation of the RRF to date, the performance-based nature of the instrument, with financing not linked to cost, had led to strong commitments by Member States and provided incentives for them to deliver on the agreed measures within a clear timeframe. The results of the public consultation show that a majority of stakeholders supports this view[194].

Demanding reporting requirements and a lack of flexibility[195] are perceived as affecting the efficiency of the instrument. The various reporting requirements specified in the RRF Regulation (reporting on the achievement of milestones and targets; bi-annual reporting; reporting in the context of audits; reporting on the common indicators) have

[192] See page 156 of the supporting study.

[193] See pages 156 to 158 of the supporting study.

[194] European Commission (2023) *Summary Report of the Public Consultation concerning the Mid-term evaluation of the Recovery &Resilience Facility (RRF)*, available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13608-Recovery-and-Resilience-Facility-2020-2024-mid-term-evaluation/public-consultation_en.

[195] Evidence in this paragraph is sourced from the supporting study, see pages 154 to 156.

reportedly affected the efficiency of the instrument, with some Member States calling for simplification[196]. Several national coordination bodies consider that the common indicators, while anchored in the Regulation, have limited added value as they are not directly linked to tracking results of reforms and investments. Member States also conveyed a perception of rigidity in the interpretation of milestones and targets fulfilment by the Commission, even though the Communication of February 2023[197] was acknowledged as an important step to clarify the margins of manoeuvre for Member States, especially when it comes to investments.

4.2.2. RRF governance and implementation

The RRF-related governance in Member States influences the efficiency of the RRP's implementation, in particular through the degree of centralisation of the decision-making process. Centralisation is reinforced by the performance-based approach of the RRF and the requirement to maintain a single national point of contact for verifying the fulfilment of the relevant milestones and targets in support of scheduled payment requests[198][199]. While the programming of the national RRPs required a certain centralisation in all Member States, differences emerge in the governance of implementing the plans, which affect the efficiency of the RRF. One of the main differences concerns the involvement of the Prime Minister's office, which tends to be correlated with a smoother implementation of the plans due to increased political ownership and enhanced capacity to steer internal decision-making processes. This is particularly the case for reforms.

The involvement of social partners and local/regional stakeholders also matter for the efficiency of the implementation of RRPs. The different degree of involvement of sub-national authorities in the design and implementation of the plans also affected the efficiency of the plans, in particular investments[200]. For example, some regions conveyed that the RRP measures chosen by their central governments did not always align with the local priorities: in their views, more participation of local/regional authorities during the development of the RRP could have resulted in a more efficient use of the funds to target local priorities[201]. For investment involving local authorities, such as for example the

196 According to stakeholders interviewed as part of the supporting study and to national stakeholders surveyed as part of the supporting study, see pages 154 to 156 of the supporting study.

197 See European Commission (2023) *Communication from the Commission to the European Parliament and the Council on the Recovery and Resilience Facility: Two years on (COM(2023) 99 final)*, available at https://commission.europa.eu/publications/communication-implementation-recovery-and-resilience-facility-0_en.

198 See Zeitlin et al. (2023), available at: https://feps-europe.eu/wp-content/uploads/2023/06/Governance-RFF.pdf; Carrosio et al. (2022), available at: https://feps-europe.eu/wp-content/uploads/2022/12/RECOVERY-WATCH-Placed-Based-PP-1.pdf; Bokhorst and Corti (2023), available at: https://www.cambridge.org/core/services/aop-cambridge-core/content/view/9A8DD6FA42CE44B44F4BD956B8EB0887/S0017257X23000143a.pdf/governing-europes-recovery-and-resilience-facility-between-discipline-and-discretion.pdf; and Vanhercke and Verdun (2021), available at: https://onlinelibrary.wiley.com/doi/full/10.1111/jcms.13267.

199 Decisions on the national governance of the RRF are within the responsibility of the Member States. There are also examples of strong regional involvement present in some plans.

200 Evidence in this paragraph is sourced from the supporting study, see pages 148 to 152.

201 Regions for EU Recovery (2022) *Benchmark study on the implementation of the RRF at regional level*, available at:https://exteriors.gencat.cat/web/.content/Noticia/afers_exteriors/2022/pdf_220630_estudi_regions_4EU_recovery.pdf.

construction of childcare facilities[202], some challenges have emerged as negatively affecting the implementation of the measures, notably: the lack of resources to cover recurrent costs, the tight timeline and lack of technical capacity of municipalities to present projects in time, and the lack of qualified personnel to run the new infrastructures.

4.2.3. Cost-benefit assessment

In the absence of a counterfactual, quantifying the 'benefits' of the RRF to compare them to the 'costs' requires using macroeconomic models to estimate the benefits of the RRF. The results of the macro-economic simulations, both in the evaluation study (NiGEM model) and by the Commission (QUEST model), have been presented in section 2. At this juncture, it is too early to go further. A full cost-benefit analysis will be conducted as part of the 'ex-post' evaluation.

As it is a new instrument, the RRF created inevitable entry costs, but with differences across Member States. An overview of the administrative costs incurred by Member States in implementing the RRF was established based on a survey of national coordination bodies[203]. The latter have counted the number of full-time equivalents ('FTEs') involved both for one-off and recurrent activities linked to the implementation. While there were significant variations across Member States in FTEs declared by coordination bodies – from a handful of FTEs in some Member States to over 100 FTEs in other – the survey results demonstrate that there have generally been high entry costs for national administrations to become familiar with the functioning of the RRF. According to representatives of most Member States (17 out of 21 for which feedback was provided), the implementation of the RRF required new skills and knowledge as national administrations were not familiar with all formal requirements for implementing RRF projects, especially those related to reporting and verification based on results.

The variations in administrative costs incurred by Member States depend on specific characteristics of the RRPs, such as the financial size of the plan or the number of measures devoted to investments. As many administrative tasks are not related to the size of a plan, smaller plans tend to be relatively more costly than larger plans. For example, in Germany and Poland (which have the two largest RRPs among those for which administrative costs are available), the administrative costs per euro of funding are notably low[204]. The total number of measures supported, in particular the number of investments, and the number of final recipients also matter: more investments and more final recipients is associated with more administrative workload.

Similar to other instruments, the administrative costs linked to the implementation of the RRF have increased over time[205]. Most respondents (72%) in the survey of national authorities convey that the costs linked to the implementation of the RRF have increased

[202] See case study on 'Early Childhood Education and Care' included in the supporting study.

[203] Evidence in this paragraph is sourced from the supporting study, see pages 138 to 148.

[204] See page 146 of the supporting study.

[205] According to most respondents (72%) in the survey of national coordination bodies. Evidence in this paragraph is sourced from the supporting study, see pages 138 to 148.

over time[206]. However, only 18% of the respondents rated the increase as substantial. The cost increase is attributed to the demanding reporting requirements, as well as audit and control requirements, which turned out to be more extensive than initially anticipated. Meeting them has required more resources, time, and personnel than initially expected. The implementation in the first half of the lifetime of the RRF has been described as a 'learning-by-doing' experience by many stakeholders, including Member States and local or regional authorities. The administrative costs generated by the RRF vary significantly across Member States, with findings affected by the availability of data and governance choices concerning the implementation of RRPs at national level. In some Member States (e.g. Bulgaria, Estonia, Lithuania), existing structures have been adapted to manage the RRF, while in others (e.g. Belgium, Croatia, Portugal) new structures have been set up to coordinate the implementation of the RRP (e.g. new directorate or task force). Overall, the cost increase over time is however comparable to similar investment programmes, such as the Cohesion Policy. Indeed, for the Cohesion programming period 2014-2020, the administrative workload has built up from the start of the programme preparation to reach a peak in 2017-2018, and then declined towards closure after 2022[207]. Over time, the administrative burden associated with the RRF is expected to decrease as Member States authorities gain more experience.

In particular, Member States have highlighted the need to mobilise more resources than initially planned to revise the RRPs. According to Member States[208], the efficiency of the performance-based approach is reduced by the *'excessively complex procedures'* for the plan modifications enshrined in the RRF Regulation, which do not distinguish between major or minor amendments and require Council approval for any modification.

So far, the implementation of the RRF has not brought the administrative simplification that Member States had hoped for[209]. Member States consider that the CIDs are too detailed given that every element must be checked at the relevant payment request – and that not every element should be binding. The legally binding character of each element included in the CID, including in the description of the measure, has been reinforced by the strict interpretation of the European Court of Auditors. Likewise, stakeholders, notably Member States authorities, predicted that the administrative burden would remain higher compared to projects financed under EU Cohesion Policy. This is because, while Member States need to demonstrate the fulfilment of milestones and targets (as disbursements are based on performance) – a process that is perceived as very demanding by Member States – they are also required to collect evidence of the expenditure incurred as well as data on final recipients of RRF funds, for audit and control purposes[210]. This may be exacerbated by the coexistence of the two EU funding instruments

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206 See pages 138 to 148 of the supporting study.

207 See European Commission (2018) Development of a system of common indicators for European Regional Development Fund and Cohesion Fund interventions after 2020, available at: https://ec.europa.eu/regional_policy/sources/studies/indic_post2020/indic_post2020_p1_en.pdf.

208 Evidence in this paragraph is sourced from the supporting study, see pages 148 to 152.

209 According to the results of the consultation with Member States' RRF national authorities.

210 Article 22(d) of the Regulation (EU) 2021/241 establishing the Recovery and Resilience Facility.

(RRF and structural funds) with two different approaches (performance-based and costs-based). Overall, the requirements to protect the financial interests of the Union can lead to an administrative burden similar to that of other EU funds based on costs, such as Cohesion Policy funds[211]. Furthermore, the evidence provided by Member States, for each payment, to prove the delivery of concrete outputs (milestones and targets) is also essential to ensure their actual 'performance'.

4.3. Coherence

4.3.1. Coherence of the RRF with other EU instruments

The scope of the RRF, as reflected in the six pillars anchored in the RRF Regulation, broadly covers the main policy areas of EU relevance, with a specific focus on the EU's twin transition via the climate and digital targets. The general coherence of the RRF with key EU policies is therefore ensured by the design of the RRF and reflected in the RRPs in diverse areas, including green, digital, social and rule of law. Moreover, the strong coordination between the different services of the European Commission in designing and implementing the RRPs helped ensure coherence between the RRPs and Union policies.

European Semester

The RRF is in line with the European Semester priorities and has provided a novel and significant incentive to reinforce the implementation of CSRs. First, the European Semester provides a framework for the preparation of RRPs. RRPs are "*expected to contribute to effectively addressing all or a significant subset of challenges identified in the relevant country-specific recommendations*"[212] adopted in the context of the European Semester. All RRPs were assessed against this criterion and needed to reach the highest ('A') rating for their plan to be approved. In this sense, EU priorities – tailored to Member States' needs – guided the reforms and investments put forward in RRPs. In turn, the RRF offered financial incentives to implement the policy advice given under the Semester and has reinforced the implementation of the CSRs (see above under "effectiveness"). In other words, the RRF contributed to strengthening the link between EU funds and the European Semester, which in turn contributed to bringing long-awaited structural reforms into fruition, across a wide range of policy areas. The positive interactions[213] between the RRF and the Semester are mutually beneficial[214]: the EU Semester supports the preparation of RRPs, while the RRF, in turn, supports the implementation of the policy advice issued under the European Semester. By providing financial incentives in return for a coherent package of public investments and reforms, the RRF gave European governments

211 According to results of the survey of RRF national authorities conducted as part of the supporting study, see pages 152 to 154 of the supporting study.

212 See Article 19(b) of the RRF Regulation.

213 See pages 74 and 251 of the supporting study.

214 Moschella, M. (2020) *What role for the European Semester in the recovery plan? In-depth analysis requested by ECON Committee*, available at: https://www.europarl.europa.eu/RegData/etudes/IDAN/2020/651377/IPOL_IDA(2020)651377_EN.pdf.

additional means to overcome domestic institutional resistance in the face of Semester tools and recommendations[215].

The implementation of the RRF has been integrated in the European Semester, with reporting processes streamlined to limit the administrative burden both at national and Commission level. The European Semester and its national reform programmes offered a platform for the bi-annual reporting under the RRF. At the same time, the European Semester, and in particular the Country Reports, have been the key tool for the European Commission to regularly report on the monitoring of RRP implementation, making the implementation of the RRF a key part in EU economic coordination and surveillance. The 2022 and 2023 European Semester both focused on the implementation of the RRPs, with CSRs focusing on the implementation of each Member States' RRP[216]. In that sense, the RRF has been implemented in full coherence with the European Semester, limiting to the extent possible the increase in administrative burden that reporting on RRF implementation places on both national administrations and the EU.

Technical Support Instrument ('TSI')

Coherence between the RRF and the TSI is due to built-in synergies between the two instruments and the alignment of their assessment criteria[217]. The RRF Regulation actively promotes synergies between the RRF and TSI by enabling Member States to allocate up to 4% of their total allocation to technical support in RRP implementation[218], an option used by four Member States[219]. The alignment of the assessment criteria of the RRF and of TSIs emphasises that both instruments have the same policy objectives and that their priorities are aligned. For example, the relevance of CSRs is one of the assessment criteria used both for selecting TSI projects and for approving RRPs. The coherence of the two instruments is evident in the fact that over 400 projects approved under the TSI are linked to the preparation or implementation of Member States' RRPs, highlighting the crucial role of TSIs in the Facility.

Cohesion Policy

With the parallel implementation of the RRF and Cohesion Policy programmes, Member States had to make strategic decisions in coordination with the Commission on the funds to use to finance investments. While double funding is prohibited, also in line with the Financial Regulation, a measure can be financed by both instruments as long

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[215] Vanhercke B., and Verdun A. (2021) *From the European Semester to the Recovery and Resilience Facility. Some social actors are (not) resurfacing*, available at: https://www.etui.org/sites/default/files/2021-11/From%20the%20European%20Semester%20to%20the%20Recovery%20and%20Resilience%20Facility_Some%20social%20actors%20are%20not%20resurfacing_2021.pdf.

[216] See 2022 European Semester: Spring Package, available at: https://commission.europa.eu/publications/2022-european-semester-spring-package_en; and 2023 European Semester: Spring Package, available at: https://commission.europa.eu/publications/2023-european-semester-spring-package_en.

[217] Evidence in this paragraph is sourced from the supporting study, see pages 158 to 159.

[218] This can be achieved through transfers from national funds to TSI or by utilising transfers from the RRF to TSI.

[219] Romania, Croatia, Greece, and Cyprus have so far used these options, financing eight additional projects lined to their RRPs in the areas of healthcare, education, public procurement, energy, better regulation, administrative burden reduction and investment promotion. More info available at: https://reform-support.ec.europa.eu/what-we-do/recovery-and-resilience-plans_en.

as the same cost is covered only once, and as long as the RRF does not cover the mandatory national co-financing under Cohesion. The regulatory framework[220] gives the responsibility to national authorities to ensure that the two instruments complement each other.

To ensure synergies and avoid overlaps between Cohesion Policy and the RRF, demarcations between the two have been included in national plans. Member States have put in place four approaches to demarcation, in a typology proposed by Lopriore[221] and by ECA[222]: (i) a thematic demarcation to reserve certain areas of funding exclusively for the RRF (for example in the health sector); (ii) a territorial demarcation within individual sectors (for example the French RRP focuses on mobility in rural areas while the European Regional Development Fund ('ERDF') finances it in urban areas); (iii) a demarcation based on the typologies of beneficiaries (for instance, the German RRP supports the energy efficiency of residential buildings with the RRF, while support for non-residential buildings comes from the ERDF); (iv) a temporal demarcation, with the absorption of funds based first on RRF resources and then on Cohesion Policy funds (with some substitution effects between the two instruments). The thematic demarcation has been the most frequently adopted approach by Member States[223].

However, some risks of substitution effects between RRF and Cohesion Policy have materialised[224]. The risk of possible substitution effects between the RRF and Cohesion Policy was only partially considered by Member States when drafting their RRPs. When RRPs were submitted in 2021, most Operational Programmes under Cohesion for the period 2021-2027 were not designed yet. Several Member States did not adopt ex-ante strategies to create synergies between the two EU funds. Evidence of substitution effects generated by the RRF to the detriment of cohesion policy has been reported by interviewees concerning the 2021-27 programmes, while no significant substitution effect was reported for the 2014-20 operational programmes, as their implementation was already well advanced when the RRF was set up. In some Member States, some more mature projects (e.g. in Spain, Greece, Italy and Romania) that were previously planned under Cohesion instruments (and expected to be implemented under 2021-2027 cohesion programmes) were moved into the RRPs[225]. In Spain and Greece, the shift can be explained by (i) the fact that the RRP was prioritised, (ii) expectations of a lower administrative burden compared to cohesion, and (iii) the absence of national co-financing requirement. In Romania, the shift did not create difficulties due to significant investment gaps and the existence of an extensive pipeline of projects. The example of Romania shows that possible substitution effects depend on national contexts: in Member States with substantial

220 See Article 28 of the RRF Regulation, Articles 11 and 22(3)(a) of Regulation (EU) 2021/1060.

221 Lopriore, M. (2022) *Recovery plans and structural funds: how to strengthen the link?*, available at: https://www.eipa.eu/publications/briefing/recovery-plans-and-structural-funds-how-to-strengthen-the-link/.

222 European Court of Auditors (2022) *Cohesion and NextGenerationEU: concord or clash?*, available at: https://www.eca.europa.eu/Lists/ECADocuments/JOURNAL22_01/JOURNAL22_01.pdf.

223 According to results of the survey of RRF national authorities, see page 166 of the supporting study.

224 Evidence in this paragraph is sourced from the supporting study (see pages 176 to 177) and from the associated case study on the functioning of the RRF and other EU funds.

225 See pages 176 to 177 of the supporting study and the associated case study on the functioning of the RRF and other EU funds.

investment gaps in traditional sectors, there seems to be a lower risk of displacement between the two instruments, and RRF resources are added to cohesion funding to tackle existing needs. In addition, some Member States (e.g. Slovenia) have redirected staff previously working on Cohesion Policy to the RRP coordination and implementation bodies to accelerate RRP implementation, delaying the implementation of Cohesion Policy[226].

At the same time, some investments, initially introduced in the RRPs, but then withdrawn during the RRPs revisions, could potentially be moved to Cohesion instruments. In Greece for example, the revised RRP which was submitted to the Commission in August 2023 withdrew some investments (in the water sector) from the RRP due to implementation delays beyond the control of the government. Given the longer eligibility period under Cohesion funds, Greece could potentially consider options to cover them under Cohesion Policy.

There is a large potential for synergies between the RRF and Cohesion Policy. Synergies can be achieved, among others, by financing, different policy interventions with each instrument that build on each other in the same policy area, or by using the two instruments to finance different elements of the same investment. The possibility to use the two funds for the same investment has been used by a number of Member States. The Austrian RRP, for example, supports, with RRF funds, some additional sections of the construction and electrification of regional railway lines that already benefit from the Connecting Europe Facility. In Bulgaria, the RRP covers the set-up of newly built 'Science, Technology, Engineering and Mathematics' (STEM) laboratories, including high-tech classrooms in schools, while ESF+ covers the trainings of teachers. Synergies can also be achieved when reforms supported by the RRF benefit investments supported by structural funds (or national funds). For example, in Greece, the RRP supports a reform of the railway sector, to strengthen the rail infrastructure manager improve safety, service delivery and efficiency in delivering new investments under the ERDF and CEF. In Hungary, the RRP includes reforms improving public procurement systems, complemented with the introduction of a training scheme for SMEs to facilitate their participation in public procurement procedures. ERDF interventions will complement these measures by providing training and support to SMEs (particularly in less developed regions). The Portuguese RRP includes a reform on the administrative modernisation and digital transition of the central public administration, which is complemented by the ERDF and finances the digital transition of local and regional public administration. The Italian RRP includes a reform of the regulatory and market framework to improve the efficiency and effectiveness of public investments in the water sector, which will help address existing barriers to ERDF investments to improve sustainable water management. Under the RRF, Slovakia updated its legal framework to facilitate connecting new renewables to the grid. As part of the 2021-2027 Partnership Agreement with Slovakia, investments are

[226] Although Slovenia's absorption of Cohesion Policy has always been low in initial years of a new multi-annual financial framework.

expected to develop smart energy systems, grids, and storage, complementing the reform supported by the RRF.

However, at this juncture, there is still limited evidence of synergies materialising. The literature[227] has recognised that achieving synergies between RRF and Cohesion Policy is challenging, including because of the need for deeper strategic and operational cooperation[228] and difficulties in aligning schedules and procedures of different funds[229]. The European Committee of the Regions[230] also noted that, as RRPs only partially address the territorial dimension, potential synergies with Cohesion Policy funds are limited.

As the implementation of the RRF progresses, synergies between RRF-supported reforms and Cohesion Policy investments are expected to increase[231]. The possibilities for thematic overlaps could be exploited to achieve additional impacts, also taking into account existing financing gaps[232]. The policy progress made under the RRF, for example, in mainstreaming DNSH considerations will also be paying off for structural funds, according to stakeholders involved in the implementation of Cohesion Policy. More generally, the reforms supported by the RRF are expected to improve framework conditions for investments under Cohesion Policy. Lastly, stakeholders[233] were of the view that it would be useful to build on the lessons learnt from the RRF features that have proved helpful, such as pre-financing and the support for both reforms and investments under one instrument. Identifying which RRF supported measures should be taken forward under cohesion (considering existing financing gaps) could help avoid a disconnect between what is done under RRF and what can be done in the longer run under cohesion. For instance, the Portuguese RRP supports initial investments in the hydrogen sector with the RRF, with the Portuguese authorities intending to follow up with Cohesion Policy funds[234].

4.3.2. Coherence with Member States' instruments supporting the economic recovery

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227 See European Policies Research Centre (2021) *The Recovery & Resilience Fund: an economic stimulus at the expense of territorial cohesion?*, available at: https://eprc-strath.org/eu/the-recovery-resilience-fund-an-economic-stimulus-at-the-expense-of-territorial-cohesion/; and Bachtler, J., and Mendez, C. (2021) *Recovery and Cohesion: Ambitious Objectives, Challenging Implementation*, available at: https://eprc-strath.org/wp-content/uploads/2021/12/EoRPA-Report-21_2-Cohesion-Policy_-ISBN-version-3.pdf.

228 European Policies Research Centre (2021) *The Recovery & Resilience Fund: an economic stimulus at the expense of territorial cohesion?*, available at: https://eprc-strath.org/eu/the-recovery-resilience-fund-an-economic-stimulus-at-the-expense-of-territorial-cohesion/; and Ferry, M., and Kah, S (2021), *Pursuing Positive Interactions – within Structural Funds and with the RRF*, available at: https://eprc-strath.org/wp-content/uploads/2021/11/IQ-Net-Thematic_Paper_50_Post_Conference.pdf.

229 Lopriore, M. (2022) *Recovery plans and structural funds: how to strengthen the link?*, available at: https://www.eipa.eu/publications/briefing/recovery-plans-and-structural-funds-how-to-strengthen-the-link/.

230 European Committee of the Regions (2021) *Regional and local authorities and the national recovery and resilience plans*, available at: https://cor.europa.eu/en/engage/studies/Documents/Regional%20and%20local%20authorities%20and%20the%20National%20Recovery%20and%20Resilience%20Plans/NRRPs_study.pdf.

231 Evidence in this paragraph is sourced from the supporting study (see pages 176 to 177) and from the associated case study on the functioning of the RRF and other EU funds.

232 See the case study on case study on the functioning of the RRF and other EU funds included in the supporting study.

233 As mentioned by stakeholders in the validation workshop organised on 24 October 2023, in the context of the supporting study.

234 Lopriore, M. (2022) *Recovery plans and structural funds: how to strengthen the link?*, available at: https://www.eipa.eu/publications/briefing/recovery-plans-and-structural-funds-how-to-strengthen-the-link/.

The RRPs were implemented in full coherence with Member States' national recovery strategies[235]. In Member States that had already put in place a post-pandemic recovery plan, for example France or Germany, the RRP built on, or integrated, the already planned measures and either replaced or further expanded them (since the RRF allowed to support measures that started from 1 February 2020). In fact, 18 Member States included a total of 150 milestones and targets in their RRPs whose implementation started after 1 February 2020[236], but were scheduled to be completed before the RRPs were submitted to the Commission in 2021/2022[237]. For Member States that did not yet have a recovery plan, the RRPs became the national government's strategic plans for the recovery after the pandemic. The relatively short time span during which the RRPs were drafted by most Member States, together with the medium-term horizon of the RRF implementation (until 2026), allowed national authorities to develop RRPs that were coherent with the already existing or planned investments and reforms.

4.3.3. Internal coherence of the RRPs

The RRPs also provided for a coherent set of reforms and investments. The internal coherence of the measures put together by Member States in their RRPs was a criterion evaluated by the Commission when assessing the plans. The overall Commission assessment on the coherence of RRPs is very positive (high extent – Rating A). As discussed earlier, the combination of reforms and investment under one sole instrument is considered as one of the most effective aspects of the RRF[238].

How did the EU intervention make a difference and to whom?

4.4. EU added value

In the absence of a counterfactual, the additionality of the RRF appears difficult to assess and even more difficult to quantify. At the mid-term point, qualitative evidence, notably the outcomes of interviews carried out with national stakeholders in charge of designing and implementing the RRPs, provides a first hint regarding the EU added value of the instrument.

4.4.1. Scale of RRF financing and additionality of measures supported by the RRF

The scale of the RRF's financial support is an important element to take into account when assessing the additionality of the instrument. With up to EUR 723.8 billion in total for 2021-2026 (EUR 385.8 billion in loans and EUR 338 billion in non-repayable support), and additional REPowerEU resources (EUR 20 billion in new non-repayable support and EUR 2.1 billion of funds from the Brexit Adjustment Reserve), the size of RRF is unique in the EU (the closest in scale is the amount of resources mobilised under Cohesion Policy: EUR 543 billion for 2021-2027, of which EUR 377 billion in EU co-

235 Evidence in this paragraph is sourced from the supporting study, see pages 170 to 172.

236 As per Article 17(2) of the RRF Regulation.

237 Data is not yet available on the eligible REPowerEU measures that started from 1 February 2022.

238 As reported by stakeholders in the Member States' national RRF authorities and across the European institutions.

financing and EUR 166 billion in national co-financing). With its pre-financing, the RRF provided Member States with significant fiscal space in the aftermath of the COVID-19 pandemic, thereby playing a stabilising effect at that critical juncture. Unlike other crises, the level of public investment has been preserved in the EU post-COVID and has increased in a number of Member States (see Section 4.1.4). Moreover, the announcement of the RRF has contributed to reducing sovereign bond spreads in the EU at the time of the COVID shock, which in turn helped mitigating risks of financial fragmentation and supporting the recovery (see Section 4.4.3).

The additionality of the RRF in individual Member States is correlated to the size of the financial support provided. A relevant proxy is the RRP allocation as a share of GDP, which varies from 16% in Greece to 0.1% in Luxembourg. For Member States where the RRF represents an important share of GDP, the RRF provided additional fiscal space to implement investments that would otherwise have been unlikely. For example, in the area of 'Early Childhood Education and Care', the primary contribution of the RRF has been to infuse fresh financial resources to support the expansion of childcare facilities[239]. In Italy and Spain (where the RRP allocation account respectively for 11% and 6% of GDP), the RRF resources were reported to be additional: stakeholder interviewees explained that, without the RRF, the investments in 'Early Childhood Education and Care' would not have taken place. In Belgium, the RRF funds were also reported as additional, topping up already existing national funds. In Poland, RRF funding was reported as additional, complementing other EU funding – notably funds from ESF+ and national funding. In Germany, however, where the RRF accounts for around 0.7% of GDP, all funding under the RRF for investments in 'Early Childhood Education and Care' was reported as already budgeted for, and thus the EU added value of the RRF, in terms of support for investments, was limited.

More generally, the additionality of the RRF highly depends on Member States' specific situations, in particular on whether the Member State already had in place a national recovery plan when the RRF entered into force. In some Member States (for example Germany or France), the investments supported by the Facility were already planned in national recovery plans and the RRF mainly provided additional resources to implement and scale-up these investments. In the case of Germany, more than 80% of the investments included in the RRP were already included in the June 2020 *Konjunkturprogramm*[240]. In the case of France, the RRF exclusively finances investments included in the national plan '*France Relance'* that was set up in September 2020 (financing 40% of the EUR 100 billion national plan). In that case, the RRF provided additional fiscal space to scale-up investments already envisaged, therefore enabling to increase the ambition of the national plan. For other Member States (for example Italy and

[239] According to semi-structured interviews conducted in the context of the case study on 'Early Childhood Education and Care' included in the supporting study.

[240] See Corti, F., Gros, D., Liscai, A., Ruiz, T., Kiss-Galfalvi, T., Gstrein, D., Herold, E., Dolls, M., and Fuest, C. (2022) The European added value of the Recovery and Resilience Facility: An assessment of the Austrian, Belgian and German plans, available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699513/IPOL_STU(2022)699513_EN.pdf.

Greece), the investments supported by the RRF would not have taken place otherwise, at least not in the same timeframe[241].

Stakeholders' assessment of the additionality of the RRF has been positive overall but not unanimously so. The results from the public consultation[242] show that around two thirds of respondents consider that the RRF has contributed to the economic recovery following the pandemic and a similar share recognises the RRF's contribution to the green and digital transitions. Most respondents believe that the RRF contributed to the initiation and implementation of reforms. A vast majority of stakeholders (around 80%) consider that the RRF produced, at least to a limited extent, more results than what Member States could have achieved on their own. However, about 25% of respondents (in both the national coordinator survey and the public consultation) do not agree with the view that the measures supported by the RRF would not have been implemented otherwise. For example, feedback from targeted interviews[243] conveys that, in some Member States, such as Austria or Sweden, the reforms included in the RRPs had already been on the political agenda. This is also related to the fact that, in line with the possibility for retroactivity (under strict conditions) provided by the RRF Regulation, 13% of the 1,153 milestones and targets fulfilled as of 1 February 2024 have been implemented before the date of the official endorsement of the RRPs. However, this does not necessarily mean that the related measures would have taken place without the RRF, as the drafting of the plans already began in September 2020 and several Member States started implementing measures in anticipation of RRF funding[244]. Moreover, the poor track record of reform implementation under the European Semester CSRs before the RRF contradicts the perception that RRF supported reforms may have happened anyway.

The country-specific EU value added can be well illustrated by the example of ALMP measures[245], where the main added value of the RRF stems from the combination of investments with strategic reforms to address structural labour market challenges under a clear timeframe. All measures related to ALMP in the French RRP were developed prior to the RRP negotiation, as part of the plan '*France Relance*', and would likely have been implemented with national funding[246]. In Spain and Italy on the other hand the Facility appears to have provided an impetus for reform in some cases. In Spain, the modernisation of ALMPs was included in the government mandate agreed at the end of December 2019. At the same time, a reform on hiring incentives that had not advanced for years was included in the RRP, highlighting a potential added value of the RRF. In Italy, an investment on strengthening public employment services would have been partially implemented in the absence of RRF funding, however the Facility provided an additional

[241] According to interviews conducted in the context of the case studies included as part of the supporting study, see page 16 of the supporting study.

[242] See page 293 of the supporting study.

[243] See page 302 of supporting study.

[244] See page 218 of the supporting study.

[245] Evidence in this paragraph is sourced from the case study on 'Active Labour Market Policy' included in the supporting study.

[246] According to stakeholders interviewed in the context of the case study on 'Active Labour Market Policy' included as part of the supporting study.

EUR 200 million in financial support. In addition, it is unlikely that an ALMP reform on training would have been implemented without the resources provided by the RRF. Finally, EU added value is most apparent in Croatia RRP, as the RRF provided a significant impetus for the introduction of new measures in ALMP overall. Some of the measures – specifically, the new targeted ALMP – already existed in a similar form and could have been implemented through ESF+, but the RRF allowed for additional funding and support for more specific and targeted measures.

4.4.2. Convergence and supporting the Single Market

By design, the RRF is expected to strengthen economic convergence in the EU. With its allocation key, the RRF was designed to support lower-income and more vulnerable Member States, which had also been hit the hardest by the pandemic. The RRF's allocation of funding thus helps counteract the economic divergence, fostering economic stability and growth where it is most needed.

The RRF is also expected to trigger spillover effects that are benefiting the Single Market. The pandemic had introduced substantial risks to the functioning of the Single Market, with risks of lasting disparities in living standards and increased divergence within the Union. With its large financial support, the effects of RRF spending in one EU Member State have positive spillover effects in the rest of the European Union (intra-EU trade). Cross-border projects (see Section 4.4.6. below) also contribute to increasing potential spill-over effects fostered by the RRF. Corti et al. (2022)[247] consider that these spillover effects are particularly relevant in the areas of green transition and digitalisation as neighbouring Member States benefit from investments in transport or digital infrastructure or other aspects concerning digital transformation, such as broadband expansion and 5G.

4.4.3. Impact on spreads

The announcement of the RRF has contributed to reducing sovereign bond spreads in the EU at the time of the COVID shock, which in turn helped mitigating risks of financial fragmentation and supporting the recovery. To examine the effects of the announcement on spreads of NGEU and its core instrument, the RRF, the supporting study[248][249] measured the impact on spreads as 'the initial decline in sovereign bond spreads that was recorded within three weeks of the 18 May 2020 announcement of the initial Franco-German proposal for a recovery fund' (taken at the moment announcing the upcoming NGEU). The results show that a reduction in the spread of benchmark bond yields over the benchmark, being German *Bundesanleihen*, between 15 May 2020 (April for monthly data) and 5 June 2020 (June for monthly data) for almost all EU Member

[247] Corti, F., Gros, D., Liscai, A., Ruiz, T., Kiss-Galfalvi, T., Gstrein, D., Herold, E., Dolls, M., and Fuest, C. (2022) *The European added value of the Recovery and Resilience Facility: An assessment of the Austrian, Belgian and German plans*, available at:

[248] Following the approach by Bankowski, K., Bouabdallah, O., Domingues Semeano, J., Dorrucci, E., Freier, M., Jacquinot, P., Modery, W., Rodríguez-Vives, M., Valenta, V., and Zorell, N. (2022) *The economic impact of NextGenerationEU: a euro area perspective*, available at: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op291~18b5f6e6a4.en.pdf.

[249] Evidence in this paragraph is sourced from the supporting study, see pages 177 to 178.

States[250]. There was a reduction of between 50 and 100 basis points for those Member States higher borrowing costs. In addition, by using RRF loans to finance spending that would otherwise have been financed domestically, those Member States with relatively high borrowing costs have been able to take advantage of the European Union's advantageous borrowing conditions to reduce the costs associated with the increased borrowing that has resulted from the COVID shock. In this respect, even if the EU borrowing costs have increased significantly over the past months on the back of higher interest rates, these increases are comparable to those experienced by highly-rated EU Member States.

4.4.4. Support for the implementation of EU policies

With its large financial envelope, the RRF provided substantial funding to advance the implementation of common EU policies. For example, the binding climate and digital targets for the RRPs, which required Member States to allocate respectively 37% and 20% of RRF funds to projects supporting the climate and digital transitions, ensure that at least half of RRF funds are dedicated to fostering the green and digital transitions, among other priorities. The RRF also contributes to the implementation of the European Pillar of Social Rights, which is one element of the RRF general objective: the scope of the RRF includes social cohesion and policies for the next generation, and social aspects are also covered by the country-specific recommendations that Member States are addressing in their RRPs, ensuring that measures supported by the RRF also support this EU priority.

4.4.5. EU added value of the RRF in supporting politically challenging reforms

The RRF has helped speed up the implementation of long-standing and politically challenging reforms. In particular, the RRF supported the implementation of reforms that had been the subject of long-standing CSRs in the context of the European Semester, i.e. they were recommended by the Council as the most important reforms to be tackled in each Member State. Progressing on these EU priorities represents EU value added. This has included reforms that would have most likely not have taken place without the RRF, such as rule of law reforms and structural reforms[251] (e.g. long-standing CSRs such as long-term care in Slovenia and the reform concerning regulated professions in Portugal). Among other examples, CSRs such as the 'Zero-emission company cars' of the Federal State in Belgium and the Online Access Act in Germany would most likely not have been implemented in the short term without the RRF[252].

The RRF provided EU added value as it enabled the simultaneous implementation of reforms and investments across the EU, which created additional impact[253]. As evidenced above, the simultaneous implementation of the RRPs in each Member State created additional impact with spillover effects. Along the same lines, the simultaneous implementation of structural reforms that were tailored to Member States needs creates

250 Excluding Estonia (for data availability reasons) and Germany (where the spread is zero by definition).

251 See pages 184 to 188 of the supporting study.

252 See pages 184 to 188 of the evaluation study.

253 Evidence in this paragraph is sourced from the supporting study, see page 184.

additional impact, as the overall impact of these individual reforms is economically more beneficial when conducted by several/all Member States (e.g. labour markets reforms) than when conducted in isolation. The RRF amplified this joint and coordinated response.

The RRF brought a new dimension to EU funding instruments by making the financing of investments conditional upon the implementation of reforms. Under Cohesion Policy, the importance of linking investments to enabling frameworks and structural reforms was already embedded, for instance, through the necessary fulfilment of ex-ante conditionalities (evolved into enabling conditions) as a prerequisite. However, Cohesion Policy does not finance structural reforms (with some exception of targeted public administration reforms with an associated cost)[254]. Interviewees from a broad range of institutions (among which national authorities, the Committee of the Regions and the Economic and Social Committee) recognised the RRF support for structural reforms as a crucial asset of the RRF and highlighted that it effectively filled a gap compared to the status quo[255].

4.4.6. RRF support for multi-country projects

The RRF contributed to the implementation of multi-country projects, notably supporting the green and digital transitions. The RRF includes support for investments that have a significant cross-border impact. Member States were encouraged to consider such projects, which reflect common priorities of (several) Member States and are aligned with the objective of promoting further integration and cooperation within the EU. The importance of multi-country projects has further been strengthened in the amendment of the RRF Regulation. This includes an additional assessment criterion placing a strong cross-border or multi-country focus on all measures introduced under the REPowerEU chapter. An overview of RRPs shows that most of them include measures with multi-country projects[256], with the majority contributing to the green and digital transitions. More than half of the RRPs include measures contributing to multi-country projects or cross-border initiatives related to the green transition, with the Important Projects of Common European Interest ('IPCEI') on hydrogen showing the highest uptake. Most RRPs also include measures contributing to multi-country projects or cross-border initiatives in the area of the digital transformation: the IPCEIs on microelectronics (12 RRPs) and cloud technologies (six RRPs) are amongst the multi-country projects with the highest take-up. Further contributions towards the digital transformation are also seen in cloud technologies (with six RRPs including IPCEI measures), the European Digital Innovation Hubs (eight RRPs), 5G corridors (seven RRPs) and quantum communication (four RRPs).

The additionality of RRF funds is also reflected in the widened pool of Member States implementing multi-country and cross-border projects. There is a growing number of

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[254] Such as the targeted reforms of labour market institutions and services under the ESF+ if they have an associated cost.

[255] See the case study on the functioning of the RRF and other EU funds included in the supporting study.

[256] European Commission (2022) *Report from the commission to the European Parliament and the Council on the implementation of the Recovery and Resilience Facility*, COM(2022) 75 final, available at https://commission.europa.eu/system/files/2022-03/com_2022_75_1_en.pdf.

Member States participating in multi-country projects (most noticeably IPCEIs), especially in Central and Eastern Europe[257]. The scope of IPCEIs (notably hydrogen) would have likely been lower in the absence of the RRF funds and the Facility has provided a source of funding for Member States and an opportunity to integrate IPCEIs in national programmes[258]. The availability of RRF funds has enabled greater participation levels in multi-country projects, with the inclusion of Member States who would not have participated otherwise[259].

However, some authors consider that the impact and full potential of such projects could have been better exploited. Corti et al.[260] highlighted some missed opportunities for developing cross-border projects and in developing European public goods as part of the RRF. While theoretically cross-border projects carry huge potential for advancing the competitiveness of the European economy, Corti et al. argue that only a minor share of RRF-supported cross-border projects had so far an effective cross-border impact. This can mainly be attributed to the complexity of cross-border projects, which require more time in design (against the tight 2026 deadline) and see more challenges in implementation due to the multi-partner component. Furthermore, external factors (such as the war in Ukraine) also had a negative impact on the materialisation of multi-country projects.

Is the intervention still relevant?

4.5. Relevance

4.5.1. Relevance of the RRPs

Each RRP includes an agenda of reforms and investments that are relevant both to each Member State and for EU policy priorities. The reforms and investments covered in the RRPs relate to the CSRs, which concern important and relevant strategic measures tailored to Member States' needs. At the same time, as CSRs respond to broader EU policy priorities, the implementation of the measures included in the RRPs also support the broader EU agenda. In particular, with the specific climate and digital targets, the RRF directly contributes to the twin transformations (green and digital) of Member States' economies, which is an overarching EU-wide policy for years to come. The results from

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257 Eisl, A. (2022) *Important Projects of Common European Interest (IPCEIs) as a New Form of Differentiation: An Analysis of Their Challenges for the European Single Market*, available at: https://euidea.eu/wp-content/uploads/2022/03/euidea_pp_18.pdf.

258 According to stakeholders interviewed as part of the case study on cross-border and multi-country projects, with specific focus on IPCEIs; see pages 145 to 149 of the supporting study and the case study on cross-border and multi-country projects, with specific focus on IPCEIs.

259 See Dias, C., Grigaitè, K., and Cunha, I. (2021) *Recovery and Resilience Plans – Thematic overview on cross-border projects*, available at: https://www.europarl.europa.eu/RegData/etudes/IDAN/2021/689472/IPOL_IDA(2021)689472_EN.pdf; and Eisl, A. (2022) *Important Projects of Common European Interest (IPCEIs) as a New Form of Differentiation: An Analysis of Their Challenges for the European Single Market*, available at: https://euidea.eu/wp-content/uploads/2022/03/euidea_pp_18.pdf.

260 See Corti, F., Gros, D., Liscai, A., Ruiz, T., Kiss-Galfalvi, T., Gstrein, D., Herold, E., Dolls, M., and Fuest, C. (2022) *The European added value of the Recovery and Resilience Facility: An assessment of the Austrian, Belgian and German plans*, available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699513/IPOL_STU(2022)699513_EN.pdf.

the different consultations show broad support for the relevance of the RRF, with no interviewee questioning the relevance of the instrument[261].

The RRF remained relevant in an evolving context, demonstrating the flexibility of the instrument to adapt to changing circumstances. While the RRF was created in the context of the COVID-19 shock to support the economic recovery and enhance the EU's resilience, the RRF implementation is taking place in a changing environment, marked by Russia's invasion of Ukraine, high inflation, and an energy crisis. Thanks to the continued relevance of its main policy objectives and its delivery model, the amendment of the RRF Regulation in the context of REPowerEU in 2023, and the mechanisms included in the RRF Regulation for amending RRPs based on objective circumstances (Article 21), ensured that the RRPs remained relevant and well suited to address the new challenges. In late 2022 and 2023, all 27 Member States submitted revised RRPs, in line with the different venues provided by the RRF Regulation to amend RRPs (objective circumstances, additional loans and updated maximum financial contribution).

Member States highlight hurdles in amending the RRPs in comparison to other instruments, although the RRF single envelope of funds available to each Member State provides agility. Most national authorities stated that the process to modify RRPs was heavy and cumbersome[262]. Whilst it is recognised that modifying RRPs has been a necessity, given the plans are conceived for the medium-term to 2026, most national authorities did not perceive the instrument as sufficiently flexible. The most cited issues related to the plans' revisions are the procedures for amending RRPs, which do not distinguish between small and major adjustments (unlike what has been agreed for the Social Climate Fund, the set-up of which has benefited from the experience made with the RRF, where minor adjustments to the Plans, or the correction of clerical errors, are simply introduced by Member States and notified to the Commission) and the significant time lags between the decision at national level to modify a plan and the final approval of the modification by the Council. The supporting study highlights that, in comparison with Cohesion Policy, the RRF framework is perceived as too rigid: this stems from the perceived rigidity of the process for revising RRPs which is considered by stakeholders[263] as more burdensome than under EU Cohesion Policy. Nonetheless, despite the complexity conveyed by Member States, all Member States' RRPs were revised in 2022-2023 (with an impact on the RRF speed of implementation in 2023 highlighted in Section 4.1.). In general, while the process for amending RRPs is perceived as cumbersome, the broad scope of the RRF provides flexibility. For example, in 2023, during the revisions of RRPs, some Member States allocated more resources on energy measures in the wake of the energy crisis or took additional loans to prioritise such measures further.

The allocation key used to apportion funds among Member States proved relevant to support economic convergence in the EU in the post-pandemic context. The allocation

[261] See pages 190 to 191 of the supporting study.

[262] Evidence in this paragraph is sourced from the supporting study, see pages 191 to 194.

[263] See case study on the functioning of the RRF and other EU funds included in the supporting study.

key[264] applied to 70% of the non-repayable support is based on the population, the inverse of GDP per capita of 2019 and the relative average unemployment rate of each Member State. The allocation key applied to 30% of the non-repayable support also takes into account the change in real GDP in 2020 and 2021. Taking these factors into account has ensured that Member States in greatest need would benefit the most. Results of macroeconomic models[265] indeed predict that, given the allocation key, Member States with below-average levels of GDP per capita are expected to experience the largest boost to GDP levels. For a 6-year stimulus and a high-productivity calibration, the estimated increase in output reaches more than 3.2% in Greece; around 3% in Bulgaria, Croatia, and Romania; and around 2.5% in Italy and Portugal. However, some Member States who in June 2022 experienced a downward revision of their maximum financial contribution for non-repayable financial support made it clear that that this caused internal delays in the RRP implementation due to the need to either revise the plan, or to compensate the decrease in EU financing with national resources.

