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The Spanish recovery plan: assessing its contribution to the green transition in the European Union¹⁻²

El plan de recuperación español: una valoración de su contribución a la transición verde en la Unión Europea

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NOTA BIOGRÁFICA

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ABSTRACT

Background: The Next Generation EU (NGEU) is the primary financial instrument of the European Union's post-COVID recovery policy. In particular, this major stimulus package is being used as an opportunity to accelerate the process of decarbonisation and reinforce climate policies. The article analyses Spain's recovery plan and assess its potential contribution to the EU's environmental and sustainability goals.

Method: the study is drawn on a combination of academic literature, legal instruments and EU institutions and Spanish Government documents. The approach is mainly analytical. **Results:** NGEU funds provide Spain with the opportunity to undertake profound changes to construct a more resilient economic model. The green transition is the main axis of the Spanish recovery plan, with almost 40% of resources allocated to this process. Investments and reforms aimed at the ecological transition are currently being implemented in Spain at a rapid pace, in line with the EU's goals and policies. **Conclusions:** The new challenges generated by the war in Ukraine will require Spain to deploy additional efforts not initially covered by the recovery plan. In particular, the deployment of renewable energy and improvement of circular economy policies will be crucial to accelerate the green transition.

KEYWORDS

Next Generation EU; Recovery and Resilience Facility; Spain's Recovery, Transformation and Resilience Plan; green transition; European Green Deal.

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RESUMEN

Contexto: Next Generation EU (NGEU) constituye el principal instrumento financiero de la política de recuperación post-COVID de la Unión Europea (UE). Este amplio marco de estímulo está proporcionando una oportunidad para acelerar el proceso de descarbonización y reforzar la política climática. El artículo analiza el plan de recuperación de España, valorando su potencial contribución a los objetivos medioambientales y de sostenibilidad de la UE. **Metodología:** el estudio se basa en la literatura académica, en instrumentos jurídicos, así como en documentos institucionales de la UE y del Gobierno español. El enfoque es principalmente analítico. **Resultados:** Los fondos NGEU brindan a España la oportunidad de emprender cambios profundos para construir un modelo económico más resiliente. La transición verde es el eje principal del plan español de recuperación, con casi el 40 % de los recursos destinados a este proceso. Las inversiones y reformas dirigidas a la transición ecológica se están realizando en España a un ritmo rápido, en línea con los objetivos y políticas de la UE. **Conclusiones:** Los nuevos retos generados por la guerra en Ucrania exigen a España esfuerzos adicionales no cubiertos inicialmente por el plan de recuperación. En particular, el despliegue de energías renovables y la mejora de las políticas de economía circular serán cruciales para acelerar la transición verde.

PALABRAS CLAVE

Next Generation EU; Mecanismo de Recuperación y Resiliencia; Plan de Recuperación, Transformación y Resiliencia de España; transición verde; Pacto Verde Europeo.

SUMMARY

INTRODUCTION. 1. THE EUROPEAN RECOVERY PLAN: A TRANSFORMATIVE INSTRUMENT FOR IMPLEMENTING THE EGD. 2. THE SPANISH RECOVERY PLAN: AN OPPORTUNITY TO PROMOTE SUSTAINABLE GROWTH. 2.1. OBJECTIVES AND INSTRUMENTS: ASSESSING ALIGNMENT WITH EU GOALS AND REQUIREMENTS. 2.2. CONTRIBUTING TO THE GREEN TRANSITION: MAIN COMPONENTS AND POLICIES. CONCLUSIONS. REFERENCES.

INTRODUCTION

The COVID-19 pandemic has had a profound and unforeseen impact across the world. Initial measures to stem the spread of the pandemic, consisting primarily of stay-at-home orders and restrictions on economic activities, led to a significant decline in Gross Domestic Product (GDP) and employment in all countries. During 2020, the European Union (EU) experienced a 5.9 % contraction in GDP, with unemployment rising to 7.0 % and public deficit to 6.8 % (Eurostat, 2022). In parallel, despite the fact that by April 2020, global CO₂ emissions had already fallen by 17 %, the pressures of climate change and environmental deterioration continue to grow (European Environment Agency, 2023).

To address the economic and social impact of this unprecedented crisis, the EU and its Member States have adopted a number of recovery measures and instruments. Within this joint process, the European Commission is determined to continue implementing its flagship project, the European Green Deal (EGD), a comprehensive policy framework that seeks to transform the EU into the world's first climate-neutral region by 2050 (European Commission, 2019). EU responses so far indicate that the process of recovery from the crisis is being used as an opportunity to accelerate decarbonisation of the economy and reinforce climate policies. Thus, in December 2020, the European Council agreed to increase the EU's greenhouse gas (GHG) emissions reduction to 55 % by 2030 (European Council, 2020); in June 2021, the European Parliament and the Council adopted the European Climate Law, making the climate neutrality goal and the 55 % 2030 target legally binding³ and in July 2021, the European Commission presented a proposal for a legislative package, «Fit for 55», which would enable the EU and its Member States to meet the new 2030 mitigation target, on the path to full climate neutrality (European Commission, 2021a). Together, these initiatives clearly set out the route the EU intends to follow. The purpose of aligning economic stimuli and packages with climate and

³ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) 401/2009 and (EU) 2018/1999 («European Climate Law»), OJEU L243/1 of 9 July 2021.

environmental goals is to lay the foundations for lasting, socially inclusive and environmentally sustainable recovery (Molho, 2021, p. 5).

Next Generation EU (NGEU) is the cornerstone of the EU's recovery policy. This temporary financial instrument sets aside more than €750 billion (2018 prices) to help address the economic and social effects of the COVID-19 pandemic. Its aim is to foster a greener, more digital and resilient Europe⁴. The central element of the NGEU is the €672.5 billion Recovery and Resilience Facility (RRF) and it will be closely linked to implementation of the Multiannual Financial Framework (MFF) 2021-2027. Together, the NGEU and the MFF will make up the largest stimulus package ever financed in the EU with a total budget of €1.8 trillion (2018 prices⁵). In addition, both instruments establish the hierarchy of the objectives and tools of the budgetary policies currently, in particular, the cohesion policy, which has its impact on the multi-level governance system that characterises this policy (Kölling & Hernández-Moreno, 2023). Thirty percent of the funds available under the NGEU and the MFF will be earmarked for climate-related activities, which must proactively contribute to the EU's 2030 emission reduction target and the climate neutrality objective by 2050 (Skjaereth, 2021, p. 37).

To receive NGEU funds, Member States were required to submit their national recovery and resilience plans to the European Commission by the end of April 2021. The plans had to give details of how they would contribute to a sustainable, green and digital transition, outlining the necessary reforms and investments to which the funds would be allocated. The reforms and investments will all have to be implemented by the end of 2026. The coming years will therefore be of key importance in shaping the recovery and the new economic model across the EU.

