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Hub for New industrial Policy
& Economic Governance

Turning Ambition into Action: Lessons from the Italian National Recovery and Resilience Plan

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FOREWORD

GEORGE PAPACONSTANTINOU, ERIK JONES, AND DONATO DI CARLO

This report appears at a defining moment for European economic governance. When *NextGenerationEU* was launched in the aftermath of the pandemic, it represented something genuinely novel: a common European fiscal instrument of unprecedented scale, premised on the proposition that conditioned, investment-led transfers could simultaneously stabilise economies, strengthen state capacity, and accelerate the structural transformations – green, digital, institutional, social – that member states had long deferred. That proposition is now being put to the test. The implementation window is closing, and the moment of reckoning is here: ambition must be measured against results, commitments on paper against concrete outcomes on the ground.

That reckoning matters well beyond the technical accounting of milestones and disbursements. It goes to the heart of broader debates that are reshaping European economic governance: how to sustain and direct public investment as the reformed fiscal framework tightens; how to design industrial policy that is strategically coherent, institutionally deliverable, and territorially equitable; and whether the European model of governed structural change – built on conditionality, coordination, and shared frameworks – can actually deliver. The Draghi report on European competitiveness has sharpened these questions, as has the growing recognition that geopolitical pressures and the twin green and digital transitions require not just more investment, but better-governed investment. The answers will not come from aggregate figures alone. They will come from careful, evidence-based analysis of what has actually happened – in institutions, in territories, in projects – when European ambition met the realities of national administration.

Italy is the most consequential case through which to ask these questions. As the largest recipient of *NextGenerationEU* funds, its experience with the *Piano Nazionale di Ripresa e Resilienza* is not merely a national story – it is a stress test for the European model itself. And Italy brings to that test a distinctive set of institutional characteristics: longstanding administrative asymmetries, a complex relationship between central and subnational government, and profound territorial heterogeneity. The report that follows takes this challenge seriously. It does so with the analytical rigour, empirical depth, and policy relevance that the moment demands – and that our three institutions are committed to fostering.

The *Luiss Hub for New Industrial Policy and Economic Governance* (LUHNIP), though a young institution, is rapidly emerging as a distinctive voice in European policy debate, combining academic and policy research on industrial policy and economic governance with a particular focus on the gap between policy design and policy delivery that so often determines whether well-intentioned public interventions succeed. The *Robert Schuman Centre for Advanced Studies* at the EUI brings to bear a long tradition of rigorous, interdisciplinary research on European economic governance, integration, and the institutional foundations of policymaking across multiple levels. The *School of Transnational Governance*, whose mission is to train present and future policy leaders and to bridge the worlds of research and practice, is committed to understanding not just the *what* but the *how* of governance – the administrative, political, and institutional processes through which policy ambition is, or is not, translated into change.

We are therefore genuinely pleased to present this report, and to have had the opportunity to bring it to a wider audience through our collaboration.

Rome and Florence, 14 May 2026

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PREFACE

DONATO DI CARLO

Turning ambition into action: Lessons from the Italian National Recovery and Resilience Plan is the third flagship report produced by **LUHNIP** – and it is best understood as the latest step in a cumulative research programme that has moved progressively from the European to the national level, and now to concrete questions of policy implementation.

LUHNIP's first major volume, the ***EU Industrial Policy Report 2024***, addressed the return of industrial policy at the European level against the backdrop of geopolitical fragmentation, the twin green and digital transition, economic security concerns, and renewed debates on strategic autonomy. Its contribution lay not only in documenting the resurgence of industrial policy, but in showing that this resurgence raised a much deeper set of questions: about the legal foundations and democratic accountability of EU intervention; about the governance of state aid and the risks of single market fragmentation; about the coordination failures between the European Commission, the ECB, and the EIB; and about the territorial consequences of industrial policy choices for the EU's core-periphery structure. With contributions from an unusually interdisciplinary team spanning political economists, legal scholars, political scientists, economic historians, and sectoral specialists, the report showed that the revival of EU industrial policy is not a technocratic adjustment at the margins but a structural reorientation of European economic governance – one that remains, however, institutionally fragmented, inadequately financed, and territorially uneven.