Because of the time limited design of the instrument, there were limitations in the selection of investments included in RRPs. The 2026 deadline limits the types of investments included in RRPs since it excludes investments that would have required more time to implement[266]. Especially for the REPowerEU chapters, most investments had to be relatively mature already to fit within the RRF timeline, particularly in the renewable energy sector. The 2026 deadline has therefore limited the ambitions in the REPowerEU chapters[267].

4.5.2. Relevance of RRF loans

While the RRF loans were relevant for many Member States, they were not for others. Assessment of the rationale behind Member States' decisions to apply – or not apply – for loans under the RRF shows that a mix of financial and non-financial considerations has driven Member States' decisions[268]. As of 1 September 2023, 13 Member States had requested loan support or additional one as per the revised RRF Regulation's Article 14(6). The amount of loan support requested was EUR 292.6 billion (in current prices), corresponding to 76% of the total loan support available.

The potential reasons to apply for RRF loans were related to whether the Member State faced higher interest rate on the markets or a reduction in non-repayable RRF support[269]. Some Member States with financing conditions on the markets at an interest rate higher than the EU interest rate sought additional support with RRF loans. Some Member States that faced a downwards revision of their maximum contribution of non-

[264] For details on the allocation key, see Annex I, II and III of the RRF Regulation.

[265] Pfeiffer, P., Varga, J., in't Veld, J. (2023) *Quantifying spillovers of coordinated investment stimulus in the EU*, Cambridge University Press, available at: https://www.cambridge.org/core/journals/macroeconomic-dynamics/article/quantifying-spillovers-of-coordinated-investment-stimulus-in-the-eu/FFCCAAA20BD98AC50A93A4F24562EAD4.

[266] See pages 190 to 191 of the supporting study.

[267] According to stakeholders interviewed as part of the supporting study, see page 190 to 191 of the supporting study.

[268] See pages 194 to 196 of the supporting study.

[269] Evidence in this paragraph is sourced from the supporting study, see pages 194 to 196.

repayable support in 2022 also applied for loans to make up for the shortfall and ensure the continuity of their projects. Factors such as the health of public finances, the need for additional funding, inflation concerns, administrative burden, and the scale of planned projects have all played a role in determining whether Member States opted for RRF loans or not.

On the contrary, the potential financial reasons not to apply for RRF loans were usually related to larger available funding or more favourable financing conditions by the market (when RRF loans were at higher interest rates compared to market alternatives)[270]. Some Member States also factored in inflation, i.e. concerns of injecting additional money into an economy already facing inflationary pressures. Member States that considered that the maximum contribution of non-repayable support was sufficient also did not apply for loans.

From a strict cost-of-funding viewpoint, RRF loans are expected to bring a sizeable return on investment ('ROI') for some Member States[271]. According to Commission calculations based on available data on NGEU versus sovereign cost of funding in the period up until November 2023, all Member States who requested loan support were expected to benefit from a positive ROI[272] from RRF loan disbursements. It was estimated at between 2% and 17% for nine euro-area Member States, and between 13% and 38% for four non-euro area countries. This ROI is however subject to market developments. For non-euro area Member States, high ROIs are accompanied by exchange rate risk, which depends on the volatility of the exchange rate with respect to the EUR.

5. WHAT ARE THE CONCLUSIONS AND LESSONS LEARNED?

5.1. Conclusions

This mid-term evaluation provides a first and early assessment of the RRF midway through its lifetime, as required by its Regulation. The assessment is done against the five evaluation criteria of effectiveness, efficiency, coherence, relevance, and EU value added. The evidence underpinning this evaluation is to a large extent based on an extensive external study, which is published at the same time as this SWD.

While this evaluation presents significant information on implementation, it is still too early to assess the impact of the RRF since the impact of reforms takes time to materialise and only a few investments have been fully completed so far, in line with the RRF's design. This report therefore presents the progress achieved to date in reaching the RRF's specific objective, i.e. to provide Member States with financial support in order to achieve specific milestones and targets that represent steps in the implementation of reforms and investments. It also illustrates how the achievement of milestones and targets

270 Evidence in this paragraph is sourced from the supporting study, see pages 194 to 196.

271 Evidence in this paragraph is sourced from Monteiro, D. P. (2024), "Large-scale EU issuance: 3 years on", *Quarterly Report on the Euro Area*, Vol. 22, No. 4 (forthcoming).

272 Based on a discounted ROI approach, whereby the present value of the financial costs associated with a RRF loan (i.e., the stream of interest payments and future principal repayments) is compared with the present value of the financial benefit (i.e., the loan amount itself that is being granted).

has, in some cases, already translated into the implementation of reforms and investments by Member States. This in turn contributes to achieving the RRF's general objective, i.e. to promote the Union's economic, social and territorial cohesion. A fully-fledged impact evaluation will be possible only ex-post once the measures are fully implemented.

The RRF, set up to help Member States recover and become more resilient after the COVID-19 crisis, contributed to supporting the EU economy in critical times. In contrast with previous macroeconomic shocks, public investment remained robust during the COVID-19 pandemic and the energy crisis. The RRF has contributed to preserving public investment in the EU and is expected to boost it going forward: the 2023 Autumn Forecast finds that approximately half of the increase in public investment between 2019 and 2025 is related to investment financed by the EU budget, particularly by the RRF. The announcement of the RRF has contributed to reducing sovereign bond spreads in the EU at the time of the COVID shock, which in turn helped mitigating risks of financial fragmentation (for details, see Section 4.4.3) and supporting the recovery. By design, with its allocation key and the spillovers effects it triggers, the RRF is also expected to strengthen economic convergence in the EU. The provision by the EU of debt-financed non-repayable support constituted a new element in the Union's toolbox and has been an important element in supporting the recovery from the COVID-19 crisis, in particular in Member States with less fiscal space.

At the half-way point, the implementation of the Facility is well under way. The Commission already disbursed over EUR 225 billion and the implementation of RRPs is progressing across all the six pillars that define the scope of the Facility (related to the green and digital transitions; sustainable and inclusive growth; social and territorial cohesion; resilience; policies for the next generation). By 1 February 2024, 1,153 milestones and targets out of 6,266 had been assessed as satisfactorily fulfilled and an additional 1,238 milestones and targets had been reported by Member States as completed, representing a progress rate of approximately 38% of the total number of milestones and targets under the RRF (with 18% of all milestones and targets assessed as satisfactorily fulfilled). At the time of writing, 18 further payment requests containing over 600 milestones and targets were under assessment by the Commission. Once these have been assessed, the stated number should increase significantly.

Progress in RRF implementation varies across Member States. While some Member States have not yet submitted any payment request, others have already submitted three or more. Indeed, in line with the performance-based nature of the RRF payments can only be made when the pre-defined progress towards the achievement of reforms and investments has been made. First disbursements under the RRF were made early on, notably thanks to the pre-financing provided for those RRPs that were adopted before the end of 2021, and steadily continued in 2021 and 2022. However, the first half of 2023 has seen a slowdown in disbursements, with Member States temporarily delaying their payment requests to focus on the revision of plans and the addition of REPowerEU chapters.

The monitoring of the Facility relies on a wide-ranging set of milestones and targets (more than 6,000). They represent concrete progress made towards the achievement of the reforms and investments committed to by Member States in their RRPs. The common indicators, while providing useful insights on the progress of the Facility as a whole, have a number of methodological limitations since they have neither baseline nor target values to measure results – and can therefore only be used to complement the information gathered on the fulfilment of milestones and targets.

While it is not yet feasible to assess the impacts of the RRF, some positive findings already emerge at the halfway point on the main features of the Facility. First, pre-financing has allowed to quickly provide financial support to Member States after the COVID crisis. Second, the RRF's ability to support the implementation of reforms has been considered as one of the most effective features of the instrument. The RRF has proven to be a key tool to boost Member States' delivery on the European Semester's country-specific recommendations. Third, the performance-based approach of the RRF is considered instrumental in enhancing its effectiveness: the disbursement upon the completion of concrete outputs (i.e. milestones and targets) evidenced by Member States is key to ensure 'performance'; disbursements upon the delivery of milestones and targets are fast and the approach provides meaningful incentives to Member States to deliver upon relevant reforms. Combining reforms and investments in one funding instrument creates synergies between them, and the integration of a comprehensive reform and investment agenda into a single RRP supports the internal coherence of national medium-term plans.

Despite these positive findings, the RRF has not so far led to the administrative simplification that some Member States had hoped for. Concerning the *implementation* of the instrument, the administrative work required at national and sub-national level to implement the RRF is higher than initially expected by Member States. As a new instrument, the RRF created 'entry costs', and the administrative costs linked to the RFF implementation have increased over time. The procedure for amending RRPs is also seen as burdensome and overly complex by some stakeholders, notably Member States authorities. Concerning the *design* of the instrument, the requirements to protect the financial interests of the Union led to a similar administrative burden as other EU funds based on costs and the complex audit and control framework enshrined in the RRF Regulation has negatively affected the speed of implementation of the RRF. This may be exacerbated by the coexistence of the two EU funding instruments (RRF and structural funds) with two different approaches (performance-based and costs-based). Representatives of Member States' coordinating bodies stress that the specific design of the RRF also led to demanding reporting requirements and a perceived lack of flexibility, thereby hampering effectiveness and efficiency.

With its large financial envelope, the RRF provided substantial funding to advance the implementation of common EU policies. The scope of the RRF, as reflected in the six pillars anchored in the RRF Regulation, broadly covers the main policy areas of EU relevance, with a specific focus on the EU's twin transition via the mandatory climate and digital expenditure targets. Stakeholders, including non-governmental organisations, also recognise the DNSH principle as a feature that has strengthened the 'green' dimension of RRF reforms and investments and supports the achievement of the RRF's green objectives.

The RRF's focus on EU common priorities, including the green and digital transitions, supports both a coherent approach to these policies across Member States. The implementation of the RRF is well integrated with the European Semester process, providing it with more leverage. However, some substitution effects between the RRF and Cohesion Policy appear to have materialised. There is high potential for synergies between the two instruments - and synergies can be expected to increase in the future.

While the RRF's additionality is difficult to quantify in the absence of a counterfactual, the qualitative evidence available so far provides first hints as to the EU added value of the instrument at the half-way point. First, the additionality of the RRF relates to the scale of financial support, which is unprecedented in the Union's history. The announcement of the RRF has contributed to reducing sovereign bond spreads in the EU at the time of the COVID shock, which in turn helped mitigating risks of financial fragmentation and supporting the recovery. The additionality of the RRF in individual Member States is correlated to the size of the financial support provided, which can be proxied by the RRP allocation as a share of GDP: for Member States where the RRF represents an important share of GDP, the Facility provided additional fiscal space to implement investments that would otherwise have been unlikely. By design, and in particular through its allocation key, the RRF is expected to strengthen economic convergence in the EU. The evidence gathered for this mid-term evaluation shows that the additionality of the RRF regarding reforms also lays in its support for speeding up the implementation of long-standing and politically challenging reforms, which would not have been implemented otherwise. The RRF brought a new dimension to EU funding instruments by making the financing of investments conditional upon implementation of reforms. Last but not least, the RRF contributed to the implementation of multi-country projects, notably supporting the green and digital transition, widening the pool of Member States implementing multi-country and cross-border projects.

5.2. Lessons learned

5.2.1. Design of the RRF

With its large size and quick initial roll-out, the RRF has allowed for an appropriate EU policy response to the unprecedented economic and social crisis linked to COVID-19 and subsequent challenges. Through its pre-financing feature, the RRF swiftly provided fiscal space in the aftermath of the COVID-19 crisis. This was complemented by the reduction in sovereign bond spreads in the EU that followed the announcement of the agreement on a sizeable EU recovery initiative. Since then, the RRF has contributed to sustaining public investment in the EU. In contrast to previous macroeconomic shocks, public investment in the EU has increased in the aftermath of the COVID shock. Together with its distinct allocation key, which favours lower-income Member States but also considers the impact of the COVID-19 crisis, the non-repayable nature of the financial support provided (and the possibility to request additional loan financing) enabled the RRF to support the recovery and economic convergence of the EU economies. The coordinated EU approach is also predicted to provide substantial benefits in terms of cross-country spillovers.

A key innovative feature of the RRF is its ability to support the implementation of structural reforms. Making the approval of RRPs and subsequent disbursements conditional upon the inclusion and gradual implementation of key reforms has created significant incentives to carry out structural reforms. Thanks to the RRF, implementation of CSRs has significantly advanced, and much more than in years preceding the RRF. Moreover, combining complementary reforms and investments in a single plan – and under one instrument – is beneficial and can increase their impact since, for example, certain enabling reforms can make subsequent investments more effective. However, the analysis also shows that incentives to implement difficult reforms are smaller for Member States where the RRF allocation is more limited compared to the size of the economy.

The performance-based nature of the instrument brought a more holistic approach to public spending. Providing direct financial support for the fulfilment of milestones and targets yields commitments and incentives to deliver on the actual implementation of the agreed measures. For several Member States, it represents a shift towards a more effective approach to public spending, enhancing predictability and accountability. The functioning of the approach requires an adequate specification of milestones and targets that avoids ambiguities about their fulfilment. This way, it also allows for disbursements of funds related to the achievement of early and intermediate steps of reforms and investments. However, Member States conveyed that the performance-based nature of the instrument did not bring the administrative simplification that was hoped for. This is mainly due to the demanding audit and control requirements, the extent of information required to justify the fulfilment of milestones and targets (seen as excessively demanding by several Member States), and additional reporting requirements (such as the bi-annual reporting on progress with milestones and targets as well as on common indicators).

By design, the RRF ensures a strong alignment of Member States policies with EU priorities. The binding climate and digital targets for the RRPs ensure that a large part of funds is dedicated to fostering the green and digital transitions, among the other key priorities outlined in the RRF Regulation. By providing financial incentives to implement the CSRs under the European Semester, the RRF addresses reform and investment priorities that have been agreed as key EU policy orientations. It thereby improves the effectiveness and coherence of EU policies and EU spending.

The RRF's design ensures national ownership and accountability, but there is room for improvement regarding stakeholder involvement in its implementation, notably regarding regional and local authorities as well as social partners and civil society organisations. While the RRF Regulation broadly defines the policy priorities to be addressed, in line with the CSRs, the final decision on what measures to include in their RRPs and how to design reforms and investments lies with the Member States. This decision is taken following public consultations and close dialogues with the Commission, and the RRP is eventually subject to a Council decision. In Member States with a more decentralised structure for managing Cohesion Policy, some regional and local authorities, as well as other stakeholders including social partners point to their insufficient involvement in planning and implementing the RRF. The organisation of stakeholder involvement and the set-up of public consultations and RRF monitoring bodies plays a key role in this regard.

The governance structure of the RRF combines a strong role for both the Commission and the Council in a multilateral setting and provides for close scrutiny by the European Parliament during the implementation. The 11 assessment criteria in the RRF Regulation provide leverage to steer the plans towards the implementation of key policy priorities. The involvement of various Council bodies, while only very exceptionally leading to changes in the RRPs or the assessment of payment requests so far, is an important part of the process. It enhances transparency and accountability, thereby helping to increase trust among Member States' authorities in the RRF. The European Parliament is closely scrutinising the implementation of the Facility through regular exchanges with the Commission, both at technical and political level.

While the Facility has been able to react to new challenges, some stakeholders, notably Member States authorities, point to the need for further flexibility in the instrument's design as a key lesson learned. The RRF has been agile in reacting to new challenges, as shown by the integration of REPowerEU and its flexibility in reacting to high inflation and supply chain constraints. Nevertheless, Member States have pointed to a perceived rigidity in the way the RRF Regulation requests them to implement RRPs (strict interpretation of detailed milestones and targets, strict list of milestones and targets that must be satisfactorily fulfilled to receive a specific instalment, disbursement procedures) and regarding the process to revise them. While this perceived rigidity stems from legal obligations anchored in the RRF Regulation, and its intervention logic to provide support for coherent packages of investments and reforms, it has reportedly led to a higher-than-expected administrative burden and implementation delays.

By design, the performance-based logic of the RRF leads to less readily available information about the final recipients of the funds, but improvements have already been made. While information on final recipients of RRF funding is collected by the Member States, it can only be used and shared for specific audit and control purposes. Hence, the data on final recipients is usually not provided as part of Member States payment request documentation and is therefore less readily available under the RRF than under most cost-based instruments. However, with the amendment of the RRF Regulation in the context of REPowerEU, the obligation for Member States to publish data on the 100 final recipients receiving the highest amount of RRF funding was agreed by the co-legislators, which goes some way to remedy this issue. At this point in time, there is also limited reporting on results, i.e. completed reforms and investments, as first fulfilled milestones and targets are often intermediate steps towards completing reforms and investments.

The common indicators' data serves as a complement to the information gathered on the fulfilment of milestones and targets. The monitoring of the Facility is mainly achieved through the milestones and targets, which are specific to each plan and measure the concrete output – and upon completion of reforms and investments, also the results– achieved in each RRP. Additionally, the RRF Regulation introduces the concept of common indicators. While their purpose is to report on the overall performance and progress of the Facility towards its objectives, they do not comprehensively cover all investments included in the RRPs and do not fully capture the contribution of reforms, which is difficult to measure using numerical indicators. Furthermore, the common indicators do not include final target values, which limits their use in the context of an evaluation and in determining the RRF's effectiveness. Because of these caveats, the common indicators' data has only been used to a limited extent in this evaluation, mostly as complement to the information gathered on the fulfilment of milestones and targets.

5.2.2. Implementation of the RRF

National governance structures matter for the efficient implementation of the Facility. A centralised RRF coordination body, typically close to the Prime Minister's office, tends to be correlated with more efficiency in the design and implementation of RRPs. In the case of a decentralised governance structure (for example by the responsible line ministries), coordination bodies are facing more difficulties in ensuring the implementation of RRPs *vis-à-vis* line Ministries.

Given the innovative and novel nature of the RRF, the Commission prepared extensive guidance documents had, which sometimes took more time than envisaged. Since the creation of the RRF, the Commission has provided Member States with comprehensive RRF-related guidance, for example on the preparation of plans, the application of the DNSH principle, the frameworks for satisfactory fulfilment, the suspension of payments and reversals of milestones and targets, or the preparation of REPowerEU chapters. The RRF Experts Group, composed of RRF experts of all Member States, meets regularly and provides a forum of dialogue to exchange and explain such guidance and exchange best practices. Implementing the RRF has involved a lot of "learning-by-doing" for both Member States and the Commission. Providing robust guidance to Member States has therefore at times taken more time than expected. For some Member States authorities this proved to be a challenge where they would have liked to move faster or had to amend draft plans in light of newly issued guidance.

While disbursements were timely in the first two years (2021-2022), the amendments of the plans in light of external factors slowed down payments in 2023. Following the amendment of the RRF Regulation in the context of REPowerEU in early 2023, most Member States added REPowerEU chapters to their RRPs. In addition, 30% of the total amount of grant support available, the allocation of which had been updated by end-June 2023, needed to be committed by the end of the year. Member States used the plan revisions necessary in this context as an opportunity to make additional changes. Where they realised that the achievement of specific milestones and targets had become impossible because of objective circumstances (such as high inflation or supply constraints), they either made changes to the measures concerned and/or delayed the submission of payment requests. Taken together, these different elements resulted in delays with respect to the indicative disbursement schedules in the CIDs. While obstacles in implementation and revisions in their design are unavoidable in the context of detailed multi-annual policy plans, disbursement delays do not necessarily slow down implementation on the ground, as discussed in Section 4.1. The Commission expects the 2023 delays to be temporary, as interviews with Member States as well as their regular reporting on progress point to a catch-up in payments in 2024.

The large amount of RRF funds available in addition to cohesion funds have strained the administrative and absorption capacity of some Member States, also given the tight timelines and the required ambition of the supported measures. In Member States that also receive significant amounts of cohesion funding, the simultaneous planning and programming of funds stemming from two different instruments can be challenging, especially for smaller administrations. Moreover, potential risks of double funding have to be monitored carefully. Additional complexities for administrations can arise from the inclusion of many small measures or cross-border projects in the plans.

Several stakeholders, in particular the national coordination bodies, have called for a better balance between transparency/control and the resulting administrative costs. From the point of view of the Member States, the RRF has not brought the expected simplification of administrative procedures compared to other EU funding instruments, notably because of the comprehensive audit and control requirements (a perceived overlap between national, Commission and ECA audits has created uncertainty in Member States and an overload of administrative procedures). While the RRF Regulation lays down the audit and control responsibilities of the Member States and obliges the Commission to assess and scrutinise them, the Member States' understanding of the resulting requirements was sometimes different than the ones imposed by the European Court of Auditors and the European Parliament as discharge authority. Moreover, various reporting obligations for Member States stemming from the Regulation (bi-annual reporting, common indicators, final recipients etc.) involves a significant amount of work for both national administrations and Commission services. These reporting requirements add onto the continuous monitoring of progress on milestones and targets ahead of upcoming payment requests to meet the goals of the Facility. At the same time, they provide transparency and enable communication on the progress with milestones and targets.

5.2.3. Looking ahead – what to make of the lessons learned

The Commission has taken steps to address shortcomings identified in this mid-term evaluation. Progress has been achieved in terms of increasing awareness of existing flexibility with additional Commission guidance on the implementation of RRPs (e.g. the framework for assessing milestones and targets[273]) or increasing transparency through the adoption of the payment suspension methodology, which provided clarity on the financial consequences of partially fulfilling milestones or targets, while preserving the incentives for implementing the plans in line with the objectives of the RRF Regulation. Moreover, Member States' administrative capacities have been strengthened through enhanced support from the TSI and dedicated sessions in the RRF Expert Group.

[273] See Annex I of European Commission (2023) *Recovery and Resilience Facility: Two years on A unique instrument at the heart of the EU's green and digital transformation COM(2023) 99 final*, available at https://commission.europa.eu/system/files/2023-02/COM_2023_99_1_EN.pdf.

Further action within the scope of the RRF Regulation will be considered to facilitate implementation. Where feasible, the Commission will consider ways of supporting Member States' in strengthening their administrative capacity for the implementation of RRPs. Given that many Member States consider the process to change RRPs as too burdensome, slow and unnecessarily complex, the Commission will keep exploring possible ways to mitigate their administrative burden. The streamlining of the process for processing payment requests in the Committees (EPC and EFC) is considered a first improvement.

Further reflection is needed on common indicators and their design to better monitor and evaluate impact. The limitations of the common indicators have been subject to several discussions with the European Parliament and the European Court of Auditors[274], and the Commission has committed to look into possibilities to improve the quality of the common indicators data[275]. Moreover, there is a need to further reflect on the design and use of common indicators, particularly for future performance-based instruments. It would be useful to have a higher number of common indicators with clear baselines and target values to enable the proper measurement of results. At the same time, the reporting on common indicators has contributed to the administrative burden for Member States authorities, which also needs to be taken account when designing monitoring frameworks for potential future instruments.

A proposal for legal amendments to improve the functioning of the RRF is not warranted at the current juncture. Article 32 of the RRF Regulation refers to the possibility of accompanying this mid-term evaluation with a legislative proposal to modify the RRF Regulation. However, this is considered unnecessary for several reasons. First, the Commission has taken steps to facilitate implementation and will continue to explore further steps where appropriate and necessary. Second, the Regulation has already been amended in the context of REPowerEU. Raising expectations regarding possible changes to the functioning of the RRF could further delay implementation on the ground. Third, with only two and a half years to go until the deadline for Member States to achieve the final milestones and targets of their RRPs by end-August 2026, the focus should be squarely on implementation going forward. The Commission will continue to provide active support to Member States in this context.

The successful features of the RRF and the main lessons learned from its implementation can inform the design of future EU funding instruments. In view of the temporary nature of the RRF, which will expire at the end of 2026, it seems worth reflecting on what features of the Facility might inspire the design of EU funding instruments in the context of the next Multi-annual Financial Framework, starting in 2028. Such features include notably the effectiveness of the performance-based approach in delivering on reforms, the combination of reforms and investments in one instrument, and

274 See ECA Special report 26/2023: *The Recovery and Resilience Facility's performance monitoring framework*, available at: https://www.eca.europa.eu/en/publications?ref=SR-2023-26.

275 See Replies of the European Commission to the ECA's special report on the RRF's performance monitoring framework, available at: https://www.eca.europa.eu/Lists/ECAReplies/COM-Replies-SR-2023-26/COM-Replies-SR-2023-26_EN.pdf#page=8&zoom=100,92,866.

a clear focus on EU policy priorities, including by way of mandatory expenditure targets to promote the climate and digital transitions, combined with a country-specific approach based on the European Semester process. The frontloading of funding, as done with RRF pre-financing, seems particularly suitable in situations where a swift crisis response is required. For any future performance-based instrument, some considerations in the formulation of milestones and targets could be made. It is important to ensure an adequate balance between the necessary level of detail to ensure adequate monitoring and avoidance of ambiguity, while allowing for possibly necessary adjustments during the implementation, taking into account evolving circumstances Moreover, future instruments should be based on objectives fulfilling the S.M.A.R.T criteria[276], consider a stronger involvement of regional and local authorities as well as non-governmental stakeholders and pay specific attention to reinforcing administrative capacity as well as transparency and communication requirements.

5.2.4. Looking ahead – the RRF ex-post evaluation

The ex-post evaluation of the RRF, to be completed in 2028, will aim to assess the results and impact of the Facility. As discussed, this mid-term evaluation comes too early to properly and conclusively assess the RRF's impact. Given that there is no overall method available to compare the implementation of the whole Facility with the counterfactual situation without the RRF, the Commission aims, for the ex-post evaluation in 2028, at using advanced micro and macro-econometric methods and modelling tools aiming at identifying and assessing, to the extent possible, the causal impact of selected reforms and investments and their additionality. Contrary to the theoretical model simulations and first examples put forward for the mid-term evaluation, it should be possible by 2028, for the ex-post evaluation, to empirically analyse the impacts of some measures supported by the RRF (as they are expected to be completed by the end of 2026). Those impacts may have matured depending on the timeline and nature of the investments and reforms delivered by the Member States under the Facility.

The Commission services will prepare a research plan which aims at providing input to the ex-post evaluation. The availability of comprehensive data will be key for the ex-post evaluation. Given that the RRF is mainly funding nationally implemented measures, data will also have to be collected at national level to the extent that these become available. As the ex-post evaluation will have to make use of adequate micro- and macro-economic data, it must be ensured that these will become available when RRF-funded measures are finalised. As priority themes, the ex-post evaluation will focus on the main objectives included in the RRF Regulation, notably on the green and digital transitions, the impact on social and economic resilience as well as convergence within the EU.

[276] Objectives should be specific, measurable, assignable, realistic, and time-related ('S.M.A.R.T').

ANNEX I: PROCEDURAL INFORMATION

The mid-term evaluation of the Recovery and Resilience Facility ('RRF'), in the middle of the programme's operating time, has been completed in line with Article 32 of the Regulation establishing the RRF[277]. The Decide planning entry for the mid-term evaluation is PLAN/2022/2114.

In line with the requirements set out in the Commission Better Regulation Guidelines, the mid-term evaluation considered the criteria of relevance, effectiveness, efficiency, EU value added and coherence. The exercise relies primarily on an external independent supporting study commissioned by the Commission in January 2023 and concluded in November 2023. In order to ensure validity, the analysis and conclusions of the supporting study are based on the evidence obtained using several evaluation methods (literature review, semi-structured interviews with targeted stakeholders, targeted consultations, open public consultation, case studies with roundtables and a validation workshop). The cut-off date of the supporting study is end of July 2023, with the eight case studies having a cut-off date of end of September 2023. A few limitations were experienced during the preparation and completion of the supporting study. Annex 2 provides a detailed overview of these shortcomings, together with the mitigation strategies adopted.

The mid-term evaluation has been undertaken jointly by DG ECFIN and SG RECOVER. DG ECFIN and SG RECOVER also chaired the inter-service group ('ISG') that was set up to manage the external supporting study and has been involved in all key steps of the process. Apart from DG ECFIN and SG RECOVER, members of the ISG came from a broad range of Commission services (26) that are responsible for EU-policies relevant to the RRF[278]. The ISG provided information, expertise and quality assurance in line with evaluation standards and provided a useful steer to both the supporting study and this SWD. Specifically, the ISG was involved in:

a) Establishing the evaluation roadmap and call for evidence;

b) Establishing the Terms of Reference ('ToR') for the supporting study;

[277] 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/eli/reg/2021/241/oj/eng.

[278] The ISSG is composed of representatives of DG AGRI, BUDG, CLIMA, CNECT, COMM, COMP, DEFIS, DIGIT, EAC, EMPL, ENER, ENV, FISMA, GROW, HOME, JRC, JUST, LS, MOVE, OLAF, REFORM, REGIO, RTD, SANTE, TAXUD and TRADE.

c) Designing the stakeholder consultation strategy;

d) Reviewing and quality assuring the deliverables of the supporting study;

e) Preparing the Commission services' Staff Working Document.

The call for tenders was launched in January 2023. Following the verdict of an evaluation committee, the specific contract to undertake the external evaluation was awarded to a consortium co-led by ECORYS and CEPS using Framework Contract number ECFIN-048-2023 – ref. Ares(2023)810564. The consortium included the National Institute of Economic and Social Research, Csil and Wavestone.

The evaluation call for evidence ran between 8 November 2022 and 6 December 2022, to seek wider feedback. This was followed by an open public consultation (OPC) which ran for twelve weeks from 16 March 2023 to 8 June 2023. (OPC Decide planning entry PLAN/2022/2114).

A kick-off meeting on the supporting study, where the ISG and the external contractor discussed the deliverables and the evaluation methods, took place on 23 March 2023. ISG meetings on the inception and interim reports of the external study were held on 18 April 2023 and 19 June 2023 and an ISG meeting on the draft final report and final report was respectively held on 15 September and 20 October 2023. Following a validation workshop with a range of experts, the definitive final report was approved by ECFIN/RECOVER on 31 January 2024. To provide appropriate support and ensure the contractor's access to the necessary information as comprehensively as possible, regular dialogues were organised between the contractor and DG ECFIN and SG RECOVER from April 2023 onwards. These dialogues continued until the finalisation of the supporting study, which was published at the same time as this SWD. The content of the supporting study remains the sole responsibility of the authors and does not necessarily reflect the views of the Commission.

The supporting study acted as the primary source of evidence to inform the SWD, which was drafted in October and November 2023 by SG RECOVER and ECFIN staff. The draft SWD was presented and discussed at the ISG meeting on 27 November and advise, input and feedback from ISG members was incorporated. A revised version of the SWD was then circulated and supported by all ISG members by 5 December 2023 in a written procedure.

As with all evaluations related to programmes with a major impact on the EU budget or which are of strategic importance for the Union, the mid-term evaluation carried out by DG ECFIN and SG RECOVER is subject to scrutiny by the Regulatory Scrutiny Board ('RSB'). An RSB upstream meeting was held on 2 October 2023, followed by a meeting with the RSB on 17 January 2024. The RSB provided some recommendations for improvement and gave a positive opinion on 8 February 2024.

Table A1.1 below summarises the main points of the RSB review and how they have been integrated into the evaluation.

Board's Recommendations	**Integration of the recommendations into the mid-term evaluation report**
The macroeconomic modelling and simulations cannot be used to provide an evaluation of the actual impact. They can serve rather as an ex-ante model prediction.	The results of the macroeconomic simulations have been deleted from the sections about effectiveness, efficiency and EU added value, as well as in the conclusions. Instead, the results of the macroeconomic simulations feature in the section on the intervention logic section and points of comparison, to illustrate what the expected macroeconomic impacts compared to a scenario with no RRF.
The limitations of the evidence base for assessing the impact of the Facility at this early stage should be systematically acknowledged and reflected throughout the report.	The report underlines (in the introduction, in the sections about effectiveness, efficiency and EU added value, as well as in the conclusions) that it is too early at this juncture to conduct a full impact evaluation/to assess the impact of the RRF general objective. The effectiveness section also better explains the links between the achievement of M&Ts and the RRF general objective. It clearly distinguishes between the achievements on the RRF specific objectives (disbursements and M&T achievement) and what can be said, at this early juncture, on the progress towards the RRF general objective (divided under its various elements) - with examples about available results on completed reforms taken from the case studies.
The report should be clearer about the additionality of the RRF.	The EU added value section has been developed further, notably with further elements on the RRF additionality, discussing the scale of RRF financing, convergence and spillover aspects, support for the

	implementation of common EU policies, on top of the support for reforms and for multi-country projects.
The report should systematically present and analyse evidence from the various consultations and should be specific throughout on which stakeholder group said what.	The evidence gathered from consultations activities, conducted both by the Commission (open public consultations) and the consultants (interviews and targeted surveys) is included in section 4 of the report, by stakeholder group when relevant.
The conclusions should better reflect the key findings of the analysis.	The conclusions have been revised to fully reflect the key findings of the analysis.
The lessons learned should be further developed, in particular on the need to improve the monitoring framework to better demonstrate the impact of the Facility.	The lessons learned have been developed further, including with a point on the common indicators and on the upcoming ex-post evaluation.

ANNEX II. METHODOLOGY AND ANALYTICAL MODELS USED

This annex presents the methodological approach to the mid-term evaluation. It describes the design of the methodology, the tools used for data and information gathering and the results obtained. It also provides insights on the limitations encountered and the mitigation strategies adopted.

Evaluation design

The methodology of the evaluation study was designed to respond to (i) the evaluation questions detailed in the Terms of Reference for the mid-term evaluation study of the RRF, and (ii) the Better Regulation Guidelines evaluation criteria. It rests on three pillars:

1. Participatory and inclusive data collection and analysis through a stakeholder consultation programme (semi-structured interviews, surveys, public consultation and case studies) and a validation workshop;

2. A mixture of qualitative and quantitative input, with qualitative input obtained mainly through document analysis and stakeholder input and quantitative input, including macroeconomic modelling, supporting the qualitative information to the extent possible; and

3. Triangulation, i.e. the information and data collected from a range of different sources using a range of methods collectively provides answers to the evaluation questions prepared by DG ECFIN and SG RECOVER.

Tools for information gathering and results obtained

The information and data required for the study were collected using the following methodological tools:

Literature Review

To support the mid-term evaluation an extensive literature review has been carried out in the context of the supporting study[279], presenting experts and academia's views on the RRF. The literature review has been carried out to inform the different aspects of the mid-term evaluation, namely:

- The overall functioning and implementation of the RRF, including reporting in the European Semester and audit;
- Progress with the implementation of the RRF across the six RRF Pillars: green transition, digital transformation, smart sustainable and inclusive growth, social and territorial cohesion, health, economic, and social and institutional resilience, and policies for the next generation;
- Progress with cross-border projects and EU added value;
- The macro-economic impact of the RRF;
- The role of sub-national actors in implementing the RRF (drafting and implementation);
- The role of social partners and civil society in implementing the RRF (drafting and implementation).

The literature review includes a systematic review of a broad set of sources which was subsequently used to prepare the country-specific analysis and the case studies, as well as the preparation of the surveys and the macro-economic analysis. The table A2.1 below summarises the key documents reviewed for the preparation of the different phases of the mid-term evaluation. The main findings of the relevant literature are provided in Annex III of the supporting study, while the bibliography is included in Annex IV. Concerning the case studies, the references to the literature reviewed are indicated at the end of each case study in the supporting study.

[279] See Annex III of the supporting study, starting from page 250.

Table A2.1: Literature review – key source

Sources	Analysis
RRF Regulation and REPowerEU, Council Implementing Decisions plans and payments' request and related annexes, Operational Arrangements (where available), RRP national websites and related publications, National Bank's RRF-related publications, Research institute and think tanks country specific RRF-related publications, the Commission's publications on the RRF (e.g. Review Reports, Fact sheets on bi-annual reporting from Member States) EP studies and papers produced by and for the EP Research Service, ECA' audit reports and discussion papers, Committee of the Regions and European Economic and Social Committee reports Eurofound reports.	Country specific analysis
Council Implementing Decisions and related annexes, Operational Arrangements (where available), RRP national websites and related publications, National Bank's RRF-related publications, Research institute and think tanks country specific RRF-related publications, the Commission's thematic reports, EP studies and papers produced by and for the Epary Research Service, ECA' audit reports and discussion papers	Case studies
European Central Bank publications, including Economic bulletins, Occasional Papers, and Blogs, Research institutes and think tanks, DG ECFIN publications	Macroeconomic analysis
For coordination bodies: RRF Regulation and REPowerEU For national parliaments: built on information collected for country-specific analysis	Surveys
Sources changed based on the interviewee: - Coordination bodies and Commission lead negotiators: see sources for country-specific analysis - Other DGs in the EC: same sources as case studies (so far done only EAC and EMPL, respectively for ECEC and ALMP case studies) - EFC/EPC: Regulations - EP: RRF/REPowerEU Regulations and Recovery and Resilience Dialogues between the EP and the EC - Social partners: RRF/REPowerEU Regulations and their own position papers on RRF	Semi-structured interviews (not related to case studies)
Academic literature, OECD reports and other think tank publications	Background information

Source: Supporting study

Databases creation

The contractor established a database with primary (available monitoring data) and secondary information on implementation (collected via desk research and interviews). The main characteristics of the databases are presented below.

- Primary database – it includes data provided by the Commission (payments, milestones and targets, investments and reforms, tagging) and the Recovery and Resilience Scoreboard[280]. The data from the Commission has been complemented by Scoreboard information where needed. The data was used extensively in the evaluation questions on Effectiveness.
- Secondary database – it includes information on the implementation of the RRF, which is based on the interviews and the desk research performed at Member State level. The database is provided in Annex V of the supporting study.

The Primary database was partly updated by the Commission after the supporting study, in order to allow for the incorporation of up-to-date monitoring data in the SWD.

Public Consultation

The public consultation was conducted from 16 March 2023 to 8 June 2023. The consultation was available via a dedicated webpage in all official EU languages. It was open to feedback from anyone interested in the topic.

A total of 172 responses were received. Data was screened in line with the Better Regulation Toolbox. No duplicates or campaigns were identified, which means that all responses were included in the analysis. The largest number of contributions stems from Portugal (57 responses), followed by Belgium (16) and Germany (15), Spain (13), Romania (12), Italy (11) and Czechia (10 responses). Four replies come from Austria and three from Hungary. Jointly, respondents from these Member States accounted for almost three out of four replies. All but one respondent indicated an EU Member State as their country of residence. Respondents from 24 Member States provided responses.

The consultation outcome and the summary report are available on the following website: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13608-Recovery-and-Resilience-Facility-2020-2024-mid-term-evaluation/public-consultation_en.

[280] See https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html.

Surveys

Two targeted surveys were launched at the end of May 2023 and closed on 7 July 2023. The first survey addresses key national stakeholders involved in the programmes' implementation, in the projects' selection, and in the monitoring and reporting procedures. The views expressed provide information on the state of implementation, administrative costs and burden, agility of processes and rules, potential overlaps and/or synergies with other existing instruments, in particular cohesion programmes, and views about the performance-based system. The second survey targeted members of National Parliaments involved in Committees in charge of reforms supported by the Recovery and Resilience Facility.

The survey questionnaires were translated in all official languages of the EU. The survey questionnaires were uploaded on EUSurvey, an open-source software solution funded by the Commission for creating surveys and questionnaires.

Table A2.2 Survey Status

	Survey 1 – to key RRF national stakeholders	Survey 2 – to national parliaments
Date of launch	18 May	25 May 2023
Total number of contacts	60 (plus snowball effect)	1,820
Number of reminders	5 (plus ad hoc emails)	5
Total number of replies	40	5
Of which fully answered questionnaire	18	1
Of which partially answered questionnaire	22	4

Source: Supporting study

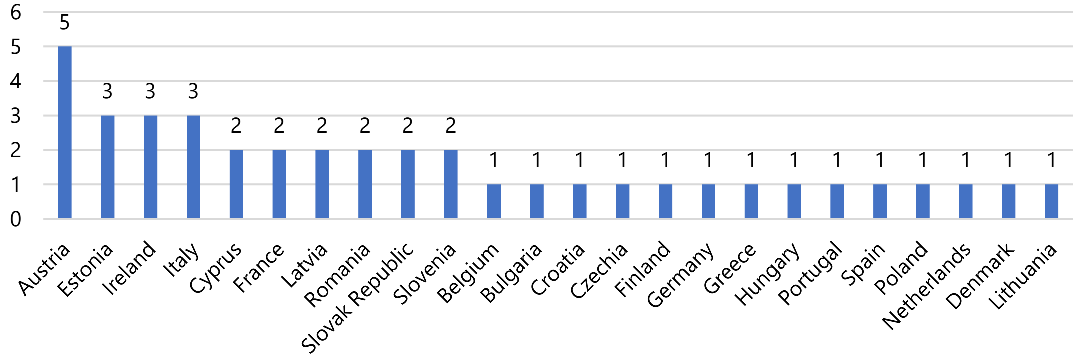
Due to the low number of responses received for the survey from member of the national parliaments, its results could not be considered as representative to be incorporated into the independent external evaluation report supporting this SWD.

Details on the survey addressing key national stakeholders involved in the programmes' implementation.

The questionnaire was structured into eight sections, with the initial one designated as the "welcome" (section A). The following sections sought to collect information about the respondents' profile (section B: "Respondent profile"), their country of origin, and the governance organisation set up to manage RRF within their Member State (section C: "Country"). Subsequent sections aimed to collect participants' perceptions and opinions concerning the effectiveness of the RRF (section D: “Effectiveness of RRF”), its efficiency (section E: “Efficiency of RRF”), as well as its coherence and added value (respectively section F: “Coherence of RRF” and section G: “Value added of RRF”). The final section allowed respondents to share potential contacts to be contacted to further contribute to the evaluation and share any thoughts that were not addressed in the survey (section F: “Final remarks”).

In total, the survey received responses from 40 participants, representing 24 different EU Member States[281]. Five responses came from Austria, accounting for 13% of the replies. Estonia, Italy, and Ireland each contributed three responses (8%). Two replies (5%) were provided by each of the following Member States: Cyprus, France, Latvia, Romania, Slovak Republic, and Slovenia. No contributions were provided by representatives from Malta, Luxembourg, and Sweden. All other Member States provided one response each. Figure A2.1 below offers comprehensive information regarding the country of origin of the respondents.

Figure A2.1 – Country of respondents (n=40)



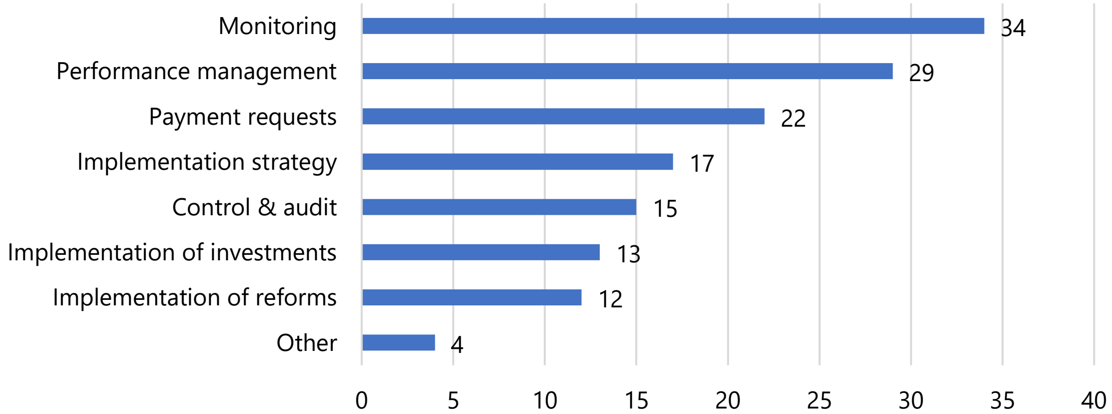
Source: Supporting study

In answering the survey, participants had to provide information concerning their role in the RRF. 85% (34) of them declared that they were involved in the monitoring of the RRF while almost 73% (29) participated in activities related to performance management. Over half of the respondents (55%; 22) reported involvement in payment requests and more than one third (37%; 15) in control and audit activities. Moreover, around 43% (17) stated that they were involved in implementing the RRF strategy. Figure A2.2 below shows the roles held in the RRF by the participants. “Other” replies include different

[281] Question “Country”, section C.

activities such as coordination activities, the implementation of a RRF management and internal control system, consulting and outreach activities, evaluation activities as regards to RRP milestone and targets achievement, support to the design of a centralised monitoring system, methodological aspects and management of data quality issues, support to administrations responsible for the implementation of reforms and investments, and the promotion of ex-post evaluations on the impacts of the RRP.

Figure A2.2: Role of the respondents in the RRF (n=40; multiple answers possible)

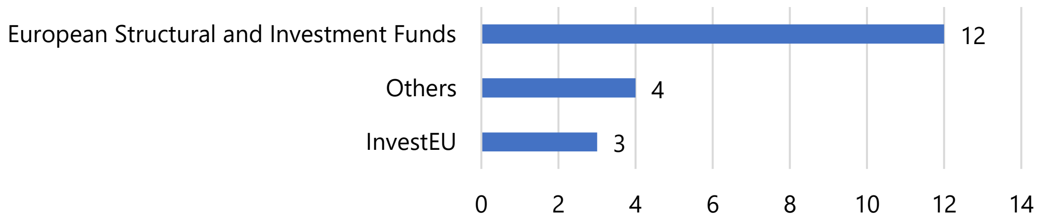


Source: Supporting study

Respondents were also asked to select which (if any) other EU programmes they have been or are involved in[282]. Only 35% (14) of them provided such an information, with the vast majority (86%; 12) being or having been involved in the European Structural and Investments Funds. Around 8% (3) also declared being or having been involved in InvestEU programme (see Figure A2.3 below). “Others” answers include European Economic Area Grants, the ‘Aim, Learn, Master, Achieve’ EU initiative, the EU programme for Employment and Social Innovation, NextGenerationEU and REPowerEU.