In the short term, however, implementation of the recovery measures will still be conditioned by a large degree of uncertainty, given the potential for new waves of COVID-19, supply disruptions, increased energy costs and inflationary pressures. In particular, the war in Ukraine constitutes a serious setback to the EU's as-yet incomplete recovery from the pandemic. It also underlines the need for the EU to improve its energy independence by promoting renewables and energy efficiency. This is precisely the main purpose of the RE-PowerEU Plan, presented by the European Commission in May 2022 as a new strategy to accelerate energy independence from Russian fossil fuels (European Commission, 2022a).

Despite this challenging context, however, the recovery plans are meeting positive expectations from businesses, public authorities and society in general. The Spanish Recovery, Transformation and Resilience Plan (RTRP) is particularly ambitious, employing 40% of resources allocated to the green transition (Gobierno de España, 2021a, p. 57). The recovery plans of other Member States include similar percentages (Hungary – 40.3%, Cyprus – 40.7%, Romania – 40.9%) or even higher (Luxembourg – 60.9%, Denmark – 59.5%, Bulgaria – 58.9%) (European Commission, 2022b, p. 12), although Member States have set out different investments priorities to promote the broad range of measures encompassed by the green transition, such as clean energy, biodiversity or circular economy, among others. Successful implementation of the national recovery plans is important not only for Spain and the rest of Member States, but for the EU as a whole. Along with other national recovery plans, Spain's RTRP could be a key lever in enabling a more sustainable and crisis-resilient model to be developed in the EU.

Against this background, the aim of this article is to analyse Spain's RTRP and assess its potential contribution to the EU's environmental and sustainability goals. With this purpose, the article draws on a combination of academic literature, legal instruments, EU institutions and Spanish Government documents. The approach is mainly analytical with the aim of highlighting the contribution of Spain's RTRP to the EU's climate and energy ambitions. To this end, the article is structured as follows. It begins by providing a comprehensive overview of the NGEU and its main instruments. It argues that the NGEU offers an opportunity to implement EGD-aligned national recovery plans, in order to achieve the green transition towards climate neutrality. The article then analyses the scope and implementation of the Spanish RTRP, while assessing its alignment with major EU climate and environmental goals, in consonance with the EGD. Overall the article finds that the implementation of the reforms and investments included in Spain's RTRP have the potential to promote a more sustainable economic model that can make a positive contribution to the green transition in the EU. However, the current geopolitical scenario created by the war in Ukraine will require further efforts from Spain

⁴ Council Regulation (EU) 2020/2094 of 14 December 2020 establishing a European Union Recovery Instrument to support the recovery in the aftermath of the COVID-19 crisis, OJEU L433 I/23 of 22 December 2020.

⁵ The NGEU and multiannual budget figures are generally expressed according to the baseline-year, in this case 2018.

to address additional challenges not initially covered by the RTRP, in particular, accelerating action towards a low-carbon, energy-independent economy.

1. THE EUROPEAN RECOVERY PLAN: A TRANSFORMATIVE INSTRUMENT FOR IMPLEMENTING THE EGD

The NGEU forms part of a broader European programme designed to help Member States tackle the huge impact of the COVID-19 crisis, whilst plotting the route to a more sustainable and shock-resilient economic model. Although attention has chiefly been focused on the NGEU, it is important to note that its adoption was largely made possible by the unprecedented responses initially taken at a national and European level.

Indeed, when the pandemic was first declared in early March 2020 and lockdown measures spread across the world, EU Member States adopted a wide variety of initiatives in order to alleviate the profound economic and social crisis caused by the restrictions. Among the main measures were state support to businesses and the self-employed to maintain employment, aid to households and vulnerable groups, and exemptions and reductions in tax obligations and social contributions. The response at national level was fairly coordinated, largely due to the relaxation of certain EU rules, in particular, those relating to the budget, state aid and structural funds (European Commission, 2020; Myant, 2021, p. 62; Perovic & Brachet, 2022)⁶.

As well as the relaxation in EU rules, the Union's institutions also took other active initiatives. The European Central Bank (ECB) was the first to react in March 2020 with a new €750 billion purchase programme (the Pandemic Emergency Purchase Programme, or PEPP), which allowed for greater flexibility in asset eligibility. Also, in March 2020, the Council of the EU agreed on a package of measures that included three instruments providing Member States with immediate access to funding in favourable conditions. One of these instruments was the Support to Mitigate Unemployment Risk in Emergency (SURE), with a budget of €100 billion in the form of loans for short time schemes. Another instrument was the Pandemic Crisis Support with a budget of €240 billion, which allowed Eurozone Member States to use loans from the European Stability Mechanism (ESM) to an amount equivalent to 2% of their 2019 GDP. Finally, the third funding mechanism came from the €24.4 billion European Guarantee Fund established by the European Investment Bank (EIB), which has enabled it to scale up its support to mostly smaller firms, providing up to €200 billion of additional financing (Myant, 2021, pp. 63-67; Cuerpo, 2022, p. 5; Tesche, 2022, pp. 484-488; European Commission, 2023).

The shared goal of all of these measures, adopted in the early stages of the pandemic, was to alleviate EU Member States' need for extra funding to address the immediate economic and social consequences of the health crisis. In July 2020, the European Council endorsed the NGEU as an ambition European recovery framework, which would move the EU on from emergency mode to recovery and beyond. With an endowment of €750 billion, the NGEU is intended to be a transformative instrument, paving the road for a more sustainable and crisis-resilient economic model for the future. In this vein, the measures it fosters are intended not only to alleviate the consequences of the pandemic, but also to accelerate the transition to sustainability and resilience that had been begun before the COVID-19 crisis, in line with the EGD and the Agenda 2030 for Sustainable Development⁷.

Moreover, the NGEU represents a turning point in the EU economic and funding approach, radically altering the way the EU finances its investments (Feás & Steinberg, 2021, p. 2). Under the NGEU, the European Commission will be able to borrow up to €750 billion from the financial markets (70% up to 2022 and the rest in 2023). The EU's borrowing is expected to be repaid no later than 2058 and will be reimbursed on the basis of its own resources. Member States' contributions to the EU budget have been temporarily increased by 0.6% and some new own resources have also been introduced, such as taxes on non-recycled plastic waste, which came into force on 1 January 2021 (Más, 2021, p. 178). Three other new resources were pro-

⁶ Specifically, regarding the budget rules, the general escape clause was activated for the first time, allowing Member States to suspend the fiscal obligations of the Stability and Growth Pact. The rules on state aids were also relaxed through the Temporary Framework, which increased the scope for state aid and allowed Member States to help companies with liquidity difficulties by providing direct support, guarantees and low interest loans. Finally, the rules of the structural funds were eased and the administrative burden was simplified, eliminating the joint financing obligations and permitting the transfer of money between funds and regions. European Commission (2023).