LUHNIP's second volume, the ***Report on Italy's Industrial Policy 2025***, moved to the national level and asked what the return of industrial policy means in the Italian case. The volume advanced three core findings. First, Italian industrial policy has persistently lacked strategic design: across eighteen years of policy, horizontal tax incentives and subsidies have dominated over mission-oriented or place-based instruments, new programmes have been layered on top of old ones without evaluation or rationalisation, and the gap between political ambition and administrative delivery has been chronic. Second, Italy's vision of industrial policy has remained reactive and defensive rather than forward-looking – protecting declining sectors and buffering social costs rather than steering structural upgrading or disciplining private behaviour toward public value. Third, Italy's productive system is deeply heterogeneous: its North houses world-class manufacturers in key sectors such as machinery and fabricated metals – industries globally competitive but losing market share – while the *Mezzogiorno* is specialised in lower-productivity, lower-complexity sectors, almost entirely absent from the most competitive export value chains. The default of a single uniform national policy has not simply failed to address this divide – it has reinforced it, functioning as a *one size fails all* strategy. The report argued for a dual approach: an incrementalist strategy for the North that consolidates and upgrades existing comparative advantages; and a more transformative, place-sensitive strategy for the Centre, South and Islands that builds on *latent* competitive strengths – the high-growth firms and emerging clusters that signal genuine but underdeveloped industrial potential. It proposed a practical method – summarised in the **RISE** framework – for **R**ecognising these firms, **I**dentifying their position in strategic value chains, **S**caling them toward higher-value activities, and **E**levating the institutional ecosystems around them.

Coordinated by Dr. Alessia Aspide and Dr. Lorenzo Mascioli, this third report, *Turning Ambition into Action: Lessons from the Italian National Recovery and Resilience Plan*, takes the next logical step. If the first report mapped the structural reorientation of EU industrial policy and the second diagnosed the governance weaknesses of Italy's own industrial policy architecture, this volume asks how one of the most consequential public investment programmes in post-war Italy is being governed and delivered. It sits at the intersection of European economic governance, Italy's state capacity, and the political economy of development – and it arrives precisely as the NRRP's implementation window closes and the debate shifts from commitments on paper to the concrete politics of execution.

The question could not be timelier. Across all three LUHNIP reports, a common thread has emerged: the gap between policy ambition and policy delivery. The first report documented how Europe's new industrial policy remains institutionally fragmented and inadequately endowed with supranational fiscal capacity, leaving implementation heavily dependent on national governments whose fiscal resources and state capacity diverge sharply. The second report showed how Italy's own industrial policy architecture compounds these problems, relying on instruments – horizontal subsidies, tax credits, weak conditionalities – that are poorly suited to disciplining private behaviour or steering territorial development. This third report now asks what happens when these two sets of weaknesses collide: *what does the implementation of a flagship European programme look like when mediated by an Italian state that is administratively weak and poorly equipped for strategic coordination?*

The report's originality lies in its refusal to treat the NRRP merely as a formal plan, a list of milestones, or a macro-fiscal instrument. Instead, it studies implementation as a concrete political and administrative process, combining cross-national comparison with within-country analysis and moving from institutions and governance structures to projects, instruments, and territories. This gives the volume both analytical breadth and unusual empirical granularity.

The volume, orchestrated by LUHNIP's director Donato Di Carlo and coordinated by Alessia Aspide and Lorenzo Mascioli, is the result of a collective effort by a team of young and talented researchers. Alessia Aspide, Camilla Locatelli, and Gabriele Beretta write the first two chapters, which provide a comparative analysis of recovery plans and their governance in Italy, France, Germany, and Spain. Lorenzo Mascioli authors the third and fourth chapters, which compare the NRRP with Cohesion Policy and then identify the determinants of implementation performance within the Italian plan itself.

Several findings deserve particular attention.