Figure A2.3: Involvement of respondents in other EU programmes (n=14; multiple answers possible)

[282] Question “Involvement in other EU programmes (select all that apply)”, section B.



Source: Supporting study

On 18 September, Members of the Expert Group of the RRF were invited to provide responses to three evaluation questions:

- Question 1: The 31 August 2023 was the deadline to ask for the RRF loans. What was the rationale behind your decision to apply – or not apply – for loans under the RRF?
- Question 2: To what extent do you believe that the reforms and investments outlined in the RRP would have been pursued simultaneously if the RRF were not in place? And what efficiency gains (if any) is this simultaneous implementation generating?
- Question 3: Looking at the implementation of your RRF plan, can you identify any (positive or negative) effects that you did not expect when you design the plan?

Six Member States answered this additional request and *provided the answers, which have been included in the Final Report of the supporting study.*

Interviews

In total 61 horizontal semi-structured interviews were conducted in the context of the supporting study. In addition to the horizontal interviews, additional 95 semi-structured interviews were conducted in the framework of the case studies and specific analyses. In total, 156 semi-structured interviews were conducted. Table A2.3 below summarises the semi-structured interviews conducted:

Table A2.3.: Interview Progress

Institution	Country specific analysis / horizontal analysis	Cases studies
National coordination bodies	**26** interviewed (Missing: Luxembourg)	-
National competent ministries/ national court	-	**5** for ALMP

		5 for Cross-border **3** for ECEC **4** for Energy Efficiency **3** for Rule of Law **7** for Digitalisation **3** for SME **2** for gender
National agencies		**1** for Cross-border **1** for Energy Efficiency **2** for Digitalisation
Local/regional government		**7** for ECEC **1** for Energy Efficiency
Managing authorities		**7** for Cohesion Policy
Businesses	**-**	**3** for Cross-border **4** for SME
European Commission (SG RECOVER and ECFIN)	**11** interviewed (8 lead negotiators and 3 directors)	**1** for gender
European Commission (Other DGs)	**7** interviewed: DG EMPL, DG BUDG, DG CLIMA, DG ENV, DG GROW, DG REFORM, DG RTD	**3** EMPL for ALMP) **1** GROW for Cross-border **1** EAC for ECEC **1** ENER for Energy Efficiency **7** REGIO for Cohesion Policy **1** REFORM for Cohesion Policy **1** JUST for gender
Economic and Financial Committee and Economic Policy Committee	**2** interviewed	**-**
EP	**3** interviewed	-
European Social Partners	**4** (ETUC, SGI Europe, EPSU, Business Europe)	**-**
European Economic and Social Committee	**2** interviewed	**1** for Cohesion Policy
Committee of the Regions	-	**1** for Cohesion Policy
EU level NGOs	**5** interviewed	**3** for Energy Efficiency 2 for Rule of Law
EU agencies	-	**1** EIGE for gender
Experts	**-**	**5** for ALMP

		6 for Rule of Law **2** for gender

Source: Supporting study, updated on 14 September 2023.

Selection of Case Studies

The aim of the case studies[283] prepared in the context of the supporting study is to take a deep dive into several themes relevant to the RRF's objectives, identify and analyse unintended consequences and highlight challenges or success stories in implementing RRF measures. This mid-term evaluation includes eight cross-country thematic case studies. The case studies are aligned with the six pillars defined in Article 3 of the RRF Regulation: (a) Energy efficiency buildings (green transition); (b) Digitalisation of healthcare (digital transformation); (c) Support to SMEs (smart, sustainable and inclusive growth); (d) Active labour market policies (social and territorial cohesion); (e) Rule of law (health, and economic, social and institutional resilience); and (f) Early Childhood Education and Care (Policies for the next generation). In addition to the case studies on the six pillars, two additional case studies have been added, one on cross-border projects and one on the interaction between other EU Cohesion Policy and the RRF. Except for the case study on Cohesion, the approach followed was composed of three steps:

- First, a description of the measures included in the RRPs, starting from the status of milestones and targets and the level of governance involved (national or subnational). This step largely relied on desk research.
- Second, an assessment of the effectiveness, coherence, added value and relevance of the investments and reforms included in the plans. This required assessing – to the extent possible – the already tangible results. This step relied on desk research and semi-structured interviews. In total, 88 semi-structured interviews as detailed above (including also interviews executed for gender equality).
- The third step built on the combination of the previous two steps for the identification of missed opportunities and persisting gaps, and of the obstacles or delays currently encountered in the execution of the plans. The third step included the organisation of roundtables with key national stakeholders responsible for the implementation and policy experts.

The topics of the case studies have been chosen to cover the scope of the RRF (defined by the six policy pillars), as well as two key thematic analyses (on the support for cross-border projects and on a comparison between the RRF and Cohesion Policy). They focus on Member States where RRF implementation is the most advanced for the topics covered, while ensuring a balanced representation of all Member States. They are instrumental to deep dive into the

[283] Provided separately in Annex VIII of the supporting study and summarised in the next section.

implementation of the Facility in key policy areas, but cannot be considered as representative of all topics or all Member States, due to variety and heterogeneity of measures included in the Member States RRPs.

Summary of results of the case studies

The case studies were produced by the contractors of the supporting study and represent data and views collected and compiled by them. The cut-off date of the case studies is end of September 2023 and reflects data available by that date.

Energy efficiency buildings (green transition)

The measures examined for this case study contribute to the green transition (pillar 1), focusing particularly on measures related to energy efficiency in buildings.

This case study aims to assess the effectiveness, coherence and EU added value, and relevance of the RRF energy efficiency measures. It focuses on four Member States: Bulgaria, France, Latvia, and Romania.

The main results of the case study are the following:

Effectiveness

The funding in France, Romania, and Bulgaria is considered ambitious and contributes significantly to the identified investment needs, while Latvia's funding falls short of its renovation needs. Latvia has however allocated significant funding to similar measures under EU structural funds. Common challenges in all countries include a lack of skilled workforce and rising material prices, which can impact implementation of the measures. Whilst the four Member States under study meet the threshold for *medium*-depth renovations required by the Commission to meet the minimum of 30% energy saving, many of the 27 Member States lack of measures for *deep*-renovations (i.e. that go beyond the 30% energy savings minimum). There are however some exceptions to this lack of incentives towards realising deep renovations: for example, the French '*MaPrimeRenov*' incentivises deeper renovation through bonuses to beneficiaries based on the energy saving obtained. Similarly, the Romanian Renovation Wave Fund contains a specific call for deep renovations and has earmarked EUR 255 million for it.

In terms of effectiveness and impact of the relevant measures, France and Romania are making good progress toward their milestones and targets for energy efficiency in buildings. Both countries have fulfilled or completed all their milestones and targets that were due in 2022 and were on track for 2023. Latvia is somewhat behind, and Bulgaria is lagging behind their indicative timeline due to political tensions.

It is too early to draw conclusions about the impacts on energy savings of the implemented measures and investments due to the long-term nature of construction projects. Various outputs have however been achieved, such as published calls, sufficient number of applicants and of granted projects. Availability of information on results, particularly quantitative results, of different measures differs significantly between countries.

Apart from Latvia, all countries provide enabling reforms and technical assistance to ensure the effectiveness of the grants provided. For example, the French plan foresees a reform of the thermic regulation of new buildings as well as a housing policy reform. France also has a pre-existing public scheme that provides technical assistance. Bulgaria's plan includes several reforms with the one to create one-stop shops being key in providing technical assistance to citizens and businesses. Finally, Romania does not provide any technical assistance but the Romanian RRP includes a reform that supports investments, within the RRP, to enhance energy efficiency.

In terms of targeted stakeholders, most measures target private building owners with a few targeting public buildings. In the French plan, the amount of aid available to individual households depends on their specific income (i.e. the amount of financial support decreases as household income increases) and French government finances up to 90% of the cost of renovation for low-income households. Bulgaria is introducing a definition and criteria for energy poverty which will allow better targeting of vulnerable households. The Romanian instrument can cover up to 100% of the renovation costs, which is an advantage for poorer households but may create dependencies or high expectations on government support, particularly for households who may not need the aid.

Common challenges for all four Member States analysed in the case study are a lack of skilled workforce and the recent inflation. The lack of skilled labour is an issue especially in Romania, Bulgaria and Latvia, and rising material prices cause a risk for the implementation of all measures.

Coherence

The RRP measures are guided by the principles of the EU's Renovation Wave Strategy[284], building on the principle of efficiency and affordability. Affordability in renovations is described as making energy-performing and sustainable buildings widely available, in particular for middle- and low-income households and vulnerable people and areas. The measures include to a lesser extent inclusion of decarbonisation and integration of renewables, even though these aspects still exist together.

Whilst the extent of alignment between RRP measures and Member States' National Energy and Climate Plans and Long-Run Renovation Strategies varies across the four countries, many Member States had a coherent approach in developing their measures by integrating them into existing policies and programs. Some Member States, such as France, Latvia and Bulgaria, also had pre-existing programs that necessitated rapid RRP implementation. Synergies with other EU and national programs in the four Member States were identified and exploited to increase the scope and scale of the renovation efforts. The measures in the four Member States also align with the objectives of the REPowerEU plan, focusing on energy savings and renewable energy production, and some Member States (such as France and Romania) requested additional funding from REPowerEU for measures contributing to energy efficiency of buildings.

EU added value

Many of the RRP measures targeting energy efficiency of buildings in the four Member States covered in the case study build upon existing investment programs, funded either nationally or from other EU funds. Importantly, the RRF however allowed the Member States to significantly expand the scope and funding of these measures, thus resulting in EU added value. Whilst it is too early to assess the impacts of reforms, the inclusion of energy-efficiency reforms in the RRPs provided additional pressure on and resulted in a political commitment from the four Member States to conduct the required legislative change quicker, given the synergies created by the RRF created in combining reforms and investments. Overall, the availability of RRF funding allowed these existing programs to substantially expand their capacity. Without the Facility, these programs might have continued, but at a much smaller scale.

Relevance

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[284] The Renovation Wave Strategy, published in October 2020, is set to improve the energy performance of buildings. The Commission aims to at least double renovation rates in the next ten years and make sure renovations lead to higher energy and resource efficiency. For further information, see European Commission (2020) *A Renovation Wave for Europe – Greening our buildings, creating jobs, improving lives COM(2020) 662 final* or https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/renovation-wave_en.

The RRP measures on energy efficiency in buildings are expected to remain relevant and feasible until 2026. Demand for funding remains high in all four Member States under study and renovation measures are well-received by the public. The ambitious EU targets up to 2050 necessitate a fundamental shift in Member States' energy systems, making continued investment in energy efficiency imperative. Latvian stakeholders (given their northern climate and old building stock) concur on the relevance of these measures, and similar supportive sentiments exist in France and Romania, where the popularity of renovation programs demonstrates their continued relevance. In Bulgaria, while the first round of calls for application to the renovation funding was successful, the reduction in available renovation grants (from covering 100% of the costs of renovation to covering 80% of the costs) may impact demand and require mitigating actions, such as the creation of a one-stop shop integrating all information necessary for energy renovations and enabling energy efficiency improvements under an Energy Service Companies model (both are reforms foreseen in the Bulgarian RRP) or the provision of additional funding.

Threats to the relevance of these energy-efficiency measures include (i) fund exhaustion, (ii) inflation, (iii) increased construction material costs, and (iv) the need for future-proofing renovations. The proposed revision of the Energy Performance of Building Directive[285] – especially regarding harmonisation of Energy Performance Certificates and Minimum Energy Performance Standards – may affect the relevance of RRP measures, although it is not yet clear what the concrete impacts may be.

Digitalisation of healthcare (digital transformation)

The measures examined for this case study contribute to two of the RRF pillars: Digital transformation (pillar 2), focusing specifically on digital public services, and health, and economic, social and institutional resilience (pillar 5), focusing specifically on healthcare and modernisation of public administration and delivery of public services.

This case study aims to assess the effectiveness, coherence, EU added value, and relevance of the RRF eHealth investments. It focuses on five Member States: Belgium, Croatia, Czechia, Denmark and Estonia.

The main results of the case study are the following:

285 For further information, see https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en#:~:text=The%20revised%20directive%20will%20increase,of%20infrastructure%20for%20sustainable%20mobility.

Effectiveness

The measures put forward in the five Member States support the roll out of eHealth services, telemedicine solutions, and improvements in healthcare data management. They have generally been effective in achieving their objectives, such as empowering patients, optimising healthcare delivery, and fostering innovation. The measures positively impacted healthcare systems, including the use of e-consultations and digital tools to improve patient care and access to specialists. Additionally, efforts to strengthen eHealth governance and ensure data security are highlighted as essential for the success of these measures.

In Belgium, the establishment of a Health Data Authority and clear architecture for sub-projects has been achieved, raising awareness among stakeholders. In Czechia, the release of prioritised use case standards and the publication of telemedicine guidelines represent notable milestones, with further advancements expected through the RRP. Croatia's *Telecordis* project has successfully improved healthcare access and quality in remote areas through telemedicine. In Denmark, telemedicine services like *KontaktLæge* have been integrated into various healthcare settings, and patient involvement in telemedicine has shown promising results. Estonia's measures have successfully strengthened primary healthcare and renewed eHealth governance, ensuring improved access to specialist care and updated governance frameworks.

Coherence

All analysed measures address CSRs on health or healthcare. The measures of Belgium, Croatia, Czechia and Estonia align with their respective healthcare CSRs, while Denmark's measures focus on improving healthcare resilience without specific eHealth CSRs.

Investments and reforms in the RRPs are aligned in all Member States, except Czechia, which only put forward reforms related to eHealth. In Croatia, investments align well with the eHealth reform, promoting remote monitoring and data transmission in healthcare. In Denmark, a standalone investment supports digital health initiatives. Estonia's investment aligns with multiple healthcare reforms, improving healthcare accessibility and integration. Belgium does not have eHealth reforms, though adopted a legislation setting up the Health Data Authority. In all Member States, the measures complement various actions put forward by country-level strategies.

EU added value

The RRF has proven to be a crucial instrument for supporting the digitalisation of healthcare in Belgium, empowering regions and expediting innovative projects. Croatia's national eHealth information management system was not funded by the RRF, but it aimed at enhancing eHealth management nationally. Czechia and Denmark also view the RRF as the right instrument for this purpose. Estonia did not use the RRF to support healthcare digitalisation.

In Belgium, the RRF was vital for the successful implementation of eHealth investments, aiding with private sector engagement and funding. Without it, project delays would have been likely. Without RRF funding, Czechia would have depended on other programmes, but the speed and scope of implementation would have been uncertain. Croatia's national eHealth information management system was not funded by the RRF, but it aimed to enhance eHealth management nationally. Denmark's *KontaktLaege* app and telemedicine projects, being relatively small, would have proceeded even without the RRF due to their importance in the Member State's healthcare system.

Relevance

In Belgium, several RRF projects address administrative tasks and healthcare efficiency, although not all intended projects made it into the RRF scope. A three-year timeframe remains sufficient for implementing IT-related sub-projects with a focus on educating stakeholders for effective utilisation. In Croatia, eHealth projects enhance digital healthcare access and telemedicine services, especially in remote areas. For the implementation, telemedical services were prioritised due to the COVID-19 pandemic, while costly investments in innovative technologies pose challenges. For Czechia, there is the potential for a significant shift from fragmented paper-based systems to standardised interoperability. The Member State integrated stakeholder needs into its strategy documents and ongoing discussions. Denmark's measures transform patient interactions through telemedicine, with apps and electronic questionnaires improving healthcare efficiency. They continue to be relevant, especially post-COVID, with a strong emphasis on digital solutions in healthcare and respond to the needs of patients, healthcare providers, and policymakers by creating a resilient healthcare system. Estonia has successfully implemented all eHealth measures, aligning with the needs of patients, healthcare providers, and policymakers, aiming to enhance accessibility, reduce costs, and promote a human-centred approach in healthcare.

Support to SMEs (smart, sustainable and inclusive growth)

The measures examined for this case study contribute to the smart, sustainable and inclusive growth pillar[286] with a particular focus on SMEs and on the policy areas 'Support to SMEs', 'Business Environment/ Entrepreneurship', 'Research, Development and Innovation' and 'Digitalisation of Businesses'.

This case study aims to assess the effectiveness, coherence, EU added value, and relevance of the measures supporting SMEs. It focuses on four Member States: Greece, Ireland, Portugal, and Finland.

Effectiveness

Across the analysed Member States, progress on SME-related measures varies. Overall, no major delays have been identified in implementing SME-related measures across Member States. Across the consulted stakeholders from the four Member States, there is a general consensus that they will be successful in completing or disbursing the RRF funding before 2026.

Coherence

Regarding coherence with existing national or EU policies targeting SMEs, the case study focuses on coherence with the Small Business Act ('SBA'), the Invest EU programme, and the Single Market Principles. It finds that the first three SBA key principles, which aim at creating a supporting environment for entrepreneurship, receive relatively less attention through SME-related measures in the four selected Member States compared to the remaining SBA key principles.

The Greek RRP aligns with EU programs and SBA, particularly in reducing administrative burden, but falls short in supporting SME growth beyond national borders.

The Finnish RRP addresses the European Commission's recommendations for internationalising Finnish SMEs and includes measures for digital and green transitions.

[286] As stipulated in the RRF Regulation, the pillar covers smart, sustainable and inclusive growth, including economic cohesion, jobs, productivity, competitiveness, research, development and innovation, and a well-functioning internal market with strong SMEs. As such the pillar in itself is rather broad, but the regulation further emphasises the importance of promoting economic development that is both intelligent and environmentally sustainable.

Irish SME measures cover a limited number of SBA key principles, with a focus on reducing regulatory barriers and accessing potential digital and green opportunities.

Portuguese measures align with SBA principles, particularly by focusing on cross-border e-commerce, green investments, and access to finance through *Banco Português de Fomento*.

The case study also finds that none of the selected Member States have included provisions in their regulatory simplification measures to enhance SMEs' access to public procurement. Regarding the alignment with Invest EU, the Greek RRF loan facility shows strong alignment with the Invest EU program, contributing to addressing the financing gap in the Member State.

Regarding the alignment with the EU SME strategy, there are varying degrees of alignment across Member States with a focus on SMEs driving the sustainable transition and empowering SMEs to reap the benefits of the digital transition. In contrast, the main pillars of reducing the regulatory burden, improving market access, and improving access to financing are the least covered by SME-related measures. More specifically, no Member State included in the analysis targets laying the groundwork for an SME IPO Fund and only Portugal covers (partly) the sub-pillar on creating a more conducive and inclusive environment for access to finance.

When looking at the coherence of the measures with the principles of the EU Single Market in providing equal access to RRP opportunities to EU companies the SME-related measures included in the four selected RRPs allow for the participation of foreign businesses. No clear example or case of this occurring could however be identified. To facilitate access, information for Finnish and Portuguese measures had been made available in English next to their national languages, however in Greece information was often only available in Greek.

EU added value

Stakeholders across the four Member States generally agree that investment measures and some reform measures implemented under the selected RRPs would not have been executed without the existence of the RRF. The Facility's dedicated funding source motivated Member States to address immediate recovery needs while driving long-term challenges like digitalisation, the green transition and innovation, as exemplified by Portugal's digital transformation measures with broader scope and impact due to the RRF.

Relevance

The SME-related measures successfully cover digital and green areas by providing investment support and improving regulatory hurdles for investments in these areas. The coverage of included measures in addressing the SME-relevant CSRs from the 2020 European Semester varies significantly by Member State. For example, while Greece covers all relevant CSRs and Portugal and Finland most of them, the Irish measures only address one CSR. Beyond the relevance of the measures regarding the CSRs, the study also looked at SME-specific needs identified in the EU SME Performance Review. Similarly, here, the study found that Greece covers all of their 2021 and 2023 challenges fully or partially and Portugal covers all but one related to late payments. Both Finland and Ireland's measures are less relevant regarding the needs identified by the SME Performance Review. However, Finland especially manages to address the issue of internationalisation and skills.

Active labour market policies (social and territorial cohesion)

The measures examined for this case study contribute to social and territorial cohesion (pillar 4) and relate to the modernisation of labour market institutions and employment support in the RRPs, focusing on active labour market policies ('ALMPs'). The analysis also examines the role of public employment services ('PES').

The case study analyses the effectiveness, coherence, EU added value and relevance of measures relating to ALMPs. It focuses on four member states, France, Italy, Spain and Croatia, selected because of their significant labour market challenges reflected in the CSRs. They were also selected because all four Member States contain significant reforms and investments targeted at active labour market policies in their RRPs.

The main results of the case study are the following:

Effectiveness

ALMP measures generally address key labour market challenges and CSRs. However, the labour market situation of vulnerable groups (France, Croatia) and the coordination of ALMP between territorial levels and with other employment and social policies (Spain, Italy) could have been addressed more comprehensively.

Implementation of ALMP measures is progressing in all Member States. In Italy and France, take-up of ALMP measures is exceeding the (interim) targets agreed, in line with the fact that higher targets were set at national level. In Croatia, however, issues are observed regarding the new ALMPs, and the target envisioned for 2025 might not be reached.

The case study finds that implementation progress can be helped or hindered by measures' design features and external factors, such as emigration. Investment in the capacity of regional actors to deliver measures is also of crucial importance for successful implementation.

The labour market impact of the measures is difficult to evaluate, given the short time horizon. Early evaluations for France suggest that measures have had a positive effect on the quality, if not quantity, of employment for young people. Preliminary data on the Italian National Programme for the Guaranteed Employability of Workers ('GOL') programme shows limited success, with only one third of participants in an active employment relationship six months after entering the programme.

Concerning the impact of the measures on social and territorial cohesion, results are mixed. In Italy, Spain and Croatia, measures include explicit design features aimed at furthering one or both of these. In contrast, the most significant French measures focus on a large population. This low level of targeting is likely to limit the capacity of the measures to advance social or territorial cohesion. In addition, even in Member States where social and territorial cohesion are an explicit aim of the measures, implementation difficulties can undermine these goals. In Croatia, actual take-up of measures among vulnerable groups appears low to date. In Italy, the picture is rather positive with regard to social cohesion, as take-up of the GOL programme among vulnerable groups is high. Yet efforts to enhance territorial cohesion appear to have had a limited effect, as regions benefitting most from GOL take-up or PES staff increases do not appear to be the ones most structurally disadvantaged.

Coherence

A number of measures largely build on the previous institutional and policy regime, particularly in France, Italy and partially in Croatia. This can be problematic if measures constitute a continuation of previous malfunctioning governance structures, such as the persistent issues concerning the lack of coordination of ALMPs in Italy. In Spain or Croatia, however, innovations in ALMPs were advanced in order to address malfunctioning elements in the previous system. Underlying structural issues such as low levels of funding or low capacity of public employment services persist in Spain and Croatia and could undermine the coherence of measures within existing structures, if not remedied.

Synergies and complementarities between investments and reforms in the plans can be identified, including linkages between specific measures and broader policies within the plans. Synergies between RRP measures on ALMPs and other EU or national funds exist in all Member States. Specifically, several examples of synergies between the RRF and ESF+ can be identified.

EU added value

The added value of RRF measures varies across Member States. In France, all measures would have been implemented in the absence of the RRF. In Spain and Italy, some measures would have been implemented without the RRF, but there are some examples where the RRF appears to have provided an impetus for reform. Finally, Croatia is a case where the RRF was used to advance significant structural reforms that would likely not have been advanced in its absence.

Relevance

In the French RRP, a significant number of ALMP measures were heavily frontloaded. Where measures were designed specifically as a crisis response (e.g. youth hiring subsidy), rather than specifically targeting structural challenges, continued relevance is limited. However, the majority of measures already existed prior to the introduction of the RRP, and continue to be used currently, though scaled back to pre-crisis levels. Beyond measures focused on young people, there is also a clear emphasis on up- and re-skilling, which is expected to have continuing relevance in the context of structural labour market changes. Employment of vulnerable groups however remains a significant labour market challenge in France, along with labour shortages and skills mismatches, and should be addressed through further measures in the future. In Italy, Spain and Croatia, measures have a stronger focus on structural labour market challenges, which increases their continuing relevance. Nevertheless, issues related to the implementation of measures, particularly those related to the effectiveness of regional actors and coordination of policies, may continue to hinder implementation in coming years in Italy and Spain, thereby reducing the relevance of measures.

Rule of law (health, and economic, social and institutional resilience)

This case study reflects the state of play of implementation of the RRF on 30 September 2023.

This case study analyses the contribution of the RRF to institutional resilience, derived from investments and reforms aimed at modernising public administrations and improving the effectiveness and integrity of public governance institutions. This is done by analysing the effectiveness, coherence, EU added value, and relevance of a selected group of RRF measures in the field of justice.

Three Member States have been selected to conduct the case study: Hungary, Romania and Poland. The three countries have included various reforms aimed at strengthening the independence of their judicial systems in their RRPs.

The main results of the case study are the following:

Effectiveness

Among the 10 measures under study and due until Q2 2023, by September 2023 only one non-legislative reform has been formally notified to the Commission and positively assessed as part of a payment request: the adoption of a strategy for the judiciary in Romania.

Hungary and Romania have adopted key legislative reforms in response to milestones planned up to Q2 2023, even if not always in line with the indicative calendar. Poland has adopted legislation to reform the disciplinary regime of judges, but the most recent reform has not yet entered into force, as it is pending at the Constitutional Court. None of these legislative acts have been formally notified to the Commission as part of a payment request at the time the case study was completed.

In some cases, it is uncertain if the adopted legislative amendments will be notified in their current form to the Commission or will be further revised before notification. It is also unclear if the Commission will consider these amendments sufficient to fulfil the milestones. This is particularly true for milestones that include multiple legislative and non-legislative requirements or elements subject to interpretation (e.g. introduction of an amendment to strengthen the independence of judges).

It is too early to assess the results of the recent reforms adopted. However, an overview can rely on the opinions of national experts regarding the potential and expected results of these reforms. These opinions should be interpreted with caution, as some of the reforms may be subject to further amendments before being formally notified to the Commission or complemented with additional regulations, and expert opinions may go beyond the formal milestone requirements.

In Hungary, national experts acknowledge that the justice package includes provisions to strengthen the powers and role of the National Judicial Council, reinforce the independence of Hungary's Supreme Court (Kúria), abolish the power of public authorities to lodge constitutional complaints and remove obstacles to references for preliminary rulings to the European Court of Justice but point at weaknesses in the reform which may hamper the effective application of the laws.

In Poland, experts[287] *acknowledge that the new Chamber of Professional Liability has allowed to review various decisions taken by the former Disciplinary Chamber and has cancelled all the suspensions adopted by the former Chamber. However, they note that a number of judges continue to be subject to*

[287] The profile of the experts mentioned in this case study summary is listed in annex 1 of the case study; eight experts were interviewed in total.

disciplinary investigations and proceedings related to the content of their judicial decisions and forced transfers. Besides, there is wide consensus that the new Chamber does not comply with the requirement stemming from Article 19(1) TEU of being an "independent and impartial court established by the law".

In Romania, the general consensus is that the Justice Laws have brought positive effects, such as more safeguards regarding the civil and disciplinary liability of magistrates and new provisions to make the Supreme Council of the Magistracy more transparent and accountable. However, some experts as well as the Venice Commission, consider that some provisions are problematic and require further improvement (e.g. on the rules governing the appointment of deputy managers in courts and prosecutors' offices, or on the duration of the mandate of high-ranking prosecutors).

Coherence

The use of the RRF is well articulated with that of other EU-level instruments in support of justice reforms. In all three countries, RRP actions to strengthen the independence of justice are coherent with the analysis of priorities and concerns presented in the Commission's Rule of Law Reports and (in the case of Romania) Cooperation and Verification Mechanism reports.

However, according to some experts as well as the four largest associations of judges in Europe, the actions required in the Polish RRF are not fully coherent with the implementation of rulings of the European Court of Justice which declare the nullity of the former Disciplinary Chamber as well as all the decisions taken by this institution.

EU added value

Assessing the 'added value' of the RRF is very difficult as it implies comparing an expected situation (the expected results from implementing the RRPs) to a counterfactual scenario (what would have happened in the absence of the RRF). The perception of national experts however is overall positive.

According to various national experts and stakeholders who were interviewed in the context of the study, the reluctance of the Hungarian government to introduce the reforms in the draft RRP provides evidence that such reforms would not have been introduced in the absence of an incentive to access EU support. The link between these reforms and RRF funds constituted an important motivation. According to these interviewees, E the risk of seeing EU cohesion funds blocked due to the non-fulfilment of the horizontal enabling condition on compliance with the Charter of Fundamental Rights was equally important.

In Poland, experts consider that the RRF has induced some positive legislative actions but has not been fully effective in bringing about the expected results in terms of strengthening the independence and impartiality of courts (which is the explicit goal of milestone F1G). According to national experts, various reasons explain this lack of effectiveness such as the fact that very few people are aware that RRF funds are conditioned on the rule of law reforms and the way in which RRF funds are delivered (in tranches of payments conditioned on the implementation of the corresponding reforms and investment) which makes possible for a reluctant government to 'play time' without the effects being visible to the population.

In Romania, national experts note that the added value of the RRF in promoting the amendments to the justice laws is less clear-cut as these amendments were also required under the Cooperation and Verification Mechanism. Various experts from different Member States note that a positive feature of the RRP is that the reform commitments are very transparent and detailed in the form of milestones. This allows experts or civil society organisations to keep track of progress done by Member States and monitor the decisions taken by the Commission as well as preventing the procedure from potentially being decried as politically arbitrary.

Relevance

Justice measures included in the three RRPs tackle major challenges of the respective national justice systems identified in the 2021 edition of the Rule of Law report[288]. They mostly consist in legislative amendments which are expected to remain relevant over time. While they all address key aspects affecting the independence of the justice systems, they do not address some other structural problems. At the same time, the legal basis, nature and design of the RRF (a short-term and temporary instrument, with a focus on the CSRs) do not make it an appropriate instrument to address all structural concerns in an all-encompassing manner, but it is rather a complementary tool to other instruments that the Commission has at hand when it comes to the Rule of Law and justice reforms.

[288] See https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC0700.

Early Childhood Education and Care (Policies for the next generation)

The measures examined for this case study contribute to policies for the Next Generation (pillar 1) and relate to early childhood education and care ('ECEC')[289].

This case study aims to assess the effectiveness, coherence, EU added value, and relevance of the RRF ECEC investments, focusing on five specific Member States: Germany, Italy, Poland, Spain and Belgium (Wallonia).

The main results of the case study are the following:

Effectiveness

The implementation progress varies across Member States. According to the case study estimates, the expected results by Member States are the following:

- Italy: Creation of 237,500-244,300 ECEC places, enhancing coverage. This could elevate public or publicly funded childcare availability from 13.3% to 27.6%.
- Poland: RRF and ESF+ will establish 102,577 new childcare places, taking coverage from 20.2% to 29.9%, progressing towards the national 33% target by 2030[290].
- Belgium (Wallonia): The RRF expansion will boost regional coverage from 28.2% to 32.5%, nearly reaching the 33% regional target.
- Germany: The RRF investment aims to elevate childcare coverage to 38.3%, increasing affordability for 30.3% of the population.
- Spain: The Spanish RRF plans foresee an increase in childcare coverage from 40.2% to 46%, possibly exceeding the 50% target in the Child Guarantee National Action Plan[291] and expanding coverage of affordable services to 26,5%.

[289] ECEC refers to any regulated arrangement that provides education and care for children from birth to compulsory primary school age. https://education.ec.europa.eu/education-levels/early-childhood-education-and-care/about-early-childhood-education-and-care.

[290] See https://www.gov.pl/web/rownetraktowanie/krajowy-program-dzialan-na-rzecz-rownego-traktowania.

[291] See https://ec.europa.eu/social/ajax/countries.jsp?langId=en&intPageId=5538.

A significant reduction in existing territorial gaps in the offer of affordable childcare services is expected in Poland (among provinces), Germany and Spain (among regions)[292]. Decreases are expected to be moderate in Italy (among provinces) and less significant in Belgium (among municipalities). In Poland, Spain and Italy, socio-economically disadvantaged territories are expected to increase coverage to a larger extent.

In all analysed Member States, there have been some delays in the implementation of the investments to expand ECEC services. The main implementation challenges involved issues with participation of municipalities in tenders, either because of funding mechanisms (municipalities need to anticipate costs), the lack of local capacity, or due to higher costs linked to rising inflation.

Coherence

Complementary reforms and investments have been included in the Spanish and Polish RRPs. In the case of Italy and Belgium, the RRF investments explicitly contributes to the implementation of reforms adopted at the national level before the RRF. No explicit link is found in Germany.

Poland stands out for its integrated EU funding approach with the reforms. Other Member States, such as Germany and Belgium have combined RRF funds with national resources in order to increase impact of the investments and expand further the coverage of childcare services. In the case of Italy, national resources have been allocated to cover the recurrent costs of the investments in infrastructure under the RRF.

The European Union provides guidance to member states in the field of ECEC through key documents, including the 2019 Council Recommendation on High-quality ECEC[293], the 2021 Council Recommendation on the European Child Guarantee[294], and the 2022 Council Recommendation on Early Childhood Education and Care, establishing the new "Barcelona Targets" for 2030[295]. Belgium's, Italy's, Poland's, and Spain's RRPs align with some of these priorities. For instance, Italy's plan connects its ECEC investment to the Italian Child Guarantee action plan, aiming to expand childcare services and accessibility, with a focus on reducing fees. Spain and Belgium also integrate ECEC measures into their respective Child Guarantee action plans. Poland instead refers to the 2019 High-quality ECEC recommendations, while Germany's plan refers only to the CSRs 2019.

292 For ES and DE data on places to be created are available only at regional level. For BE, IT and PL data are available at municipal level. However, for IT and PL the large number of municipalities involved (more than 2.000), make reporting at this sub-national level complicated and potentially not explicative. As a result, we decided to aggregate results at the NUTS-3 level (provinces).

293 See https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019H0605(01).

294 See https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021H1004.

295 See https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022H1220(01).

EU added value

The primary contribution of the RRF has been to infuse fresh financial resources to support the expansion of childcare facilities. In Italy and Spain, the RRF resources are completely additional, namely without the RRF these investments would have not taken place. In the case of Belgium, the RRF funds are additional and top up already existing national fundings. In Poland, RRF funding is additional and integrates other EU funding – notably from the ESF+ and national funding. The exception is Germany, where all funding under the RRF was already previously budgeted for, and thus there is no EU added value as such.

Relevance

The case study demonstrates that the RRF will contribute to tackle structural problems facing ECEC systems in the selected Member States, notably the lack of available services, territorial inequalities in coverage with socio-economically disadvantaged areas lagging behind. The relevance of the interventions in the future, might however depend upon a number of critical factors, as several challenges are undermining the feasibility of the measures. These challenges include tight project timelines, a lack of prioritisation for funding in disadvantaged areas, rising infrastructure costs due to inflation, complex procedures, inadequate technical assistance, and uncertainty regarding sustaining operational costs. The potential insufficiency of budget allocations for covering costs of running of new services, and the absence of fiscal equalisation mechanisms is also a major concern for municipalities. These factors may deter local authorities from applying for funding and/or in the future, force some to privatise services, reducing affordability, or quality, undermining the potential impact of childcare on both children's development and parents' opportunities to access labour market and increase households' income. At the same time, staff shortages might affect the implementation of the measures adopted under the RRF with the risk that the new places created are not activated.

Cross-border projects

The measures examined for this case study contribute to cross-border and multi-country projects, with specific focus on Important Projects of Common European Interest ('IPCEIs'). Member States can decide to include in their RRPs investments in cross-border projects in the digital, transport, energy, or waste sectors. Given the RRF's emphasis on helping support the EU in reaching its climate neutrality targets and the digital transition, the measures to be examined for this case study fall under two main pillars, namely green transition and digital transformation.

The multi-country projects with the highest take-up in RRPs are the eleven participations in IPCEIs on hydrogen (included in eight RRPs). The IPCEIs on hydrogen include specific projects focused on building a European hydrogen ecosystem, including increased support for hydrogen production, storage, and applications, in particular in energy-intensive industrial and mobility sectors that are difficult to decarbonise. Regarding the digital transition, the case study analyses a handful of countries that decided to invest even in microelectronics, where areas such as low-power electronics, sensors, and process technologies will be strengthened.

This case study aims to assess the effectiveness, coherence, relevance and added value of the RRF cross-border and multi-country projects, focusing on four specific Member States: Austria, Germany, France, and Spain.

The main results of the case study are the following:

Effectiveness

The implementation progress varies across Member States. The expected results by Member States are the following:

- Austria: 250 million EUR investment to promote Europe’s autonomy in semiconductor production and promotion of integrated projects along the hydrogen value chain.
- France: 1.275 billion EUR investment in development of carbon-free hydrogen production, with a target of 140MW/year electrolyser production capacity by Q4 2025.
- Germany: 1.5 billion EUR investment in hydrogen decarbonisation technologies, with a target of at least 300MW/year electrolyser production capacity by Q3 2026. 1.5 billion EUR investment in electronics design capabilities and deployment of the next generation processors and other electronic components.
- Spain: Five technological developments or prototypes throughout the renewable hydrogen value chain, two renewable hydrogen clusters and at least 500MW of electrolyser capacity.

Progress of IPCEI-related implementation of reforms and investments within the RRPs varies significantly across the different IPCEIs and within the same IPCEI at project level.

In the case of microelectronics, Austrian companies reported having nearly completed the construction of the manufacturing factory, which will be followed by the setting up of the machine by the end of 2023, while others reported having started a successful simulation for a new furnace. Hydrogen-related investments, especially in Germany, foresee the building or renovation of infrastructure, which will lead to concrete results in the longer term. Progress registered so far regards the reduction of CO2 emissions and development of certain technologies. In Austria, half of the approved projects have started reporting some progress, including completing the material and new infrastructure testing and the approval of the plan to build an electrolyser in the country.

While most milestones of the analysed IPCEI-related measures, which are mostly reforms, are fulfilled, the implementation of most IPCEI investments is facing potential delays. According to stakeholders interviewed in the context of the case study, this is due partly to differences in the official approval timelines of each Member State involved but also the result of the lengthy State aid notification process. Stakeholders found the process complex and not clearly defined in terms of processes, timeline, and responsibilities. Communication amongst participating Member States appears also to be challenging at times.

In 2021, the Commission updated its guidance to Member States and its templates, which also contain detailed advice related to the procedure under the ICPEI Communication[296].

Coherence

IPCEIs allow Member States to finance the early stages of industrial policy projects that are in line with their national and European priorities. The hydrogen IPCEI is in line with the Commission's efforts to support the development of an innovative and sustainable European hydrogen industry. Hydrogen plays a pivotal role within the European Green Deal and the REPowerEU plan, as its use will accelerate the decarbonisation of the energy system and provide an alternative to Russian imported fossil fuels.

Similarly, the IPCEI on microelectronics and connectivity directly contributes to achieving several EU objectives including the European Green Deal, Europe’s Digital Decade, the Digital Europe Programme, the Connecting Europe Facility and the European Chips Act.

[296] See European Commission (2021) *Communication from the Commission Criteria for the analysis of the compatibility with the internal market of State aid to promote the execution of important projects of common European interest (2021/C 528/02)*, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.C.2021.528.01.0010.01.ENG&toc=OJ%3AC%3A2021%3A528%3ATOC.

While European regulations exclude the possibility of double-funding, synergies between the RRF and other EU funds are important. Member States can invest part of their RRF funds through the Member State Compartment of InvestEU. InvestEU provides financial instruments and incentives to attract private capital, while IPCEIs focus on identifying and promoting projects that have a significant impact on European competitiveness and innovation.

EU added value

IPCEI projects are designed to address important market or systemic failures which cannot otherwise be adequately addressed and thus contribute to providing a comparative advantage to European companies. Stakeholders, both private and public, partaking in different IPCEI waves of projects, emphasised the added value of cross-border projects. The case of the IPCEI on Microelectronics highlights how targeted funding of strategic value chains can help keep European companies remain relevant in the market. The case of the IPCEI on Batteries, enabled the development of a value chain that did not exist in the EU before, ranging from mining, repurposing, recycling and refining, to manufacturing of cells, modules, and systems as well as dedicated software and testing systems and solutions.

Relevance

As Europe seeks to maintain its competitiveness on the global stage, the identification and support of strategically important industries and technologies is essential. IPCEIs represent a useful tool for identifying such sectors as well as creating complex new value chains that have the potential to ensure the EU’s increased autonomy, long-term competitiveness, and economic growth. In light of the green and digital transition, it is vital to explore IPCEIs as a support to such areas to reach hydrogen production goals, phase out fossil fuels, and work towards energy independence. The outcomes of these projects are not solely focused on the near future; rather, they contribute to the EU's long-term sustainable energy objectives that go beyond 2026.

Interaction between other EU Cohesion Policy and the RRF.

Cohesion policy is the EU investment tool that lends itself best to an analysis in relation to the RRF. As the EU’s main investment policy, covering about a third of the EU budget, Cohesion policy is the most suitable term of comparison based on different dimensions:

- Size. The amount of resources mobilised by Cohesion policy is the one that gets closest to the financial weight of the RRF. Taken together, the set of four funds[297] that make up Cohesion policy in 2021-2027 have a size of about EUR 543 billion (of which EUR 377 billion in EU co-financing and EUR 166 billion in national co-financing)
- Investment types. No other EU fund covers a similar breadth of investment types as Cohesion policy and the RRF. Both are multisectoral and aim to contribute to a diverse set of socio-economic policy objectives[298].
- Link to reforms. Both instruments have recognised the importance of linking investments to an agenda of structural reforms.

This case study aims to shed light on the interplay between the RRF and Cohesion policy, focusing on six Member States: Germany, Greece, Italy, Lithuania, Romania and Spain. This set of countries includes large recipients, as well as the experience of smaller countries as well. In addition, it covers countries with different levels of centralisation in the management of Cohesion policy funds, to better examine the potential added value of a centralised and direct management against a shared management system.

The RRF model offers important innovations in the formulation and delivery of EU-funded investment policies and the support to reforms. Nevertheless, due to the current early stage of implementation of the RRF, definitive conclusions about its effectiveness and efficiency in comparison to Cohesion policy are limited. A more complete assessment inevitably requires the evidence deriving from the effects generated over time by the RRF, currently not yet available.

The RRF’s novel elements bridging existing gaps have had varying importance in national contexts, depending on Member States’ specificities:

- Reforms. The RRF provides support in exchange for the implementation of investments and reforms, including those reforms not involving specific costs. These reforms improve the institutional and strategic framework in which also Cohesion policy investments are implemented, and do so with a strength that CP has traditionally not had, in terms of support to enabling frameworks.
- Size. The RRF has mobilised an amount of resources that, thanks to its sheer size, enables a scale of ambition that CP alone could not reach.

[297] European Regional Development Fund (ERDF), European Social Fund + (ESF+), Cohesion Fund (CF), Just Transition Fund (JTF).

[298] The policy finds its legal basis in Articles 174 to 178 of the Treaty on the Functioning of the European Union (TFEU).

- More developed regions. The RRF has become a tool to increase competitiveness and channel investment to regions which are not among the less developed ones (as opposed to Cohesion policy focus on those[299]), but in which there are nevertheless major needs in terms of both the green and digital transitions.

These elements, however, are also related to challenges. First, within the context of the RRPs, the term “reform” has encompassed actions of varying degrees of ambition and scope. Second, the size of resources mobilised under the RRF, coupled with the relatively tight eligibility period, resulted in a certain prioritisation at programming level that favoured the RRF over Cohesion policy. This, in turn, has triggered displacement effects in some Member States. Furthermore, the influx of RRF funds brought about a widespread increase in the workload for administrations at both national and local levels across Member States. This elevated workload has not necessarily been fully mitigated by the measures put in place to strengthen administrations. Third, the lack of a territorial dimension in the RRF risks increasing disparities within Member States, and a conflict can be identified with Cohesion policy's goal of supporting regional convergence. Concerns about channelling resources to more developed areas were raised particularly with regard to Spain and Italy, the main beneficiaries of RRF grants, where territories with a better institutional capacity and a more vibrant productive ecosystem are also more able to conceive project proposals and attract financing. The territorial dimension is however not limited to the channelling of resources to certain types of territory; it concerns also stakeholder engagement and an integrated investment approach, and these two aspects as well have so far received a more extensive attention under Cohesion policy. Especially at a time of significant divides between core agglomerations and the peripheries, a weak territorial dimension may pose threats in terms of balanced socio-economic development.

In terms of sectors of intervention, RRPs generally cover the same areas Cohesion policy has traditionally focused on, and beyond.

As the focus of RRF implementation shifts towards investments, similar challenges are emerging to those that have long been associated with Cohesion policy. The RRF’s first phase of implementation, which focused mainly on reforms, has progressed generally in a timely way in 2021-2022. In relation to investments, however, administrative capacity issues, excessive administrative burden for managing authorities, the lack of mature projects, a difficult balance to find between the necessity of controls and an excessive level of scrutiny, in some Member States came to the surface in a fashion not dissimilar to traditional challenges that Cohesion policy has been long grappling with.

[299] ERDF and ESF+ foresee higher EU co-financing shares for less developed regions. Moreover, the CF is available only for Member States with a GNI per capita below 90% of the EU average.

There is a widespread perception that the simplification and administrative cost reduction expected from the RRF has not materialised. Although it was anticipated that the RRF would impose a lighter burden compared to Cohesion policy due to its centralised approach and the performance-based payment system, interviewed stakeholders have signalled that, in fact, there has not been a significant difference in terms of administrative burden yet. Survey results point to the same conclusion. As the investment component of RRPs progressively comes into play, more evidence is expected to become available in this regard.