⁷ Sustainable development is a cross-cutting objective of EU internal and external policies, according to articles 3.3 and 21. 2d of the Treaty on European Union (TEU). It also expresses the EU's commitment to the United Nations' 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDGs). Accessed 5 September 2023. <https://sdgs.un.org/2030agenda>

posed in December 2021. One of them will come from 25 % of the revenues generated by the revised and expanded Emission Trading Scheme (ETS). A second new source for the EU budget will consist of 75 % of the revenues from the Carbon Border Adjustment Mechanism (CBAM) that will begin to operate from October 2023 onwards. Both the revised ETS and CBAM are part of the «Fit for 55» legal package. The third new resource will derive from a 15 % share of the reallocated profits of very large multinationals. As a next step, the European Commission intends to propose new own resources for the EU budget by the end of 2023, which could include a financial transaction tax and a digital levy (European Commission, 2021b; Wahl, 2022). Therefore, by empowering the European Commission to borrow on financial markets and distribute funds to Member States, the NGEU represents a significant change in the functioning of the economic and monetary union, shifting the EU's architecture of economic governance towards a typical of federal systems (Fabbrini, 2022, p. 187).

The NGEU is already providing funding for national reforms and investments that contribute to four EU priorities: promoting social, economic and territorial cohesion; strengthening economic and social resilience; mitigating the social and economic impact of the crisis; and supporting the green and digital transitions. The amount of €750 billion is distributed across several mechanisms and programmes. The RRF is the central pillar of the NGEU, with an endowment of €672.5 billion in grants and loans to support EU Member States for four years. Grants amount to a total of €312.5 billion, of which 70 % will be committed in 2021 and 2022 and 30 % by the end of 2023. Loans represent a total of €360 billion (see Table 1).

The allocation criteria for direct support to each Member State in 2021-2022 took into account its population, the inverse of GDP per capita and the relative unemployment rate over the past 5 years. In the allocation for 2023, however, the criteria are based on the drop in real GDP during 2020 and the cumulative drop over the period 2020-2022. Thus, the allocation criteria change depending on the indicators used in the period covered by the RRF. As regards the €360 billion loans for reforms and investments, these will have to be expressly requested by Member States and their allocation is subject to a ceiling of 6.8 % of each Member State's Gross National Income (GNI) (Bandrés et al., 2020, p. 10). Only seven Member States have so far requested RRF loans (Italy, Portugal, Greece, Romania, Poland, Slovenia and Cyprus⁸). In all cases, under the RRF Regulation, funding must be applied to six structural pillars that correspond to areas of EU strategic policy: green transition; digital transformation; smart, sustainable and inclusive growth; social and territorial cohesion; health, economic, social and institutional resilience; and policies for the next generation, children and youth⁹.

Payment is conditional on performance, meaning that Member States will only receive the funds once the European Commission has determined that implementation of their recovery plans meets the EU's priorities and requirements. Thus, the assessment criteria chiefly seek alignment with the country-specific recommendations arising from the European Semester guidelines¹⁰: contribution with at least 37 % of funding to the green transition and 20 % to the digital transition; production of a long-lasting impact and implementation of the milestones and targets established for each Member State (Pilati, 2021, p. 8). Milestones and targets refer specifically to key steps taken by Member States in the implementation of reforms and investments, with milestones being qualitative achievements and targets being quantitative achievements (art. 2.4 RRF Regulation).

In addition to the RRF, another instrument accounting for a significant share of the total amount of the NGEU (€47.5 billion) is the Recovery Assistance for Cohesion and the Territories of Europe (REACT-EU). This programme is currently the main mechanism for furthering EU cohesion policy. Other relevant instruments financed by the NGEU are the European Agricultural Fund for Rural Development (€7.5 billion); the Just Transition Fund (€10 billion), which is part of the Just Transition Mechanism, aimed at addressing the social and economic impact of the EU's transition towards climate-neutrality; InvestEU (€5.6 billion) to support investment projects in just transition territories and other regions; RescEU (€1.9 billion) to finance investment in emergency response infrastructure, and finally Horizon Europe (€5 billion) to promote research, development and innovation.

⁸ European Commission. Recovery and Resilience Scoreboard. Accessed 5 September 2023. https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/

⁹ Specifically, article 3 of Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility, OJEU L57/17 of 18 February 2021.

¹⁰ The European Semester cycle is the essential framework for coordinating economic and employment policies between the EU and Member States.

TABLE 1. DISTRIBUTION OF NGEU BUDGET

Instruments & funds	Amount (€ billion, in 2018 prices)
Recovery and Resilience Facility	672.5 (360 grants + 312.5 loans)
REACT-EU	47.5
Just Transition Fund	10.0
Rural Development	7.5
InvestEU	5.6
Horizon Europe	5.0
RescEU	1.9
Total	750

Source: Own elaboration based on art. 2 of Council Regulation (EU) 2020/2094 establishing the EU Recovery Instrument.

The NGEU can therefore be characterised more as a financial framework to boost lasting economic recovery than a fiscal stimulus to address urgent economic recovery. It is indeed intended to have a long-lasting impact by encouraging Member States to deliver structural reforms to address systemic challenges facing the EU, such as social inequality, long-term competitiveness and climate change. In this respect, there is a broad consensus that recovery packages should be aligned, in particular, with the EU's long-term climate targets and should prioritize investments in clean technologies in order to provide a durable growth path (Heilmann et al., 2020, p. 7). Indeed, 30 % of the funding available under the NGEU and MFF will be devoted to climate-related activities, as discussed above, which makes the EU's recovery package the most environmentally friendly stimulus package in the world. Various regions and countries have adopted post-COVID recovery plans including the green transition as a priority. However, recent analyses show that global efforts should be reinforced to boost a sustainable recovery to put the world on the path to climate neutrality by mid-century. In this context, stimulus packages of some developed and emerging economies such as the US, Australia, Japan, China, Mexico and South Africa are not in line with this global target (Beyer & Vandermosten, 2021, pp. 3-5; Dafnomilis et al., 2022).

The green transition is therefore a crucial priority, since climate change remains a major threat that exacerbates other challenges and emergencies. The current geopolitical and economic scenario created by Russia's invasion of Ukraine is a clear reminder of this strategic priority. The conflict has brought new, additional challenges to the Member States' economies, linked to energy supply security and fossil fuel dependence on Russia. As mentioned above, the EU adopted the REPowerEU in May 2022, a new plan intended to accelerate decarbonisation and reduce dependence on Russian fossil fuels by 2027. At the same time, the plan aims to lower emissions from a reduction in the combustion of fossil fuels. Specifically, REPowerEU includes concrete measures to reduce energy consumption and increase the share of renewables. With this new strategic plan, the EU plans to speed up both implementation of the EGD and adoption of the «Fit for 55» legislative package to meet the 2030 climate target established in the European Climate Law.