First, the comparative chapters show that, although all four major EU economies align their plans with the common pillars of NextGenerationEU, they do so through fundamentally different investment logics and governance arrangements. The chapters highlight this variation through a thorough analysis of governance changes and the construction of a novel dataset, covering projects implemented by the first 100 recipients by funds allocated in the NRRPs. What emerges is that **Spain and Germany give greater weight to industrial policy**, particularly around manufacturing and the automotive sector; **Germany also steered resources towards the digitalization and modernization of its public administration; France prioritises research, education, and competitiveness**, focusing in particular on social and employment policies; **Italy stands out for its heavier concentration on large-scale infrastructure**, and the almost absent interventions in industrial policy. On the governance dimension, **Italy displays a high degree of centralisation within the national government, while Spain stands out for giving autonomous communities a more substantial role. Stakeholder involvement is generally low in France and Germany, but more developed in Italy and especially Spain**, where more institutionalised channels of engagement were activated. These findings resist the temptation to treat the Italian case as either uniquely dysfunctional or simply representative of a single European model: the governance of NRRPs reflects national institutional traditions and deliberate political choices.

Second, the comparison between **the Italian NRRP and Cohesion Policy** offers an especially illuminating lens for assessing Italy's development architecture. The two programmes **share a common repertoire of policy instruments and broadly similar objectives, but diverge sharply in project size, policy composition, and territorial logic**. NRRP projects are substantially larger in scale; the plan is more strongly oriented toward the twin green and digital transitions; and in sectors such as transport, resources are concentrated in major interventions rather than distributed across smaller ones. The territorial dimension is particularly consequential. Cohesion Policy is designed to distribute funding more evenly across places; the NRRP's earmarking provisions for the Mezzogiorno operate at the aggregate level of the South as a whole and do not preclude strong internal concentration dynamics. In practice, funding gravitates toward the more institutionally capable and economically central urban areas within the South. **The key territorial risk associated with NRRP implementation, the report shows, is therefore not only the familiar Centre-North/South divide – it is the intensification of inequalities *within* the South itself, between large cities and the smaller, more peripheral**

municipalities that Cohesion Policy had traditionally reached.

Third, the final chapter provides one of the report's most significant contributions: a systematic analysis of the determinants of implementation success. **Implementation outcomes vary substantially across missions, instruments, and territories**. Yet the most important finding is that this **variation is explained far less by generic municipal or regional characteristics than by project-level features. Smaller projects perform better than larger ones. Projects incorporated from pre-existing pipelines outperform those designed *ex novo*. Projects overseen by the Presidency of the Council achieve higher implementation rates than those managed by line ministries. And projects executed by central state actors perform better than those implemented by subnational governments or non-governmental entities**. This is an analytically precise result: it shifts the debate away from an undifferentiated narrative of territorial "capacity gaps" toward a more granular understanding of how project design, institutional coordination, and the choice of implementing authority jointly determine whether public investment is delivered.

The broader lesson of this report is therefore not one of easy pessimism, but of analytical clarification. Italy's implementation difficulties are real, and they are rooted in longstanding administrative weaknesses and territorial asymmetries. But **the report demonstrates that success or failure is not predetermined by geography. It is mediated by the way interventions are designed, by which institutions govern them**, and by the scale and complexity of what is asked of them. This is precisely the kind of evidence that policymakers will need as they navigate the next generation of European investment decisions – when the lessons of *NextGenerationEU* must inform what comes after it.

We would like to express our sincere gratitude to all the researchers who contributed to this report: Alessia Aspide, Gabriele Beretta, Camilla Locatelli, and Lorenzo Mascioli. Their work exemplifies intellectual ambition, methodological rigour, and a commendable commitment to public relevance. We are also grateful to the wider LUHNIP network, especially Lorenzo Moretti and Dimitri Zurstrassen, and to Luiss University and the Luiss Institute for European Analysis and Policy (LEAP) for hosting LUHNIP. At a moment when debates on Italy's future too often oscillate between celebratory rhetoric and superficial alarmism, this report offers something much more valuable: a sober, evidence-based, and conceptually informed account of how European ambition is being translated into Italian public action.