In terms of flexibility to adjust to a changing context, the RRF emerges as more rigid than Cohesion policy. In 2014-20, Cohesion policy offered a ready-to-use policy framework to deliver immediate and wide-ranging support at a critical time and allowed the reprogramming of resources, thereby proving to be a flexible tool for policy making. Even if the RRF greatly expanded the possibilities for public investment across Member States and is expected to provide a significant contribution to the removal of investment barriers, compared to Cohesion policy it is perceived as having a lower degree of flexibility in adapting to new circumstances.

Ultimately, the main factors influencing the effectiveness of the RRF compared to Cohesion policy are the link to reforms, the political support, and media attention. The activation of structural reforms, as foreseen under the RRF, is widely acknowledged as a successful and impactful policy mechanism. Reforms supported by the RRF are also to the advantage of wider public investment frameworks and Cohesion policy. Reforms emerge as a decisive driver for change in combination with a focus on investments. The high level of priority given to the RRF by decision makers at EU level and in most Member States, in turn, has contributed to ensuring a mature project pipeline and, in the early phase, swift implementation. Extensive media coverage of RRPs is both a cause and an effect of this prioritisation and of RRF's higher public profile compared to Cohesion policy. The impact that the RRF is expected to generate over the medium term likely could not have been reached making use of the existing Cohesion policy framework only, as these three key elements influencing its effectiveness – reforms, political support, media attention – set the two instruments apart.

Validation of the findings

To validate the findings of the cases studies, the contractors of the supporting study have organised roundtables with representatives from national ministries and policy experts in the field (except for the Cohesion and Digitalisation case study). Below is the list of the roundtables:

- Energy Efficiency: 14 September 2023;
- Supporting SMEs: 12 September 2023;
- Rule of Law: 28 September (only with national experts);

- Early Childhood Education and Care: 19 September 2023;
- Active Labour Market Policies: 14 September 2023;
- Cross-border projects: 8 September 2023.

The contractor also organised a validation workshop to validate the main findings of the supporting study, which took place on 24 October 2023. The validation workshop was held under Chatham House rules, with the objective to stress-test the findings with a small group of experts. The agenda was organised around four sessions: (i) a first session to take stock on the RRF implementation, (ii) a second session to discuss the 'performance-based approach', (iii) a third session on the macroeconomic impact of the RRF, (iv) a fourth session to discuss the comparison between the RRF and Cohesion Policy. Overall, the discussions were open, lively and constructive. The invited experts largely supported the findings of the study, notably on the key success of the RRF in supporting reforms and the merit of its performance-based approach. Participants also supported the study's findings on the RRF's higher than expected administrative burden. Discussions pointed to the need to factor in the changing context of the RRF and political difficulty/sensitivity of some reforms/milestones. They also acknowledged the methodological caveats of the macroeconomic analysis, which is very sensitive to the assumptions on the additionality of RRF funds and cannot quantify the impact of reforms, thereby providing an underestimate of the effect on GDP. Participants further discussed possible synergies with Cohesion Policy, in the current period and hypothetically also in the future, for instance to continue funding successful measures started within the RRF after 2026.

Analysis of costs and benefits

In the context of this evaluation, the analysis of costs and benefits was conducted by the contractors of the supporting study along the following steps: cost mapping; assessing costs; assessing benefits; concluding on the benefit/cost ratio.

The starting point was the mapping of relevant costs. Based on documentary review and conducted interviews, the costs of the RRF were mapped as shown below in table A2.4.

Table A2.4: Mapping of Member States Administrative Costs

DIRECT COSTS	*ADMINISTRATIVE COSTS OF RRF IMPLEMENTATION*
The funds made available to Member States, and the related financial costs (including Member States borrowing costs for loans)	*MEMBER STATES ADMINISTRATIVE COSTS*
	Activities generating administrative costs

	One-off
	- *Setting up the governance structure* - *Drafting the NRRP* - *Stakeholder consultations* - *Informal dialogue with the Commission ahead of the plan submission* - *Official process of plan submission* - *Drafting of the REPowerEU chapter*
	Recurrent - *Bi-annual reporting on milestones and targets* - *Bi-annual reporting on monitoring steps* - *Bi-annual reporting on other EU funding* - *Reporting on common indicators* - *Informal dialogue with the Commission ahead of payment requests submission* - *Official submission of payment requests* - *Monitoring and performance management* - *Audits by national authorities* - *Responses to audits by European authorities*

Source: Supporting study

Note: Administrative costs do not include the costs borne by final beneficiaries or citizens to comply with obligations imposed by the RRF regulation as well as regulations related to the support received, such as State aid, public procurement and environmental legislation. They are out of scope of the present evaluation.

To get an overview of administrative costs incurred in the context of the implementation of the RRF, a survey of national bodies involved in the activities listed in Table A2.4 was carried out. Specifically, survey respondents were asked to indicate the resources necessary, in terms of full-time equivalents (‘FTE’), and the costs incurred for external services. The following table A2.5 shows that the survey results are patchy and do not provide complete coverage of costs attributable to the various activities. Nevertheless, there is a relatively good coverage of information provided by coordination bodies. Hence, to ensure consistency, the elaborations presented in the rest of the section will focus solely on the costs reported by the coordination bodies.

Table A2.5: Mapping of data collected through the survey

	FTE				Cost for external experts
Member State	**Coordination body**	**Ministries**	**Other bodies (e.g. monitoring/accounting)**	**Audit Authority**	
Austria	YES	NO	NO	NO	Not relevant
Belgium	YES	Not relevant	NO	NO	Not relevant
Bulgaria	YES	Not relevant	NO	NO	NO
Croatia	YES	Not relevant	NO	NO	NO
Cyprus	YES	Not relevant	NO	NO	NO
Czechia	YES	Not relevant	NO	NO	YES
Denmark	YES	NO	NO	NO	Not relevant
Estonia	YES	NO	NO	NO	Not relevant
Finland	YES	NO	NO	YES	Not relevant
France	NO	NO	NO	YES	NA
Germany	YES	NO	NO	NO	Not relevant
Greece	NO	Only for one Ministry	NO	NO	NA
Hungary	NO	NO	YES	NO	NA
Ireland	YES	NO	YES	NO	NO
Italy	NO	Only for three Ministries	NO	NO	NA
Latvia	Partially	NO	NO	NO	Not relevant
Lithuania	YES	Not relevant	NO	NO	YES
Luxembourg	NA	NA	NA	NA	NA
Malta	NA	NA	NA	NA	NA
Netherlands	YES	NO	NO	NO	NO
Poland	YES	NO	NO	NO	NO
Portugal	YES	NO	Maybe yes	Maybe yes	YES
Romania	YES	NO	NO	NO	NO
Slovak Republic	YES	NO	NO	Maybe yes	NO

Slovenia	YES	Not relevant	YES	YES	YES
Spain	NO	NO	NO	NO	NA
Sweden	NA	NA	NA	NA	NA

Source: Supporting study

The second step involved the assessment of costs. The quantification focused on the administrative costs related to Member State public administration. As said, the collection of such administrative costs was attempted via a survey of national bodies involved in the preparation of national recovery and resilience plans and/or their implementation. Specifically, the FTE and costs for external services were asked. Since the survey results are patchy and do not provide complete coverage of costs attributable to the various activities, with the only exception of national coordination bodies, the analysis focuses solely on the costs reported by these bodies. The figures provided by various coordination bodies should also be taken with caution since national coordination bodies can have different interpretations of FTE counting. Some have taken a restrictive approach, considering only the costs of coordinating bodies, while others (such as Portugal and Slovakia) have considered the staff cost of various other bodies involved in the relevant activity. A fact-checking process with coordination bodies for the collected data was conducted after the submission of the draft final report by the external contractor to validate the data to the best extent possible. While some amendments and validation were received, not all coordination bodies responded, so the data validation remains partial. Additionally, some coordination bodies confirmed differences in understanding and time constraints in collecting data beyond their organisation.

As for the assessment of actual benefits, quantifying and monetising them has proven to be not feasible. This is due to the wide and varied range of effects, most of which have not yet materialised. In the absence of a counterfactual, quantifying the 'benefits' of the RRF to compare them to the 'costs' currently requires estimations using macroeconomic models to predict the benefits of the RRF. A full cost-benefit analysis can only be conducted as part of the 'ex-post' evaluation.

Based on such model estimations, two sets of benefit-cost ratios at the Member State level and the EU level have been calculated. The first set concerns the benefit-cost ratio defined as the ratio between the absolute cumulative change in real GDP predicted by the NiGEM model to occur by 2041 as a result of the RRF (against the baseline) and the funding (both grants and loans) already disbursed (in real terms). The second set concerns the expected benefit-cost ratios of the RRF funds once all funds are disbursed. In this case, the ratio is calculated as the absolute cumulative change in real GDP predicted by the NiGEM model to occur by 2041 as a result of the total RRF injection (relative to the baseline), i.e., the benefit, over the total funding (both grants and loans) in real terms, i.e., the cost. It is worth noting that the administrative costs were excluded from the benefit-cost ratio calculation due to their minimal impact compared to the funds disbursed/expected to be disbursed.

Macroeconomic modelling

This evaluation makes use of stylised ex-ante assessments of the macroeconomic impact of NGEU and RRF investment to assess the RRF's effect on the EU economies adjustment capacity and growth potential. Given the early stages of the investment supported by the RRF, there is limited data available to perform analysis, so the analysis relies on a model-based estimation approach. These model simulations do not provide an evaluation of the actual impact, but rather an ex-ante model prediction based on stylised assumptions and the planned investments put forward by the national recovery and resilience plans. The chosen modelling approaches focus only on investments and do not quantify the expected effect of structural reforms.

The simulations presented build mainly upon the Commission's QUEST model, complemented by simulations from the supporting study based on the NiGEM model. The QUEST assessments, comprising the whole NGEU initiative, have been conducted since 2020[300] and have been updated with the most recent data on loan requests, inflation, and expected spending profiles as of September 2023[301]. The analysis employs a multi-country version of the QUEST model, encompassing all 27 EU Member States, as well as the rest of the world (as one big external country). While necessarily simplifying the full mechanics of NGEU, the setup distinguishes non-repayable support and loan allocations for each Member State. The macroeconomic analysis of the RRF reported in the supporting study was carried out using the National Institute Global Econometric Model (NiGEM). The following sections provide further explanations and details on the two models and the core technical assumptions. It is important to note that the two models (QUEST and NiGEM) do not factor in the impact of reforms, which can further increase the RRF's long-term impact on GDP.

The QUEST model results have been computed based on the whole NGEU umbrella and not only RRF investments. The RRF (loans and non-repayable support) encompasses approximately 90% of NGEU investments, with the remainder consisting of non-repayable support (grants). The model simulations assume a higher additionality for non-repayable support, resulting in a more substantial effective difference. For modelling purposes, all grant-type instruments (RRF non-repayable support and other NGEU funds) are treated the same way.

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300 For further information, see in particular, Pfeiffer P., J. Varga and J. in 't Veld (2023a) Quantifying spillovers of coordinated investment stimulus in the EU, *Macroeconomic Dynamics* (27), p. 1843–1865. See also the ECFN Discussion Paper (2021): https://economy-finance.ec.europa.eu/publications/quantifying-spillovers-next-generation-eu-investment_en.

301 The simulations consider country-specific expected RRF disbursement or spending profiles, as estimated by DG ECFIN.

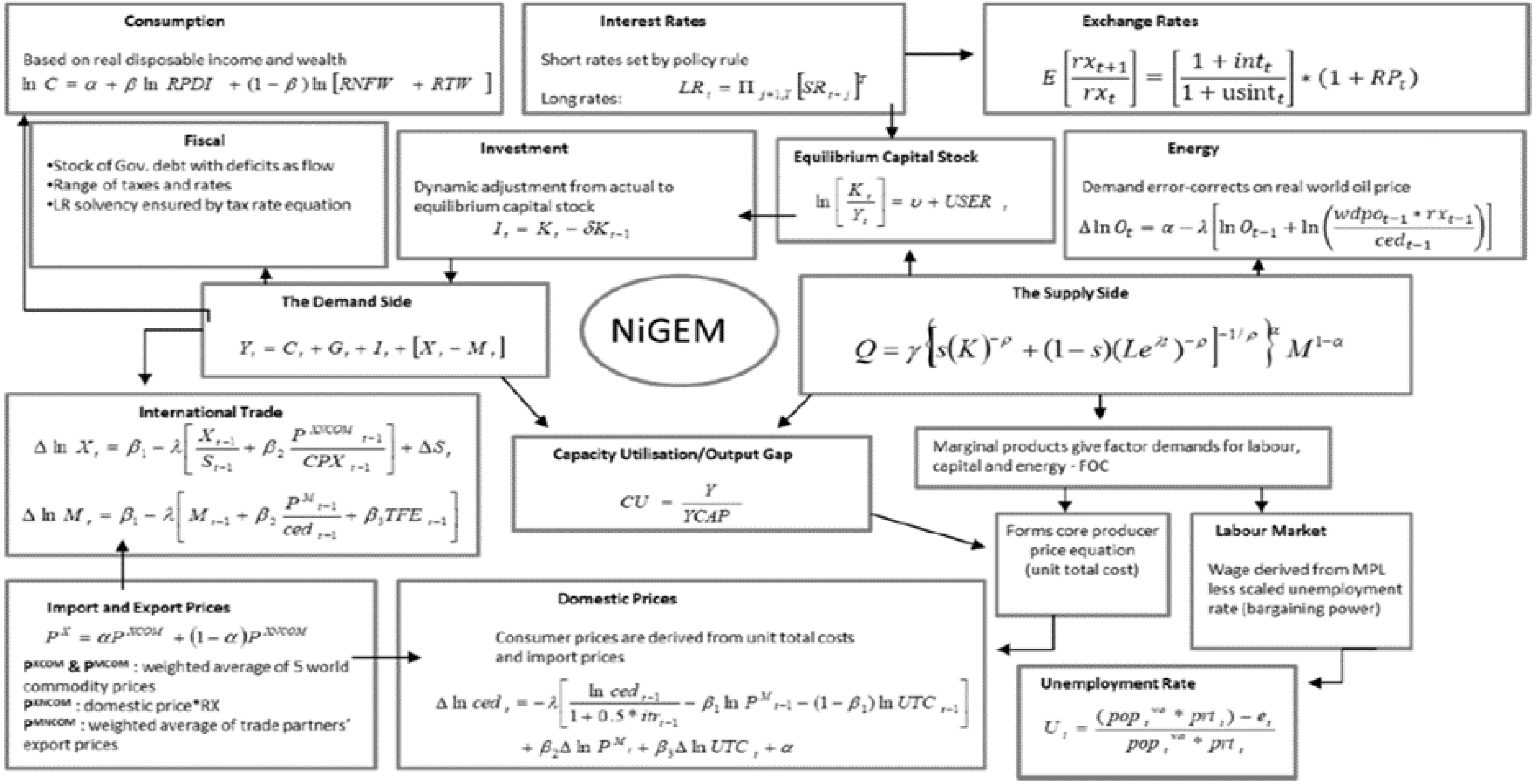
Macroeconomic model NiGEM

The macroeconomic analysis reported in the supporting study was carried out using the National Institute Global Econometric Model (NiGEM). NiGEM has been developed and maintained since 1987. NiGEM is a global macroeconomic model, used by both policymakers and the private sector for economic forecasting, scenario building and stress testing. It is used by several European central banks and international organisations such as the OECD. The model consists of individual country models for the major economies that are linked through trade in goods and services and integrated capital markets. The individual country models within NiGEM incorporate long-run relationships grounded in economic theory with flexible lag structures that are fitted to the data. Because NiGEM is fitted to the data, it can be reliably used to calculate the magnitudes of the effects of various economic shocks. Specifically, a model such as NiGEM can provide an efficient way of assessing the development of national economies, disaggregated by demand and supply components, in response to RRF spending. In addition, because NiGEM is a global model with trade and financial linkages across countries, it can be used to examine spillovers: that is, the effects of RRF spending in one EU Member States on the rest of the European Union.

NiGEM contains around 6,000 variables and over 10,000 model equations, as several variables have multiple equation options. Within NiGEM some countries are represented with ‘full’ country models and some countries being represented with reduced form models. Within the European Union, NiGEM contains full country models for Austria, Belgium, Czechia, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Italy, the Netherlands, Poland, Portugal, Romania, Spain and Sweden. It contains reduced country models for Bulgaria, Croatia, Estonia, Latvia, Lithuania, Slovakia and Slovenia. Cyprus, Luxembourg and Malta are not modelled separately within NiGEM.

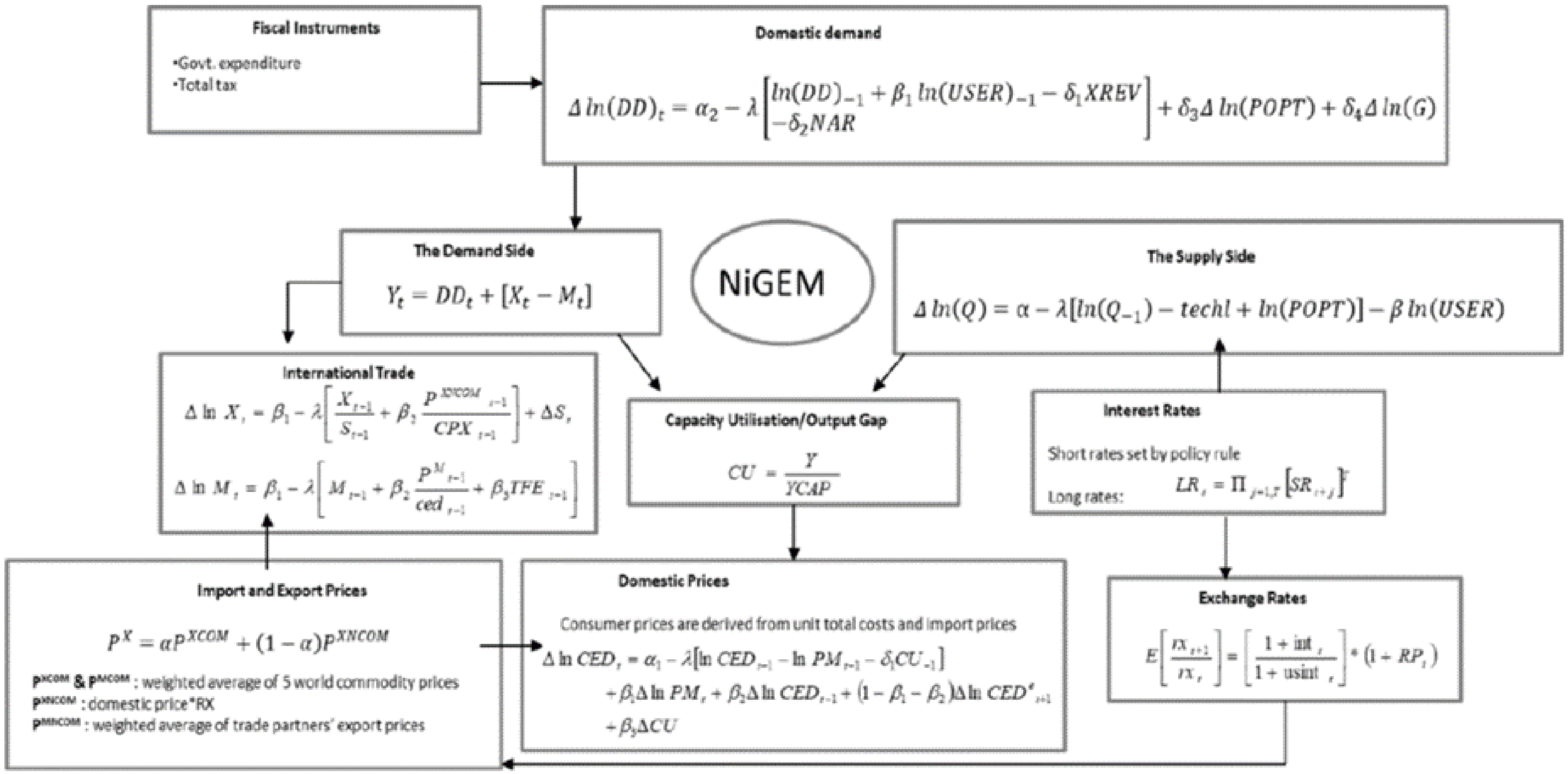
Figures A2.4 and A2.5 present a broad schematic overview of country models, distinguishing between the full model and reduced model specifications. As detailed in the figures, the key difference between the two is that in a reduced country model, there is no distinction between consumption and investment. That is, rather than split domestic demand into private consumption, private investment, stock-building, government consumption and government investment, only the split between private and public-sector spending is available and no measure of either private or public-sector capital. In both cases, output is demand determined in the short run and supply determined in the long run. For full country models, long-run supply is determined by population growth, labour force participation, the equilibrium unemployment rate, labour-augmenting technological progress, and the capital stock. For reduced country models, long-run supply is simply determined by trends in the labour force and labour-augmenting technology. Importantly for the analysis contained in this report, full country models contain a link between government investment and long-run potential output and so can be used to analyse the long-run effects of RRF spending on investment projects. Unfortunately, this is not the case for reduced country models or for the three countries not modelled separately in NiGEM, though, given these countries only represent less than four per cent of EU GDP, this should not make much of a difference to the overall results for the European Union.

Figure A2.4: NiGEM Full country specification



Source: Supporting study

Figure A2.5: NiGEM Reduced country specification



Source: Supporting study

Full details of the equations underlying NiGEM can be found in Handzsche et al. (2018) but the focus here is on the channels through which the RRF, by increasing public investment, may lead to higher EU GDP. It can be first noted that, for full country models within NiGEM, an increase in public investment, *GI*, will lead to an increase in GDP in the short run:

$$Y = C + DS + PSI + GC + GI + XVOL - MVOL \qquad \textbf{(1)}$$

Where Y denotes GDP, C denotes household consumption, DS denotes stock-building, PSI denotes private-sector investment, GC denotes government consumption, $XVOL$ denotes exports and $MVOL$ denotes imports. The increase in GDP will depend on the size of the multiplier, which is itself determined by the general equilibrium responses of the other variables in equation **(1)**.

An increase in government investment will also lead to a higher public-sector capital stock, KG, in the future:

$$KG = (1 - d)\, KG_{-1} + GI \qquad \textbf{(2)}$$

And this higher capital stock itself leads to higher trend output, $YCAP$, and so can increase in GDP in the long run:

$$YCAP = (KP + KG)^{1 - \alpha - q}\, (TECHL * ETRND)^{\alpha}\, (OIVOL * Y)^{q} \qquad \textbf{(3)}$$

Where KP denotes private-sector capital stock, $TECHL$ denotes labour-augmenting technical progress, $ETRND$ denotes trend employment and $OIVOL$ is energy use as a share of GDP.

These are the two channels through which an increase in public investment affects output in full country models. As reduced country models do not include investment or capital, for those countries the total government expenditure is shocked instead. This adds directly to domestic demand and, hence, raises GDP in the short run but it has no effect on potential output or GDP in the long run.

Macroeconomic Model QUEST

The macroeconomic analysis conducted by the Commission to ex-ante analyse the macroeconomic impact of the RRF, and reported in the Staff Working Document, was carried out using the QUEST model. It is a structural macro-model in the New-Keynesian tradition, based on the Dynamic Stochastic General Equilibrium approach, and with rigorous microeconomic foundations derived from utility and profit optimisation and including frictions in goods, labour and financial markets[302]. There are different versions of the QUEST model, estimated and calibrated, each used for specific purposes. The model version applied here distinguishes all 27 EU Member States and the rest of the world. Online Appendix B in Pfeiffer et al. (2023a)[303] provides the full

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302 See https://economy-finance.ec.europa.eu/economic-research-and-databases/economic-research/macroeconomic-models/quest-macroeconomic-model_en

303 Pfeiffer P., J. Varga, and J. in 't Veld (2023a) Quantifying spillovers of coordinated investment stimulus in the EU, Macroeconomic Dynamics (27), p. 1843–1865.

description. Although all regions are isomorphic, key country-specific features are accounted for, including trade openness, past public investment rates, and monetary-policy setting (i.e., participation in the euro area, the European Exchange Rate Mechanism (ERM-II), or independent national currencies).

Overview of the QUEST model and key modelling assumptions applied in the NGEU simulations

The analysis applies a rich, multi-region, dynamic general-equilibrium model, distinguishing all 27 EU Member States and the rest of the world[304]. The framework aims to incorporate the features relevant to fiscal-policy transmission, including price and wage rigidities, detailed public-investment dynamics with time-to-build delays and implementation lags[305], and (intertemporal) government budget constraints. Furthermore, it accounts for key country-specific features, such as trade openness and the monetary-policy setting. A detailed trade matrix explicitly accounts for bilateral trade linkages of all regions. The model captures linkages through cross-border value chains by including trade in intermediate inputs for tradable and non-tradable sectors.

While necessarily simplifying the full mechanics of NGEU, the setup distinguishes grant and loan allocations for each Member State (based on the available information as of September 2023). In sum, the simulations consider NGEU funds of around 5% of EU GDP (2019)[306]. The approach fully takes into account the increase in EU debt associated with NGEU, which is assumed to be financed via GNI-based long-term contributions of the Member States.

The simulation further applies the following technical assumptions:

- *Spending composition:* The simulations assume the full NGEU allocation is spent as productive public investment[307]. With focusing on the whole NGEU program, it is important to acknowledge that the QUEST model's estimates exceed the effect of RRF investments on GDP, as the RRF only represents around 90% of NGEU investment.

304 For related work on the QUEST model, see also https://economy-finance.ec.europa.eu/economic-research-and-databases/economic-research/macroeconomic-models/quest-macroeconomic-model_en

305 Leeper, E. M., Walker, T. B., & Yang, S.-C. S. (2010). Government investment and fiscal stimulus. Journal of Monetary Economics, 57, 1000–1012.

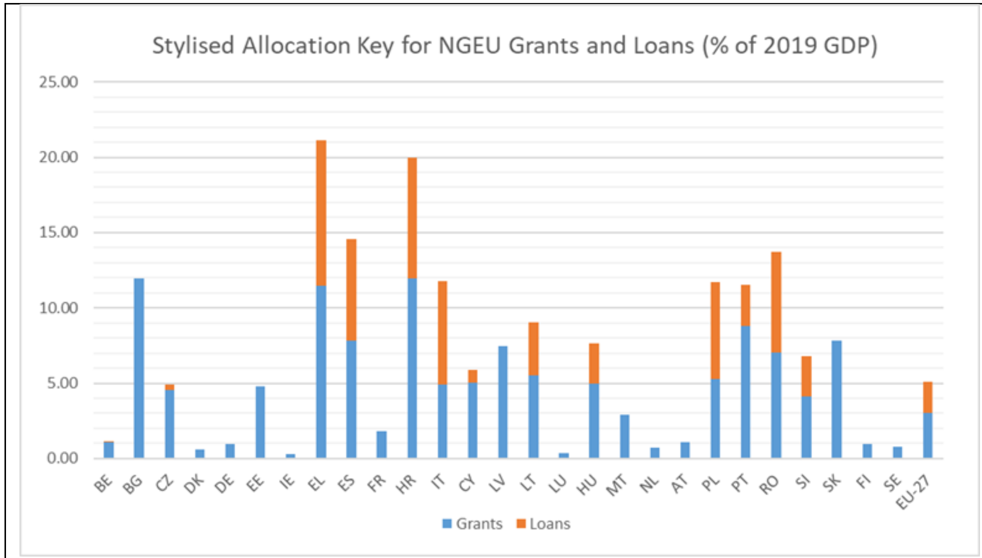
306 EUR 421billion in grants and EUR 293 billion in loans (in current prices). See also, https://commission.europa.eu/strategy-and-policy/recovery-plan-europe_en

307 In national-accounts terms, spending on education and training may be classified as government consumption, but for modelling purposes, it is considered productive spending. High productivity investment may – to some extent – also be considered as a stylised "stand-in" for reforms.

- *Grants:* The simulations account for a total grant volume of EUR 421bn (in current prices), of which EUR 338bn are allocated to RRF grants. For the residual funds, the specific allocation key was employed where possible. Where no allocation key is given, such as with tender-based instruments, the RRF allocation key was used instead.
- *Loans:* The analysis considers loans of EUR 293bn, including additional requested loans with revision of RRPs (see Figure A2.6 below).
- *Additionality:* In line with previous QUEST modelling, the simulations assume that Member States use 100% of EU grants and 50% of EU loans for additional public investment. Only additional investments are considered in the simulations. Since the other half of loans finances general government spending, which is assumed to take place anyway (and thereby frees up resources), the impact on national debt is also 50%. Specifically, additionality in the context of the model simulations refers to investment generated by NGEU, beyond what would have been achieved through existing resources. In general, support from substitute the RRF cannot substitute for recurring national budgetary expenditure (unless in duly justified cases) in line with Article 5(1) of the RRF Regulation. Still, it has been argued, as, for example, in the external mid-term evaluation, that loans from the RRF could replace some general government spending. The hypothetical simulation assumption of lower additionality in the modelling therefore implies a more conservative stance.
- *Repayment:* The repayment assumptions on RRF loans and contributions to the EU budget (to finance grants) remain as in Pfeiffer et al. (2023a).
- *Inflation*: NGEU envelopes are nominal. Thus, high inflation rates reduce the real value of the NGEU grants. To take this into account, the simulations include information on actual and expected GDP inflation rates (based on the ECFIN forecast).
- *Time profiles*: The simulations consider country-specific expected RRF disbursement or spending profiles, as estimated by DG ECFIN. The estimated time profiles are more backloaded than the stylised even profile applied in previous QUEST simulations.
- *Productivity*: A central assumption concerns the productivity of public capital for which the empirical literature has not reached a consensus. The QUEST calibration is informed by the median estimate of a meta-study[308]. For robustness, the analysis also considers a low-productivity scenario.
- *REPowerEU:* The simulations do not include any additional financing coming from REPowerEU.

Figure A2.6: Stylised allocation key for NGEU Grants and Loans (% of 2019 GDP)

[308] Specifically, the output elasticity of public capital is set to 0.12, in line with the median estimate reported by Bom and Ligthart (2014). The meta-study suggests that infrastructure investment has higher productivity effects on average (0.17). The QUEST low-productivity scenario illustrates the sensitivity of these assumptions by considering an elasticity of 0.05. Bom, P., and Ligthart, J. E. (2014). What have we learned from three decades of research on the productivity of public capital? *Journal of Economic Surveys*, 28, 889-916.



Notes: This figure reports the assumed grant and loan allocation used in the simulations. Note that this is a stylised representation for modelling purposes only; actual sums financed from NGEU are bound to differ. Grant instruments include RRF grants and additional resources such as ReactEU and the Just Transition Fund.

Source: European Commission

Modelling NGEU in the QUEST model: While necessarily simplifying the full mechanics of NGEU, the modelling approach distinguishes grant and loan allocations for each Member State based on the currently available information. Also, it fully takes into account the increase in EU debt associated with NGEU. A separate EU budget accounts for the new EU-wide debt financed via long-term contributions of the Member States.

Modelling public investment: A central assumption is that public investment is productivity-enhancing, a notion broadly supported by the empirical literature (see Bom and Ligthart 2014)[309], despite identification challenges. Formally, the model captures productivity effects by including public capital in the private sector's production process. Higher public capital then increases output for given inputs (private capital and labour). A simplified representation of the private-sector production function is given by:

[309] Bom, P. and Ligthart, J.E. (2014) *What Have We Learned From Three Decades Of Research On The Productivity Of Public Capital?*, in Journal of Economic Surveys, 28, pages 889-916.

$$Y_t = N_t^{\alpha} K_t^{1-\alpha} (K_t^G)^{\alpha_G},$$

where Y_t, K_t, N_t, α and K_t^G denote output, private capital, labour, the labour share, and effective public capital, respectively. The output elasticity of public capital $\alpha_G \geq 0$, drives the medium and long-run GDP effects in the simulations. The QUEST model calibration follows the empirical literature to calibrate this parameter. These studies, however, have found different degrees of productivity, and there is no consensus. Bom and Ligthart (2014) find a mean output elasticity of public capital of 0.12. For robustness, the simulations also consider $\alpha^G = 0.05$ as a low-productivity scenario.

Public investment often faces delays in both implementation and construction. For example, projects need to be contracted. New infrastructure projects take time before benefiting their users (e.g., building highways or bridges). These features have two main implications. Firstly, government investment is not immediately productive, reflecting time-to-build lags. Thus, in contrast to the standard model, government investment does not translate directly into productivity-enhancing public capital. Instead, with the time-to-build delay, the positive supply-side effects materialise later, reducing the short-run multiplier. Nonetheless, they remain persistent as public capital depreciates only slowly.

Besides its supply-side effects, public investment directly enters GDP in the national-account expenditure items.

Other model elements:

- International linkages: QUEST features a rich trade structure linking individual economies. While adding complexity, this approach captures the transmission of NGEU in the highly integrated EU economy. The model distinguishes tradable and non-tradable goods and services, and explicitly features imported intermediate inputs. The latter capture cross-border value chains and have significant implications for spillovers.
- Household heterogeneity and sticky wages: QUEST distinguishes (optimising) Ricardian and liquidity-constrained households (rule-of-thumb consumers). The latter households do not participate in financial markets and consume their entire disposable income in every period. Together with imperfect labour and goods markets, this feature implies a higher sensitivity of consumption to income, generating Keynesian effects of fiscal stimulus, in line with empirical evidence.
- Real frictions: As typically assumed in larger DSGE models, goods production in our setup also features variable capacity utilisation, capital-adjustment costs, and labour-adjustment costs. In line with estimated model versions, these model features help to capture the economy's dynamic behaviour.

Model calibration: Model parameters that characterise the model's steady state are calibrated based on national accounts, fiscal data, and trade data. Steady-state aggregates (like private and public consumption; investment; trade openness; and trade linkages) are calibrated on region-specific data. The steady-state import share in demand for tradables, and the share of intermediates in tradable and non-tradable-sector production are both based on input-output tables from the WIOD database. The shares of bilateral imports are based on the IMF Direction of Trade Statistics (DOTS) for goods trade and on Eurostat, OECD and WTO data sources for services. The baseline government-debt-to-GDP ratios reflect the average ratios observed over the last decade. Behavioural parameters that govern the dynamic adjustment to shocks are based on earlier estimated QUEST model versions. Parameters for the adjustment of prices and wages, which determine the sensitivity of prices and wages to demand and supply shocks, are informed by evidence of average price and wage adjustment frequencies. Online Appendix C in Pfeiffer et al. (2023a) reports further details on the calibration strategy and data sources.

Model uncertainty and sensitivity analysis: Besides the low-productivity scenario presented above, the Online Appendix in Pfeiffer et al. (2023a) helps to assess the robustness of the results and understand how variations in key parameters can impact the outcomes, such as assumptions on fiscal and monetary policy, labour supply elasticity and speed of NGEU fund disbursement.

Model robustness

To assess the robustness, it is helpful to position the QUEST simulation results relative to other macroeconomic research on the potential impacts of NGEU. In general, while simulation results can quantify potential macroeconomic impacts, they depend on the modelling choices and features of the framework.

- The QUEST simulations do not account for the potentially significant benefits of reforms, which are fundamental to the RRF. Quantifying these benefits, especially in advance, is challenging. In related work, however, Pfeiffer, Varga, and in 't Veld (2023b) illustrate the potential long-run gains of economic reforms.[310]
- European Central Bank ('ECB') research (Bańkowski et al., 2021)[311] estimates that, by 2026, NGEU could boost the euro area's GDP by as much as 1.5%, with more pronounced effects in the main recipient nations. For instance, in Italy and Spain, which are among the major beneficiaries, the ratio of public debt to GDP could decrease by over 10 percentage points by 2031.

[310] See Pfeiffer, P., Varga, J, and in 't Veld, J. (2023b) *Unleashing Potential: Model-Based Reform Benchmarking for EU Member States*, available at: https://economy-finance.ec.europa.eu/publications/unleashing-potential-model-based-reform-benchmarking-eu-member-states_en.

[311] Bańkowski, K., Bouabdallah, O., Semeano, J. D., Dorrucci, E., Freier, M., Jacquinot, P., Modery, W., Rodríguez-Vives, M., Valenta, V., & Zorell, N. (2021), *The economic impact of Next Generation EU: a euro area perspective*, in Occasional Paper Series (No. 291). European Central Bank.

- While both studies, ECB and QUEST analyses, find substantial growth effects in the EU, there are differences in assumptions and approaches. First, compared to the QUEST modelling, the ECB authors consider illustrative reforms (mark-up shocks) and include stylised risk premium reductions[312]. Second, compared to the benchmark scenario used in the Commission 's simulations, the ECB estimates are based on (more pessimistic) assumptions on additionality and productivity[313]. Finally, the country and programme coverage are more limited than in the QUEST simulation, which covers all 27 EU Member States and other NGEU funds beyond the RRF.
- The external mid-term evaluation supporting study applies the NiGEM model to simulate the effects of NGEU, finding smaller multipliers than the QUEST simulations. Notably, the long-run government investment multipliers appear to be substantially below the estimates presented in Table A2.6. below[314]. The authors explain these results by more pessimistic productivity assumptions and the fact that, for some Member States, the NiGEM model applies a simplified model structure[315]. As a result, the simulated long-run EU GDP effects are considerably smaller in the order of 0.3% of GDP. In other aspects, the approach is broadly in line with the QUEST simulations, emphasising, for example, the role of positive spillover effects.
- It is important to acknowledge, that the provided model-based simulation strongly hinge on the concept of additionality. The authors of the supporting study argue that the additional investment stimulated by the RRF was limited due to the short period allocated for implementation and the overlap with projects fundable by Cohesion Policy instruments. If only 25% (Northern and Western Europe) and 60% (other countries) of non-repayable support and loans were spent on additional investment, the GDP gains are reduced by a little over a quarter.
- The NiGEM simulations also include reforms, which, however, are illustrative since the assumed shock sizes (e.g., changes in macroeconomic indicators) remain unrelated to concrete RRF reforms.

[312] The NGEU's effect on sovereign risk premia is inferred from the drop in bond spreads within three weeks of the May 2020 Franco-German recovery fund announcement. This implies that without NGEU, the spread increase from March 2020 would have continued otherwise. Although factors like the ECB’s PEPP and SURE could account for the spread decline, it's wholly attributed to NGEU. Moreover, the assessment assumes enhanced financing conditions also for households and firms.

[313] Moreover, the ECB simulations assume 80% of spending is investment, and the remainder is non-productive spending (transfers, other expenditure). The assumed output elasticity for public investment is also below the median estimate reported by Bom and Ligthart (2014) and applied in the (high-productivity scenario of the) QUEST simulation. The simulation presented in DG ECFIN’s 2020 autumn forecast also considered a low-additionality scenario. See European Commission (2020). Macroeconomic effects of Next Generation EU, in *European Economic Forecast: Autumn 2020*, Special Issue 3.2’. Institutional Paper 136, pp. 65-70.

[314] Other model-based estimates also suggest higher multipliers. See, Bozou, C., & Creel, J. (2023). Comparing different features of a fiscal stimulus in the euro area *Sciences Po OFCE Working Paper* No. 05/2023.

[315] Essentially, for these countries, all government expenditures are categorised as “consumption”, and thus, the model does not include any benefits from higher public capital.

Table A2.6. shows that the *cumulative* multipliers are in the (lower) range of the estimates in the macroeconomic modelling literature, as reported by Ramey (2021, p. 239)[316]. The alternative (low productivity) scenario highlights the importance of high-quality investment projects to generate high fiscal multipliers.

Table A2.6.: Long-run multipliers

	QUEST simulation	Ramey (2021)
Government consumption	-	*0.9*
Government investment (high productivity, undiscounted)	*6.5*	*4.9 to 9.8*
Government investment (low productivity, undiscounted)	*3.1*	*2.9 to 5.4*
Government investment (low productivity, discounted)	*1.7*	*1.7 to 3.2*

Notes: This table compares the simulated QUEST long-run multipliers to those reported in Ramey (2021, New-Keynesian model). In the last row, the same discount factor as Ramey (4% p.a., ex-post) was applied. Multipliers correspond to the ratio of the integrals of the GDP gains and the NGEU funds.

Source: European Commission

Methodology to report on estimated expenditures under each pillar

In line with Article 29(3) of the RRF Regulation, the Commission has developed a methodology to report on the contribution of the RRPs to each of the Facility's six pillars.

The indicative break-down of disbursements by policy pillar is calculated as follows:

[316] Ramey, V. A. (2021). The macroeconomic consequences of infrastructure investment. In E. L. Glaeser & J. M. Poterba (Eds.), *Economic Analysis and Infrastructure Investment* (pp. 219-268). University of Chicago Press, available at https://www.nber.org/system/files/chapters/c14366/c14366.pdf.

1. Bearing in mind that RRF disbursements are linked to the satisfactory fulfilment of milestones and targets and not to the actual costs incurred, the unit value of milestones and targets is calculated by dividing the total allocation of a national plan by the number of milestones and targets contained in the plan. Therefore, each milestone and target have the same unit value, allowing to report on both investments and reforms, even if reforms have usually no or very low cost.
2. The Commission, in consultation with the Member States, assigns two policy pillars to each measure included in the recovery and resilience plans. Since each milestone and target is linked to a measure, milestones and targets are indirectly linked to the two policy pillars assigned to the measure they belong to. Hence, a disbursement based on the satisfactory fulfilment of 44 milestones and targets, would correspond to 88 assignments of policy pillars (see also example below).
3. The number of assignments under the same pillar is multiplied by the unit value of milestones and targets calculated in step 1. For instance, if there are 18 green transition pillar assignments out of 88 milestones and targets (see below), and the unit value of each milestone and target in the plan concerned is EUR 20.2 million, the contribution of the disbursement to the green transition pillar would be 18 x 20.2 = EUR 364 million.
4. The share of value of milestones and targets per pillar is calculated by dividing the contributions to each pillar (step 3) by the sum of contributions to the six pillars. For example, if the value of the milestones and targets linked to the green transition pillar is EUR 364 million, and the sum of the value of all milestones and targets under one instalment is EUR 1.781 billion, the share of the value of milestones and targets linked to the green transition pillar is 364 /1.781 = 20.45%.
5. The estimate of the contribution of a disbursement to each pillar corresponds to the share of the disbursement linked to the value of milestones and targets per pillar. For instance, if the share of the value for the green transition pillar is 20.45% and the disbursement corresponds to EUR 804.5 million, the expenditure related to the green transition pillar is (804.5 million/100) x 20.45 = EUR 164.57 million.

For example:

Total allocation: EUR 3,461,398,824

Total number of milestones and targets in the plan: 171

Unit value of milestones and targets: total allocation/ total number of milestones and targets = EUR 20,242,098

Payment request: EUR 804,597,701

Number of milestones and targets linked to the first payment: 44

Figure A2.7.: Methodology

18*20.2 million = 364.3 million EUR

364.3 million/ 1,781.3 million = 20.45%

20.45%*804.5 million = 164.5 million EUR

Policy pillars	Number of MTs (primary and secondary)	Value of the MTs	Share of value of MTs per pillar	Expenditures per pillar
Green transition	18	€364,357,771	20.45%	€164,576,802
Digital transformation	13	€263,147,279	14.77%	€118,861,024
Smart, sustainable, and inclusive growth	21	€425,084,066	23.86%	€192,006,270
Social and territorial cohesion	16	€323,873,574	18.18%	€146,290,491
Health and resilience	13	€263,147,279	14.77%	€118,861,024
Policies for next generation	7	€141,694,689	7.95%	€64,002,090
Total	88	€1,781,304,658	100%	€804,597,701

Source: European Commission

Assessment of the supporting study

The work carried out by the external contractor delivered on the objectives and tasks set in the Terms of Reference and followed the work plan agreed with the ISSG.

Although the supporting study had to be performed within a short timeframe (March-November 2023), the consultants carried out all the expected tasks as planned: they delivered an extensive literature review, they performed the interviews as planned and carried out diverse surveys, they analysed the RRF implementation in Member States and conducted eight in-depth case studies, covering the six pillars defining the scope of the Facility (one case study per pillar), as well as two case studies on two important themes for the RRF implementation (the support of cross-border projects and a comparison between the RRF and cohesion). They also performed a macro-economic analysis to assess the impact of the RRF on EU GDP, using the NiGEM model. Only the survey targeted to National Parliaments did not bring the expected results, given the very low response rate, and was therefore not used for the supporting study.

The supporting study Is overall of good quality. The results are triangulated with various sources of information to ensure the conclusions are robust. The consultants made their best efforts to identify the impact on the ground, searching for data available at national level to assess the impact of the reforms and investments implemented on the ground. The supporting study is neutral and well balanced, presenting the facts, the diverse views of relevant stakeholders and identified both the positive and negative aspects of the Facility.

Overall, the report is rich of information and well-written. Furthermore, the consultants provided translations of the executive summary into DE and FR.