Thus, the current challenging context will require Member States to implement not only the investments and reforms included in their recovery plans, but also the additional measures recently taken by the EU, such as the REPowerEU plan. To this end, the RRF Regulation has been amended in order to mobilise and implement available resources at EU and national levels to address the REPowerEU objectives¹¹. At the same time, the national recovery plans have to incorporate now a dedicated chapter including new investments and reforms to deliver on the REPowerEU objectives (D'Alfonso, 2023). Therefore, the RRF, created to counter the impact of the pandemic, is becoming a new important source of financing for energy policy, which is key in the efforts to decarbonise the European economy on its path to climate neutrality (D'Alfonso, 2022, p. 1).

¹¹ Regulation (EU) 2023/435 of the European Parliament and of the Council of 27 February 2023 amending Regulation (EU) 2021/241 as regards REPowerEU chapters in recovery and resilience plans and amending Regulation (EU) 1303/2013, Regulation (EU) 2021/1060, Regulation (EU) 2021/1755 and Directive 2003/87/EC, OJEU L 63 of 28 February 2023.

Uncertainty as to how the current geopolitical and economic environment will evolve in the short term requires the EU to remain flexible in its policy responses and support. For Member States, the country-specific recommendations adopted in the framework of the European Semester cycle, in particular the latest ones adopted by the Council of the Union in June 2022¹², play an important role, since they provide helpful guidance on the actions needed to tackle existing and emerging challenges, in the context of REPowerEU.

In this evolving and uncertain scenario, Spain is implementing ambitious reforms and investments set out in the RTRP as its main framework for long-lasting recovery and growth.

2. THE SPANISH RECOVERY PLAN: AN OPPORTUNITY TO PROMOTE SUSTAINABLE GROWTH

NGEU funds provide Spain with the opportunity not only to recover from this crisis, but to undertake profound changes in order to construct a more resilient economic and social model in line with the EU's major goals. In the specific area of the green transition, the reforms and investments included in the Spanish plan prioritise climate and environmental objectives, in consonance with the EGD. Effective implementation of the plan in the coming years may make a positive contribution to the green transition in Europe. However, the new emerging challenges brought by the Russian invasion of Ukraine will require increased efforts to achieve the environmental goals¹³.

2.1. Objectives and instruments: assessing alignment with EU goals and requirements

Spain was one of the countries hit hardest initially by the COVID-19 pandemic, with more than 100,000 cases detected and 9,387 deaths recorded in April 2020. The lockdown and other restrictions imposed by the Spanish government were also among the strictest of any EU Member State (Alfonso & Casamitjana, 2021, p. 1). Successive waves of COVID-19 brought a dramatic deceleration in many sectors of the Spanish economy. GDP dropped by 11.41% in 2020, and the impact was particularly strong in the regions (Autonomous Communities) most dependent on tourism, such as the Canary Islands and the Balearic Islands. In parallel, the already high unemployment rate experienced an accumulated increase of 11.9% in 2020, again particularly affecting the services sector (Pinilla et al., 2021, p. 8). This negative impact of the pandemic reflects the fragility and poor diversification of the Spain's productive structure. The EU funds and implementation of Spain's RTRP offer an opportunity to diversify the economic system and shape a more resilient model, with investments and reforms aligned with EU priorities.

Spain, along with Italy, is actually the primary beneficiary of the NGEU. Specifically, during the period 2021-2026 Spain will receive around €161 billion from the RRF, of which €84 billion will be in loans and the rest in grants. An initial amount of €69.5 billion in grants was allocated in July 2021 and €7.7 billion were added in June 2022, following an update of the maximum financial contributions. This represents an increase of 11% as compared with the initial allocation provided in Annex IV of RRF Regulation. Along with Spain, five other Member States will receive more funds, including Portugal (11.5%), Germany (9.4%) and Austria (8.4%), while the allocation of nineteen Member States will be reduced (20% in the case of Belgium and the Netherlands) and two will receive the same amount (Alonso & de los Llanos, 2022, p. 9). As a result of the recent amendment of the RRF Regulation, an additional amount of €2.6 billion has also been allocated to Spain in 2023 to address the energy measures required by the REPowerEU Plan. The RRF funding is complemented by €12.4 billion from REACT-EU, allocated to Spain between 2021 and 2022, mainly for investment in health and education, as well as €339 million from the Just Transition Fund (Mileusnic, 2023, p. 1).

As Spain's strategic framework for channelling NGEU funds, the RTRP has three complementary temporary objectives: to boost economic recovery in the short term; to promote a structural transformation in the productive system in the medium term, and to ensure a more sustainable, inclusive and resilient growth model in the long term (Aparici, 2022, p. 100). Beyond the current crisis, the RTRP is therefore viewed as an opportunity to undertake the reforms needed to address the weaknesses and imbalances in the Spanish economy. Thus, like the NGEU itself, the approach to recovery is different to that seen in other crises, with efforts being focused not only on promoting the short-term economic drive to recover from the pandemic,

¹² Council Recommendations on the National Reform Programmes 2022 to each Member State, delivering Council Opinions on the updated Stability or Convergence Programmes, 9602/22, ECOFIN 514. Accessed 5 September 2023. <https://data.consilium.europa.eu/doc/document/ST-9602-2022-INIT/en/pdf>

¹³ The analysis of this section draws on the author's previous work on (Pérez de las Heras, 2022, pp. 88-111).

but also on triggering a structural change through the green and digital transformations and creating a more diversified and sustainable economic model. (Gobierno de España, 2022, p. 5).

The RTRP was submitted to the European Commission on 30 April 2021 and approved by the Council on 13 July 2021. The European Commission determined that the RTRP pursues the RRF's general objective of promoting the EU's economic, social and territorial cohesion and is balanced in its response to the six policy pillars referred to in Article 3 of the RRF Regulation: green transition; digital transition; smart, inclusive and sustainable growth; social and territorial cohesion; health, economic, social and institutional resilience; and policies for the next generation, children and youth, including education and skills (see Table 2).

TABLE 2. SPAIN'S RTRP CONTRIBUTION TO THE SIX POLICY PILLARS PROVIDED BY RRF

	Green transition	Digital transformation	Smart, sustainable & inclusive growth	Social and territorial cohesion	Health and economic, social and institutional resilience	Policies for the next generation
01. Sustainable urban mobility	●	○	○	○		
02. Renovation	●		●	●		○
03. Agri-food and fisheries	●	○		○		
04. Ecosystems and biodiversity	●	○		○	●	
05. Coast and water resources	●	○		○	●	
06. Sustainable long-distance mobility	●	○	○	○		
07. Renewable energy	●		○	○		
08. Electricity infrastructure	●	●	○			
09. Hydrogen	●		○			
10. Just transition	●		○	●		
11. Public administration	○	●	●	○	●	
12. Industrial policy	●	●	●		●	
13. Support to SMEs		●	●	○	●	
14. Tourism	○	●	●	●		
15. Digital connectivity		●	●	●		
16. Artificial Intelligence		●	●			
17. Science, technology and innovation	○		●			○
18. Reform of health system		○			●	○
19. Digital skills		●	○			●
20. Vocational training	○	○	○	○		●
21. Education		○		○		●
22. Care economy, equality and inclusion		●		●	●	○
23. Labour market reform	○	○		●		○
24. Cultural industry		○	●			
25. Audiovisual		○	●			
26. Sports	○	○			○	
27. Prevention of tax fraud					●	
28. Tax system reform	●				●	
29. Effective public spending					●	
30. Pension system reform				●		