Data limitations

Table A2.7: Methods applied and limitations – an overview

Method	Overview	Input into the evaluation	Limitations
Literature review	The literature review is presented in Annex III of the supporting study, while its Annex IV of the supporting study lists the literature reviewed.	All evaluation criteria	While the literature review contributed to answering the evaluation questions, most of the available literature to date presents the expectations for the RRF, rather than offering a review of its implementation. This is natural considering the stage of implementation of the RRF, but diminished the usefulness of the available literature.
Databases	There are two main databases that were developed for the purposes of the study: - Primary database, using Commission data on RRF monitoring	Primary database – Effectiveness criterion. All evaluation criteria for the secondary database	The **primary database** has proved very useful in identifying the status of disbursements, milestones and targets, and common indicators. A limitation of this data is that it does not go beyond available monitoring data. Another limitation is that considering the current status of implementation of the RRF, it is not possible to reach conclusions on the effectiveness along the six RRF pillars (as noted in the Effectiveness section, the state of implementation of the milestones and targets per pillar ranges from 8% to 13%). Furthermore, the common indicators themselves offer specific challenges: they cover very broad aspects of the RRP measures (making disentangling their specific origin and

	- Secondary database, which incorporates interview input and data on results gathered at national level. In view of protecting the anonymity of the interviewees, in Annex V, only the data on results is provided.		contribution to RRF objectives difficult); given the stage of RRP implementation, for some of them there have been limited reporting by Member State; and they do not have target values. Considering these limitations, the **secondary database** was established, trying to go beyond the available data and cover broader results of RRF reforms and investments and qualitative information. However, there are also limitations to the secondary database are: 1) large heterogeneity of information retrieved across Member States, in part also due to the different status of implementation of the national plans; 2) particularly for investments, it still presents largely expectations rather than actual effects, but this is due to the status of RRF implementation; 3) heterogeneity of available information at national level on the implementation of RRF measures (for some Member States the availability of academic literature on the RRF related measures is very high, while in others much less).
Public consultation	The public consultation was conducted from 16 March 2023 to 8 June 2023. A total of 172 responses were received	All evaluation criteria	A major limitation of the public consultation is the relatively limited number of responses received and the large share received from one Member State: Portugal. In this context, the consultation results have been used with particular care, triangulating also with other consultation tools, and no findings were based solely on public consultation input.
Surveys	Two targeted surveys were launched at the end of May 2023 and closed on the 7th of July. The first survey addresses key national stakeholders involved in the programmes' implementation, the projects' selection, and the monitoring and reporting procedures. The second survey targets members of national parliaments involved in committees linked to areas of reform identified in the national Recovery and Resilience Plans.	Effectiveness, Efficiency, Coherence, EU added value (for the national stakeholder survey)	The **survey with national RRF stakeholders** was filled in by 40, out of 60 invited, which is a very good response rate. While the survey provided useful input across most evaluation criteria, some limitations emerged: - Since the survey had to cover a wide range of evaluation questions, it could not delve deeply into certain aspects that would have required more detailed ad hoc inquires, such as the collection of administrative costs. Thus, for administrative costs of Member States, additional information was requested through the RRF expert group (five Member States provided responses); - As most respondents were national coordination bodies, they could not provide the same level of detail for all questions. For example, gathering details on implementation costs was challenging because implementation is often delegated to line ministries. - Due to the short evaluation timeframe, the survey and interview program ran concurrently, limiting the potential for synergies and a thorough assessment of information gaps Despite the large number of invitations sent (1,800) and the translation of the questionnaire in all official EU languages (except Gaelic and Maltese) the **survey with members of national parliaments** received only five responses. Thus, its results were not incorporated into the evaluation.
Interviews	Targeted interviews were a cornerstone of our stakeholder consultation and allowed us to gather particularly qualitative and	All evaluation criteria	Overall, the response rate for the semi-structured interviews has been very high. The inherent limitation of this methodology is linked to the specific knowledge of the interviewee. This limitation has been largely compensated by the large consultation carried out with different stakeholders with whom different aspects of the evaluation questions were investigated.

	in-depth information on the RRF. In total, 156 semi-structured interviews (of which 88 in the context of case studies) were conducted with national coordination bodies, the Commission, the EP, the EFC and EPC chairs, the EU social partners, the EESC, the CoR, NGOs and policy experts.		
Case studies	Eight case studies have been conducted. Six focused on specific policy areas related to the RRF six pillars: (a) Energy efficiency buildings; (b) digitalisation of healthcare; (c) support to SMEs; (d) active labour market policies; (e) rule of law reforms; and (f) early childhood education and care. Two specific case studies have been added, one on cross-border projects and one on the interaction between other EU Cohesion Policy and the RRF.	All evaluation criteria	The main limitation of the case study approach is related to the different levels of depth of the analysis related to the two main factors: 1) availability of data on results due to different stages in the measures' implementation and different types of measures (reforms or investments); 2) difficulties encountered especially in the consultation with stakeholders in different case studies. While not being a data limitation per se, it should also be acknowledged that the case studies findings cannot be considered as representative for all Member States or for the overall Facility. They provide a deep dive into some selected area, looking at selected Member States.
Analysis of costs and benefits	The analysis of costs and benefits has been structured into the following steps: cost mapping; assessing costs; assessing benefits; concluding on the benefit/cost ratio.	Efficiency	The two major limitations are: i) the reliance on a survey of national stakeholders to collect cost data. While it was the best available option in this context, collecting administrative costs typically requires multiple rounds of interactions with various entities involved in the governance and implementation of an investment program; ii) Quantifying and monetising the benefits has proven to be not feasible). This led to the decision to calculate the benefit-cost ratio of the RRF as the ratio between the absolute cumulative change in real GDP predicted by the macroeconomic model and the funding (both grants and loans).
Macroeconomic model	The macroeconomic analysis reported in the main body of the supporting study was carried out using the National Institute Global	Effectiveness and Efficiency	The limitations and assumptions of the models are presented in the text of the supporting study where relevant, and include: i) GDP per capita data was only available up to 2022; ii) NiGEM model

	Econometric Model (NiGEM). The SWD also draws on the QUEST model, developed and maintained by the Commission.		limitations[317]; iii) the fact that the model does not take into account the impact of reforms under the RRF. The limitations of the QUEST model relate to model specifications and assumptions outlined in Annex II just above this table. On top of the models' assumptions, the results are influenced by some important caveats: With focusing NGEU, the QUEST model's estimates exceeds the effect of RRF investments on GDP, as the RRF only represents 90% of NGEU investment. At the same time, it provides a structural under-estimation of the RRFs GDP effects due to the missing effect of RRF reforms.

Whilst such limitations have undoubtedly had a bearing on the exercise, they do not impact on the robustness or reliability of the overall mid-term evaluation conclusions which serve as a useful basis for reflections on the RRF. Overall, the conclusions reached on the achievements of the RRF at the mid-term point can be considered strong. The process has benefitted from the independence of the external evaluator and the expertise of informed stakeholders during the validation workshop. Finally, the skills and knowledge of the ISG have supported the quality assurance of the external report and the SWD mid-term evaluation.

ANNEX III. EVALUATION MATRIX AND, WHERE RELEVANT, DETAILS ON ANSWERS TO THE EVALUATION QUESTIONS (BY CRITERION)

Table A3.1: Evaluation Matrix and questions by criterion

	Evaluation questions	Judgement criteria	Indicators	Main sources	Evaluation tools
Effectiveness	**Overall RRF functioning** EQ1: To what extent has the RRF been effective in providing financial support to Member	Timely (i.e., no lags) analysis and disbursement of the requests for	• Timelines of the payment requests (in line with the original planning)	Primary database and stakeholder consultations	Descriptive statistics of: • Speed of disbursement • Value of disbursements

317 Three Member States – Cyprus, Luxembourg and Malta – are not modelled separately in NiGEM, results for these countries could not be obtained. For a number of other countries, specifically Bulgaria, Croatia, Estonia, Latvia, Lithuania, Slovakia and Slovenia, all government spending is treated as 'consumption' and so does not add to the economy's capital stock, which is the main way that government investment raises GDP in the long run. As a result, the multipliers for these countries calculated by NiGEM were much smaller than expected. Finally, even for those countries in NiGEM where public investment is modelled separately to consumption and does add to the nation's capital stock, raising long-run GDP, NiGEM assumes constant returns to scale, perfect substitutability between private and public capital and no productivity spillovers from public capital to private capital. As a result, the multipliers on public investment calculated using NiGEM are at the low end of estimates for these spillovers in the literature. Dealing with these limitations would require constructing what would essentially be a new macroeconomic model. In a way, QUEST is already that model; so, NiGEM can be thought as providing an independent 'sanity check' for the QUEST results. On the data side, assumptions made about interest payments, disbursements and the timing, extent and additionality of RRF spending that may turn out to be incorrect.

	States (cf. pre-financing, speed of disbursements)	pre-financing and instalments requests	• Time lag between disbursement requests – approval or rejection – actual disbursement		• Pre-financing value Opinion on the effectiveness of the provision of financial support
	EQ2: To what extent has the RRF been effective in enabling the implementation of reforms and investments respectively, as set out in the respective Council Implementing Decisions (CIDs)?	Summative question (answer to be provided on the basis of the sub-questions below)			
	EQ2.1: Given the current state of play of the Facility's implementation, which outputs (milestones and targets) and results have already been achieved?	Fulfilment of milestones and targets Extent of progress on the common indicators	Values of milestones and targets Common indicator values	Primary database and Recovery and Resilience Scoreboard	Descriptive statistics and literature review (reports on the RRF implementation)
	EQ2.2: To what extent did the achievement of milestones and targets translate into the successful implementation of reforms and investments?	Results of investments and reforms are aligned to the expectations. Degree of granularity of targets and clarity of milestones and capacity to trace investments and reforms implementation	Identified results of investments Identified results of reforms Qualitative assessment of targets/milestones granularity and clarity vis-à-vis national decision-making processes	For the results of investments/reforms – secondary database, stakeholder consultations, and case studies	• Case Studies • Survey • Semi-structured interviews
	EQ2.3: How effective has the RRF been in supporting reforms that address the CSRs (as the support for implementing reforms is a key feature/novelty of the instrument)?	Alignment between reforms and CSRs	Qualitative interviews and comparative synoptic tables State of implementation of the CSRs	Secondary database and stakeholder consultations Commission CSRs database[1]	• Semi-structured interviews • Descriptive statistics
	EQ3: Was the Commission's communication (including information discussions preceding the formal submission of RRPs/payment requests, timing and availability of guidance) effective to support the timely implementation of the RRF?	Timely and available information communication on RRF procedures (e.g., submission of RRPs, payment requests, reporting etc.)	• Timeliness of issuing guidance documentation • National authorities' perception of Commission communication effectiveness and impact on the plans' implementation	Stakeholder consultation (in particular the survey with national coordination bodies) Review of guidance documents	• Semi-structured interviews • Survey • Literature review (on guidance documents)

RRF objectives' accomplishment EQ4: To what extent has the RRF been effective in:				
EQ4.1: cushioning the social and economic impact of the crisis, in particular on women	Identified contribution to cushioning the social and economic impact of the crisis on women	Common indicators, disaggregated by gender and the Scoreboard: • researchers working in supported research facilities; • participants in education or training; • people in employment or engaged in job searching activities; • young people aged 15-29 receiving support. Qualitative and quantitative references related to the United Nations Sustainable Development Goal 5 on gender equality and the European Pillar of Social Rights.	Primary database and Recovery and Resilience Scoreboard Stakeholder consultations	• Descriptive statistics • Case studies • Semi-structured interviews • Descriptive statistics • Literature review
EQ4.2: supporting the economic recovery	Identified contribution to positive economic recovery trends	Macroeconomic indicators (i.e. GDP, employment, productivity, government debt)	National Institute of Economic and Social Research's Global Econometric Model – NiGEM QUEST model	• Descriptive statistics • Quantitative (macroeconomic) analysis of impacts – both by QUEST and through NiGeM
EQ4.3: enhancing social and territorial cohesion	• Enactment of reforms and investments to address social and territorial cohesion	• Allocation of RRF funds between and within Member States	Primary database Stakeholder consultations	• Case study on modernisation of labour market institutions • Descriptive statistics • Semi-structured interviews
EQ4.4: increasing health, economic, social and institutional resilience	• Enactment of reforms and investments to support health, social and institutional resilience • Progress and expected progress of the relevant common indicators	• Milestones and targets related to resilience • Relevant common indicators: Number of users of new and upgraded public digital services, products and processes; Capacity of new or modernised health care facilities	Primary database and Recovery and Resilience Scoreboard Secondary database, incl. on stakeholder consultations	• Case study on justice reform • Semi-structured interviews • Descriptive statistics on the common indicators progress
EQ4.5: supporting the green transition	• Enactment of reforms and investments to support the	• Milestones and targets related to the green transition	Primary database and Recovery and Resilience Scoreboard	• Green transition case study • Surveys • Semi-structured interviews

		green transition in the Member States. • Progress on the relevant common indicators • Compliance with the DNSH principle is ensured by the existing procedures	• Green common indicators: 1) Savings in annual primary energy consumption; (2) Additional operational capacity installed for renewable energy; (3) Alternative fuels infrastructure (refuelling/recharging points) • Information on procedures and application of the DNSH principle by beneficiaries	Secondary database, incl. on stakeholder consultations	• Desk research, incl. on the alignment to the DNSH principle • Descriptive statistics on the common indicators progress
	EQ4.6: supporting the digital transition	• Enactment of reforms and investments to support digital transition in the Member States • Progress on the relevant common indicators	• Milestones and targets related to the digital transition • Digital common indicators: 5) Additional dwellings with internet access provided via very high-capacity networks; 6) Enterprises supported to develop or adopt digital products, services and application processes; 7) Users of new and upgraded public digital services, products and processes	Primary database and Recovery and Resilience Scoreboard Secondary database, incl. on stakeholder consultations	• Digital transition case study; • Surveys; • Semi-structured interviews • Desk research • Descriptive statistics on the common indicators progress
	EQ4.7: fostering smart, sustainable and inclusive – economic growth and employment potential within the Union	• Enactment of reforms and investments to support inclusive economic growth and employment in the Member States • Progress and expected progress of the relevant common indicators	• Milestones and targets related to fostering smart, sustainable and inclusive – economic growth and employment potential • Relevant common indicators: 8) Researchers working in supported research facilities; 9) Enterprises supported (of which small – including micro, medium, large); 10) Number of participants in education or training; 11) Number of people in	Primary database and Recovery and Resilience Scoreboard Secondary database, incl. on stakeholder consultations and macroeconomic imbalance trends	• Case study on smart, sustainable and inclusive growth; • Surveys; • Semi-structured interviews • Descriptive statistics on the common indicators progress

		employment or engaged in job searching activities		
EQ4.8: supporting policies for next generation	• Enactment of reforms and investments to support Early Childhood Education and Care, Education policies and Youth integration in the labour market • Progress of the relevant common indicators	• Milestones and targets related to policies for the next generation • Relevant common indicators: 13) Classroom capacity of new or modernised childcare and education facilities and 14) Number of young people aged 15-29 years receiving support	Primary database and Recovery and Resilience Scoreboard Secondary database, incl. on stakeholder consultations	• Case study on policies for the next generation • Surveys • Semi-structured interviews • Descriptive statistics on the common indicators progress
EQ4.9: mitigating the long-term risks stemming from the COVID-19 crisis	• Reduction in spreads of Member States • positive effects on the Member States' GDP	• MS spreads • GDP effects	NiGEM, QUEST model	• Literature review • Quantitative analysis of impacts (macroeconomic modelling)
EQ.4.10: contributing to REPowerEU objectives	• Expected contribution of reforms and investments to replace Russian fossil fuels and providing clean, affordable and secure energy to households and businesses across Europe.	• Revised plans including REPowerEU chapters as approved by the cut-off date • Number of measures in the REPowerEU chapters implemented (if any); • REPowerEU objectives pursued in the respective chapters	Desk research of REPowerEU chapters Stakeholder consultations	• Desk research • Semi-structured interviews
RRF implementation obstacles and unexpected effects				
EQ5.1: To what extent did external factors have an impact on the RRF roll-out? How this may have had an impact on the Facility's effectiveness in reaching its objectives?	Delays in or partial fulfilment of Milestones and Targets due to external factors (cf. war in Ukraine, exceptionally high inflation, supply shortages, labour shortages, energy crisis, other)	Indicators related to external factors, e.g. inflation, energy prices	Primary database – data on disbursements Contextual data on external factors, e.g. inflation, energy prices, labour shortages etc.	• Semi-structured interviews • Surveys • Descriptive statistics • Literature review
EQ5.2: To what extent did the absorption capacity of Member States affect the RRF effectiveness?	Extent to which absorption capacity represents a factor in the RRF progress	Evidence of problems related to absorption capacity	Stakeholder consultations	• Desk research • Semi-structured interviews

	EQ5.3: Have any positive/or negative unexpected effects been identified?	Exploratory question, i.e. no criteria / indicators			
	RRF and EU Funding Instruments EQ6: How does the effectiveness of the RRF compare with that of other EU programme and instruments, notably cohesion funds?	• Benchmarking RRF degree of achievement of targets and milestones with Cohesion Policy financing	• Types and number of RRF 'common indicators' aligned with the ones of other programmes and funds (Cohesion Policy funds in particular) • Stakeholder perception on the RRF effectiveness in comparison with the Cohesion Policy financing	Primary database – data on the progress of milestones / targets / common indicators Data on other programmes (e.g. Cohesion Policy) Stakeholder consultations	• Case study on other instruments • Semi-structured interviews • Survey • Case study • Descriptive statistics
	RRF public visibility and contribution to strengthen the Union EQ7: How visible has the Recovery and Resilience Facility been to the public? How was the instrument perceived by the public, by Member States and by beneficiaries?	• Perception (positive/negative) • Communication strategy and funding visibility and acknowledgement	• Awareness of the RRF by the general public • Outreach statistics • Media coverage	• Eurobarometer • Public consultation	• Analysis of the Eurobarometer survey results • Public consultation results of citizens
	Overarching question EQ8: What have been so far the most effective aspects of the RRF (cf. speed of disbursements, implementation of long-standing/awaited/difficult reforms?) What has been the least effective?	• Answers to the previous questions	No specific indicators	Response to the above EQs	Qualitative assessment based on the answers to the previous questions
EFFICIE NCY	EQ9: How do the cost (inputs) of the Facility compare with the RRF outputs, results and impact?	• (Positive) benefit-cost ratio • (Positive) general assessment on the proportionality of costs / achievements	• Administrative costs – FTEs and total costs in EUR • Stakeholder opinion on the proportionality of the costs and achievements	Information/reports from Member States on procedures and costs	• Desk research • Semi-structured interviews • Survey • Descriptive statistics

	EQ9.1: To what extent has the RRF – as a new instrument – created significant “entry-costs” for both national administrations and EU institutions (to become familiar with the functioning of the RRF)?	(Positive) stakeholder opinion on the proportionality of costs	• New administrative procedures created • New units/organisms created (e.g., audit, control, monitoring/reporting, coordination)	Information/reports from Member States on procedures and costs Stakeholder consultations	• Desk research • Semi-structured interviews • Survey
	EQ9.2: To what extent, did these “entry costs” evolve over time with the implementation of the instrument? How did the costs for the preparation of the Plans compare with those for the implementation of the plans?				
	EQ10: To what extent has the RRF – as a new instrument – created significant “entry-costs” for both national administrations and EU institutions (to become familiar with the functioning of the RRF)?	Exploratory question, i.e., no indicators / judgement criteria		Information/reports from Member States on procedures and costs	• Desk research • Semi-structured interviews • Survey
	EQ11: How do the costs/burden of the RRF compliance compare with those of other instruments, notably cohesion funds, also taking into account the costs of audits and controls, as well as of data collection?	Level of proportionality of actual and perceived administrative costs of RRF as compared to cohesion funds in all the phase of the programming cycle (design, negotiation, information, implementation, funds disbursement, monitoring, reporting, audit and control)	Exploratory question, i.e., no indicators / judgement criteria	Available reports/information on administrative costs / burden Stakeholder consultations	• Desk research • Semi-structured interviews • Survey
	EQ12: Can any unnecessary administrative burden and complexity be identified? To what extent is there scope for simplification?	Identified potential for simplification	List of areas with unnecessary burden, administrative complexity and for potential simplification	Stakeholder consultations	• Desk research • Semi-structured interviews • Survey
	EQ13: To what extent have there been efficiency gains from pursuing reforms and	Shared perception of efficiency gains	Stakeholder opinion of the efficiency gains resulting from the	Stakeholder consultations	• Desk research • Semi-structured interviews • Survey

COHERENCE	investments together under one instrument?		coordination of different policy areas		
	EQ14: To what extent was the RRF coherent with the Technical Support Instrument?	Level of coherence in terms of objectives and implementation with broad Union policies (e.g., in the green and digital sector) and the Technical Support Instrument Complementarity of specific activities	Objectives, achievements, and timing of broad Union policies (e.g., in the green and digital sector) Objectives, achievements, and their timing of the Technical Support Instrument Share of RRF-linked projects in the TSI portfolio	RRF regulation (and related acts) TSI-related documents (e.g., Decisions, portfolio)	• Desk research • Semi-structured interviews • Descriptive statistics on the TSI portfolio
	EQ15: To what extent has the RRF been integrated into the broader country-specific surveillance under the European Semester? To what extent have National Reform Programmes been used as a reporting tool for the RRF?	Level of integration of the RRF in the Semester cycle 2021-2022 and 2022-2023 via the National Reform Programme	Actual inclusion of the RRPs reporting in the Semester	RRF reporting within the European Semester (biannual)	• Desk research • Semi-structured interviews
	EQ16: To what extent have EU's priorities guided the reforms and investments put forward by Member States in their recovery and resilience plans?	The objectives defined in the EU Regulation as well as in the CSRs and the other EU initiatives (e.g., Child Guarantee, Youth Guarantee, Social Pillar, EU Green Deal etc) mentioned in the Regulation did guide the drafting of the RRF plans	• National and EU authorities' perception of the guidance of EU objectives in the drafting phase of the RRF • Alignment between EU priorities defined in the CSRs but also in other EU initiatives and RRF reforms and investments	Key EU policy documents describing the EU priorities on twin transition, resilience, COVID response.	• Desk Research • Semi-structured interviews • Case studies
	EQ17: To what extent have complementarity effects and synergies between the RRF with other EU programmes and instruments (such as Cohesion Policy funds) been identified and exploited?	Mechanisms put in place to exploit synergies and complementarities and avoid overlapping and displacement effects	• Guidelines and formal indications about how to exploit synergies. • Mechanisms reported by stakeholders and programme managers on how to exploit synergies and their effects	Description of existing mechanisms Stakeholder consultation	• Case study on other EU funds • Desk Research • Semi-structured interviews • Survey
	EQ18: To what extent were RRF/RRPs	Mechanisms put in place to ensure coherence with Member States'	• Guidelines and formal indications about how to	Description of other existing Member States' instruments	• Desk Research • Semi-structured interviews

	coherent/complementary with relevant Member States' instruments aiming to support the economic recovery after the COVID crisis?	instruments related to the COVID crisis	exploit synergies with other Member States' instruments to cope with the COVID crisis; mechanisms reported by stakeholders and programme managers on how to exploit synergies and their effects; • Quantitative data on crisis response measures • Degree of alignment with Member States' fiscal measures • Degree of complementarity between RRPs and the existing national post-pandemic recovery strategies	aiming at support the economic recovery after the COVID crisis and mechanism to ensure consistency and complementarity	• Survey • IMF database
	EQ19: To what extent have reforms and investments in the plans been complementary and mutually reinforcing?	Alignment between reforms and investments vis-à-vis country-specific needs as identified in the Country Reports	-	Case studies	• Case studies • Desk research • Semi-structured interviews
EU ADDED VALUE	Overarching question: EQ20: What has the RRF provided over and above what Member States actions and funding could have achieved? In particular:				
	EQ20.1: Have substitution effects with national policies/programs and/or with other EU funded programmes been identified and if so, to which extent?	Evidence / extent of substitution effects with national policies / programmes	• Data / information of transferring investments from other national / EU programmes to the RRPs	Stakeholder consultation	• Semi-structured interviews •
	EQ20.2: To what extent have the EU's advantageous borrowing conditions and the impact that the RRF had on reducing spreads of EU Member States at its creation, contributed to the benefits of the RRF?	Evidence / extent of impact on spreads	• Actual spreads vs under counterfactual • Borrowing rates / conditions (maturities, yield on govt bonds etc.)	Eurostat/ECB statistics	• Macroeconomic modelling (QUEST and NiGeM) • Desk research

	EQ20.3: To what extent did the Facility contribute to the implementation and further development of multi-country projects?	Evidence of implementation / development of multi-country projects	• Numbers and types of multi-country projects • Numbers and types of multi-country projects financed by EU funds (e.g., Interreg)	Primary database – data on the multi-country projects Databases on other multi-country projects	• Desk Research • Semi-structured interviews • Descriptive statistics • Case study on cross-border projects
	EQ20.4: To what extent did the RRF contribute to maintaining the level-playing field and strengthening the Single Market?	Crisis response measures by individual Member States would have been more disruptive/would have caused divergence in the single market in the absence of the RRF	-	Case studies	• Desk research • Case studies
	EQ21: To what extent did the simultaneous implementation of reforms and investments across Member States create EU added value?	RRF plans used to plan reforms together with investments that would otherwise not be implemented due to financial, technical or political constraints	• National policy makers acknowledge the EU added value of the RRF instrument to implement together reforms and investments overcoming existing obstacles • Uptake of longstanding CSRs in reforms	Stakeholder consultation	• Semi-structured interviews • Case studies
	EQ22: To what extent, could similar results/impact be achieved with a different instrument at Union level (e.g., budget support) or by Member States?	Identification or lack of evidence that RRF objectives could have been achieved via other EU level instruments or Member States actions	• Existing EU and Member States' instruments/funds dedicated to achieving similar objectives to the RRF	Primary database – data on the progress of milestones / targets / common indicators Stakeholder consultation	• Semi-structured interviews • Survey • Case studies • Secondary database with RRP results
RELEVANC E	Overarching question: EQ23: To what extent does the RRF continue to be relevant in view of its objectives and how well do these objectives correspond with current needs within the EU?				
	EQ23.1: To what extent did the initial allocation key remain relevant over the period?	Allocation key reflects the evolving needs	• Allocations data • Indicators used to calculate the allocation key (e.g., GDP, employment)	Primary database – data on allocations (current and original)	• Descriptive statistics

	EQ23.2: To what extent have the initial RRPs remained relevant/feasible to implement until 2026 (i.e., scope of changes made to the RRPs till the cut-off date)?	RRPs remain relevant and feasible until the cut-off date	• Milestones and targets compared to the implementation status; • Qualitative judgement on forward looking (until 2026) part.	Primary database – data on the progress of milestones / targets / common indicators Assessment of effectiveness (and the expectations for the future)	• Semi-structured interviews
	EQ24: To what extent is the instrument sufficiently flexible/agile to adjust to changing circumstances (cf. REPowerEU)?	Timely changes in the instrument to changing circumstances Existing mechanisms for changes in the instrument	• Identification of changing circumstances • Qualitative judgement based on REPowerEU experience	Analysis on changing circumstances and corresponding changes in the instrument	• Desk research including (Review of REPowerEU chapters) • Semi-structured interviews
	EQ25: What was the rationale behind Member States' decisions to apply – or not apply – for loans under the RRF?	Use of the loan compartment is in line with what could be expected based on market developments, level of debt burden of individual Member States and size of allocations	• Uptake of loans • Rationales for using/not using loan compartment	Overview of Member States' loan requests[2]	• Descriptive statistics • Analysis on borrowing conditions (interest), indebtedness (debt/GDP) and loan uptake • Semi-structured interviews

[1] The full database can be found at: https://ec.europa.eu/economy_finance/country-specific-recommendations-database/

[2] https://commission.europa.eu/system/files/2023-09/01092023-Final-overview-of-MS-loan-requests-under-the-RRF_en.pdf

Effectiveness

EQ1: To what extent has the RRF been effective in providing financial support to Member States (pre-financing, speed of disbursements)

Overall, the RRF has been effective in disbursing quickly post-crisis, notably thanks to pre-financing. Close to EUR 225 billion have been disbursed by 1 February 2024, including EUR 157.2 billion disbursed upon the submission of payment requests and satisfactory fulfilment of milestones and targets, EUR 56.7 billion in the form of RRF pre-financing, and EUR 10.4 billion in the form of REPowerEU pre-financing. EUR 144.0 billion of the total amount concerns non-repayable support and EUR 80.2 billion concerns loans. The planned and the disbursed financing in the first two years of operation of the RRF (2021-2022) are almost aligned.

The speed of disbursement is considered as one of the most effective features of the RRF[318], also in comparison with disbursements made under Structural Funds[319]. The validity of comparing disbursement speed under Structural Funds with that under the RRF is however limited. This is because of, first, the larger amount of pre-financing over the total allocation under the RRF to date, second, the different disbursement mechanisms and, third, given that a larger share of reforms compared to investments has been implemented during the first years of the RRF implementation, which is therefore not comparable to cohesion funding[320]. However, overall, the RRF features, with substantial pre-financing and payments also linked to preparatory and intermediate steps of measures implemented on the ground, have enabled quicker disbursement to Member States than instruments where payments have been linked to expenditure already incurred, including Structural Funds, and thus have been effective in creating fiscal space in Member States in the aftermath of the COVID-19 crisis.

The speed of disbursement in the first two years of operation of the RRF has followed the indicative yearly timetable for disbursements stemming from the operational arrangements[321]. Approximately 27% of the RRF budget was paid out via pre-financing and regular payments in the period 2021-2022, which is almost aligned with what was foreseen at the time of adoption of the plans (28% of budget was planned for the same period)[322]. Similarly, Member States have largely adhered to the planning of the first payments in 2021 and 2022, requesting their payments at the time initially foreseen, reinforcing close alignment between planned and disbursed financing in the first two years of the RRF.

The revisions of the RRPs and the addition of REPowerEU chapters, in response to the war in Ukraine, have impacted the disbursement schedule of RRF funds in 2023, creating delays between actual disbursements and initially planned disbursements for 2023. The first half of the year 2023 has seen a slowdown in the submission of payment requests, with Member States focusing their efforts on the revision of plans and the addition of REPowerEU chapters. As a result, many Member States with a payment request indicatively planned for the first part of 2023 have pushed back the indicative timing by one to three quarters. As detailed in Section 3, the revisions of the RRPs (not only to factor in the updated maximum contribution, but also the impact of

318 See page 268 of the supporting study.

319 Zorell, N., and Tordoi, S. (2021) *Towards an effective implementation of the EU's recovery package*, ECB Economic Bulletin, Issue 2/2021 available at: https://www.ecb.europa.eu/pub/economic-bulletin/focus/2021/html/ecb.ebbox202102_07~7050ed41dd.en.html.

320 See case study on the functioning of the RRF and other EU funds included in the supporting study.

321 Evidence in this paragraph is sourced from pages 48 to 54 of the supporting study.

322 According to the supporting study, see page 52.

inflation and supply chain disruptions) and the addition of REPowerEU chapters (as a response to the war in Ukraine and energy crisis) are the direct consequences of external factors, which have affected the implementation of the Facility.

As the revisions of the RRPs advanced, the submission of payment requests significantly picked up pace in the second half of 2023. Between May and December 2023, 26 payment requests were submitted and EUR 60.9 billion disbursed following the satisfactory fulfilment of milestones and targets. With most revised RRPs having been adopted, this catching-up effect is expected to continue as Member States have continued to implement the measures of their RRP. For example, 18 payment requests have been submitted very swiftly after the plans' revisions and were being assessed by the Commission in January 2024. It is therefore a challenging, but still an achievable task to catch up on the delays experienced in the first half of 2023 in the time available until the end-2026 deadline.

Within the overall progress in the disbursement of RRF funds explained above, the situation varies across Member States. Notably, to date, three Member States have not yet submitted a payment request (Hungary, the Netherlands and Sweden). No pre-financing requests were received in 2021 from any of these three Member States, as a result of the late adoption of these Member States' CIDs in 2022, after the legal deadline for pre-financing of 31 December 2021. Hungary has however received REPowerEU pre-financing in December 2023. In contrast, eight Member States have already submitted three or more payment requests. In line with the performance-based nature of the RRF, payments can only be made where concrete progress towards the achievement of reforms and investments, and thereby towards the RRF's specific objective, has been made.

EQ2: To what extent has the RRF been effective in enabling the implementation of reforms and investments respectively, as set out in the respective Council Implementing Decisions (CIDs):

EQ2.1: Given the current state of play of the Facility's implementation, which outputs (milestones and targets) and results have already been achieved?

As of 1 February 2024, 18% of all planned milestones and targets have been assessed by the Commission as fulfilled (or 1,153 out of 6,266). An additional 20% of all planned milestones and targets (or 1,238 out of 6,266) have been reported by Member States as completed, which, when taken together, indicates that 38% of all planned milestones and targets (or 2,391) are either assessed by the Commission as fulfilled or reported by Member States as completed. Despite this progress and the fact that the speed of disbursement in the first two year of operation of the RRF has followed the indicative timeline, the revisions of the RRPs and the addition of REPowerEU chapters have impacted the disbursement schedule of RRF funds in 2023, creating delays between actual disbursements and initially planned disbursements. The first half of the year 2023 has seen a slowdown in the submission of payment requests, with Member States focusing their efforts on the revision of plans and the addition of REPowerEU chapters. As a result, many Member States with a payment request indicatively planned for the first part of 2023 have pushed back the indicative timing by one to three quarters. As the revisions of the RRPs advanced, the submission of payment requests significantly picked up pace in the second half of 2023. Between May and December 2023, 26 payment requests were submitted and EUR 60.9 billion disbursed. With most revised RRPs having been adopted, this catching-up effect is expected to continue as Member States have continued to implement the measures of their RRP. For example, 18 payment requests have been submitted very swiftly after the plans' revisions and were being assessed by the Commission by 1 February 2024. It is therefore a challenging, but still an achievable task to catch up on the delays experienced in the first half of 2023 in the time available until the end-2026 deadline.

The fulfilled milestones and targets cover all six pillars of the RRF. The pillars of smart, sustainable and inclusive growth (approximately 21%) and health, and economic, social and institutional resilience have the highest percentages of fulfilled milestones and targets (20%) out of the planned milestones and targets linked to these pillars, followed then by the pillar of green transition and of policies for the next generation (both at 17%). The digital pillar has the lowest percentage fulfilled out of all milestones and targets linked to the pillar (15%).

An important caveat to note is that the number of "fulfilled" milestones and targets only consider those covered in payment requests submitted to and assessed by the Commission, not the progress made by Member States in implementing and completing milestones and targets. As it becomes clear in the bi-annual reporting from Member States, the implementation of milestones and targets is progressing while some payment requests are being delayed: by 1 February 2024, 1,238 additional milestones and targets are self-reported by Member States as completed, even though they have not yet been submitted to the Commission as part of a payment request. This represents an additional 20% of planned milestones and targets reported by Member States as completed but not yet assessed by the Commission.

The RRF has progressed along all fourteen common indicators. Noteworthy achievements include: 28.2 million MWh/year savings in annual primary energy consumption, 5.6 million additional dwellings with internet access, over 500,000 enterprises supported, 8.7 million supported participants in education or training, 5.8 million young people (aged 15-29) receiving support. For some common indicators (e.g. additional dwellings with internet access, population benefitting from protection measures against natural disasters, and capacity of new or modernised health care facilities) only 7-9 Member States have reported achievements so far. It has to be acknowledged that investments in infrastructure usually require time until they become operational and can be reported.

EQ2.2: To what extent did the achievement of milestones and targets translate into the successful implementation of reforms and investments?

Even though milestones and targets largely measure input and output indicators at this intermediate stage, their implementation has in some cases already translated into results linked to the RRPs measures. The RRF has in particular triggered the implementation of major reforms across a wide range of policy areas: labour market (Spain), social protection and pensions (Croatia, Spain), civil and criminal justice (Italy, Spain, Croatia) public administration, including digitalisation (Italy, Slovakia, Germany), spending review and public finance governance (Belgium, France), anti-money laundering framework (Ireland, Sweden, Luxembourg), licensing simplification reforms to boost the investments in renewables (Greece, Portugal, Spain), roll-out of renewable energy and sustainable transport (Croatia, Romania), introduction of 5G (Belgium), structural reform of the education system (Spain, Croatia) as well as research and innovation (Spain).

By contrast, only a few investments are completed and have already produced tangible results. This is to be expected, given the early stage of this evaluation. The implemented investments are still in the early stages, with milestones capturing first steps in the implementation: investments included in the RRPs are spread over the RRF timeline, but most are planned to be completed in 2025/2026.

EQ2.3: How effective has the RRF been in supporting reforms that address the CSRs (as the support for implementing reforms is a key feature/novelty of the instrument)?

The reforms indicated by Member States address all or a significant subset of challenges identified in the European Semester's Country-Specific Recommendations. Overall, there is unanimous agreement between Member States and the various EU institutions, including the European Parliament[323] and the ECA[324], that the RRF has been effective in supporting CSR-related reforms[325]. The literature[326] confirms the views of the European Parliament and of the ECA in recognising that the RRF contributed effectively to the support of reforms that otherwise would not have been implemented. The strength of

[323] See European Parliament resolution of 10 May 2023 with observations forming an integral part of the decisions on discharge in respect of the implementation of the general budget of the European Union for the financial year 2021, Section III – Commission and executive agencies (2022/2081(DEC)), available at: https://www.europarl.europa.eu/doceo/document/TA-9-2023-0137_EN.html.

[324] European Court of Auditors (2022) *Special Report: The Commission's assessment of national recovery and resilience plans: Overall appropriate but implementation risks remain*, available at: https://www.eca.europa.eu/Lists/ECADocuments/SR22_21/SR_NRRPs_EN.pdf.

[325] See pages 251 to 252 of the supporting study.

[326] See pages 251 to 252 of the supporting study.

the link between CSRs implementation and financial support is particularly important for Member States that receive a larger size of the financial support: those that receive a proportionally bigger financial envelope are more likely to commit to and implement structural reforms.

The RRF has significantly accelerated policy action to address the CSRs, which, in the past, was considered weak[327]. The European Court of Auditors[328] found that, over the 2011-2017 period, only 1.6 % of CSRs were deemed to have been 'fully implemented' within one year after issuance, and that only 26 % of the CSRs have been implemented over the full 2011-2018 period. In the two years preceding the RRF, the share of 2016-2017 CSRs reaching at least 'some progress' increased by only six percentage points from 53% in 2018 to 59% in 2020. In comparison, the share of CSRs reaching at least 'some progress' increased by 17 percentage points from 52% in 2021 before the RRF to almost 69% in 2023, after two years of RRF implementation. Member States have made most progress on access to finance and financial services, followed by labour market functioning, anti-money laundering and business environment. At the same time, progress has been less visible in the areas of the single market, competition and State aid, housing, long-term care and pension systems. Progress in the implementation of the recommendations adopted in 2022 has also been substantial. Member States have made at least 'some progress' in almost 52% of the recommendations addressed to them in July 2022.

The financial incentives provided by the RRF's performance-based approach reinforce the implementation of the CSRs[329]. The fact that financial support is conditional upon the implementation of reforms is recognised by interviewees, stakeholders and external evaluators as the most relevant factor explaining the RRF's success in introducing long-awaited structural reforms that address the Semester's CSRs. The strength of the linkage between implementation of CSR-related reforms and financial support is particularly important for Member States that receive a larger size of the financial support: those that receive a proportionally bigger financial envelope are more likely to commit to and implement structural reforms. Finally, the RRF serves as an incentive for Member States to internally steer the political debate and overcome resistance against long-awaited reforms. When the national governments' ownership of their RRPs is high, the RRF has been presented as an "external steer" that incentivises Member States to abide by the measures indicated in their RRPs[330].

[327] See pages 251 to 252 of the supporting study.

[328] Special report 16/2020 of the European Court of Auditors.

[329] Evidence in this paragraph is sourced from the supporting study, see pages 74 to 76.

[330] See pages 74 to 76 of the supporting study.

EQ3: Was the Commission's communication (including information discussions preceding the formal submission of RRPs/payment requests, timing and availability of guidance) effective to support the timely implementation of the RRF?

The Commission's communication in the drafting phase of the RRPs was considered timely and clear by the majority of Member States. Still, two aspects that could be improved have been indicated by Member States. The first regards the DNSH guidance, which arrived, according to stakeholders[331],— late in the drafting phase of the RRPs, thus creating some additional burden for administrations. The second regards the perceived low interaction among Member States, especially on cross-border projects, which – according to Member States themselves – could have been well coordinated by the Commission.

Some concerns have been raised about the Commission's communication in the implementation of the RRPs. In particular, Member States mentioned some unclarity with respect to the role of control and audits and the lack of sufficient flexibility in the interpretation of milestones and targets. With respect to the latter, Member States raised concerns with respect to the assessment of milestones and targets and the payment suspension methodology. The Commission Communication of February 2023 has been broadly welcomed as a positive step to clarify the assessment criteria for the payment requests or (partial) suspension and the milestones and targets' satisfactory fulfilment. The framework is considered to be overall satisfactory by all national coordination bodies when it comes to investments, while some discretion and unclarity are still reported by Member States regarding reforms.

EQ4: To what extent has the RRF been effective in:

EQ4.1: cushioning the social and economic impact of the crisis, in particular on women

Member States are progressing with the implementation of measures with a focus on gender equality and equal opportunities for all. The 27 plans adopted contain 134 (sub-)measures with a focus on gender equality, and many reforms and investments that are explicitly aimed at contributing to equal opportunities in general[332]. Of the 256 milestones and targets with a focus on gender equality in the 27 RRPs, 83 are already reported as completed or assessed as fulfilled by 1 February 2024, representing a 32% progress rate (13% positively assessed).

[331] See page 77 of the supporting study.

[332] For further information, see European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

The effectiveness of the RRF in cushioning the impacts of the crisis on women is expected to vary among Member States and depends on various factors, including the share, topic areas and quality of gender-related measures, the extent of gender mainstreaming and male employment bias, and the actions that have been and will be taken during the RRF's implementation, monitoring, and evaluation. Overall, some stakeholders have a more critical stance on the performance of the RRF regarding gender equality, while others rather underline the strengths and many efforts taken to ensure an inclusive recovery and mitigate the effects of the crisis on women in a challenging context.

Looking at the effectiveness overall, three of the four common indicators that have been disaggregated by gender show that more women than men were supported by the RRF so far. Many relevant gender-related CSRs have also been reported to have at least a degree of progress. On the other hand, three ex-ante national gender impact evaluations on the RRF investments are rather critical about the gendered impact of some RRPs. Analysed gender-flagged measures indicate that relevant outputs have been achieved already, and relevant results and impacts are expected. Many results and impacts have, however, not yet materialised, depend on further implementation and are generally (especially reforms) difficult to measure.

EQ4.2: supporting the economic recovery

The RRF has contributed to preserving public investment in the EU and is expected to boost it going forward. The EU's aggregate public investment ratio is expected to rise to 3.4% of GDP in 2024, having increased from 3.0% in 2019 to an expected 3.3% in 2023, according to the Commission's 2023 Autumn Forecast[333]. In contrast with previous macroeconomic shocks, public investment hence remained robust during the COVID-19 pandemic and the energy crisis. The 2023 Autumn Forecast also finds that around half of the increase in public investment between 2019 and 2025 is related to investment financed by the EU budget, particularly by the RRF. By the end of the forecast horizon, in most EU Member States national budgets are projected to devote more resources to investment than they did prior to the pandemic, with Slovenia, Portugal and Italy expected to record the largest increases. On the contrary, Hungary, and to a lesser extent the Netherlands, are set to reduce their nationally financed investment compared to 2019.

[333] See European Economic Forecast – Autumn 2023, available at: https://economy-finance.ec.europa.eu/economic-forecast-and-surveys/economic-forecasts/autumn-2023-economic-forecast-modest-recovery-ahead-after-challenging-year_en.

Simulations with the Commission's QUEST model estimate sizable macroeconomic effects of NGEU investment[334]. The model's results predict that NGEU[335] has the potential to increase EU real GDP by up to 1.4% in 2026 above a no-NGEU scenario[336]. According to the estimations, the peak GDP effect for the EU would materialise in 2026. The model simulations also suggest a sizeable, short-run increase in EU employment (by up to 0.8%). Moreover, the results predict persistently higher real wages in the medium term, reflecting potential productivity gains of productive investment[337].

RRF loans, if used to finance additional projects, contribute to the positive real GDP impact. These gains are largest for Member States that requested large additional loans (as of 2023), while all Member States can benefit from other Member States' investment through spillover effects.

The estimated results of the NiGEM model broadly confirm the magnitude of these results, albeit with some noticeable differences. Overall, both modelling approaches find a substantially positive impact of NGEU/RRF. The NiGEM analysis includes a reduction in spreads and government borrowing costs, which is a further benefit of the RRF. At the same time, the productivity gains of public investment appear to be lower in the NiGEM model (partly due to the model's assumptions)[338].

The NiGEM simulations suggest that the initial disbursements lowered unemployment in the European Union by around 0.2 percentage points relative to what it would have been in the absence of the RRF. The overall fall in unemployment is found to be driven by large falls in the southern European Member States of Greece, Italy, Portugal, and Spain.

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334 To estimate the macroeconomic impact of the RRF, the European Commission has produced stylised ex-ante assessments of the macroeconomic impact of NGEU investment. These model simulations are not an ex-post evaluation of the actual impact, but rather an ex-ante model prediction based on stylised assumptions. Nonetheless, the simulations presented here integrate up-to-date information on loan requests, inflation, and expected spending profiles. They focus on investments as the macroeconomic effects of structural reforms is much more challenging to model. For further information, see in particular, Pfeiffer P., J. Varga, and J. in 't Veld (2023a) Quantifying spillovers of coordinated investment stimulus in the EU, *Macroeconomic Dynamics* (27), p. 1843–1865. See also the ECFN Discussion Paper (2021): https://economy-finance.ec.europa.eu/publications/quantifying-spillovers-next-generation-eu-investment_en.

335 The QUEST model results have been computed based on NGEU and not RRF investments. However, the investments (loans and non-repayable support) based on the RRF make up for around 90% of NGEU investments.

336 Please see Annex II for a detailed discussion of the assumptions and model specifications.

337 Note that because the simulations focus on public investment (without accompanying labour-market reforms), the employment effects are relatively short-lived and real wage increases reflect most medium and long-run labour market benefits in the simulations. By contrast, reforms targeting labour markets and increasing participation can lead to large employment gains in the medium and long run.