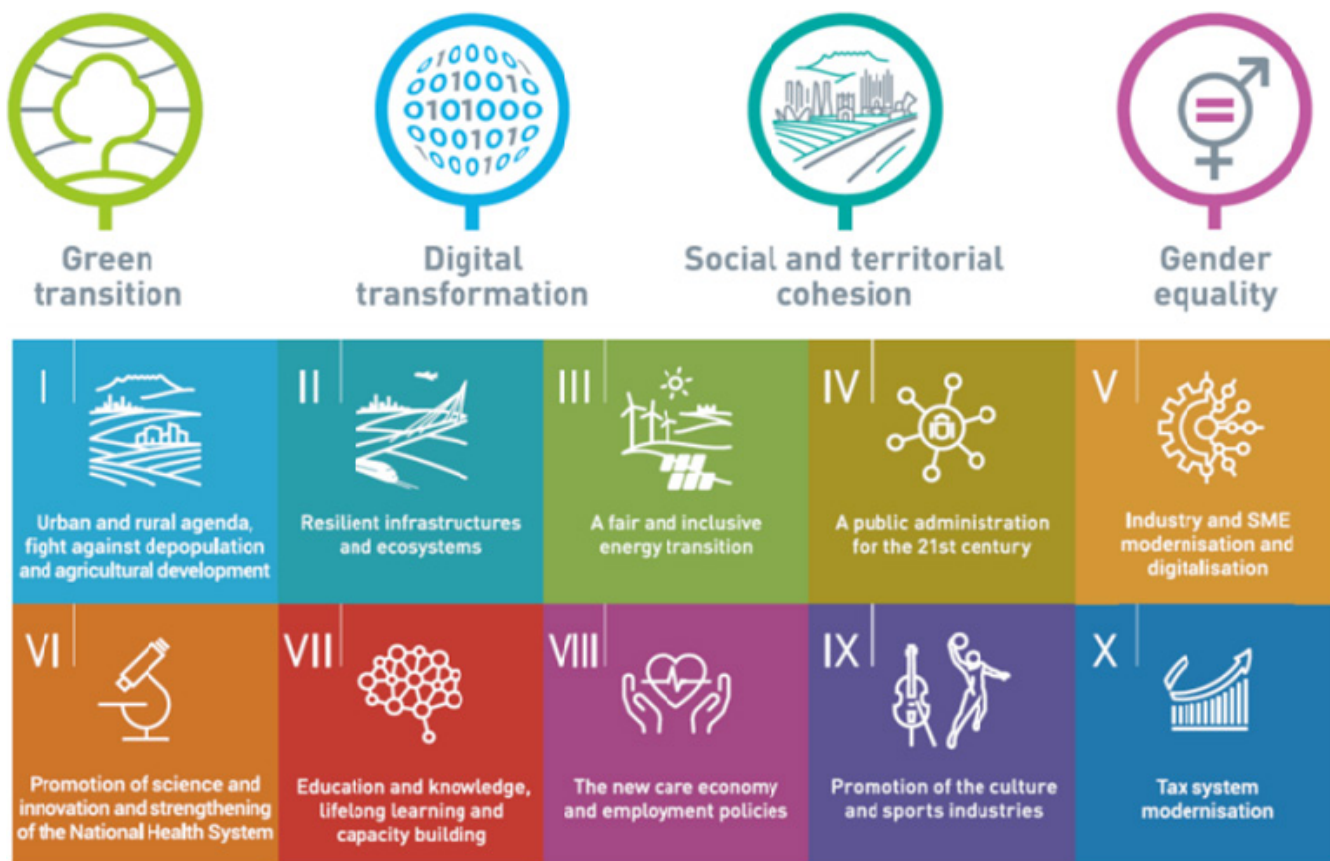
Source: European Commission (2021c).

In its assessment, the European Commission also considers that the RTRP contributes to addressing a significant number of country-specific recommendations addressed to Spain by the Council in 2019 and 2020¹⁴. It also meets the requirement that a minimum of 37 % of the funds be allocated to the green transition and 20% to the digital transition. Specifically, 39.7% of the total allocation is to go on measures that pursue climate objectives and 28.2% on those addressing the digital transition. According to the European Commission’s estimates, implementation of the RTRP could contribute to increasing Spain’s GDP by 1.8-2.5% by 2024 (European Commission, 2021c, p. 2).

The investments and reforms contained in the RTRP must be implemented during the initial period, 2021-2023. The aim is to mobilise 80% of the €69.5 billion in grants during this phase. During a second period, loans are expected to continue, consolidating the strategic programmes and projects undertaken during the first three years, along with more than €36 billion from the MFF 2021-2027 (Gobierno de España, 2022, p. 7). In order to start implementing this second period, an Addendum to the RTRP was adopted by the Spanish Government in December 2022. The Addendum provides additional resources, including REpowerEU grants, to boost the green and digital transitions and shape a more sustainable economic model (Gobierno de España, 2023, pp. 90-92).

The RTRP is built around four cross-cutting objectives: green transition, digital transition, social and territorial cohesion, and gender equality. Ten lever policies are aimed to address these cross-cutting objectives (see Figure 1). To this end, they include 30 components that detail the investments and reforms required in each strategy area (see Table 3). Besides public investment, the RTRP is expected to mobilise €500 billion of private investment in the next five years and create 800,000 jobs (Aparici, 2022, p. 104).

FIGURE 1. PILLARS AND LEVER POLICIES



Source: Gobierno de España (2021b, p. 10).

¹⁴ The country-specific recommendations of 2019 and 2020 are available at https://ec.europa.eu/info/archive-european-semester-documents-spain_en. Accessed 5 September 2023.