338 As acknowledged in the evaluation report, the long-run GDP gains from government investment multipliers appear to be below the QUEST estimates, partly because government investment is "treated as 'consumption' and so does not add to the economy's capital stock, which is the main way that government investment raises GDP in the long run" (see p.21 of the evaluation report).

The importance of positive cross-country spillovers as well as reductions in interest rate spreads are central to these overall findings. The joint implementation of investment by all Member States generates an added value for the EU that amounts to between one-fourth and one-third of the total impact of the RRF (hereafter referred to as spillovers). These positive spillover effects have confirmed in the QUEST assessments and are also relevant in the NiGEM simulations. Moreover, the NiGEM estimations yield that reducing spreads has been an important positive side effect, which potentially helped mitigate risks of financial fragmentation at the time of the COVID shock.

EQ4.3: enhancing social and territorial cohesion

In total, 1,360 (sub-)measures encompassing investments and reform are contained within the social and territorial cohesion pillar (390 reforms and 970 investments). The largest number contribute to territorial infrastructure and services (602) and to social protection (246). A significant number of (sub-) measures contribute to adult learning and skills validation (238), the development of rural and remote areas (118), and the modernisation of labour market institutions (96). The rest of the (sub-)measures contribute to social housing and other social infrastructure (71) and on (non-youth) employment support and job creation (68). Looking at the distribution across Member States, significant variation in the number of measures in the social and territorial cohesion pillar is observed. The Member State with the highest number of measures is Spain. In terms of progress by 1 February 2024, 876 of the 2,590 milestones and targets contributing to social and territorial cohesion are already reported as completed by Member States or assessed as fulfilled by the Commission, representing a 34% progress rate (15% assessed in payment requests).

The contribution of the RRF to the social and territorial cohesion within Member States has been the object of a broad debate: in most Member States, the impact on territorial and social cohesion can often be measured only indirectly, as disadvantaged groups and regions may benefit from reforms with a lasting effect as well as investments, without the measures targeting them directly or explicitly. Social and territorial cohesion figures in the several RRPs, yet with different approaches across Member States. For instance, the Italian, Spanish and Croatian plans do not include a strategy to enhance social and territorial cohesion whereas other Member States do not feature a vast range of related measures in their RRPs.

The case study on the modernisation of labour market institutions, specifically active labour market policies, provides more detailed insights into the effectiveness of the RRF in supporting social and territorial cohesion in four Member States: France, Italy, Spain and Croatia. What emerges is that social and territorial cohesion are targeted by Active Labour Market Policy measures to varying extents.

On the EU level, the RRF clearly supports economic convergence and cohesion among Member states. With its allocation key, the RRF was designed to support lower-income and more vulnerable Member States, which had also been hit the hardest by the pandemic. The RRF's allocation of funding thus helps counteract the economic divergence, fostering economic stability and growth where it is most needed.

The macroeconomic model simulations also provide relevant analysis regarding economic convergence and cohesion among Member states. Given the allocation key, the Member States with below-average GDP per capita are estimated to experience the largest boost to GDP levels because of the significant RRF investments. For the benchmark (high productivity) model calibration, the increase in output reaches almost 4.5% in Greece, more than 4% in Croatia, and around 3.5% in Spain and Bulgaria compared to the EU average impact of 1.4%. Spillover effects reinforce the positive impact. The model-based analysis does not cover reforms, which can further lay the groundwork for long-term economic convergence within the EU.

Simultaneous implementation by all Member States of their RRPs generates sizable positive spillover effects. In line with the estimates based on QUEST[339], the absence of joint and coordinated action (counterfactual) would have substantially reduced the average GDP impact. While all Member States are estimated to benefit from sizable cross-border spillover effects because of rising demand across the integrated EU economy, the RRFs joint investment impulse is also supporting the upward economic convergence in the EU. The results show that Member States with below-average GDP specifically gain from the enhanced economic activity and cross-border trade spurred by these spillover effects. Compared to the domestic effects induced by the national plan, spillover effects account for most of the GDP impact for small open economies with smaller non-repayable support allocations and high-income levels. Even in larger economies with deep trade integration, spillovers account for a sizable share of the total GDP effect. This analysis is reinforced from simulations undertaken using the NiGEM model[340]. It shows that the collective effect on EU GDP is greater than the sum of the direct effects of RRF spending if each Member State (counterfactually) implemented the investments on its own. The NiGEM simulations also suggest that the initial disbursements lowered unemployment in the European Union by around 0.2 percentage points relative to what it would have been in the absence of the RRF.

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339 See Pfeiffer, P., Varga, J, and in 't Veld, J. (2023b) *Unleashing Potential: Model-Based Reform Benchmarking for EU Member States*, available at: https://economy-finance.ec.europa.eu/publications/unleashing-potential-model-based-reform-benchmarking-eu-member-states_en.

340 See pages 82 to 85 of the supporting study.

EQ4.4: increasing health, economic, social and institutional resilience

The RRF Regulation defines resilience as '*the ability to face economic, social and environmental shocks and/or structural changes in a fair, sustainable and inclusive way*' (Article 2.5). There are 1173 (sub-)measures that contribute to resilience (that is, (sub-)measures that contribute to the 'health and Institutional resilience' pillar (585 reforms and 588 investments). Over two third of (sub-)measures in this pillar contribute to improving the effectiveness of public administrations (498) and to strengthening healthcare systems (290). Other important areas of intervention are tax measures (81), efficiency of the judicial systems (74), fiscal policy (72) and fraud prevention (68).

By 1 February 2024, 962 of the 2,317 milestones and targets contributing to health, and economic, social and institutional resilience are already reported as completed by Member States or assessed as fulfilled by the Commission, representing a 42% progress rate (over 20% assessed as fulfilled by the Commission). It is too early to reach final conclusions as regards the effectiveness of these interventions, but there is some evidence of results achieved so far. Two common indicators are related to pillar 5 (resilience): the number of users of new and upgraded public digital services, products and processes and the capacity of new or modernised healthcare facilities supported by RRF measures. With respect to the first, 21 Member States have reported approximately 308 million users of new or upgraded public digital services resulting from RRF measures (see EQ2.1). As regards the increase in healthcare capacity, additional capacity for a total of over 45 million has been reported. However, only nine Member States have reported upon this indicator.

The RRF also supports structural reforms aimed at strengthening and guaranteeing rule of law and, in particular judicial independence. These structural reforms outlined in the Semester CSRs are relevant to strengthen the business environment in the Member States concerned and are expected to have an impact on its growth potential[341]. For example, Hungary, Romania and Poland have included in their RRPs reforms aimed at strengthening judicial independence. Whilst it is too early to assess the results of these reforms, particularly since the content of these reforms has not yet been notified to or assessed by the Commission by February 2024, the mere fact of having adopted them can be considered as a positive step[342]. This view is supported by academic authors[343] who discuss the potential role of the European Semester and the RRF to address rule of law issues and conclude that the RRF has become a powerful tool to make progress to protect the rule of law.

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[341] See Council (2023) *European Semester 2023: country-specific recommendations agreed*, available at: https://www.consilium.europa.eu/en/press/press-releases/2023/06/16/european-semester-2023-country-specific-recommendations-agreed/.

[342] This is confirmed by the findings of the supporting study, see page 92 of the study.

[343] Fromont, L.; and Van Waeyenberge, A. (2021) *Trading rule of law for recovery? The new EU strategy in the post-Covid era*, available at: https://doi.org/10.1111/eulj.12426.

EQ4.5: supporting the green transition

The green transition is a key focus of the RRF and has been allocated a significant amount of RRF funding across all Member States. The total number of (sub-)measures contributing to the green transition is 1,421 (sub-)measures (291 reforms and 1,130 investments), including over 2,600 milestones and targets. The biggest expenditure supporting the green transition has been allocated to sustainable mobility (31%) in all the RRPs, followed by energy efficiency (29%) and renewable energy and networks (14%). The same policy areas are the most popular also in terms of the number of measures.

In addition, all Member States's RRPs have exceeded the target of 37% of total allocation set in the RRF Regulation, with the total estimated climate expenditure amounting to EUR 275 billion or over 40% of the total plans' allocations. Several Member States are even dedicating over half of their total allocation to climate objectives, such as Austria, Bulgaria, Denmark, Estonia, Luxembourg, Malta, and Finland.

As for the types of measures that Member States implement under the green transition pillar, the balance between investments and reforms varies across policy areas:

- With regards to *sustainable mobility*, investments focus on zero or low emissions vehicles, the development of urban public transport, the infrastructure for recharging and the modernisation of railway infrastructure which makes up the majority of funding at EUR 42 billion. Reforms included in some RRPs aim at changing the regulatory framework in view of enabling the roll out of zero emission mobility and support sustainable urban mobility, and establishing taxation regimes.
- Under the *energy efficiency* policy area, accounting for 29% of the total expenditures under the green transition pillar, Member States have included in their plans large investments in energy renovations of private and public buildings and in the construction of new highly energy efficient buildings. The majority of investments concern the energy efficiency of residential buildings (at EUR 31 billion), which typically targets a reduction in primary energy consumption of 30% or more. Beyond buildings, investments in other sectors will help to decarbonise the production processes in SMEs, larger enterprises and district heating systems, for instance by promoting the integration of cleaner and more efficient technologies for manufacturing processes and centralised heat production. To this end, some RRPs also include reforms to tackle barriers for energy efficiency, such as amendments to the regulatory framework or the harmonisation of support mechanisms through one-stop shops.
- With view to *renewable energy and networks*, investments focus on renewable energy generation, both in already mature renewable technologies as well as innovative solutions (EUR 24 billion). Furthermore, they aim at constructing and upgrading energy networks and infrastructure (EUR 11 billion). Increasing the share of renewables also requires an ambitious reform agenda. To this end, the reforms included in the plans aim to

create a stable regulatory environment and appropriate synergies between public and private investment, simplify administrative procedures and to adopt new or prolong existing support schemes.

- With respect to *R&D&I into green activities* (6% of total expenditures under the green transition pillar), investments focus on strengthening research in the fields of circular economy, the decarbonisation of the industry and clean technologies, including the industrial value chain for the hydrogen transition and energy storage. Reforms in some RRPs complement those efforts by changes in the regulatory framework, with a focus on improving the conditions for developing hydrogen technologies and transitioning to a circular economy model.
- For measures labelled with *climate change adaptation*, investments and reforms aim to advance the sustainable management of water (supply) and forests and increase the resilience towards risks stemming from climate-related disasters, in particular with regards to forest fires and flooding. Action under this policy area often overlaps and complements measures under the *sustainable use and protection of water and marine resources*, and the *protection and restoration of biodiversity and ecosystems*.

Progress in implementing measures related to the green transition has been overall good. Over a third of milestones and targets have been reported as completed or assessed as satisfactorily fulfilled by the Commission by 1 February 2024. Specifically, 908 of 2,625 milestones and targets related to the green transition are already reported as completed by Member States or assessed as fulfilled by the Commission, which yield a progress rate of 35% (17% assessed in payment requests). Given that final effects will only materialise in the longer term, it is too early to assess the RRF's impact on the green transition overall and to gauge the impact of green-transition measures more specifically. Nonetheless, the already fulfilled 'green' milestones and targets have helped increase momentum for green transition[344]. For example, as regards reforms, Slovakia has approved legislation to improve waste management in the construction and demolition sector. Greece introduced a reform to streamline and digitize the licencing framework for renewables and passed a law to implement the Guarantees of Origin system supporting renewable energy for households. Denmark introduced a reform which entails higher taxation on greenhouse gas emission incentivizing lower emissions from Danish businesses as well as tax deductions fostering green investments. In terms of investments, Bulgaria introduced investments to support green and efficient public transport services as well as a reform to further the green energy transition. Czechia invested in sustainable transport by completing road and railway safety projects and by renovating railway bridges and tunnels. Croatia has introduced investments to construct and renovate public water supply networks. Spain has put in place mechanisms to support investments to deploy renewable energy sources in buildings and in industrial processes and to supported initiatives carried out by energy communities.

[344] See pages 92 to 97 of the supporting study.

Data on the common indicators[345] point to positive results in the areas of energy savings and deploying renewable energy infrastructure. Member States have reported already achieving about 28.3 million Megawatt-hours of savings in annual primary energy consumptions and over 54,000 Megawatt of capacity for renewable energy production, as well as installing over 530,000 new or upgraded refuelling and recharging points for clean vehicles.

Looking into measures addressing energy efficiency in buildings, implementation speed appears to vary across the four Member States examined in the supporting study[346] (i.e. Bulgaria, France, Latvia and Romania). Evidence from a case study demonstrates that whilst France and Romania are making good progress towards their milestones and targets for energy efficiency in buildings, Latvia is experiencing some delays, and Bulgaria is lagging behind. Energy efficiency measures are long-term construction projects by nature, and it is too early to draw firm conclusions about energy savings impacts. Various outputs have however been achieved in all four Member States studied, such as published calls for tender, applications to energy-efficiency calls for tender, and a number of granted projects. Other examples illustrate how RRF supported measures are having an impact on the ground. For instance, with the aim to develop clean mobility solutions to decarbonise the transport sector, Germany adopted a reform on a ten-year tax exemption for purely electric vehicles. Data from the German Federal Motor Transport Authority[347] demonstrates that there has been already a steady growth in pure electric vehicles in Germany, suggesting that the measure is delivering good results in this sector in Germany.

Member States recognise the Do No Significant harm (‘DNSH’) principle as a new feature that has strengthened the ‘green’ dimension of RRF reforms and investments and helps achieve the RRF’s green objectives, according to the results of the public consultation and a survey of key RRF stakeholders[348]. EU and national respondents expressed their satisfaction with the novelty of the principle and its potential to shape investments in line with the European Green Deal objectives, noting that the principle could have positive “spillover effects” into national policy systems and improve the environmental sustainability of Member States’ public investments.

In general, the RRF has been successful in emphasising the need to introduce reforms and invest in fostering the green transition. It is too early to assess the overall impacts of the RRF as most measures are still under implementation and the final effects will only materialise in the longer term. The vast majority of respondents to the public consultation think that the RRF has contributed or will contribute to the green transition (62%) and the European

345 See data on common indicators (1), (2), and (3) amongst others.

346 Evidence in this paragraph is sourced from the supporting study (see pages 92 to 97) and from the associated case study on the green transition.

347 See Box 3 on ‘German reform on ten-year tax exemption for purely electric vehicles’ on pages 69 and 70 of the supporting study.

348 See page 97 of the supporting study.

Green Deal (64%) to some or large extent. However, fewer respondents are confident about the role of the RRF in contributing to the EU Biodiversity Strategy, with less than half of them thinking the RRF contributes to the Strategy to some or large extent.

EQ4.6: supporting the digital transformation

The RRF supports various measures contributing to the digital transformation in the Union. RRPs cover a range of measures, including deployment of next generation digital infrastructures and advanced technologies, digital skills development for the population and the workforce, and support to the digitalisation of enterprises as well as of public services[349]. Member States have exceeded the target of 20% of total allocation set in the RRF Regulation, with the total estimated digital expenditure amounting to EUR 130 billion or 26% of the total plans' allocations.

Out of 1,106 (sub-)measures classified as "digital transformation" (256 reforms and 850 investments), the largest number contribute to E-Government, Digital Public Services (including Digitalisation of Transport) and Local Digital Ecosystems (563). These (sub-)measures account for over one-third of the digital funding, equivalent to 37% of the pillar. A significant number of measures contribute to Human Capital in Digitalisation (198), Digital Capacities and Deployment of Advanced Technologies (120), and Digitalisation of Businesses (119). The rest of the (sub-)measures focus on Connectivity (63) and Digital-Related Measures in Research, Development and Innovation (42). A high variation can be observed among the Member States regarding the number of measures put forward as part of the digital transformation pillar. The Member States with the highest number of (sub-)measures in the digital transformation pillar are Croatia and Romania, with 104 and 95 (sub-)measures respectively.

As for the types of measures that Member States implement under the digital transformation pillar, the balance between investments and reforms varies significantly across policy areas:

- Under the *Connectivity* label, investments focus on improving and expanding digital communication networks to enhance connectivity. These projects aim to develop, upgrade, or expand various types of communication infrastructure to provide faster, more reliable, and widespread access to digital services and data transmission. Reforms aim to improving and advancing digital connectivity, especially in the context of broadband and high-speed internet access.

[349] For further information, see European Commission (2023) *Recovery and Resilience Facility Annual Report 2023 (COM(2023) 545 final/2)*, available at: https://commission.europa.eu/publications/recovery-and-resilience-facility-annual-report-2023_en.

- With respect to *Digital Capacities and Deployment of Advanced Technologies*, investments focus on advancing digital technologies and infrastructure, while reforms aim to modernise infrastructure, enhance cybersecurity, improve data management, foster innovation, and create a conducive environment for the deployment of advanced technologies to drive economic growth and efficiency.
- The investments indicated under *Digitalisation of Business* aim to support various sectors of the economy, with a particular focus on SMEs, innovation, and the use of financial instruments to support businesses in their digital journey, while reforms intend to promote digitalisation within the business environment.
- When it comes to *Research, Development & Innovation*, investments and reforms aim at advancing digital research, development, and innovation, with a focus on collaboration, financial support, specific sectors, and the promotion of research infrastructure and talent development.
- *E-government investments* aim to leverage digital technologies to improve public services, enhance efficiency, promote economic growth, and ensure inclusivity and accessibility for citizens and businesses, while reforms intend to harness digital technologies and strategies to enhance government services, improve governance, and promote digital innovation and accessibility.
- *Human capital investments* in digitalisation focus on addressing the challenges and opportunities posed by the digital age by promoting digital skills development, education, and inclusion, with a focus on various segments of the population and partnerships between different organisations and sectors.
- Finally, multi-country projects, key to the "Path to the Digital Decade"[350] policy programme which aims to help the EU achieve digital objectives including resilience, digital sovereignty, and competitiveness, were introduced to the Member States during the RRF negotiations. This allowed the Member States to include these in their RRPs. Examples of such projects are based around: Security Operation Centres, MediaInvest, European Blockchain Services Infrastructure, EuroQCI, 5G Corridors, Common European Data Infrastructure, Processors and Semiconductor chips, Connected Public Administration, Genome of Europe, Digital Skills.

Member States have made significant progress in implementing measures related to the digital transformation and nearly a third of related milestones and targets are reported as complete or assessed by the Commission as fulfilled. 721 of 2,297 milestones and targets related to the digital transformation are

[350] See https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/europe-fit-digital-age/europes-digital-decade-digital-targets-2030_en. The framework for Multi-country projects has been further developed in the *Decision (EU) 2022/2481 establishing the Digital Decade Policy Programme 2030*, see https://eur-lex.europa.eu/eli/dec/2022/2481/oj.

already reported as completed by Member States or assessed as fulfilled by the Commission, which yield a progress rate of 31% (approximately 15% assessed in payment requests).

Data on the common indicators[351] point to positive results related to the digital transformation. Seven Member States reported that an additional 5.6 million dwellings had received internet access via high-capacity networks with support received under the RRF. In addition, 21 Member States reported that the number of users of new or upgraded public digital services had increased to almost 309 million people, although it cannot be excluded (because of data limitations) that the same person has used the service multiple times.

Some of the measures implemented in the digitalisation of health are already having an impact on the ground[352]. The digitalisation of health has been a top priority for the EU in recent years and many Member States – Belgium, Croatia, Czechia, Denmark, and Estonia amongst others – have already implemented measures related to the digitalisation of national healthcare systems as part of their RRPs. These measures include eHealth services, telemedicine solutions, and improvements in healthcare data management. Evidence from the case study[353] shows that they have been effective in achieving their objectives, such as empowering patients, optimising healthcare delivery, and fostering innovation. As aforementioned, these measures have also positively impacted healthcare systems, including the use of e-consultations and digital tools to improve patient care and access to specialists in Croatia and in other Member States[354].

While investments in the digital sector are still in the early stages, a number of reforms supporting the digital transformation have been implemented and are starting to have an impact on the ground. For example, Romania adopted a reform to accelerate the national roll-out of 5G networks, in accordance with security regulations, and to provide broadband coverage for white areas (small rural municipalities, isolated localities, disadvantaged inhabited areas), tackling the rural-urban digital divide, reducing the administrative burden and streamlining procedures and fees, creating the prerequisites for equal access to digital services and internet access. Belgium's 5G reform introduced in 2021, and supported by the RRF, led to a significant increase in 5G traffic in 2022[355].

351 See data on common indicators (5), (7), and (10) amongst others.

352 Evidence in this paragraph is sourced from the case study on the digitalisation of healthcare included in the supporting study.

353 Evidence in this paragraph is sourced from the case study on the digitalisation of healthcare included in the supporting study.

354 See section above on '*on improving the resilience, crisis preparedness, adjustment capacity and growth potential of the Member States*'

355 See Box 4 'Introduction of 5G reform in Belgium' on pages 70 and 71 of the supporting study.

EQ4.7: fostering smart, sustainable and inclusive economic growth and employment potential within the Union

The review of the measures included in the RRF indicates that they contribute to fostering smart, sustainable, and inclusive economic growth and employment potential within the EU. Under the pillar, 1,535 (sub-)measures have been identified (509 reforms and 1,026 investments). Regarding the policy areas under the smart, sustainable and inclusive growth pillar, (sub-)measures contributing to research, development and innovation (RDI) are the most common (271), followed by (sub-)measures contributing to regulatory change for smart, sustainable and inclusive growth (256) and to building renovation and construction (241).

The measures also support the green and digital transitions, crucial elements for achieving sustainable growth. Beyond the need for regulatory changes in Member States to promote and enhance economic growth and employment, a considerable amount of the measures included under the smart, sustainable and inclusive growth pillar target the twin transition. Out of the 1,535 identified (sub-)measures under the pillar, 437 have a specified climate, green or digital component. As regulations play an imperative role in driving the green and digital transition in Member States[356], it is unsurprisingly reflected in the RRP of Member States. The pillar on smart, sustainable, and inclusive growth has one of the highest percentage (%) of milestones and targets reported as completed by the Member States or assessed as fulfilled by the Commission: 1,152 milestones and targets out of 2,780 or 41% (and 21% assessed in payment requests). As such, the implementation of the pillar seems to be advancing comparatively well.

The common indicators report that in terms of results, the following have been achieved: 1) over 1.9 million enterprises have been supported based on numbers reported by 26 Member States (over 530,000 are SMEs); 2) specifically, over 580,000 SMEs were supported across 15 Member States in mainly adopting and to some extend developing digital products, services and processes; 3) over 17,000 researchers have been supported under the RRF across 17 Member States; 4) over 1.3 million people have been supported in employment or job searching activities based on numbers reported by 13 Member States, and 5) over 8.7 million have participated in education and trainings to improve their skills in 20 Member States.

The RRF has helped in addressing social, economic and territorial challenges, in line with the relevant European Semester' CSRs. For instance, Spain, France, Italy and Croatia have included Active Labour Market Policies ('ALMP') that address a number of key labour market challenges in line with their CSRs in 2019 and 2020. Evidence from the case studies[357] demonstrates that some Member States even utilised this opportunity to develop a forward-

[356] See European Commission (2022) *A green and digital future: 7 insights from strategic foresight*, available at: https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/green-and-digital-future-7-insights-strategic-foresight-2022-06-30_en.

[357] Evidence in this paragraph is sourced from the supporting study (see pages 86 to 89) and from the associated case study on Active Labour Market Policies.

looking approach to address future labour market challenges and to strengthen the labour market situation of vulnerable groups or address regional inequality in service provision, which enhances social and economic cohesion. However, the case studies also showed that the labour market situation of vulnerable groups could have been addressed more comprehensively in France and Croatia, and the impact of ALMP on social and territorial cohesion is mixed. All milestones and targets associated with ALMP measures up to June 2023 have been either fulfilled or completed in the Member States analysed in the case study. In Spain, all reform-related milestones and targets have been adopted and the implementation of the investment in activation policies is ongoing. In Italy and France, take-up of ALMP measures is exceeding the interim targets, partially because higher targets were set at national level. In Croatia however, whilst milestones and targets were introduced according to the timeline envisioned, take-up patterns are mixed: while take-up of vouchers is high, there is limited progress with regard to new active labour market policies.

Based on survey data[358], business organisations had an overall positive view of the EU's efforts in addressing the post-COVID economic challenges. However, RRP measures designed to bolster economic recovery and resilience, while overall relevant, have demonstrated varying degrees of relevance for addressing SME needs. The case study also demonstrates that progress implementing SME-related measures varies across Member States, with some SME stakeholders raising the issue of slower payments to the ultimate recipients of RRF support.

EQ4.8: supporting policies for next generation

In total, 373 (sub-)measures contribute to policies for the next generation, children and youth (121 reforms and 252 investments). Of these, the vast majority contribute to the policy area of general, vocational and higher education (313), while a much smaller number of (sub-)measures contribute to early childhood education and care (43) and youth employment support and youth job creation (22). Member States whose RRPs include the most (sub-)measures contributing to this pillar are Romania (42), followed by Slovakia and Belgium (both with 32 (sub-)measures) and Italy (31). There is a large variation in the number of (sub-)measures by Member State, with only one measure in Estonia or no measure in Denmark and Luxembourg.

Progress is tangible for the milestones and targets contributing to policies for the next generation, children and the youth, such as education and skills. So far, 222 of 636 milestones and targets are already reported as completed by Member States or assessed as fulfilled by the Commission, which yield a progress rate of 35% (17% assessed in payment requests).

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[358] See the case study on SME included in the supporting study.

The analysis conducted for the case study on policies for the next generation, which focuses on early childhood education and care, provides more detailed insights on the effectiveness of the RRF in supporting policies for the next generation. The analysis shows that the RRF investment is expected to significantly increase the coverage of childcare services in all five Member States selected for the case study. Significantly, the measures included in the RRPs will also contribute to the reduction of existing territorial gaps in the offer of affordable childcare services. Another important effect of the expansion of childcare services, is the increase in access to employment opportunities for women. In some Member States, stronger growth in public/subsidised places will happen in territories where female unemployment is higher, potentially contributing to reduced gender disparities in the labour market. Despite progress in the expansion of childcare services in the Member States selected, some potential barriers have emerged throughout the implementation of measures. For instance, the tight timetable for developing projects has discouraged a number of local authorities, which are usually responsible for applying for funding. In addition, a lack of prioritisation towards the most disadvantaged territories in the assignment of funds together with the impetus to advance funding to start infrastructural work, might have also stopped municipalities with limited financial means from applying for funding. Increasing costs for infrastructural works due to inflation have increased the financial burden on municipalities, leading to a need for government intervention to fill financial gaps.

EQ4.9: mitigating the long-term risks stemming from the COVID-19 crisis

With its massive size and quick initial roll-out, the RRF has allowed for an effective EU policy response to the unprecedented economic crisis linked to COVID-19 and subsequent economic challenges. Through its pre-financing feature, the RRF swiftly provided fiscal space in the aftermath of the COVID-19 crisis. Since then, the RRF has contributed to sustaining public investment in the EU. In contrast to previous macroeconomic shocks, public investment in the EU has increased in the aftermath of the COVID shock.

A key innovative feature of the RRF is its ability to support the implementation of structural reforms, which will have a long run effect on the EU's growth potential. Making the approval of RRPs and subsequent disbursements conditional upon the inclusion and gradual implementation of key reforms has created significant incentives to carry out structural reforms. Thanks to the RRF, implementation of CSRs has significantly advanced, and much more than in years preceding the RRF. Moreover, combining complementary reforms and investments in a single plan – and under one instrument – is beneficial and can increase their impact since, for example, certain enabling reforms can make subsequent investments more effective.

For a small number of Member States, the RRF has a particularly noticeable long-run effect, either because the RRF payments represent a significant fraction of their GDP, or the elasticity of output with respect to capital is particularly large, or both. This effect is larger for southern European Member States, which were also particularly badly affected by the COVID-19 pandemic.

EQ4.10: contributing to REPowerEU objectives

Most Member States have already added specific chapters to their national recovery and resilience plans in order to finance key investments and reforms which will help achieve the REPowerEU objectives. So far, 23 Member States have seen their REPowerEU chapters adopted by the end of 2023, while the remaining four are expected to be adopted in 2024. It is too early to assess the implementation of REPowerEU chapters as payment requests related to these chapters will start in 2024. It is however expected that the measures will help Member States move to a more reliable, secure, and sustainable energy supply. More than EUR 60 billion from the approved REPowerEU chapters is allocated to contribute to save energy, substitute fossil fuels and address immediate security of supply needs, while diversifying away and reducing dependency on Russian fossil fuels.

The REPowerEU chapters are expected to contribute to the REPowerEU objectives of enhancing the resilience, security and sustainability of the European Union´s energy system. This should be achieved by reducing reliance on fossil fuels and diversifying energy sources across the EU through measures to boost the uptake of renewables, to improve energy efficiency and to expand energy storage capacity. Overall, the REPowerEU chapters aim at allowing for the enabling of at least 20 Gigawatt of renewable energy by 2026, on top of 40 Gigawatt in the existing plans. In addition, the revised plans include long-lasting energy efficiency interventions which, once implemented, will reduce energy bills for at least one million households. More than EUR 12 billion will be made available to decarbonise our industry, including EUR 2.5 billion for renewable hydrogen production. Strategic clean-tech investments in electrolysers, batteries and solar panels will be fostered, together with dedicated green skills training of more than 100,000 individuals.

Save Energy

One of the main objectives of REPowerEU is to save energy and enhance energy efficiency as the cleanest and cheapest way to address the energy crisis. Relevant investments are expected to support the delivery of national ambitions to reduce (by 30%, in most cases) energy consumption from buildings and industry[359] and to reduce the climate impact as much as possible by accelerating the transition from fossil fuels (by complementing energy efficiency

[359] See for example the REPowerEU chapters of Belgium, Croatia, Czechia, Denmark, France, Greece, Hungary, Lithuania, the Netherlands, Portugal, Romania, Slovakia, and Sweden.

renovation with solar rooftops, heat pumps and phasing out of fossil fuels in heating)[360]. Energy efficiency will also protect households from higher bills and provide targeted support to help energy poor and vulnerable consumers[361]. One-stop-shops are expected to bridge the gap between the fragmented supply and demand side to facilitate the delivery of energy efficiency measures[362].

Diversifying Energy supplies and enhancing the resilience of energy networks

REPowerEU investments are expected to strengthen energy infrastructure, address immediate needs of security of supply and bottlenecks in both internal and cross-border transmission and distribution networks. Limited support[363] is provided to targeted infrastructure for tackling the immediate security of gas supply and for reducing dependency on Russian fossil fuels. Moreover, REPowerEU also contributes to the EU´s energy independence by supporting the manufacturing of strategic net-zero technologies such as electrolysers, batteries and solar panels[364].

Fast forwarding the clean energy transition

The REPowerEU chapters aim to increase the share of renewables by delivering 8.4 Gigawatt of power from offshore/onshore wind and solar by 2026[365], speed up the permitting procedures[366] and secure appropriate grid connections[367] by investing in smarter, more flexible, digitally enabled grids[368] to unleash the full potential of renewable energy sources. Electricity storage[369] and biomethane/renewable hydrogen generation[370] are expected to be rolled out and scaled up rapidly. On green skills, the revised plans include measures to ensure that qualifications are in-line with labour market needs by mapping,

360 See for example, the REPowerEU chapters of Denmark, Greece, Italy, and Poland.

361 See for example, the REPowerEU chapters of Romania.

362 See for example, the REPowerEU chapters of Czechia, Romania.

363 See for example, the REPowerEU chapters of Croatia, Italy and Poland.

364 See for example, the REPowerEU chapter of Portugal.

365 See for example, the REPowerEU chapters of Czechia, Hungary, Lithuania, Poland, Portugal, Romania, and Slovenia.

366 See for example, the REPowerEU chapters of Austria, Belgium, Czechia, France, Portugal, Romania, Slovakia, Slovenia, and Spain.

367 See for example, the REPowerEU chapters of Belgium, Czechia, Greece, and Poland.

368 See for example, the REPowerEU chapters of Czechia, Italy, Poland, and Romania.

369 See for example, the REPowerEU chapters of Greece, Hungary, Malta, Poland, Portugal, and Spain.

370 See for example, the REPowerEU chapters of Belgium, Croatia Estonia, Italy, France and Spain.

reviewing, and updating them. A system of accessible, tailored training aligned with market needs should ensure that specialised workforce is available to meet the challenge of the transition to net zero economy[371].

Following the adoption of most REPowerEU chapters in the final months of 2023, Member States will have three years to implement the relevant measures. In view of the careful selection of measures for inclusion in the chapters, Member States are optimistic about the timelines for implementation, as evidenced by interviews and surveys[372]. The limited remaining lifetime of the RRF however, which expires on 31 December 2026, has restricted the types of investment projects that Member States have selected in their plans, particularly regarding the deployment of technologies and infrastructures that requires a longer timeframe.

EQ5.1: To what extent did external factors have an impact on the RRF roll-out? How this may have had an impact on the Facility's effectiveness in reaching its objectives?

External factors had a significant impact on the RRF implementation, with implications in terms of revision of the RRF Regulation (with REPowerEU) and of revision of the national RRPs which both affected the RRF implementation speed.

Since the inception of the RRF Regulation in 2021, a range of unforeseeable external factors have made the implementation of the RRF more challenging. Russia's war of aggression against Ukraine led to a spike in energy prices in 2022 and has driven inflation to high levels. Inflation, issues in global supply-chains and labour shortages have all affected the implementation of many RRF measures across the Member States. More generally, these external factors have had an impact on the implementation of the RRF, both as concerns implementation speed and the need to use the Facility to tackle emerging challenges.

The REPowerEU Plan, presented by the Commission in May 2022 as the EU's response to the energy crisis, paved the way for an amendment of the RRF Regulation less than two years after its entry into force. The RRF became a key tool to deliver on the REPowerEU objectives. It increased the amount of EU funds made available to the Member States through the RRF, and enabled Member States to adjust their RRPs by putting forward additional reforms and investments to rapidly phase-out the EU's dependence on Russian fossil fuels, accelerate the clean energy transition, support the reskilling of the workforce, and address energy poverty.

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[371] See for example, the REPowerEU chapters of Czechia, Italy, Poland, Romania.

[372] Evidence in this paragraph is sourced from the supporting study, see pages 114 to 116.

Faced with costs increase, supply chain shortages, uncertainty and the need to divert administrative resources to tackle external emergencies, Member States found that they could not implement some of the measures as initially planned in their RRPs. This impacted the speed of implementation of the Facility and generated a need to introduce targeted revisions to the RRPs (under Article 21 of the RRF Regulation). The revisions of the RRPs (to factor-in the impact of inflation and supply chain disruptions) and the addition of REPowerEU chapters (as a response to the war in Ukraine and energy crisis) are the direct consequences of external factors, which have affected the implementation of the Facility. The first half of the year 2023 has seen a slowdown in the submission of payment requests, with Member States focusing their efforts on the revision of plans and the addition of REPowerEU chapters. As a result, many Member States with a payment request indicatively planned for the first part of 2023 have pushed back the indicative timing by one to three quarters.

EQ5.2: To what extent did the absorption capacity of Member States affect the RRF effectiveness?

The risk of negative impact of Member State absorption capacity on the RRF effectiveness has been recognised right from the start of the instrument. When the RRF was adopted, several observers[373] pointed to the risk of absorption capacity of the significant RRF funding, which would come in addition to the remaining EU Structural Funds from the 2014-2020 period, and the new Structural Funds for the 2021-2027 period. The actual payments of structural funds depend on the ability of beneficiaries to use the funds, which vary significantly across Member States[374]. Under the RRF, as payments are made upon the fulfilment of milestones and targets (related to both investments and reforms – performance-based approach), the absorption capacity is closely linked to the administrative capacity of Member States to implement the pre-agreed agenda of reforms and investments. In this context, the Committee of the Regions stressed that many Member States did not sufficiently strengthen administrative capacity at local and regional levels, which is a precondition to ensure proper implementation of the plans and an adequate take-up of the RRF funds.

In a number of Member States, notably those with pre-existing low absorption rates of EU funds, preliminary findings show that administrative capacity remains a significant factor affecting the effectiveness of the RRPs. Member States took action to mitigate the risk via training, reforms and investments that aim at modernising the public administration. Yet the results linked to such measures are expected to materialise only in the medium to long term. They also made extensive use of the Technical Support Instrument which helped them build administrative capacity needed for the preparation and

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[373] See Darvas, Z. (2020) *Will European Union countries be able to absorb and spend well the bloc's recovery funding?*, available at : https://www.bruegel.org/blog-post/will-european-union-countries-be-able-absorb-and-spend-well-blocs-recovery-funding; and Alcidi, C., Gros, D., Corti, F. (2020) *Who will really benefit from the Next Generation EU funds?*, available at: https://www.ceps.eu/ceps-publications/who-will-really-benefit-from-the-next-generation-eu-funds/.

[374] See page 265 of the supporting study.

implementation of the RRPs. The Commission also organised dedicated sessions in the RRF Expert Group, supporting Member States to strengthen administrative capacity for the implementation of their RRPs.

EQ5.3: Have any positive or negative unexpected effects been identified?

Based on the information provided through surveys and interviews with national and EU authorities, both negative and positive specific unexpected effects have been identified.

Negative unexpected effects

Since the inception of the RRF Regulation in 2021, a range of unforeseeable external factors have markedly changed the economic and geo-political context in the EU and made the implementation of the RRF more challenging. Russia's war of aggression against Ukraine led to a spike in energy prices in 2022, exposing the vulnerabilities linked to the dependence on Russian fossil fuels. It has also driven inflation to levels unseen in decades, increasing price levels for all Member States and causing 'cost of living' difficulties for many households. The RRF has not been unscathed by the current global events, with inflation, issues in global supply-chains and labour shortages affecting the implementation of many RRF measures across the Member States.

In response to inflation and supply-chain issues, Member States have reacted by (i) using national resources or additional RRF funding to bridge the gap between the actual current cost of their measure and what their initial RRF envelope is able to cover, (ii) adapting the targets to the increased costs, (iii) replacing investment projects that are no longer feasible from their plans, and/or (iv) postponing the initially foreseen timeline for the implementation of milestones and targets. At the same time, applying these changes to the RRPs programming takes some time and the implementation of some measures has been put on hold, resulting in delays and an overall slow-down of the implementation. It is important to note however that delays in the submission of a payment request do not necessarily translate into implementation delays. The Member States' on-the-ground implementation of most investments and reforms has continued, as evidenced[375] by the number of milestones and targets reported as 'completed' by Member States even though not yet assessed by the Commission under a formal payment request, even if the submission of a payment request has not followed the indicative timeline.

Another unexpected effect regards the relation between the RRF and Cohesion Policy funds. While one may argue that several Cohesion Policy experts pointed already to the risk of displacement or substitution effect when the RRF was first discussed, this was only partially considered by Member States at

[375] According to data reported by Member States as part of the RRF bi-annual reporting exercise.

the phase of drafting the RRPs. Not all Member States adopted ex-ante strategies to create synergies between the two EU funds. It followed a prioritisation of the RRF, where mature projects (expected to be implemented under 2021-27 Cohesion Policy programmes) were shifted into the RRPs (for instance, in Spain, Greece, Italy and Romania – see EQ 20.1). In addition, some Member States (e.g., Slovenia) have redirected staff previously dealing with Cohesion Policy to the RRP coordination and implementation bodies to accelerate RRP implementation, delaying the implementation of Cohesion policy (although Slovenia's absorption of Cohesion Policy has always been low in initial years of a new multi-annual financial framework).

According to national coordination bodies, the RRF was initially expected to be a more flexible and agile instrument compared to Cohesion Policy funds, especially due to the new performance-based approach. However, the majority of national stakeholders observe that the RRF has generated an increase in the workload of administrations at both national and local levels. Despite efforts to strengthen administrative capacity, Member States did not systematically manage to mitigate this increase. Member States that experience administrative and staff shortages have noted that the administrative burden has resulted in delays affecting RRP implementation.

Moreover, the fixed composition of each instalment has been reported to slow down RRF disbursements. The RRF Regulation requires Member States' RRPs to propose a combination of reforms and investments and link them to instalments. The purpose is to avoid "cherry picking" and ensure a balanced progress of both reforms and investments, including when political challenges emerge ahead of difficult structural reforms. Stakeholders however report that Member States avoid submitting payment requests before all milestones and targets envisioned for the specific instalment have been fully completed, which can lead to significant delays in payments if only one or a few of the milestones and targets are pending[376]. During the stakeholder interviews, national authorities accompanied this problem description with a call for more flexibility in (re)grouping milestones and targets for a specific payment request. At the same time, it also has to be noted that in February 2023, the Commission published a methodology for partial suspension of payments, which provides more transparency on the suspended amounts. The suspension procedure thus gives more flexibility to Member States who can (and do) now submit payment requests where not all milestones and targets have been fulfilled (yet).

Finally, the administrative work required at national and sub-national level to implement the RRF is higher than initially expected by Member States[377]. Some Member States have not been able to mitigate the increase in the workload of administrations observed at both national and local levels[378]. Overall,

[376] See page 54 of the supporting study.

[377] See pages 124 to 125 of the supporting study.

[378] See page 125 of the supporting study.

Member States that experience administrative and staff shortages have noted that the administrative burden has resulted in delays affecting RRP implementation. Research[379] illustrates how low administrative capacity, especially at local level, can affect the implementation of RRF-supported investments. The authors analysed the implementation of investments supported by the RRF in 'Early Childhood Education and Care' in four Member States (Italy, Spain, Germany and Portugal), which are traditionally run at local level. They found that two key obstacles in implementation relate to (i) the lack of support/technical assistance to local authorities to develop projects' proposals; and (ii) the lack of personnel especially at local level.

Positive unexpected effects

In terms of unexpected positive effects, the results of the surveys show that the RRF has contributed (partially or to a large extent) to improving inter-institutional coordination in the design of national reforms (72% of respondents) as well as in the design/quality of investments (84%). For instance, in Slovenia, the RRP implementation led to unforeseen benefits, such as heightened stakeholder focus on performance and efficient implementation within tight timeframes. In Austria, the RRP set a benchmark for national initiatives, particularly with respect to performance-based funding, serving as a valuable case study for the Member State's initiatives. In addition, relying on national implementing bodies with experience in EU funds proved more useful than expected. Stakeholders also conveyed that the performance-based approach brought predictability and accountability, resulting in a "cultural shift" in policy planning and implementation.

The implementation of the RRF has also triggered some positive effects in terms of EU governance. With the RRF, the Commission and Member States have established a regular dialogue, based on the bottom-up nature of the instrument. This engagement has been built on more than ten years of European Semester experience, while becoming more comprehensive, detailed and practical in the context of the Commission's responsibilities for assessing RRPs and the related payment requests. Overall, stakeholders conveyed that the Facility has brought a deeper engagement between Member States and the Commission on investments and reforms compared to the pre-2021 European Semester.

Another external, though not fully unexpected effect: researchers assign the RRF a positive effect on reducing the risks associated with sovereign-bank loops in the context of the COVID-19 crisis. Stylised simulations[380] show that the crisis response policies of the EU strongly mitigated the risks associated

[379] Corti, F., Marobito, C., Ruiz, T., and Luongo, P. (2022) *The role of the Recovery and Resilience Facility in strengthening childcare policies*, available at: https://feps-europe.eu/wp-content/uploads/2022/07/RECOVERY-WATCH-Childcare-Policy-PP-1.pdf.

[380] See Quarterly Report on the Euro Area (QREA), Vol. 20, No. 3 (2021), available at: https://economy-finance.ec.europa.eu/publications/quarterly-report-euro-area-qrea-vol-20-no-3-2021_en.

with sovereign-bank loops[381] in euro area countries in connection to the COVID-19 crisis. Together with the monetary policy measures taken by the ECB, the RRFs coordinated policy response contributed to macro financial stability in the aftermath of the COVID-19 pandemic, providing a structural policy commitment and financial safety net that avoided heightened market pressure on public finances and potential financial risks.

EQ6: How does the effectiveness of the RRF compare with that of other EU programme and instruments, notably cohesion funds?

The current early stage of implementation of the RRF limits the possibility of drawing strong conclusions about its effectiveness in comparison to other EU programmes and instruments, notably Cohesion Policy funds. A comparison of early data on common indicators and levels of disbursement under the RRF and Cohesion Policy offers some insights presented in the case study dedicated to this topic in the supporting study. However, a more complete assessment inevitably requires evidence deriving from the effects generated over time by the RRF.

At the same time, it is possible to identify factors that influence the RRF's effectiveness in a different and more marked way than Cohesion Policy. These are: a stronger link with reforms; a generally higher prioritisation from the political level (although not in all Member States); a deeper scrutiny by the media.

Under Cohesion Policy, the importance of linking investments to enabling frameworks and structural reforms was already embedded, for instance, through the necessary fulfilment of ex-ante conditionalities (evolved into enabling conditions) as a prerequisite. However, Cohesion Policy does not finance structural reforms (with some exception of targeted public administration reforms with an associated cost)[382]. Interviewees from a broad range of institutions (among which national authorities, the Committee of the Regions and the Economic and Social Committee) recognised the RRF support for structural reforms as a crucial asset of the RRF and highlighted that it effectively filled a gap compared to the status quo[383].

[381] See Fontana A. and S. Langedijk (2019), 'The Bank-Sovereign Loop and Financial Stability in the Euro Area' in *JRC Working Papers in Economics and Finance 2019/10*, available at https://data.europa.eu/doi/10.2760/81563.

[382] Such as the targeted reforms of labour market institutions and services under the ESF+ if they have an associated cost.

[383] See the case study on the functioning of the RRF and other EU funds included in the supporting study.