TABLE 3. LEVER POLICIES AND COMPONENTS

Lever policies and components (C)	€ Billion	Share
I. Urban and rural agenda, agricultural development and fight against depopulation	14.40	20.7 %
C1. Action plan for safe, sustainable and connected mobility in urban and metropolitan areas	6.53	9.4 %
C2. Housing rehabilitation and urban renewal plan	6.82	9.8 %
C3. Green and digital transformation of agri-food and fisheries industries	1.05	1.5 %
II. Resilient infrastructures and ecosystems	10.40	15 %
C4. Ecosystems and biodiversity conservation and restoration	1.64	2.4 %
C5. Coastal area and water resources preservation	2.09	3.0 %
C6. Sustainable, safe and connected mobility	6.66	9.6 %
III. A fair and inclusive energy transition	6.38	9.2 %
C7. Renewable energies implementation and integration	3.16	4.6 %
C8. Electrical infrastructures, promotion of smart networks and deployment of flexibility and storage	1.36	2.0 %
C9. Renewable hydrogen roadmap and sectoral integration	1.55	2.2 %
C10. Fair transition strategy	0.30	0.4 %
IV. A public administration for the 21st century	4.31	6.2 %
C11. Modernisation of public administration	4.31	6.2 %
V. Modernisation and digitalisation of the industrial and SMEs, entrepreneurship and business environment, recovery and transformation of tourism and other strategic sectors	16.07	23.1 %
C12. Industrial policy Spain 2030	3.78	5.4 %
C13. Fostering SME growth	4.89	7.0 %
C14. Modernisation and competitiveness of the tourism sector	3.40	4.9 %
C15. Digital connectivity, cybersecurity, 5G deployment	3.99	5.8 %
VI. Promotion of science and innovation and strengthening of the capabilities of the National Health System	4.94	7.1 %
C16. National Strategy for Artificial Intelligence	0.50	0.7 %
C17. Institutional reform and capacity building in the national science, technology and innovation system	3.38	4.9 %
C18. Renewal and expansion of the capabilities of the National Health System	1.06	1.5 %
VII. Education and knowledge, lifelong learning and capacity building	7.31	10.5 %
C19. National plan for digital skills	3.59	5.2 %
C20. Strategic plan for vocational training	2.07	3.0 %
C21. Modernisation and digitalisation of the education system, including early years education from age 0 to 3	1.64	2.4 %
VIII. The new care economy and employment policies	4.85	7.0 %
C22. Emergency plan for the care economy and reinforcement of inclusion policies	2.49	3.6 %
C23. New public policies for a dynamic, resilient and inclusive labour market	2.36	3.4 %

Lever policies and components (C)		€ Billion	Share
IX. Promotion of the culture and sports industries		0.82	1.2 %
C24.	Valorisation of the cultural industry	0.32	0.5 %
C25.	Spain audio-visual hub	0.20	0.3 %
C26.	Sports industry promotion plan	0.30	0.4 %
X. Modernisation of the tax system for inclusive and sustainable growth		–	–
C27.	Measures and actions to prevent and combat tax fraud	–	–
C28.	Tax reform for the 21 st century	–	–
C29.	Improving the effectiveness of public spending	–	–
C30.	Long-term sustainability of the public pension system within the framework of the Toledo Pact	–	–
Total		69.52	100 %

Source: Own elaboration based on Gobierno de España (2021b, p. 18).

In order to achieve the expected macroeconomic impact of the RTRP, investments and reforms are being implemented across Spain. The 110 investments scheduled in the RTRP are being channelled through three main instruments: the Strategic Projects for the Recovery and Transformation (Spanish acronym: PERTEs); transfer of funds to the Autonomous Communities; and State-managed programmes. Specifically, the PERTEs entail participation by a significant number of companies, especially SMEs, and include a governance system that consistently coordinates the activities of both the public and private sectors, in line with European strategic projects. The ambition is that Spain can lead the transformation and technologic development in the areas in which the PERTEs are implemented. Amongst the 12 PERTEs already approved by the Spanish Government are: the Connected and Electric Vehicle (CEV or in Spanish VEC); Renewable Energies, Renewable Hydrogen and Storage (Spanish acronym, ERHA); Circular Economy; Digitalisation of the Water Cycle; and Aerospace (Gobierno de España, 2023, p. 8).

Spain's seventeen constituent Autonomous Communities are also playing a key role in the implementation of the RTRP through the coordination and co-governance mechanisms established for this purpose. They received €13 billion in grants from the RRF throughout 2021. This amount was accompanied by €10 billion from REACT EU for 2021 and 2022 to undertake reforms aimed at strengthening the welfare state and public services, as well as reactivating the economy (Murillo & García, 2022, pp. 9-10, 13). By the end of 2022, €20.6 billion had been granted to the Autonomous Communities for them to manage investments in the fields of their powers, such as education, health, sustainable mobility or housing. The Autonomous Communities that have received most funding so far are Andalusia (€3.2 billion), Catalonia (€3 billion), Madrid (€2.2 billion) and Valencian Community (€1.9 billion) (Gobierno de España, 2023, p. 6).

Along with the PERTEs and the transfers to the Autonomous Communities, the investments are also being implemented through programmes directly managed by the State. To this end, more than 1,000 public calls were launched throughout 2022. To date, deployment of the investments has enabled the launch of more than 12,000 projects by private companies and local authorities (Gobierno de España, 2023, pp. 6-7).

To achieve the planned economic and social transformation, the RTRP also includes 102 reforms distributed across the ten strategic policies. In exchange for larger amounts of grants and loans, Spain is required to undertake a greater number of structural reforms than any other Member State (Bisciari et al., 2022, p. 17). Some of these reforms build on reforms already initiated by the Spanish government under the Agenda for Change in 2019 (Gobierno de España, 2019). All the reforms are expected to address a significant number of challenges identified in the country-specific recommendations. Some relevant reforms have already been accomplished, such as reforms in the education system and the labour market; a new climate change law and another on waste and contaminated soils for a circular economy; a law on 5G cybersecurity; and pension reform. Other significant reforms will be made throughout 2023 (Gobierno de España, 2023, p. 19).

To date, the pace of investment and implementation of reforms in Spain has been fairly fast. Indeed, Spain was the first country to receive an initial allocation of €9 billion in August 2021 and the first semi-annual

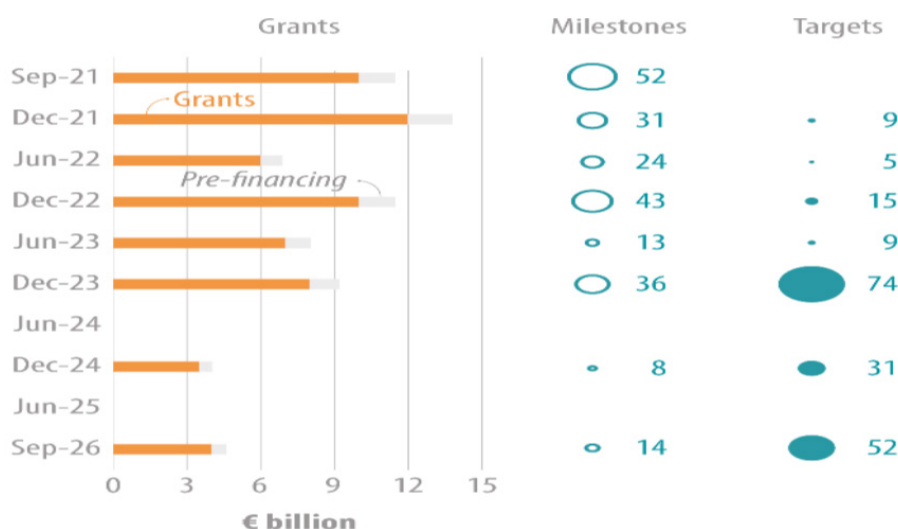
payment of €10 billion by the end of that year. In April 2022, the country requested a second payment of €12 billion, which was positively assessed by the European Commission in June 2022 after confirming that Spain had complied with the established milestones and objectives. The country received this second instalment in July 2022. In November 2022, Spain applied for a third payment of 6 billion, linked to the compliance of 24 milestones and 5 objectives. The third instalment was received in February 2023 (see Table 4). In this respect, it is provided that Member States can apply for EU funding twice per year, but results are assessed on the basis of the milestones and objectives established by the respective Implementing Decision from the Council. In the case of Spain, the country has to comply with 221 milestones and 195 objectives to receive the successive payments¹⁵ (see Figure 2).

TABLE 4. KEY ELEMENTS OF THE SPANISH RTRP

Total allocation in grants from RRF	€77.2 billion (after update-June 2022) + €2.6 billion (REPowerEU)
Investments and Reforms	110 investments and 102 reforms
Total number of milestones & targets	416
Estimated macroeconomic impact	Raise GDP by 2.5 % by 2024
Pre-financing disbursed	€9 billion (August 2021)
First instalment	€10 billion (December 2021)
Second instalment	€12 billion (July 2022)
Third instalment	€6 billion (February 2023)

Source: Own elaboration based on Recovery and Resilience Scoreboard. https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/

FIGURE 2. ENVISAGED INSTALMENT SCHEDULE



Source: Mileusnic (2023, p. 10).

Investments and reforms have continued to be implemented at a rapid pace in 2022 and 2023, despite the complex and uncertain scenario caused by the war on the EU's eastern frontiers. However, Russian

¹⁵ The specific milestones and target are identified in the revised annex to the Council Implementing Decision on the approval of the assessment of the recovery and resilience plan for Spain, 10150/21, ADD1 REV 2, ECOFIN 637. Accessed 5 September 2023. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CONSIL:ST_10150_2021_ADD_1&from=EN

aggression in Ukraine has made it all the more urgent to speed up the transition towards a more resilient, energy-independent economic model, not only in Spain, but across the EU more widely. In this context, the ecological transition remains the main axis of the RTRP for the country's transformation process. The Addendum to the RTRP provides new resources to address the REPowerEU energy goals and accelerate the decarbonisation of the economy. The next section analyses some of these strategic projects and investments geared towards the green transition.

2.2. Contributing to the green transition: main components and policies

The green transition is the cornerstone of the RTRP. The first three strategic policies included in the plan specifically focus on this objective. However, because it is a cross-cutting objective, reforms and investments aimed at the ecological transition are also distributed throughout the entire RTRP.

Specifically, the most relevant steps taken towards the green transition so far arise out of implementation of the National Energy and Climate Plan (NECP – Spanish acronym: PNIEC) 2021-2030 (MITECO, 2020b). In addition, new legal and policy instruments have also recently been adopted to support the ecological transformation, *inter alia* the Climate Change and Energy Transition Law¹⁶; the National Plan for Climate Change Adaptation 2021-2030 (MITECO, 2020c); the Strategy on Long-Term Decarbonisation (MITECO, 2020a); and the Law on Waste and Contaminated Soils for a Circular Economy¹⁷.

Within the strategic policies included in the RTRP, 12 components contribute significantly to the green transition pillar and another six to it partially (Mileusnic, 2023, p. 1). Among the most relevant components are the action plan on mobility in the urban environment (C1, €6.5 billion) and the deployment and integration of renewable energies (C7, €3.1 billion¹⁸) (see Table 3).

With regard to mobility in the urban environment, the action plan seeks to drive decarbonisation in urban mobility and improve air quality. To this end, it includes investments for the creation of low-emission areas in municipalities with a population of under 50,000, acquisition of electric vehicles and deployment of a large-scale charging infrastructure. The contribution of this component to the ecological transition is estimated at 72.5%, with total investment of €9.3 billion including RRF funding. Recovery plans of other Member States also include a significant amount of investments dedicated to sustainable mobility. Some Member States give priority to this policy area by allocating up to one third of their plan expenditure (Luxembourg – 32.7%, Malta – 32%) to sustainable mobility measures¹⁹.

As regards deployment and integration of renewables, this component (component 7), along with components 8, 9 and 10, is included in the strategic policy on just and inclusive energy transition. The investments and reforms provided for in components 7, 8 and 9 have the highest level of contribution to the ecological transition, 100%. In accordance with this objective, in 2021 the Spanish government decided to bring forward the targets set out in the NECP (PNIEC) from 2025 to 2023 in order to accelerate the energy transition. This decision has required an increase in investments in promoting renewable energy (Wuppertal Institut & E3G, 2021, p. 2). In this context, wind power has increasingly consolidated its position as the leading source of clean energy in Spain, unlike solar power, whose full potential has yet to be tapped in areas such as the south of the country, which enjoy many hours of sunlight throughout the year. In the case of power generation, the use of renewables is still relatively small as compared to non-renewable sources (chiefly natural gas) (Peña et al., 2021, pp. 9 and 13). The new Climate Change and Energy Transition Law envisages that renewables should account for 74% of power generation by 2030 and 100% by 2050 (art.3.1c and art.2). To achieve these goals, component 7 is complemented by component 8, on electric infrastructures, smart grid promotion and deployment of flexibility and storage, which entails total investment of €1.3 billion and also has a 100% contribution to the ecological transition.

Another key component for the energy transition is the renewable Hydrogen Roadmap (C9, €1.5 billion). Investments and reforms included in this component are coordinated with those of components 7 and 8. The

¹⁶ Ley 7/2021, de 20 de mayo, de cambio climático y transición energética, BOE, n.º 121, 21 May 2021.

¹⁷ Ley 7/2022, de 8 de abril, de residuos y suelos contaminados para una economía circular, BOE, n.º 85, 9 April 2022.

¹⁸ Detailed information about each and every component can be found in Gobierno de España (2021a). Plan de Recuperación, Transformación y Resiliencia. Políticas palanca y componentes. Accessed 5 September 2023. <https://planderecuperacion.gob.es/politicas-y-componentes>

¹⁹ European Commission. Recovery and Resilience Scoreboard. Thematic analysis. Sustainable Mobility. Accessed 5 September 2023. https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/

deployment of renewable hydrogen is closely linked to renewable energy generation. This synergy is reflected in one of the PERTEs already approved and underway, on Renewable Energies, Renewable Hydrogen and Storage (Spanish acronym: ERHA), discussed above. Other PERTEs contributing to the green transitions are those on Circular Economy, Digitalization of the Water Cycle and Industrial decarbonisation. One hundred percent of component 9's contribution is also expected to be to the ecological transition.