EQ7: How visible has the Recovery and Resilience Facility been to the public? How was the instrument perceived by the public, by Member States and by beneficiaries?

Results of the Eurobarometer survey (in December 2022) show that across the EU around 51% of the respondents were aware of a Recovery Plan for their Member State to support economic recovery and 33% have seen, heard or read something about NGEU. Around 36% of the respondents think that their Member State's RRP is financed partially through NGEU and about one in six think the plan is entirely financed through NGEU. More than 90% of all respondents of the public consultation indicated that they are aware of the existence of the RRF, but a majority overall suggests that the financing has only been somewhat visible. There is a range of factors influencing its visibility, such as the size of the plan, political ownership, government communication, and stakeholder involvement.

EQ8: What have been so far the most effective aspects of the RRF (cf. speed of disbursements, implementation of long-standing/awaited/difficult reforms?) What has been the least effective?

The RRF's ability to support the implementation of reforms is considered as one of the most effective features of the instrument by most stakeholders and has proven to be a key tool to deliver on the European Semester's CSRs. There is unanimous agreement between Member States and the various EU institutions, including the European Parliament and the ECA, that the RRF has been effective in supporting CSR-related reforms. Most stakeholders interviewed also confirm that the RRF contributed to putting on the agenda long-awaited reforms linked to the CSRs, that would have otherwise had little chance of being enacted and implemented. The RRF has significantly accelerated policy action to address the CSRs, which, in the past, was considered weak.

The conditionality of payments upon fulfilment of milestones and targets rather than costs incurred and the definition of a clear timeline for reforms and investments – at the core of the RRF performance-based approach – is also considered as an effective aspect of the RRF. A high level of ownership is indicated as a positive aspect in increasing the RRF effectiveness, especially when it comes to reform implementation. Moreover, the RRF has been effective in disbursing its funds quickly post-crisis, notably thanks to pre-financing. Member States also recognise the 'Do No Significant harm' ('DNSH') principle as a new feature that has strengthened the 'green' dimension of RRF reforms and investments and helps achieve the RRF's green objectives.

Regarding the less effective aspects: Member States have conveyed that aspects reducing the efficiency of the Facility's implementation sometimes also reduce the RRFs' effectiveness. For example, Member States reported on the high workload stemming from different audit and control requirements related to the RRF, where administrative costs linked to RRF implementation are reported to exceed those initially expected by some Member States. Audit and control procedures are considered complex by stakeholders and there is a perceived overlap between controls and audits by national authorities, the Commission and the ECA. Consultation responses suggest that this requires the allocation of resources that could otherwise have been dedicated to the swift implementation of the plans, thereby hampering an effective implementation of the RRF. Member States therefore see room for simplifying control and audit procedures, ensuring better coordination among the actors involved and avoiding multiple checks.

Member States also stress that the specific design of the RRF has led to less flexibility in the implementation than initially expected. The RRF Regulation requires a detailed definition of milestones and targets in the design phase and subsequent revisions of RRPs, leaving little room for flexibility in the Commission's assessment of milestones and targets.

Efficiency

EQ9: How do the cost (inputs) of the Facility compare with the RRF outputs, results and impact?

In the absence of a counterfactual, quantifying the 'benefits' of the RRF to compare them to the 'costs' requires using macroeconomic models to estimate the benefits of the RRF. The results of the macro-economic simulations, both in the evaluation study (NiGEM model) and by the Commission (QUEST model), provide estimates of the benefits that can be expected. However, it is too early to go further at this stage and a full cost-benefit analysis will be conducted as part of the 'ex-post' evaluation.

Under the QUEST scenario (i.e. 100% additionality for grants and 50% additionality on loans), the analysis using NiGEM shows that the cumulative impact on EU GDP by 2041 of the RRF funds disbursed up to end July 2023 is expected to be almost twice as large as the value of these disbursed funds. The analysis suggests further that the cumulative impact on EU GDP by 2041 of the entire RRF package of grants and loans has the potential to exceed twice the total RRF funds. Both the non-discounted and discounted values of the benefit-cost ratios calculated at the EU level and considering all the planned RRF funds are a little over two. However, if different assumptions on additionality are considered, the benefit-to-cost ratio would change. Under a scenario where 60% of RRF funds are used for additional public investment within the Southern and Eastern Member States with lower GDP, but only 25% of RRF funds are used for additional public investment in the Northern and Western Member States with higher GDP, the benefit-cost ratio falls below one; that is the cumulative effect on EU GDP becomes lower than the total RRF funds disbursed. However, these simulations do not account for the long-run GDP effects of the structural reforms within Member States' RRPs, which are hard to measure at this point in time, particularly given the length of time over which the benefits will come to fruition, but which could potentially be substantial.

As concerns administrative costs, there are significant variations across Member States in full-time employment (FTE) declared by coordination bodies both for one-off activities and recurrent activities. No clear trends emerge. Indeed, the variations are influenced by several concurrent factors related to the availability of data, the governance of the RRF and the degree of outsourcing.

In many Member States, the FTEs working on plan amendments (including the REPowerEU chapters) are comparable and in some cases even higher than the FTEs for drafting the actual RRPs. According to most respondents (72%) in the survey, the costs linked to the RFF implementation have increased over time, while only 28% reported stable costs. The majority of respondents attribute the cost increase to more stringent application of requirements (particularly in reporting, control, and audit) than expected.

EQ10: How did the instrument's governance affect the efficiency of the RRF, including the reporting/performance management systems?

Two main factors explain the impact of national RRF governance structures on the efficiency of the instrument: the degree of centralisation of the decision-making process and the reporting/performance management system.

While the RRF is implemented with the help of centralised governance structures in all Member States, differences emerge in the governance settings which affect the efficiency of the RRF. The first difference regards the involvement of the Prime Minister's office, which tends to be correlated with a smoother implementation of the plans due to increased political ownership and enhanced capacity to steer internal decision-making processes. This is particularly the case for reforms. . The second difference regards the involvement of social partners, especially when it comes to the labour market or social policy reforms, where their involvement played a key role in speeding up the adoption process. Third, the different degree of involvement of sub-national authorities in the drafting and implementation of the plans affects the efficiency of the implementation of the plans, in particular investments.

EQ11: How do the costs/burden of the RRF compliance compare with those of other instruments, notably Cohesion Policy funds, also considering the costs of audits and controls, as well as of data collection?

Some stakeholders (mostly national authorities) consider the cost/burden associated with RRF compliance to be as, or even more, demanding than other programmes. While the RRF could, in principle, be expected to lead to a reduced administrative burden compared to Cohesion Policy funds (especially through its performance-based approach), there is currently no conclusive evidence supporting this claim. Overall, the administrative costs/burden of the RRF are considered to be comparable to those of the Cohesion Policy funds. This perception however varies across Member States. This is because, while Member States need to demonstrate the fulfilment of milestones and targets (as disbursements are based on performance) – a process that is perceived as very demanding by Member States – Member States are still required to collect evidence of the expenditure incurred, as well as data on final recipients and RRF funds paid under the RRF, for audit and control purposes. This may be exacerbated by the coexistence of the two EU funding instruments (RRF and structural funds) with two different approaches (performance-based and costs-based). Many Members States have explained during the consultations that they finally have to gather both evidence (on the fulfilment of milestone and target and on costs incurred). According to the national authorities, these requirements to protect the financial interests of the Union lead to a similar administrative burden of other EU funds based on costs, such as Cohesion Policy funds. More generally, the administrative costs linked to RRF implementation are reported to exceed those initially expected by some Member States, notably because of audit and control and reporting obligations.

EQ12: Can any unnecessary administrative burden and complexity be identified? To what extent is there scope for simplification?

Feedback from stakeholders suggests that the various reporting requirements under the RRF (reporting on the achievement of milestones and targets; bi-annual reporting; reporting in the context of audits; reporting on the common indicators) affects the efficiency of the instrument, with some Member States calling for simplification. Member States argue there is room for simplifying bi-annual reporting by removing the requirement to report when a Member State already submits two payment requests per year.

Stakeholder consultation suggests that several national coordination bodies consider that the common indicators, while anchored in the Regulation, have limited added value as they are not directly linked to tracking results of reforms and investments.

Member States also conveyed a perception of rigidity in the interpretation of milestones and targets fulfilment by the Commission, even though the Communication of February 2023 was acknowledged as an important step to clarify the margins of manoeuvre for Member States, especially when it comes to investments. The procedure for amending RRPs is also seen as burdensome and overly complex by some stakeholders.

Stakeholder consultation suggests that complex audit and control systems negatively affect the efficient implementation of the RRF, with calls for simplification**.** In stakeholder consultations, Member States reported on the high workload stemming from different audit and control requirements related to the RRF. At the same time, audit and control procedures are considered complex by stakeholders and there is a perceived overlap between controls and audits by national authorities, the Commission and the ECA. Consultation responses suggest that this requires the allocation of resources that could otherwise have been dedicated to the implementation of the plans. Member States therefore see room for simplifying control and audit procedures, ensuring better coordination among the actors involved and avoiding multiple checks.

Finally, in the view of the Member States, simplification of the informal dialogue process with the Commission can come from accelerating the time to provide answers and reducing the rounds of comments from the Commission to Member States on the documentation submitted for payment requests.

EQ13: To what extent have there been efficiency gains from pursuing reforms and investments together under one instrument?

While it is generally considered premature to assess the overall efficiency gains resulting from the simultaneous pursuit of reforms and investments within a single instrument, 59% of survey respondents believe that combining reforms and investments in one instrument leads to some or significant efficiency gains. This is because coordinating the two becomes simpler when planned in one document and encourages Member States to undertake reforms that will enhance the impact of investments.

Coherence

EQ14: To what extent was the RRF coherent with the Technical Support Instrument?

There is a high level of coherence between the RRF and the Technical Support Instrument (TSI). The TSI offers both general and thematic support, covering horizontal areas important for RRP implementation, such as project management, reporting, governance structures, and policy-specific interventions. Coherence between the RRF and the TSI is due to built-in synergies between the two instruments and the alignment of their assessment criteria**.** The RRF Regulation actively promotes synergies between the RRF and TSI by enabling Member States to allocate up to 4% of their total allocation to technical support in RRP implementation, an option used by four Member States. The alignment of the assessment criteria of the RRF and of TSIs emphasise that both instruments have the same policy objectives and that their priorities are aligned. For example, the relevance of CSRs is one of the assessment criteria used both for selecting TSI projects and for approving RRPs. The coherence of the two instruments is evident in the fact that over 400 projects approved under the TSI are linked to the preparation or implementation of Member States' RRPs, highlighting the crucial role of TSIs in the Facility.

EQ15: To what extent has the RRF been integrated into the broader country-specific surveillance under the European Semester? To what extent have National Reform Programmes been used as a reporting tool for the RRF?

The implementation of the RRF has been integrated in the European Semester, with reporting processes streamlined to limit the administrative burden both at national and Commission level. The European Semester and its national reform programmes offered a platform for the bi-annual reporting under the RRF. The national reform programmes have been used by all Member States – with few exceptions – to report on the implementation of the RRPs. Yet, important differences emerge across Member States in the level of details of reporting. At the same time, the European Semester, and in particular the Country Reports, have been the key tool for the European Commission to regularly report on the monitoring of RRP implementation, making the implementation of the RRF a key part in EU economic coordination and surveillance. The 2022 and 2023 European Semester both focused on the implementation of the RRPs, with CSRs focusing on the implementation of each Member States' RRPs. In that sense, the RRF has been implemented in full coherence with the European Semester, limiting to the extent possible the increase in administrative burden that reporting on RRF implementation places on both national administrations and the EU.

The RRF is in line with the European Semester priorities and has provided a novel and significant incentive to reinforce the implementation of CSRs. First, the European Semester provides a framework for the preparation of RRPs. In turn, the RRF offered financial incentives to implement the policy advice given under the Semester and has reinforced the implementation of the CSRs. In other words, the RRF contributed to strengthening the link between EU funds and the European Semester, which in turn contributed to bringing long-awaited structural reforms into fruition, across a wide range of policy areas.

EQ16: To what extent have EU's priorities guided the reforms and investments put forward by Member States in their recovery and resilience plans?

The scope of the RRF (defined along the six pillars) supports the implementation of reforms and investments in areas that have been identified as EU priorities, notably the green and digital transitions and the European Pillar of Social Rights. The binding climate and digital targets for the RRPs ensure that a large part of funds is dedicated to fostering the green and digital transitions.

The European Semester provided a framework for the preparation of RRPs. RRPs were "*expected to contribute to effectively addressing all or a significant subset of challenges identified in the relevant country-specific recommendations*" adopted in the context of the European Semester. All RRPs were assessed against this criterion and needed to reach the highest ('A') rating for their plan to be approved. In this sense, EU priorities – tailored to Member States' needs – guided the reforms and investments put forward in RRPs.

EQ17: To what extent have complementarity effects and synergies between the RRF with other EU programmes and instruments (such as Cohesion Policy funds) been identified and exploited?

Member States have put in place four approaches to demarcation between RRF and Cohesion Policy funds: (i) a thematic demarcation; (ii) a territorial demarcation; (iii) a demarcation based on the typologies of beneficiaries; and (iv) a temporal demarcation. The most frequently adopted approach has been of thematic nature, but Member States have de facto adopted a mix of demarcation approaches.

While demarcation strategies are key to avoiding overlaps between the two instruments, they can, but do not necessarily ensure synergies. In this regard, obstacles consist, among other things, in the thematic overlap; the implementation of RRPs being prioritised over 2021-2027 Cohesion Policy funds, to ensure rapid absorption of EU funds in general; in some cases, different governance systems. There is however a large potential for synergies between the RRF and Cohesion Policy and a number of Member States have seized the possibility to use the two funds to support different segments of the same investment or to support complementary measures. Synergies can also be achieved when reforms supported by the RRF benefit investments supported by structural funds (or national funds).

As the implementation of the RRF progresses, synergies and complementarities between RRF-supported reforms and Cohesion Policy investments will come into focus. Sectoral, structural or enabling reforms supported by the RRF innovate the context in which public investments, including those funded by Cohesion Policy, are embedded. In turn, the Cohesion Policy makes financial resources available to put the revised framework to good use, promoting investments on the ground.

EQ18: To what extent were RRF/RRPs coherent/complementary with relevant Member States' instruments aiming to support the economic recovery after the COVID-19 crisis?

The RRPs were implemented in coherence with Member States' national recovery strategies. Coherence/complementarity has been largely ensured by three factors: 1) in Member States that had already put in place a post-pandemic recovery plan by the time the RRF was created, the RRP built on, or integrated, the already planned measures and either replaced or further expanded them (since the RRF allowed to support measures that started from 1 February 2020); 2) in Member States that did not yet have a recovery plan in place at that time, the RRPs became the national plans for the recovery after the pandemic; 3) in both cases, the relatively short time span during which the RRPs were drafted by most Member States together with the medium-term horizon of the

RRF implementation (until 2026), allowed national authorities to develop RRPs that were coherent with the already existing or planned investments and reforms.

EQ19: To what extent have reforms and investments in the plans been complementary and mutually reinforcing?

The RRPs also provided for a coherent set of reforms and investments. The internal coherence of the measures put together by Member States in their RRPs was a criterion evaluated by the Commission when assessing the plans. The overall Commission assessment on the coherence of RRPs is very positive (high extent – Rating A), with the exception of the Belgian, Czech and Estonian RRPs who received a rating of B. The findings are in large part corroborated also by the analysis carried out in the case studies, with a zoom on a selected sample of Member States to assess the degree of complementarity between reforms and investments in the RRPs. The combination of reforms and investments under one sole instrument is considered by stakeholders as one of the most effective aspects of the RRF.

EU Added Value

Overarching question: EQ20: What has the RRF provided over and above what Member States actions and funding could have achieved?

In the absence of a counterfactual, the additionality of the RRF is difficult to quantify. However, at the mid-term point, qualitative evidence already provides a first hint regarding the EU added value of the instrument.

The unprecedented scale of the RRF's financial support (up to EUR 723.8 billion in total for 2021-2026 and additional REPowerEU resources with EUR 20 billion in new non-repayable support and EUR 2.1 billion of funds from the Brexit Adjustment Reserve) is an important element to take into account when assessing the additionality of the instrument.

With its pre-financing, the RRF also provided Member States with significant fiscal space in the aftermath of the COVID-19 pandemic, thereby playing a stabilising effect at that critical juncture. Unlike other crises, the level of public investment has been preserved in the EU post-COVID and has increased in a number of Member States (see Section 4.1.4). Moreover, although reducing spreads was not per se one of the objectives of the RRF, it has been an important positive side effect, which helped mitigation risks of financial fragmentation.

The additionality of the RRF in individual Member States is correlated to the size of the financial support provided. A relevant proxy is the RRP allocation as a share of GDP, which varies from 16.68% in Greece to 0.11% in Luxembourg. For Member States where the RRF represents an important share of GDP, the RRF provided additional fiscal space to implement investments that would otherwise have been unlikely. More generally, the additionality of the RRF highly depends on Member States' specific situations, in particular on whether the Member State already had in place a national recovery plan when the RRF entered into force.

By design, the RRF is expected to strengthen economic convergence in the EU. With its allocation key, the RRF was designed to support lower-income and more vulnerable Member States, which had also been hit the hardest by the pandemic. The RRF is also expected to trigger spillover effects that are benefiting the Single Market. With its large financial support, the effects of RRF spending in one EU Member State have positive spillover effects in the rest of the European Union (intra-EU trade).

Cross-border projects also contribute to increasing potential spill-over effects fostered by the RRF. Corti et al. (2022)[384] consider that these spillover effects are particularly relevant in the areas of green transition and digitalisation as neighbouring Member States benefit from investments in transport or digital infrastructure or other aspects concerning digital transformation, such as broadband expansion and 5G. While the RRF contributed to the implementation of multi-country projects, some authors consider that the impact and full potential of such projects could have been better exploited. An analysis of selected cross-border projects focusing specifically on IPCEIs provides some more evidence towards challenges in the implementation of multi-country projects due to the coordination efforts they imply. It should be noted that cross-border projects, particularly IPCEIs, contribute to the Union's objectives and their importance is specifically reflected in providing a comparative advantage to European companies by pooling skills and know-how. Due to their cross-border nature, as well as their strategic role in fostering cooperation in strategic industrial sectors and potential contribution to green and digital transition, they hold potential to strengthen the resilience of industrial ecosystems and deepen the Single Market.

With its large financial envelope, the RRF provided substantial funding to advance the implementation of common EU policies. The binding climate and digital targets for the RRPs, which required Member States to allocate respectively 37% and 20% of RRF funds to projects supporting the climate and digital transitions, ensure that at least half of RRF funds are dedicated to fostering the green and digital transitions, among other priorities. The RRF also contributes to the implementation of the European Pillar of Social Rights, which is one element of the RRF general objective: the scope of the RRF includes

[384] Corti, F., Gros, D., Liscai, A., Ruiz, T., Kiss-Galfalvi, T., Gstrein, D., Herold, E., Dolls, M., and Fuest, C. (2022) *The European added value of the Recovery and Resilience Facility: An assessment of the Austrian, Belgian and German plans*, available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699513/IPOL_STU(2022)699513_EN.pdf

social cohesion and policies for the next generation, and social aspects are also covered by the country-specific recommendations that Member States are addressing in their RRPs, ensuring that measures supported by the RRF also support this EU priority. The RRF has helped speed up the implementation of long-standing and politically challenging reforms. In particular, the RRF supported the implementation of reforms that had been the subject of long-standing CSRs in the context of the European Semester, i.e. they were recommended by the Council as the most important reforms to be tackled in each Member State. Progressing on these EU priorities represents EU value added. This has included reforms that would have most likely not have taken place without the RRF, such as rule of law reforms and structural reforms (e.g. long-standing CSRs such as long-term care in Slovenia and the reform concerning regulated professions in Portugal). The RRF brought a new dimension to EU funding instruments by making the financing of investments conditional upon the implementation of reforms.

The RRF provided EU added value as it enabled the simultaneous implementation of reforms and investments across the EU, which created additional impact. The simultaneous implementation of the RRPs in each Member State created additional impact with spillover effects. Along the same lines, the simultaneous implementation of structural reforms that were tailored to Member States needs creates additional impact, as the overall impact of these individual reforms is economically more beneficial when conducted by several/all Member States (e.g. labour markets reforms) than when conducted in isolation. The RRF amplified this joint and coordinated response.

EQ20.1: Have substitution effects with national policies/programs and/or with other EU funded programmes been identified and if so, to which extent?

Some risks of substitution effects between RRF and Cohesion Policy have materialised. The risk of possible substitution effects between the RRF and Cohesion Policy was only partially considered by Member States when drafting their RRPs. Evidence of substitution effects generated by the RRF to the detriment of Cohesion Policy was not found with regard to 2014-20 programmes, as they were already well underway at the time the RRF was launched. Interviewees, however, highlighted substitution effects for 2021-27 programmes. When RRPs were submitted in 2021, most Operational Programmes under Cohesion for the period 2021-2027 were not designed yet. Several Member States did not adopt ex-ante strategies to create synergies between the two EU funds. Some more mature projects (e.g. in Spain, Greece, Italy and Romania) that were previously planned under Cohesion instruments were moved into the RRPs. The reverse was also the case, with examples of some investments, initially introduced in the RRPs, moved to Cohesion instruments during the RRPs revisions. In addition, some Member States (e.g. Slovenia) have redirected staff previously working on Cohesion Policy to the RRP coordination and implementation bodies to accelerate RRP implementation, further delaying the implementation of Cohesion Policy (Slovenia’s absorption of Cohesion Policy has always been low in initial years of a new multi-annual financial framework).

EQ20.2: To what extent have the EU's advantageous borrowing conditions and the impact that the RRF had on reducing spreads of EU Member States at its creation, contributed to the benefits of the RRF?

The funding strategy to finance the RRF, and NextGenerationEU ('NGEU') more generally, is outside the scope of this evaluation.

Although reducing spreads was not per se one of the objectives of the RRF, it has been an important positive side effect. The announcement of the RRF has contributed to reducing sovereign bond spreads in the EU at the time of the COVID shock, which in turn helped mitigating risks of financial fragmentation and supporting the recovery. To examine the effects of the announcement on spreads of NGEU and its core instrument, the RRF, the supporting study[385][386] measured the impact on spreads as 'the initial decline in sovereign bond spreads that was recorded within three weeks of the 18 May 2020 announcement of the initial Franco-German proposal for a recovery fund' (taken at the moment announcing the upcoming NGEU). The results show that a reduction in the spread of benchmark bond yields over the benchmark, being German *Bundesanleihen*, between 15 May 2020 (April for monthly data) and 5 June 2020 (June for monthly data) for almost all EU Member States[387]. There was a reduction of between 50 and 100 basis points for those Member States higher borrowing costs.

Specifically, the reduction in spreads has led to an improvement in the public finances in some EU Member States and, by improving financing conditions for the household and corporate sectors, it will likely lead to increased investment and GDP in the future. At the same time, the reduction in spreads helped to mitigate the risk that the COVID shock would lead to financial fragmentation with borrowing rates varying more widely across EU Member States.

Furthermore, by using RRF loans to finance spending that would otherwise have been financed domestically, those Member States with relatively high borrowing costs have been able to take advantage of lower borrowing conditions to reduce the costs associated with the increased borrowing that has resulted from the COVID shock.

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[385] Following the approach by Bankowski, K., Bouabdallah, O., Domingues Semeano, J., Dorrucci, E., Freier, M., Jacquinot, P., Modery, W., Rodríguez-Vives, M., Valenta, V., and Zorell, N. (2022) *The economic impact of NextGenerationEU: a euro area perspective*, available at: https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op291~18b5f6e6a4.en.pdf.

[386] Evidence in this paragraph is sourced from the supporting study, see pages 177 to 178.

[387] excluding Estonia (for data availability reasons) and Germany (where the spread is zero by definition).

EQ20.3: To what extent did the Facility contribute to the implementation and further development of multi-country projects?

An overview of RRPs shows that numerous RRPs include measures participating in a number of multi-country projects[388], with most projects contributing to the green and digital transition. More than half of the RRPs include measures contributing to multi-country projects or cross-border initiatives related to the green transition, with the IPCEI on hydrogen exhibiting the highest uptake. The second biggest contribution is seen in the area of the digital transformation, where most RRPs also include measures contributing to multi-country projects or cross-border initiatives. Here, the IPCEIs on microelectronics (12 RRPs) and cloud technologies (six RRPs) are amongst the multi-country projects with the highest take-up in RRPs. Further contributions towards the digital transformation are also seen in cloud technologies (with six RRPs including IPCEI measures), the European Digital Innovation Hubs (eight RRPs), 5G corridors (seven RRPs) and quantum communication (four RRPs).

The support from RRF funds enabled a widened pool of Member States implementing multi-country and cross-border projects. There is a growing number of Member States participating in multi-country projects (most noticeably IPCEIs), especially in Central and Eastern Europe[389]. The scope of IPCEIs (notably hydrogen) would have likely been lower in the absence of the RRF funds and the Facility has provided a source of funding for Member States and an opportunity to integrate IPCEIs in national programmes[390]. The availability of RRF funds has enabled greater participation levels in multi-country projects, with the inclusion of Member States who would not have participated otherwise[391].

However, while theoretically cross-border projects carry huge potential for advancing the competitiveness of the European economy, Corti et al[392] argue that only a minor share of RRF-supported cross-border projects had so far an effective cross-border impact. This can mainly be attributed to the complexity of cross-border projects, which require more time in design and see more challenges in implementation due to the multi-partner component. Specifically,

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388 European Commission (2022) *Report from the Commission to the European Parliament and the Council on the implementation of the Recovery and Resilience Facility (COM(2022) 75 final)*, available at: https://commission.europa.eu/system/files/2022-03/com_2022_75_1_en.pdf.

389 Eisl, A. (2022) *Important Projects of Common European Interest (IPCEIs) as a New Form of Differentiation: An Analysis of Their Challenges for the European Single Market*, available at: https://euidea.eu/wp-content/uploads/2022/03/euidea_pp_18.pdf.

390 According to stakeholders interviewed as part of the case study on cross-border and multi-country projects, with specific focus on IPCEIs; see pages 145 to 149 of the supporting study and the case study on cross-border and multi-country projects, with specific focus on IPCEIs.

391 See Dias, C., Grigaitè, K., and Cunha, I. (2021) *Recovery and Resilience Plans – Thematic overview on cross-border projects*, available at: https://www.europarl.europa.eu/RegData/etudes/IDAN/2021/689472/IPOL_IDA(2021)689472_EN.pdf; and Eisl, A. (2022) *Important Projects of Common European Interest (IPCEIs) as a New Form of Differentiation: An Analysis of Their Challenges for the European Single Market*, available at: https://euidea.eu/wp-content/uploads/2022/03/euidea_pp_18.pdf.

392 See Corti, F., Gros, D., Liscai, A., Ruiz, T., Kiss-Galfalvi, T., Gstrein, D., Herold, E., Dolls, M., and Fuest, C. (2022) *The European added value of the Recovery and Resilience Facility: An assessment of the Austrian, Belgian and German plans*, available at: https://www.europarl.europa.eu/RegData/etudes/STUD/2022/699513/IPOL_STU(2022)699513_EN.pdf.

IPCEIs typically present challenges in fostering cooperation beyond the conventional value stream with supply partners or customer partners due to antitrust rules that restrict the sharing of processes and developments with competitors.

EQ20.4: To what extent did the RRF contribute to maintaining the level-playing field and strengthening the Single Market?

While it is too early to draw clear conclusions on the extent to which the RRF has contributed to maintaining a level-playing field in the EU and to strengthening the Single Market, a few relevant considerations can be made.

First, the RRF supports the implementation of reforms that strengthen the Single Market, such as reforms issued in the context of the European Semester to support the business environment or competitiveness, as well as reforms on regulated professions (for example in Portugal). The RRF's support for measures addressing SMEs needs also plays a role in strengthening the Single Market.

Second, the implementation of all measures in the RRPs has to be performed by Member States in line with EU law, thus supporting the spillover impact of national plans, as EU business have access to all Member States.

Third, the RRF support for cross border projects, and notably through the IPCEI projects included in RRPs, also plays an important role in supporting the Single Market. In particular, researchers[393] argue that the RRF contributes to significantly lowering the entry barriers for Member States to participate in IPCEIs by giving smaller Member States with comparatively fewer budgetary capacities an opportunity to completely finance or at least co-finance IPCEIs with European money instead of having to rely exclusively on their national budgets.

EQ21: To what extent did the simultaneous implementation of reforms and investments across Member States create EU added value?

The simultaneous implementation of reforms and investments across Member States created EU added value notably by increasing the scale and level of ambition of the implemented measures. As noted in EQ19, there has been complementarity and coherence between reforms and investments in the RRPs, which is illustrated in the case studies. Constructing a counterfactual scenario at EU/national level where so many reforms and investments are not pursued simultaneously is not attainable. Nevertheless, the five Member State authorities that provided answers to this question on EU added value via the additional

[393] See Eisl, A. (2022) *Important Projects of Common European Interest (IPCEIs) as a New Form of Differentiation: An Analysis of Their Challenges for the European Single Market*, available at: https://euidea.eu/wp-content/uploads/2022/03/euidea_pp_18.pdf.

request for input, have unanimously stated that even if most of the RRP measures had already been planned and had been included into government programmes, the combination of reforms and investments, which is pursued by the RRF, allowed them to: make the measures more ambitious in scale; likely increased the speed of implementation; and solidify the planned governmental measures and implementation of the CSRs. The increased ambition in scale is valid particularly for investments, while for reforms the RRF has brought EU added value mostly in terms of strengthening the incentives to perform CSRs, ensuring continuity of policies, and speeding up some politically challenging reforms.

EQ22: To what extent could similar results/impact be achieved with a different instrument at Union level (e.g., budget support) or by Member States?

It is difficult to provide robust answers to this evaluation question, due to the hypothetical nature and the absence of a counterfactual. For example, some measures were planned because it was known that the RRF was in the making. So while we can observe that 13% (150) of the 1,153 milestones and targets fulfilled have been implemented before the date of the official submission of the RRPs, this does not mean that these would have happened anyways, as Member States knew that the RRF allows some form of retroactivity (measures could be included with implementation as of February 2020, in order to avoid postponing needed reforms and investments in the first months of the pandemic) and the poor implementation of country-specific recommendations before the RRF was set up also contradicts the idea that similar results could have been achieved without the RRF.

The general assessment of the stakeholders on the RRF additionality has been positive, yet about a quarter of the participants in both the national coordinator survey and the public consultation expressed a negative opinion on the extent to which the RRF supported measures would not have been implemented by Member States. Similar mixed sentiments were expressed during the performed interviews, but nevertheless, they revealed reported cases of rule of law and structural reforms, which would not have taken place in the context of budget support measures. The reviewed examples show the added value of the RRF, in particular in terms of politically challenging reforms.

Relevance

Overarching question: EQ23: To what extent does the RRF continue to be relevant in view of its objectives and how well do these objectives correspond with current needs within the EU?

The relevance of the RRPs is widely acknowledged and is ensured by the following factors: the reforms and investments are linked to the CSRs, which are linked to strategically important reforms and investments; the twin transition (green and digital), which is an overarching EU-wide policy for years to come, is at the heart of the RRF and consequently the RRPs; the RRF has envisioned a mechanism for revisions of the RRPs, which is currently being implemented (most members States have been updating their plans in 2023).

While the reasons behind the 2026 deadline are well understood, it has led to limitations in selecting investments, particularly in the renewable energy sector. As concerns feasibility, national authorities have expressed their concerns regarding the 2026 deadline.

EQ23.1: To what extent did the initial allocation key remain relevant over the period?

The allocation key used to apportion funds among Member States proved relevant to support the economic convergence in the EU. The allocation key[394] applied to 70% of the non-repayable support is based on the population, the inverse of GDP per capita of 2019 and the relative average unemployment rate of each Member State in 2019. The allocation key applied to 30% of the non-repayable support also takes into account the change in real GDP in 2020 and 2021. Results of macroeconomic models[395] indeed show that, given the allocation key, Member States with below-average levels of GDP per capita are estimated to experience the largest boost to GDP levels. For a 6-year stimulus and a high-productivity calibration, the increase in output reaches more than 3.2% in Greece; around 3% in Bulgaria, Croatia, and Romania; and around 2.5% in Italy and Portugal.

The examination of the 2020-21 data shows that there was a need to re-evaluate which Member States are more in need of RRF disbursements – which the Commission did in June 2022, as per Article 11 of the RRF Regulation. Taking these factors into account has ensured that Member States in greatest need would benefit the most.

However, it needs to be acknowledged that a later update of the allocation key may have looked a bit different, given that the Russian invasion of Ukraine and the resulting energy crisis affected Member States' economies heterogeneously.

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[394] For details on the allocation key, see Annex I, II and III of the RRF Regulation.

[395] Pfeiffer, P., Varga, J., and in't Veld, J. (2023a) *Quantifying spillovers of coordinated investment stimulus in the EU*, Macroeconomic Dynamics (27), pp. 1843-1865, available at: https://www.cambridge.org/core/journals/macroeconomic-dynamics/article/quantifying-spillovers-of-coordinated-investment-stimulus-in-the-eu/FFCCAAA20BD98AC50A93A4F24562EAD4.

EQ23.2: To what extent have the initial RRPs remained relevant/feasible to implement until 2026 (i.e., scope of changes made to the RRPs till the cut-off date)?

Each RRP includes an agenda of reforms and investments that are relevant to each Member State and that are also relevant for EU policy priorities. The reforms and investments covered in the RRPs relate to the CSRs, which concern important and relevant strategic measures tailored to Member States' needs. At the same time, as CSRs respond to broader EU policy priorities, the implementation of the measures included in the RRPs also support the broader EU agenda. In particular, with the specific climate and digital targets, the RRF directly contributes to the twin transformations (green and digital) of Member States' economies, which is an overarching EU-wide policy for years to come. The results from the different consultations show broad support for the relevance of the RRF, with no interviewee questioning the relevance of the instrument[396].

The RRF remained relevant in an evolving context, demonstrating the flexibility of the instrument to adapt to changing circumstances. While the RRF was created in the context of the COVID-19 shock to support the economic recovery and enhance the EU's resilience, the RRF implementation is taking place in a changing environment, marked by Russia's invasion of Ukraine, high inflation, and an energy crisis. Thanks to the continued relevance of its main policy objectives and its delivery model, the amendment of the RRF Regulation in the context of REPowerEU in 2023, and the mechanisms included in the RRF Regulation for amending RRPs based on objective circumstances (Article 21), ensured that the RRPs remained relevant and well suited to address the new challenges. In late 2022 and 2023, all 27 Member States submitted revised RRPs, in line with the different venues provided by the RRF Regulation to amend RRPs (objective circumstances, additional loans and updated maximum financial contribution).

Most interviewees mentioned the CSR long-term relevance and the continued relevance of green and digital reforms and investments. A more granular look into the relevance of specific measures explored in the case studies confirms the relevance of the RRPs (e.g., the analysed active-labour market policies, rule of law measures, the measures in support of SMEs, energy efficiency, and eHealth measures).

On one hand, the relevance of the 2026 deadline is well-understood across stakeholders, particularly as concerns reforms. It is acknowledged that the deadline is playing a role in accelerating reforms. On the other hand, the 2026 deadline limits the investment measures only to mature ones, because they would otherwise not be completed by this hard deadline. While this allows for some level of demarcation between RRP and non-RRP actions, this has also limited the choice of interventions. According to interviewees, the close deadline of 2026 has limited the ambitions in the REPowerEU chapters.

[396] See pages 190 to 191 of the supporting study.

As concerns feasibility, national authorities have already flagged that some milestones and targets – in particular those related to infrastructure investments – can no longer be completed by August 2026 due to objectives circumstances. Ongoing revisions of RRPs will decrease some of the risks in terms of feasibility of the of the fulfilment of milestones and targets by the 2026 deadline.

EQ24: To what extent is the instrument sufficiently flexible/agile to adjust to changing circumstances (cf. REPowerEU)?

While the RRF was established during the COVID-19 pandemic to help Member States recover faster and become more resilient, its implementation is taking place in a constantly evolving context. Nearly a year after the entry into force of the RRF, the international context experienced another radical change following Russia's illegal war of aggression against Ukraine. Due to its geographical proximity to the war and heavy reliance on gas imports from Russia, the EU economy was expected to fall into a winter recession in 2022-2023. While this recession was avoided by a margin, economic momentum slowed down significantly since the end of 2022, and the need emerged to quickly phase out reliance on Russian fossil fuels.

Russia's aggression against Ukraine caused renewed pressures on supply chains as well as on global energy and food markets, which to a large extent resulted in high levels of inflation, with the European Union being particularly affected. These external factors have had an impact on the implementation of the RRF, both as concerns implementation speed and the need to use the Facility to tackle emerging challenges.

The REPowerEU Plan, presented by the Commission in May 2022 as the EU's response to the energy crisis, paved the way for an amendment of the RRF Regulation less than two years after its entry into force. The RRF became a key tool to deliver on the REPowerEU objectives. It increased the amount of EU funds made available to the Member States through the RRF, and enabled Member States to adjust their RRPs by putting forward additional reforms and investments to rapidly phase-out the EU's dependence on Russian fossil fuels, accelerate the clean energy transition, support the reskilling of the workforce, and address energy poverty.

Hence, the RRF has proven its ability to react to new challenges, as shown by the integration of REPowerEU and its flexibility in reacting to high inflation and supply chain constraints.

On the other side, some stakeholders point to a lack of flexibility in the implementation of the instrument. Member States have pointed to a perceived rigidity in the way they are requested to implement RRPs (strict interpretation of detailed milestones and targets, strict list of milestones and targets that must be satisfactorily fulfilled to receive a specific instalment, disbursement procedures) and regarding the process to revise them. While this perceived rigidity stems from legal obligations anchored in the RRF Regulation, it has reportedly led to a higher than expected administrative burden and implementation delays.

EQ25: What was the rationale behind Member States' decisions to apply – or not apply – for loans under the RRF?

While the RRF loans were relevant for some Member States, they were not for others. Assessment of the rationale behind Member States' decisions to apply – or not apply – for loans under the RRF shows that a mix of financial and non-financial considerations has driven Member States' decisions[397]. As of 1 September 2023, 13 Member States had requested loan support or additional one as per the revised RRF Regulation's Article 14(6). The amount of loan support requested was EUR 292.6 billion (in current prices), corresponding to 76% of the total loan support available.

The potential reasons to apply for RRF loans were related to whether the Member State faced higher interest rate on the markets or a reduction in non-repayable RRF support[398]. Some Member States with financing conditions on the markets at an interest rate higher than the EU interest rate sought additional support with RRF loans. Some Member States that faced a downwards revision of their maximum contribution of non-repayable support in 2022 also applied for loans to make up for the shortfall and ensure the continuity of their projects. Factors such as the health of public finances, the need for additional funding, inflation concerns, administrative burden, and the scale of planned projects have all played a role in determining whether Member States opted for RRF loans or not.

On the contrary, the potential financial reasons not to apply for RRF loans were usually related to larger available funding or more favourable financing conditions by the market (when RRF loans were at higher interest rates compared to market alternatives)[399]. Some Member States also factored in inflation, i.e. concerns of injecting additional money into an economy already facing inflationary pressures. Member States that considered that the maximum contribution of non-repayable support was sufficient also did not apply for loans.

From a strict cost-of-funding viewpoint, RRF loans are expected to bring a sizeable return on investment ('ROI') for some Member States[400]. According to Commission calculations based on available data on NGEU versus sovereign cost of funding in the period up until November 2023, all Member States who

[397] See pages 194 to 196 of the supporting study.

[398] Evidence in this paragraph is sourced from the supporting study, see pages 194 to 196.

[399] Evidence in this paragraph is sourced from the supporting study, see pages 194 to 196.

[400] Evidence in this paragraph is sourced from Monteiro, D. P. (2024), "Large-scale EU issuance: 3 years on", *Quarterly Report on the Euro Area*, Vol. 22, No. 4 (forthcoming).

requested loan support were expected to benefit from a positive ROI[401] from RRF loan disbursements. It was estimated at between 3% and 17% for nine euro area Member States, and between 14% and 39% for four non-euro area countries. This ROI is however subject to market developments. For non-euro area Member States, high ROIs are accompanied by exchange rate risk, which depends on the volatility of the exchange rate with respect to the EUR.

[401] Based on a discounted ROI approach, whereby the present value of the financial costs associated with a RRF loan (i.e., the stream of interest payments and future principal repayments) is compared with the present value of the financial benefit (i.e., the loan amount itself that is being granted).

ANNEX IV. OVERVIEW OF BENEFITS AND COSTS [AND, WHERE RELEVANT, TABLE ON SIMPLIFICATION AND BURDEN REDUCTION]

The table A4.1 below presents the administrative costs in terms of Full-Time Equivalent (‘FTE’) persons reported by Member States as working on the tasks listed (second column) for the implementation of the RRF.

There are significant variations across Member States in the number of FTE declared by coordination bodies both for one-off and recurrent activities. This can be partly explained by the size of the Member State and of the RRP.

Table A4.1.: Overview of costs and benefits

Type	Name	Description	One-off/ Recurrent / Long-term	Stakeholder		
					MS administration	MS / Final beneficiaries
Direct cost	RRF financial contribution	Sum of RRF estimated grant value and loans	One-off		/	Costs of paying back the EU bonds
Direct cost	Financial cost	Cost of borrowing of RRF debt	Long-term		/	Budgeted: EUR 14.9 billion* Estimated: EUR 30 billion*
Administrative cost	Setup cost	Resources spent to setting up the governance structure	One-off		Median FTE: 10 FTE range from 5 to more than 60	/
Administrative cost	RRP preparation cost	Resources spent to prepare, negotiate, and officially submit the RRP.	One-off		Median FTE: 25 FTE range from 10 to more than a hundred	/
Administrative cost	RRP amendments cost	Resources spent to prepare REPowerEU chapter and plan amendments	One-off		Median FTE: 15 FTE range from 5 to more than a hundred	/
Administrative cost	Audit and control cost	Costs associated with auditing for administrations (i.e. Audit Authorities).	Recurrent		Median annual FTE: 13	/
Administrative cost	Payment claim cost	Costs associated with payment requests	Recurrent		Median annual FTE: 13	/

Administrative cost	Communication cost	Resources spent for consultation, outreach activities and communication	Recurrent		✓ Median annual FTE: 6	/
Administrative cost	Performance management cost	Resources spent for meeting/checking performance-based requirements	Recurrent		✓ Median annual FTE: 15	/
Administrative cost	Implementation cost	Resources spent by implementing bodies to prepare tenders and guidelines and to screen and select project applications	Recurrent	/	✓ Median annual FTE: 70	/
Administrative cost	Monitoring and reporting cost	Resources spent by implementing bodies in relation to monitoring and reporting.	Recurrent	/	✓ Median annual FTE: 18	/
Direct benefits	Improved well-being, changes in pollution levels, safety, health…	Wide and varied range of benefits along the six pillars	Long-term	/	/	✓ Quantification not possible beyond the common indicators
Wider benefits	GDP growth	Cumulative change in real GDP predicted by our model to occur by 2041 as a result of the RRF funding (both grants and loans) against the baseline.	Long-term	/	/	✓ EU level: EUR 127,179.5 million (in 2015 prices)

The following table A4.2 provides an overview of the potential for simplification conveyed by stakeholders.

Table A4.2: Overview of simplification measures

Type	**One-off / Recurrent**	**Simplification and burden reduction**	
		Already achieved	**Potential**
Reduction in spreads	One-off	The launch of the RRF led to savings in the cost of borrowing. The announcements of a recovery fund – specifically, the initial Franco-German proposal on 18 May 2020 and the Commission proposal on 27 May that became the RRF – led to a reduction in spreads of between 50 and 100 basis points for those Member States in Southern and Eastern Europe where borrowing costs are typically high.	/
Administrative cost savings due to a unique plan	One-off	Having just one plan per Member State for both reforms and investments is considered a simplification as compared to other EU instruments. This led to some time and cost savings in the preparation and negotiation process.	/
Administrative cost savings for plan amendments	Recurrent	/	Member States consider that there is a potential to shorten the process for amending RRPs by considering the possibility to differentiate further between major/minor amendments.
Administrative cost savings for control and audit	Recurrent	/	Member States consider that there is scope for simplification by avoiding multiple checks by the national audit court and ECA.
Administrative cost savings for payment requests	Recurrent	(in principle) No need to provide evidence of the cost incurred	Member States consider that there is scope for simplification concerning the information to be provided to evidence the fulfilment of milestones and targets when submitting a payment request.

Administrative costs savings for reporting	Recurrent		Member States consider that there is scope for simplification by not reporting on common indicators (that they consider provide limited value added – although they are anchored in the Regulation)

ANNEX V. STAKEHOLDERS CONSULTATION – SYNOPSIS REPORT

The Commission ran a call for evidence in November-December 2022 as well as a public consultation between March-June 2023. All other stakeholder consultation has been independently conducted and analysed by the contractors of the supporting study.

Consultation strategy and methodology

The stakeholder consultations involved conducting interviews, sending targeted surveys, and a public consultation (launched by the Commission through EUSurvey). Below a short description of the targeted stakeholder per each activity and the number of participants is provided.

Table A5.1: Overview of consultation strategy and methodology

Activities	Stakeholder targeted	Timing, stakeholder engagement
Call for evidence	Individual citizens, Academic and research institutions, NGOs, Consumer and social organisations, Individual economic operators and representatives, Public authorities	8 November – 6 December 2022, 54 responses
Public consultation	Individual citizens, Academic and research institutions, NGOs, Consumer and social organisations, Individual economic operators and representatives, Public authorities	16 March – 8 June 2023, 172 responses. The consultation outcome and the summary report are available on the Commission's '*Have your say*' portal[402].
Targeted surveys	Survey for RRF coordination bodies	18 May 2023 –7 July 2023, 40 respondents
	Survey for members national of parliaments	25 May 2023 – 7 July 2023, 5 responses
	Survey for SMEs	May 2023 – 7 July 2023, 33 responses

402 The consultation outcome and the summary report are available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13608-Recovery-and-Resilience-Facility-2020-2024-mid-term-evaluation/public-consultation_en.