Also significant are the initiatives involving civil society directly in the energy transition, such as the self-consumption roadmap (MITECO, 2021) and the promotion of energy communities. These two reforms are included in component 7. Their chief purpose is to empower citizens to produce their own energy, making them self-sufficient and independent of external providers. To address this aim, the self-consumption roadmap, specifically, includes 37 measures designed to eliminate the many administrative barriers and encourage energy generation and self-consumption. The Spanish government began to deliver the first amounts of funding for this purpose in June 2021. The Autonomous Communities are responsible for managing and distributing these grants to self-consumption projects undertaken by companies, individuals and public entities. Among the initiatives designed to promote self-consumption are local energy communities. A pilot scheme of an energy community is already under way in Alicante and more are expected to be created in the coming years (Mas, 2021).

Therefore, significant efforts are being made on energy policy in Spain, which is central to decarbonise the economy. The recovery plans of other Member States also allocate large amount to renewable energy, including measures related to energy networks and infrastructure, as well as significant investments in hydrogen. Member States with the highest allocation to clean energies are Luxembourg (25.7%) and Finland (22.7%²⁰).

However, the achievement of the EU's climate and energy goals will require additional efforts to accelerate the deployment of renewable energy and energy infrastructure. Moreover, the war in Ukraine has led to a major rise in energy prices, which come on top of the continuous increases recorded since the summer of 2021. In this scenario, Member States and Spain, specifically, has to step up its efforts to meet the renewable energy targets currently established in its NECP, in line with the new more ambitious energy goals proposed by the European Commission as part of the «Fit for 55» legislative package and more recently in the REPowerEU plan. Thus, building on the RTRP and the additional financial support provided by the REPowerEU plan, the country will have to implement complementary efforts and investments in the coming years to accelerate decarbonisation of the economy and reduce its fossil fuel dependence.

Additionally, investments to promote a circular economy model also contribute to the green transition. The RTRP provides €3.7 billion from the RRF, including investments and reforms in industry (C12). The total investment is estimated at €6.1 billion. The contribution of this component to the ecological transition is 37%. However, in addition to the steps in this area taken within the RTRP, such as the new Law on Waste and Contaminated Soils, additional investments and measures will be required to improve Spain's recycling capacity. As recently highlighted by the European Commission's 2022 Country Report-Spain, the country's rate of recycling of municipal wastes and secondary use of materials is significantly below the EU average. An improvement in the recycling rates is also important for reducing the importation of goods and cutting external dependence (European Commission, 2022c, p. 38).

The RTRP also considers biodiversity protection and ecosystem restoration (C4, €1.6 billion), with multiple and diverse measures to ensure sustainable use of natural resources, protection of habitats and an improvement in ecosystem services, with particular emphasis on marine ecosystems. In this context, €850 million have been transferred to the Autonomous Communities to implement measures under their competences to restore ecosystems and forests (Gobierno de España, 2023, p. 21). The contribution of this component to the ecological transition is estimated at 100% for environmental objectives and 46% for climate objectives.

Clearly, the RTRP is boosting crucial measures to accelerate the transition to a low-carbon and climate-resilient economy. However, despite the significant investment and reform efforts made by Spain, structural factors continue to hamper the path to green recovery and growth. The outstanding vulnerabilities and new emerging challenges are identified in the European Commission's 2022 Country Report, which refers in particular to Spain's still high dependence on fossil fuels, making the country particularly vulnerable to rising international energy prices, and its high external debt (European Commission, 2022c, pp. 2-3, 32-33).

²⁰ European Commission. Recovery and Resilience Scoreboard. Thematic analysis. Clean Power. Accessed 5 September 2023. https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/

To address these challenges in the short and medium-term, Spain will have to take additional measures, apart from the milestones and objectives included in implementation of the RTRP. As mentioned above, the 2022 country-specific recommendations adopted by the Council in June 2022 provide the country with helpful guidance on actions needed to tackle existing and emerging challenges. In particular, the country needs to step up measures to deploy renewable sources, improve energy interconnections and integration in the single energy market by making use of the RTRP, REPowerEU and other funds. Linked to this challenge, Spain needs to improve its recycling rates to meet the EU circular economy targets and levels, whilst ensuring better coordination between the different tiers of governments involved in this challenge. Other important areas addressed in the 2022 country-specific recommendations are boosting green logistic infrastructure (buildings and transport) and pursuing biodiversity recovery (Council of the European Union, 2022).

The Addendum to the RTRP aims to update and reinforce action to respond to the current shortcomings and emerging challenges during the second implementation period. With this purpose, the Addendum will mobilise an additional amount of €94.3 billion in grants and loans. The additional €7.7 billion in RRF grants will mostly be dedicated to reinforce the current 12 PERTES. €84 billion in RRF loans through different financial instruments and funds will contribute to maintain the flow of both public and private investment until 2026. Finally, €2.6 billion from REPowerEU will contribute to accelerating investments to diversify the energy sources, the development of renewables and energy efficiency. Moreover, the Addendum incorporates 30 additional reforms to address the country-specific recommendations (Gobierno de España, 2023, pp. 90-92).

It remains to be seen how these additional efforts will evolve in the near term. What is certain for now is that the current unpredictable scenario urges Spain, along with the rest of Member States, to speed up its green transition. Therefore, action will need to be progressively updated and adjusted throughout the lifetime of both the RRF and RTRP and beyond, in order to consolidate the path to a more sustainable economic model in Spain and the EU more widely.

CONCLUSIONS

The NGEU and the implementation of national recovery plans, together with the MFF 2021-2027, are setting the EU and its Member States on the road to long-term sustainable growth in line with the EGD and SDGs. The goal of the stimulus initiatives is to achieve sustainable development in the European context, beyond management of the COVID-19 crisis.

As one of the main beneficiaries of the NGEU, Spain is committed to more comprehensive reforms designed effectively to address structural weaknesses. Significant reforms have already been made in a wide range of areas in 2021 and 2022 and other reforms are scheduled for 2023 and the coming years. The green transition is also the main axis of the Spanish recovery policies, accounting for almost 40% of the funds allocated to support climate targets, in line with the EU environmental goals and financial requirements.

However, like other EU Member States, Spain currently faces the uncertain geopolitical scenario generated by the war in Ukraine. The current context has created new challenges that are not sufficiently covered by the RTRP. As a result, additional efforts will be needed, in line with the new measures to be taken by the EU, such as those included in the REPowerEU Plan. Specifically, Spain will have to implement measures to accelerate the green transition by intensifying the deployment of renewable energy, becoming fully integrated in the single energy market, and increasing its recycling rate and circular economy policies, all of which will also contribute to reducing its high external dependence for fossil fuels and resources.

Going forward, the success of the Spanish recovery plan will depend not only on how ambitious it is, but on the speed of effective action and the ability to adjust the response to the new developments and measures that will gradually be decided at EU level.

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