Activities	Stakeholder targeted	Timing, stakeholder engagement
Interviews	National RRPs coordination bodies, EU institutions, societal actors/social partners	Between May and August 2023, 61 (+81 for the case studies) interviews. Additional input on administrative costs and specific evaluation questions (e.g. on loans) was received from five Member States, following a request to the RRF expert group.

Source: Supporting study

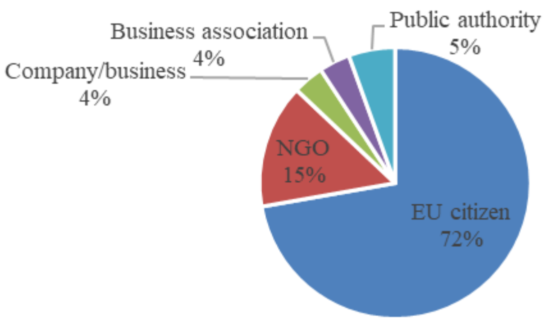
Results of the consultation activities

Feedback from the call for evidence

The 'call for evidence' on the *RRF mid-term evaluation* was open for feedback from 8 November to 6 December 2022. The Commission received 54 responses – most of them of little to no value added for the conduct of the evaluation. The most useful input came from public authorities. This trend tends to confirm that the evaluation should mainly rely on targeted consultations and case studies to gather meaningful information.

The responses by category of respondents are presented below:

Figure A5.1: Categories of respondents to the call for evidence



Source: European Commission

- Most of the responses submitted to the call for evidence came from citizens (73%), who voiced criticism against the EU on topics outside the scope of the evaluation (from anti-immigration to anti-vaccines criticisms hardly related to the RRF). One respondent opposed the solidarity effort of its Member State and considered that the RRP was an "austerity plan". Another respondent called for the support of nuclear energy to foster resilience and recovery of Europe.
- Eight NGOs provided feedback[403] (15%). They mainly called for greater involvement of NGOs in the elaboration and implementation of the Plans. They also called for more transparency about the process (including on how DNSH assessments were carried out) and on how RRF funds were spent. They also called for a reduction of administrative burden. An NGO called for transforming the RRF from a one-time only crisis-linked instrument to a structural EU instrument.
- Two companies[404] and one business association[405] in the health sector responded to the call for evidence. They noted some difficulties in the implementation of health projects and called for taking into account inflation/energy costs in procurement and for an extension of the 2026 deadline.
- Three public authorities provided feedback (Spain's Basque Government, Barcelona's Provincial Council and Estonia's Permanent Representation).
    - The Spanish regional authorities called for a "regionalisation of the RRF", with a greater involvement of regional authorities in the design of the plan (compulsory consultations) and in the implementation (direct management of a greater part of resources), as well as for the possibility to transfer funds also from the RRF to cohesion (flexibility should go both ways). They also called for increased flexibility in the implementation (for example by reducing the targets if demand has been overestimated or to take account of inflation) and for expanding the time limit beyond 2026 (noting that transformative/strategic projects take time).
    - Estonia supported the scope of the mid-term evaluation as defined in the call for evidence and made some suggestions to cover additional aspects for most evaluation criteria. For example, Estonia recommended to add an assessment of how the proportionality principle has been applied (taking into account Member States' allocation) under 'effectiveness'; an assessment of the challenges in the establishment of plausible costs under 'efficiency'; an assessment of the synergies with the Technical Support Instrument under 'coherence'. On data

[403] CEE Bankwatch Network, European Students' Union (ESU), EuroHealthNet, European Roma Grassroots Organisations (ERGO) Network, Fundación Secretariado Gitano (Roma Secretariat Fundation), Climate Action Network Europe, Civil Society Europe, European Anti-Poverty Network.

[404] Philips (health technology company), TVP.

[405] COCIR (health industries).

collection, Estonia pleaded to ensure that the evaluation analysis covers all Member States, to focus on the experience of final recipients that have hands on experience with RRF projects and to ensure to leave room for open/unstructured feedback.

Feedback from the public consultation

The public consultation on the RFF was open for twelve weeks between 16 March and 8 June 2023 and aimed to collect the views and evidence from all relevant stakeholders on the RFF, its contribution and features and the main elements that link the RFF with other policies and reforms. The consultation was accessible in all official EU languages via a dedicated page. The consultation outcome and the summary report are available on the Commission's '*Have your say*' portal[406]. A total of 172 responses were received from 24 EU Member States and one non-EU country. The largest number of contributions stems from Portugal (57 responses), followed by Belgium (16), Germany (15), Spain (13), Romania (12), Italy (11) and Czechia (10 responses). Four replies come from Austria and three from Hungary. The largest share of replies stems from EU and non-EU citizens, jointly accounting for almost two-thirds of the responses (99 replies). Public authorities provided the second-largest share of replies (32). Including ministries and other authorities (26 replies) and agencies (three replies), their scope is local (seven replies), regional (seven replies), national (15 replies), and international (one reply) level. Companies, businesses, and business associations provided 16 replies, while 12 responses stem from NGOs and environmental organisations.

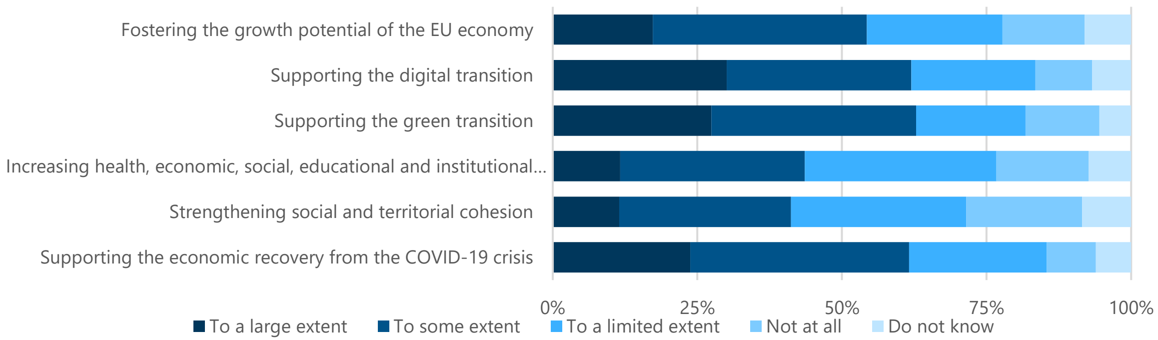
Most respondents to the public consultation are familiar with the RRF and are aware that it supports reforms and investments under RRPs. Public authorities are particularly aware of the RRF's conditionality on reform implementation, while approximately 85% of the respondents have been directly involved in RRF-related activities. In particular, 28 respondents have benefited from RRF-funded projects and 26 have participated in plan implementation. While most respondents feel their organisations were adequately considered in the national consultation process, the response rate to this question was particularly low.

Around two-thirds of respondents believe the RRF has contributed to economic recovery from COVID-19, and a similar proportion recognises its contribution to green and digital transitions (Figure A5.1). However, only 54% believe the RRF significantly fosters EU growth. Respondents expressed mixed views on the RRF's contribution to enhancing EU resilience, social and territorial cohesion: approximately 44% feel it increased resilience to some

[406] The consultation outcome and the summary report are available at: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13608-Recovery-and-Resilience-Facility-2020-2024-mid-term-evaluation/public-consultation_en.

extent, while 49% believe the impact was limited or non-existent. About half of the respondents think its contribution to social and territorial cohesion is, to some extent, limited.

Figure A5.2: To what extent the RRF has contributed (or will contribute) to the following objectives?

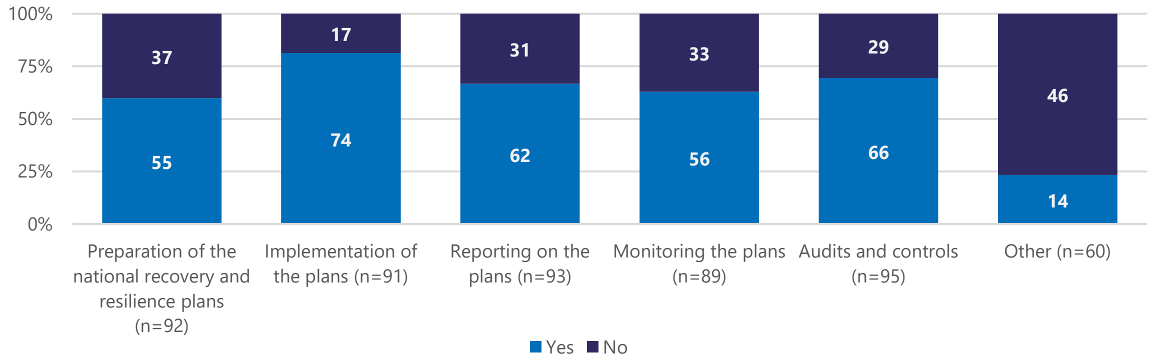


Source: Supporting study

Most respondents believe that the RRF contributed to the initiation or implementation of reforms, with only 14% indicating otherwise. Examples of areas where the RRF played a role include the green and digital transition, labour reforms, and the health sector. Similarly, around 80% of respondents are aware that the RRF supports measures aligning with the "Do no significant harm" principle, which many believe has contributed to the green transition. However, respondents are less certain about the RRF's impact on gender equality, equal opportunities, and policies for children and young people: less than 10% believe the RRF addresses these issues to a large extent, while around a third see some contribution. Most respondents highly value the RRF's performance-based feature (93 replies), followed by the speed of payments to Member States, and support for reforms. Support for projects in multiple countries is seen as less valuable but still important by three out of four respondents.

Approximately half of the respondents believe that the RRF has created unnecessary burdens and complexity (Figure A5.2). This sentiment is shared across different respondent groups, including citizens, public authorities, and businesses. The perceived burden and complexity are identified in various stages of the RRF, with implementation, controls and reporting being particularly problematic, according to a significant proportion of respondents. Among the examples listed, there were high proposal preparation costs and transaction costs related to the performance-based delivery model. In general, more than half of the respondents see opportunities to simplify the RRF: apart from general calls for a reduction of the administrative burden, respondents suggest that more guidance should be provided by the Commission, and that procedures (especially on reporting) could be streamlined and further harmonised with other existing reporting requirements to reduce complexity.

Figure A5.3: At which stages have you identified unnecessary administrative burden and complexity?



Source: Supporting study

Almost 75% of respondents suggest that it has been beneficial for the EU to support reforms and investments together under one instrument. More than two-thirds of respondents suggest that the RRF continues to be an appropriate way to support and complement the COVID-19 recovery in Member States, at least to some extent. Majorities of respondents suggest that the RRF has supported the Green Deal, initiatives on the circular economy, sustainable transport, the digital agenda, and the European Semester to some or to a large extent. For the European Semester and the European Green Deal, approximately two-thirds of the respondents expressed these views. Among all policies, the largest share of respondents sees no support from the RRF for the biodiversity strategy. Among 99 respondents aware that the RRF seeks to improve the rule of law, 46 respondents suggest that the RRF strengthened the rule of law to at least some extent, while 28 respondents replied that it did so to a limited extent.

A vast majority of stakeholders (almost four in five) express the view that the RRF produced, at least to a limited extent, more results than what Member States could have done on their own. Finally, two-thirds of respondents express the view that this has happened to some or even a large extent, compared to only 14% of respondents who do not see any additional contribution from the RRF overall.

Feedback from targeted surveys

Two targeted surveys were launched at the end of May 2023 and closed on 7 July 2023. The first survey addresses key national stakeholders involved in the programmes' implementation, in the projects' selection, and in the monitoring and reporting procedures. The views and perspectives of this category will inform on the aspects of state of implementation, administrative costs and burden, the agility of processes and rules, potential overlaps and/or synergies with other existing instruments, in particular cohesion programmes, and views about the performance-based system. The second survey targets members of national parliaments involved in committees linked to areas of reform identified in the National Recovery and Resilience Plans.

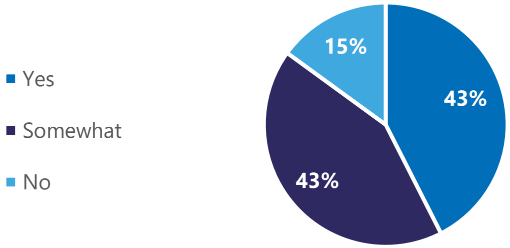
The survey questionnaires were translated into all official languages of the EU. The survey questionnaires were uploaded on EUSurvey, an open-source software solution funded by the Commission for creating surveys and questionnaires.

Survey for RRF coordination bodies

The survey received responses from 40 participants representing 24 different EU Member States. Five responses came from Austria, accounting for 13% of the replies. Estonia, Italy, and Ireland each contributed three responses (8%). Two replies (5%) were provided by each of the following Member States: Cyprus, France, Latvia, Romania, Slovak Republic, and Slovenia. 85% (34) of respondents declared that they are involved in the monitoring of the RRF while almost 73% (29) participated in activities related to performance management. Over half of the respondents (55%; 22) reported involvement in payment requests and more than one-third (37%; 15) in control and audit activities. Moreover, around 43% (17) stated that they were involved in implementing the RRF strategy.

Respondents were divided regarding the Commission's communication with respect to guidelines and support documentation for the RRPs preparation. 43% (17) of respondents found that the Commission communication and guidance has been timely and clear. In contrast, 43% (17) respondents affirmed that the Commission's communication has been somewhat clear and on time, and finally, six respondents (15%) underlined the lack of timelessness and clarity of the guidance for designing the RRPs.

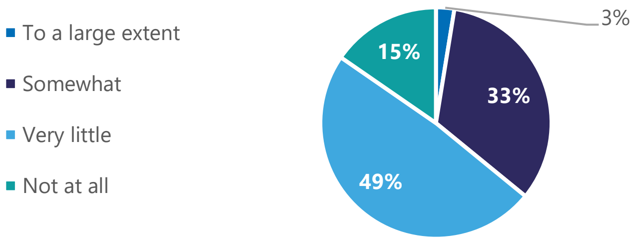
Figure A5.4: Timeliness and clarity of the Commission's communication with respect to guidelines and support documentation for the preparation of the RRPs



Source: Supporting study

The majority of respondents identified poor flexibility as one of the main weaknesses of the RRF funding instrument, counting 19 (49%) replies stating that the RRF showed very little flexibility, 13 (33%) responses consider the RRF somewhat flexible, six (15%) feedback declared that the RRF was not flexible at all. Only one respondent stated that the RRF has been flexible to a large extent.

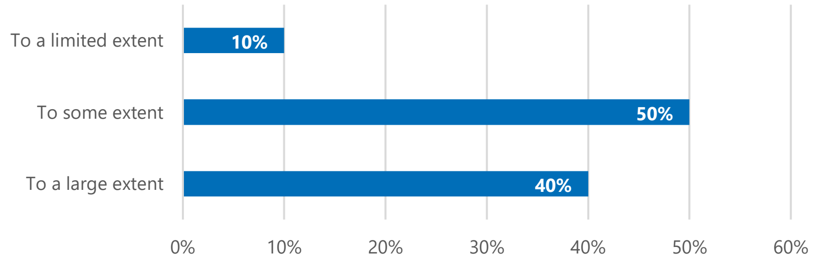
Figure A5.5: Respondents' feedback regarding the extent of flexibility of the RRF to adjust to the changing circumstances



Source: Supporting study

Survey respondents were requested to give their opinion on how the effectiveness of the RRF compares with Cohesion Policy funds. The opinion of respondents is mixed. However, it is noteworthy that only a limited number of respondents provided feedback on this matter (nine out of 40). The two positive feedbacks point to the fact that RRF reforms being country-specific can positively influence the effectiveness of investments, while Cohesion Policy enabling conditions are the same for all Member States. 40% (16) and 50% (20) of respondents declared that Member State administration suffered the “entry costs” in gaining familiarity with the RRF to a large and to some extent, respectively. Only 10% (4) of replies affirmed that the acquaintance process took a limited extent of “entry costs”.

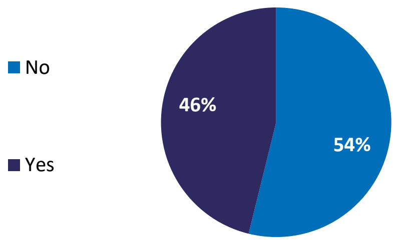
Figure A5.6: Respondents' feedback on the level of national administrative “entry costs” in becoming familiar with the RRF as a new instrument



Source: Supporting study

With regard to the governance setting, opinions were divided. 21 affirmed that they would not change the current setup of the national RRF governance, in contrast to 46% of respondents who would set up a different governance structure after two years of RRF implementation.

Figure A5.7: Respondents' feedback to the question “Over two years into the implementation of the RRF, would you set up the national RRF governance structure differently?”



Source: Supporting study

Survey for national parliaments

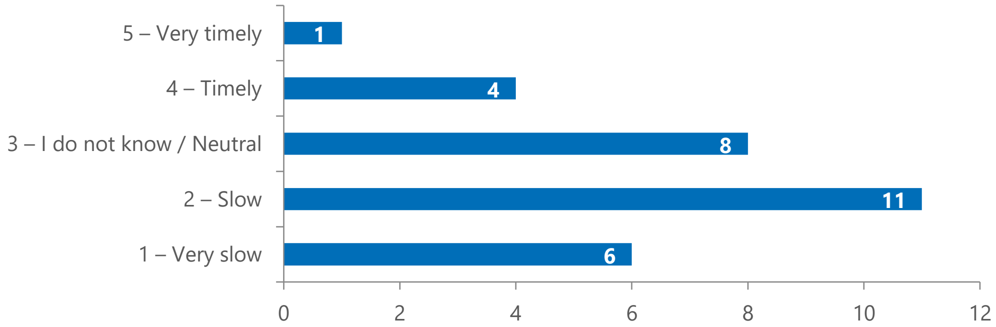
Due to the very low number of responses received for the survey from members of national parliaments, its results could not be considered as representative to be incorporated into the evaluation.

Survey for SMEs

The survey received responses from 33 participants, out of which 30 came from EU SMEs – six responses from Romania, five responses each from Italy and Bulgaria, four answers from Spain, and two responses each from Belgium and Greece.

The survey provided insight into the speed of disbursement to the final beneficiaries. Out of 33 respondents, 13 to the question on allocation, most (20) categorised the disbursement process as slow (14) or very slow (6), with only five considering it timely (4) or very timely (1). A few interviewees also raised the issue of slower payments to the ultimate recipients of RRF support. Unfortunately, there is no data available to confirm the issue of disbursements to final beneficiaries beyond some anecdotal evidence provided by interviewees (e.g. 12% paid to final implementation entities in one Member State).

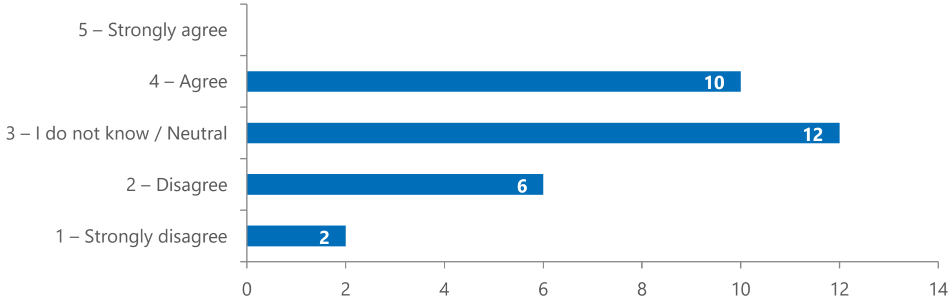
Figure A5.8: SMEs feedback regarding the RRF speed of disbursement to final beneficiaries



Source: Supporting study

SMEs did not find a common agreement on the positive impact of the RRPs on businesses and SMEs. 10 respondents declared that the RRPS had a positive impact on businesses, while six and two respondents disagreed and strongly disagreed. 12 participants considered themselves neutral to the question (Figure A5.8).

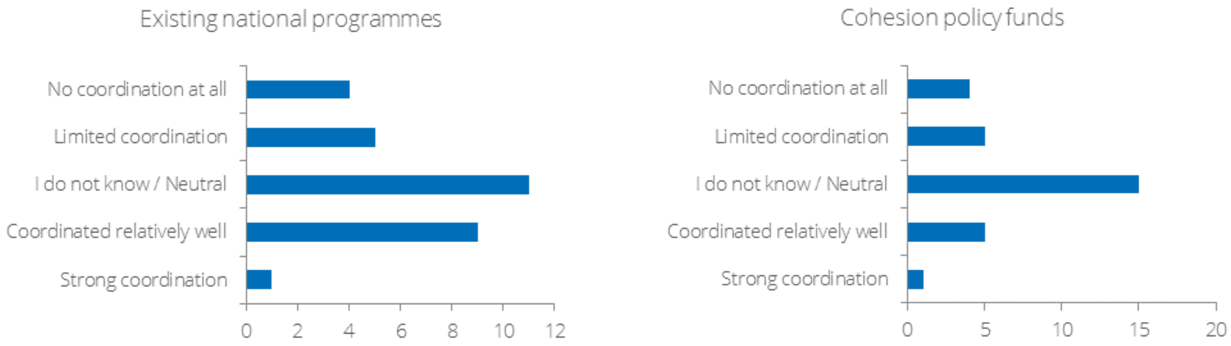
Figure A5.9: Feedback from the question: "Do you agree that the measures included in your Member State's RRP positively impact businesses and SMEs in particular?



Source: Supporting study

Regarding synergies with other national programmes, 10 respondents affirmed that the RRF measures were coordinated and aligned relatively well and very well (1), while for nine other responses, the coordination was limited or absent. Eleven SME participants responded, "I do not know". With regards to the Cohesion Policy funds, six respondents affirmed that the coordination and alignment of enterprise or SME-relevant RRP measures was strong. In comparison, nine respondents found limited or absent coordination. Results are shown in the figures below (Figure A5.9).

Figure A5.10: Level of coordination between the enterprise RRF-measures with other programmes



Source: Supporting study

Interviews

A total of 61 interviews were conducted between May and August 2023 in the context of the supporting study[407]. The aim of the interviews was to collect the views and perspectives based on the mid-term evaluation questions and in line with the criteria of effectiveness, efficiency, relevance, coherence and EU added value.

Effectiveness

Overall, interview participants stated that the RRF has been an effective instrument. On one hand, some respondents highlighted that the RRF has demonstrated a swift and efficient disbursement of payments to Member States. Compared to other EU Policies, such as the Cohesion Policy, the RRF has been innovative and effective by blending a broad range of initiatives, investments and performance-driven reforms. In particular, several interviewees observed that pre-financing provided fast direct support, playing a stabilising role in the aftermath of the unprecedented economic and social shock caused by the COVID-19 pandemic, thereby also helping to kick-start the recovery. On the other hand, most Member State coordination bodies indicated several challenges and difficulties observed in the initial planning of investment request submissions, mostly due to the lack of flexibility and requested amendments, and ultimately, they argued that RRF disbursements to final beneficiaries had been frequently delayed by National authorities. The majority of consulted societal actors, underlined a perceived democratic deficit due to simplified Member State consultation compared to other EU funding, limiting democratic participation, and leading to top-down planning.

Most of the interviewees at national and EU levels confirmed that the RRF contributed to pushing forward reforms in national agendas. In particular, interviewees underlined that linking investments to reforms served as an incentive during the RRPs implementation. The financial support has been considered as the predominant factor accounting for the RRF’s success in implementing reforms aimed at addressing the Semester’s CSRs. While most respondents, including societal actors, considered the RRF a good instrument helping to accelerate the implementation of specific reforms and investments, other participants – mainly from national coordination bodies – emphasised that certain reforms encountered obstacles within the RRF framework due to political hurdles and time constraints.

Furthermore, some interviewees highlighted the complexity of monitoring and assessing the achievement of milestones and targets and the importance of the performance-based approach. On the other side, some interviewees criticised the performance-based approach and emphasised the importance of

407 Annex VI of the supporting study provides a comprehensive summary of the interviewees’ answers for each evaluation criterium.

evaluating milestones and targets based on policy considerations rather than on fulfilment of the defined deliverables, which are often delayed due to energy crises, issues in the supply chains or lack of flexibility in changing the national plans. Regarding outputs, most interviewees highlighted the RRF's effectiveness in promoting reforms addressing various policy areas, such as green, digital and governance areas. According to EU-level stakeholders, the RRF has been considered effective in supporting economic recovery by promoting this broad range of policies. Some national coordination bodies confirmed its effectiveness in supporting a fast economic recovery, with expected modest positive impact on GDP and employment; nevertheless, delays in the RRF disbursements led to national budgetary challenges.

The effectiveness of the RRF in contributing to REPowerEU objectives is still in the early stages of assessment. On one hand, some respondents reported that the REPowerEU balances short-term needs like reducing dependence on Russian gas with long-term climate and energy targets. On the other hand, other respondents noted the challenges posed by political barriers and complexities in aligning RRF measures with REPowerEU, despite the value of the RRF in setting government programmes for several years.

Responses regarding the impact of external factors on the RRF were quite homogenous. Respondents underlined that external factors, such as the war in Ukraine, the energy crisis, high inflation levels and issues in the supply chains, led to substantial barriers and challenges to the RRF's implementation.

Interviewees frequently refrained from directly comparing the effectiveness of the RRF and other cohesion policies, highlighting the early implementation stage as a reason for caution. Some respondents viewed the RRF, and especially its result-based approach, as more conducive than the ESF+ framework and procedures.

Efficiency

According to several EU-level interviewees, administrative costs and the burden of implementing the RRF have been a complex issue. Some Member States have faced challenges adapting to the RRF's performance-based approach, with the need to establish efficient monitoring and auditing authorities. Costs included hiring additional staff to meet RRF requirements. The comparison with other instruments, such as Cohesion Funds, revealed differences in the audit and control systems, with RRF having a more demanding set of requirements. All interviewees highlighted the complexity and administrative burden of the RRF. Challenges consisted of high detailed cost estimation, administrative burdens requested up to final recipients, excessive paperwork and reporting, and high complexity of the auditing processes. The linkage between reforms and investments has been identified as one of the key innovative aspects of the RRF. Respondents from the EU-level, national bodies and societal actors agreed the pursuit of reforms and investments together was also aligned with the CSRs.

Most participants, both at the EU and national levels, highlighted the importance of a flexible and adaptable governance setting for an efficient implementation. Some respondents also underlined that a more centralised political approach to governance has proven to be more efficient.

Coherence

According to interviewees, in some Member States, coherence between the RRF and other Cohesion Policy funds was ensured due to the nature of the governance settings. In fact, in some cases, coherence was endogenously guaranteed because the same team within the Ministry was in charge of designing both RRPs and Cohesion Policies. In other cases, coherence was ensured between RRF and national funding.

According to interviewees, the link between RRF and EU Semester has been considered positive. The European Semester has been considered integrated into the RRF, as several reforms included in national plans came as a result of the CSR from previous EU Semester cycles.

In addition, according to most interviewees, the EU's priorities significantly influenced the reforms and investments included in the RRPs, particularly the measures focused on green and digital areas, circular economic and social dimensions. According to a few Member State-level respondents, the national plans were built upon already existing programmes and strategies. Some societal actors mentioned that in their view the DNSH principle had not been sufficiently integrated and incorporated into the RRF instrument.

EU added value

Some respondents found that the linkage between reforms and investments demonstrated complementarity and mutual reinforcement. Most interviewees underlined that the introduction of reforms to a financial funding instrument has been the key EU added value of the RRF.

According to some national-level participants, the RRF has not been causal for introducing certain reforms on the policy agenda.

Relevance

According to national-level participants, adjustments and revisions of the initial funds' allocation have been considered necessary for maintaining the RRPs as still relevant. Again, Member States underlined that more flexibility to adjust RRPs would have been helpful to better adapt to changing circumstances and to address external factors.

National coordination bodies listed different potential financial reasons that may affect the decision for applying – or not – for loan requests under the RRF. High debt or structural deficits or compensation for grant allocation reduction were considered as the main reasons behind the decision to apply for loans. On the contrary, healthy public finances, inflation concerns, and sufficient initial grant allocation had disincentivised Member States from requesting loans.

ANNEX VI. ADDITIONAL DATA AND ANALYSIS

The following tables and figures provide further details and data to the analysis and findings described in the main text.

Date of submission and adoption of original RRPs

Table A6.1 lists the date on which Member States officially submitted their original RRPs to the Commission and the dates at which the plans were subsequently adopted by the Council. This list does not include the subsequent revisions and amendments in light of REPowerEU.

Table A6.1: Date of submission and adoption of original RRPs

Member State	Date of submission of RRP by the Member State	Date of adoption by the Council	Date RRF pre-financing disbursed to Member State
Belgium	30/04/2021	13/07/2021	03/08/2021
Bulgaria	15/10/2021	05/05/2022	NA
Czechia	01/06/2021	08/09/2021	28/09/2021
Denmark	30/04/2021	13/07/2021	02/09/2021
Germany	28/04/2021	13/07/2021	26/08/2021
Estonia	18/06/2021	29/10/2021	17/12/2021
Ireland	28/05/2021	08/09/2021	NA
Greece	27/04/2021	13/07/2021	09/08/2021 (both non-repayable support and loans)
Spain	30/04/2021	13/07/2021	17/08/2021
France	28/04/2021	13/07/2021	19/08/2021
Croatia	14/05/2021	28/07/2021	28/09/2021
Italy	30/04/2021	13/07/2021	13/08/2021 (both non-repayable support and loans)
Cyprus	17/05/2021	28/07/2021	09/09/2021 (both non-repayable support and loans)
Latvia	30/04/2021	13/07/2021	10/09/2021
Lithuania	14/05/2021	28/07/2021	17/08/2021

Luxembourg	30/04/2021	13/07/2021	03/08/2021
Hungary	11/05/2021	15/12/2022	NA
Malta	13/07/2021	05/10/2021	17/12/2021
Netherlands	08/07/2022	04/10/2022	NA
Austria	30/04/2021	13/07/2021	28/09/2021
Poland	03/05/2021	17/06/2022	NA
Portugal	22/04/2021	13/07/2021	03/08/2021 (both non-repayable support and loans)
Romania	31/05/2021	29/10/2021	02/12/2021 (non-repayable support) and 13/01/2022 (loans)
Slovenia	30/04/2021	28/07/2021	17/09/2021
Slovakia	29/04/2021	13/07/2021	13/10/2021
Finland	27/05/2021	29/10/2021	21/01/2022
Sweden	28/05/2021	04/05/2022	NA

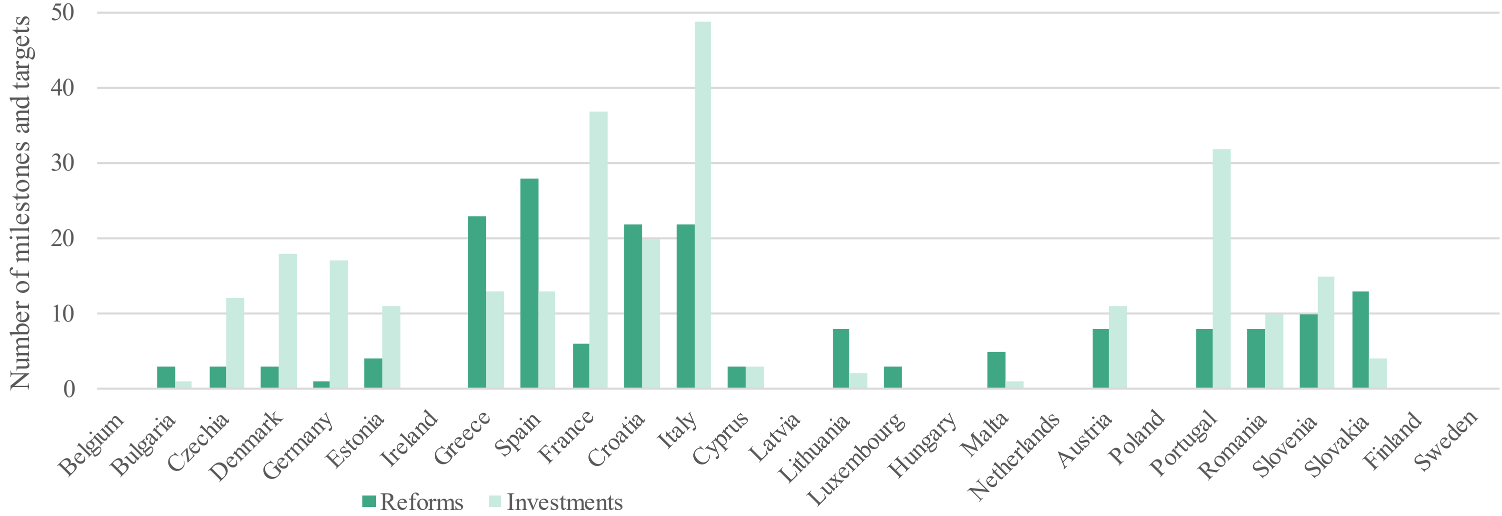
Note: No pre-financing was requested by Ireland. As the RRPs for Bulgaria, Hungary, the Netherlands, Poland and Sweden were adopted after the legal deadline established in the RRF Regulation and several months after that of other Member States, those five countries were unable to request pre-financing.

Source: European Commission

Number of fulfilled milestones and targets, per Member State and per pillar

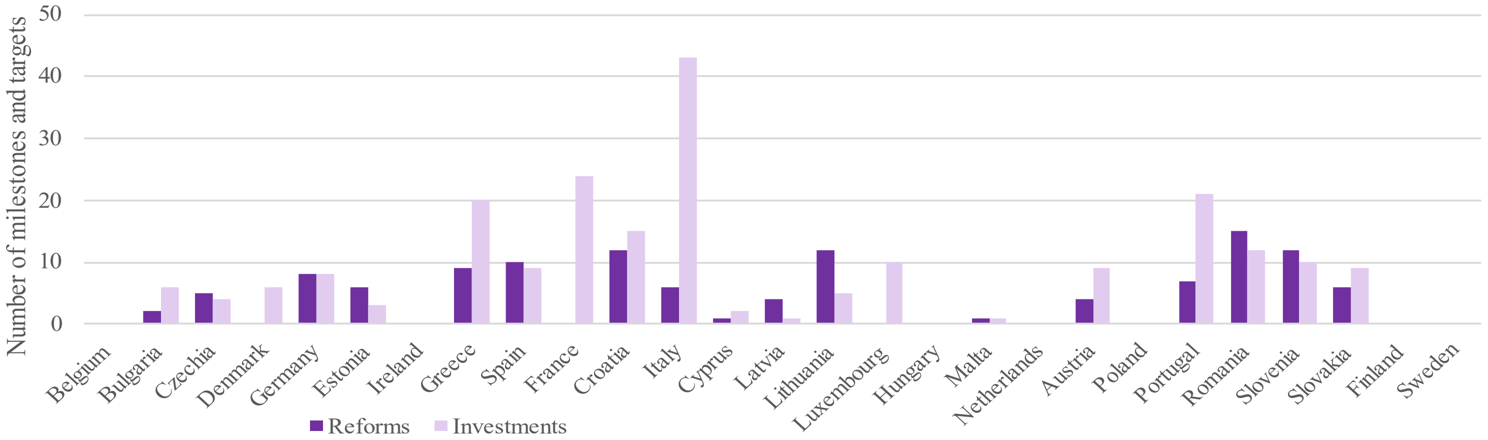
In complement to the data provided in Figure 2 in the main Staff Working Document, the following figures illustrate Member States' progress in fulfilling milestones and targets for each of the RRF policy pillars:

Figure A6.1.: Number of fulfilled milestones and targets contributing to the green transition, per Member State



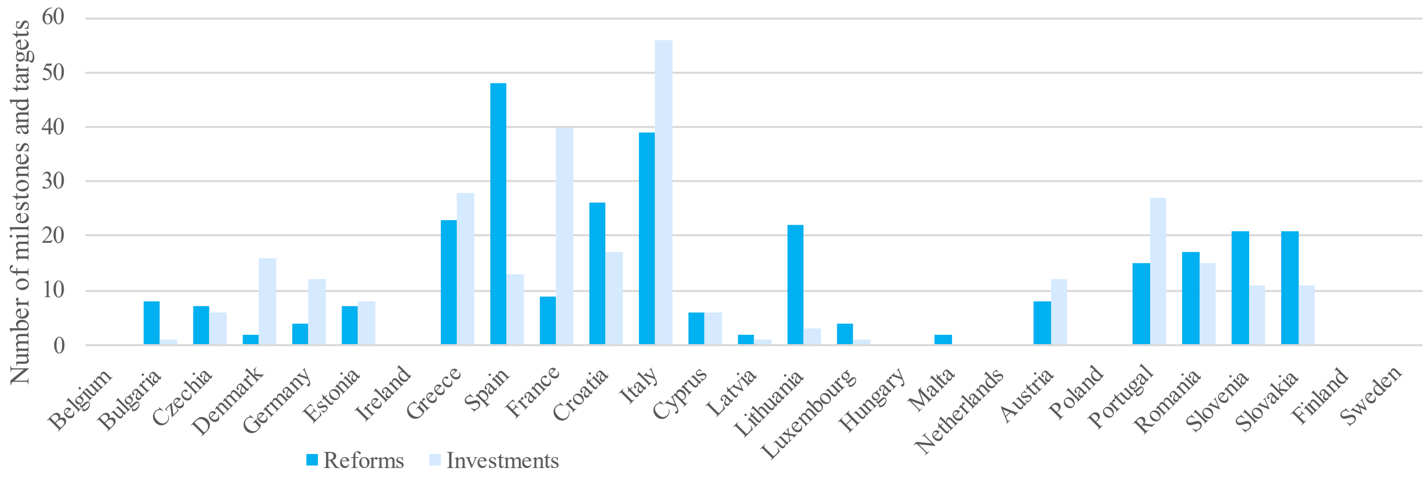
Source: Recovery and Resilience Scoreboard

Figure A6.2.: Number of fulfilled milestones and targets contributing to the digital transformation, per Member State



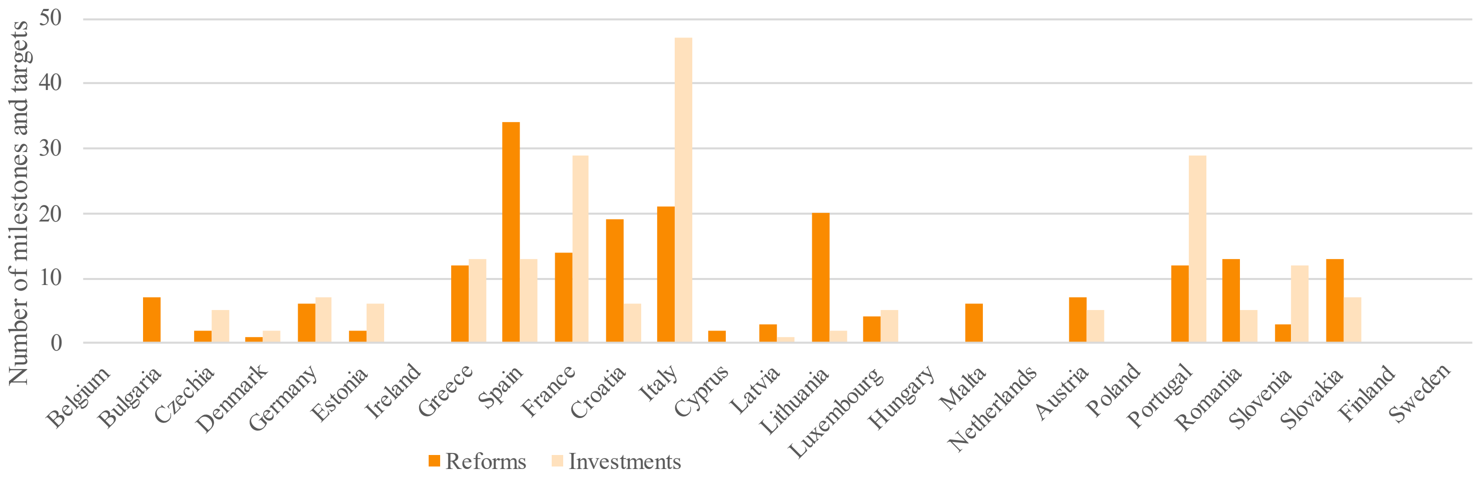
Source: Recovery and Resilience Scoreboard

Figure A6.3: Number of fulfilled milestones and targets contributing to smart, sustainable and inclusive growth, per Member State



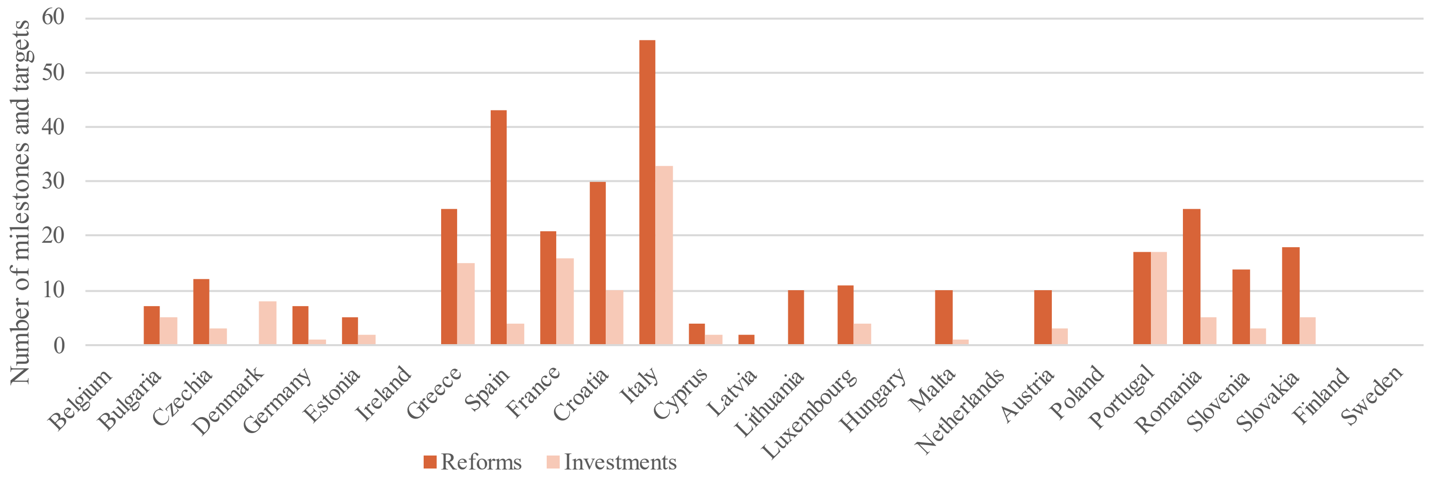
Source: Recovery and Resilience Scoreboard

Figure A6.4: Number of fulfilled milestones and targets contributing to social and territorial cohesion, per Member State



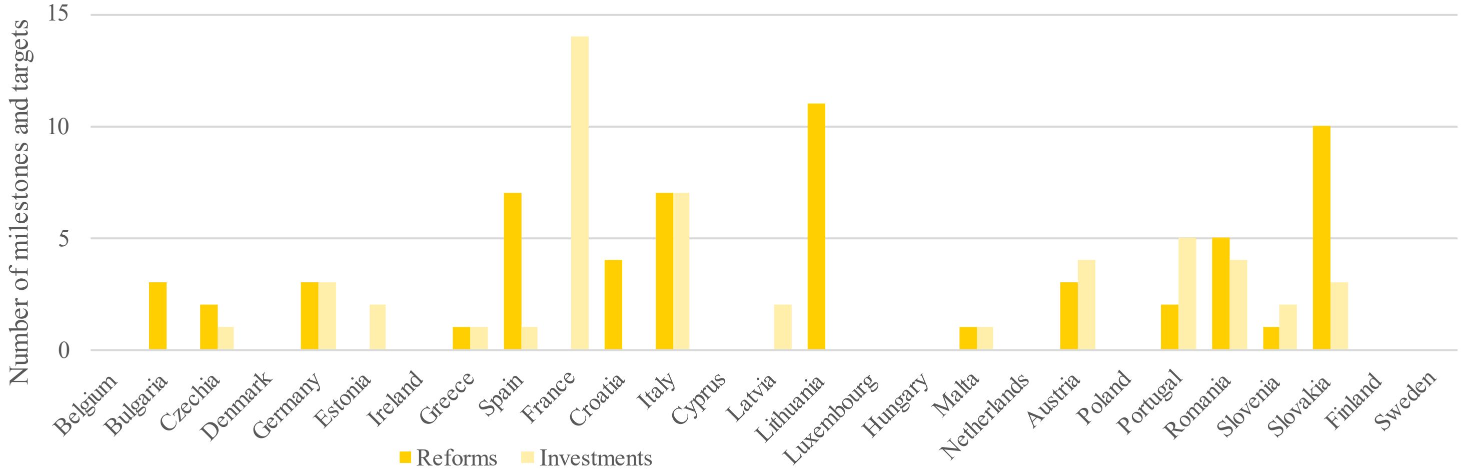
Source: Recovery and Resilience Scoreboard

Figure A6.5: Number of fulfilled milestones and targets contributing to health, and economic, social and institutional resilience, per Member State



Source: Recovery and Resilience Scoreboard

Figure A6.6: Number of fulfilled milestones and targets contributing to policies for the next generation, per Member State



Source: Recovery and Resilience Scoreboard