Rome and Florence, 14 May 2026

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EXECUTIVE SUMMARY

- The Recovery and Resilience Facility (RRF) is the primary financial instrument of the EU's ambitious pandemic response initiative, NextGenerationEU (NGEU). This report examines Italy's capacity to implement its ambitious National Recovery and Resilience Plan (NRRP) effectively. It opens with a comparative analysis of the NRRPs of the four largest EU economies: Germany, France, Italy, and Spain. Focusing then on Italy, the largest recipient, the report explores how state capacity shapes the implementation of ambitious reforms and investments, emphasizing the challenges of translating NGEU's transformative goals into tangible outcomes.

- Chapter 1 focuses on France, Germany, Italy, and Spain, examining the articulation of each national plan across cross-cutting priorities, missions, and components. It then explores funding allocation, elucidating the actors involved in the process – from the European Commission (EC) to implementing authorities – and the main allocation procedures. Next, it introduces the EC's six pillars and provides concrete examples of measures each of the four countries is implementing. This analysis is complemented by a substantial comparative study of the projects implemented by the top 100 recipients, by funds allocation, in each country. Through a detailed examination of the investment strategies of the actual beneficiaries, we show the different logics of industrial policy, infrastructure development, digitalization, and support to research and education.

- Maintaining a comparative perspective, Chapter 2 scrutinizes the governance of the NRRPs across all four countries: governance structures and the degree of centralization from drafting to implementation, the involvement of stakeholders and social partners, and the tools adopted to facilitate monitoring and bolster transparency. While Italy exhibits a high concentration of powers within the central government, Spain stands out among the four for its comparatively low level of centralization, with autonomous communities playing a pivotal role alongside the central government. Yet, stakeholder involvement is generally low in France and Germany, but medium in Spain and Italy, with Spain featuring more institutionalized channels for engagement. Finally, monitoring systems reveal another similarity between Italy and Spain, both of which offer high levels of transparency and data availability, in contrast to France and Germany.

- Chapter 3 compares the NRRP with Italy's other major development program, Cohesion Policy, as alternative vehicles for development. Net of project funding, the number of Cohesion Policy projects is far larger, implying that NRRP projects are, on average, much bigger in scale. The two programs share a common set of policy instruments – purchases of goods and services, subsidies, public works, and equity injections – and broadly similar policy objectives, although the NRRP places greater emphasis on the twin transitions. Moreover, the nature of projects implemented under similar objectives sometimes differs substantially, as clearly illustrated by transportation projects. Lastly, both programs are also dominated by municipality-level projects, yet project funding is more evenly distributed across space under Cohesion Policy, particularly across the southern regions. This appears to reflect differences in the programs' geographic destination constraints. By treating the South as a single block, the NRRP permits greater internal disparity, leading funding to concentrate in more attractive locations such as large cities. Therefore, while public debate has primarily focused on the risk that the NRRP will exacerbate disparities between the Center–North and the South, we highlight the more concrete risk that it may deepen inequalities within the South.

- Chapter 4 assesses how the NRRP has progressed to date. It develops a measure of project implementation and documents substantial differences across projects pursuing different objectives, deploying different instruments, and targeting different territories. To explain this variation, the chapter surveys the literature on Cohesion Policy and identifies three sets of explanatory variables: project-level characteristics; endogenous municipality-level variables, derived from aggregating project characteristics at the municipal level; and exogenous municipality-level variables, including institutional capacity and previous experience with project implementation. Project-level characteristics display the strongest explanatory power. When examining variation within policy instruments, objectives, and administrative regions, higher implementation rates are found among financially smaller projects, projects refinanced into the plan (rather than designed ex novo), projects overseen by the Presidency of the Council rather than line ministries, and projects executed by the national government rather than subnational governments or non-governmental actors.

INTRODUCTION TO THE REPORT

Alessia Aspide e Lorenzo Mascioli

In July 2020, EU leaders launched NextGenerationEU (NGEU) to revive economic activity in the wake of the COVID-19 crisis. At its core lies **the *Recovery and Resilience Facility* (RRF): a €750 billion temporary recovery instrument combining grants and loans to support reforms and investments across member states until 2026**. This initiative is unprecedented, marking the first time the EU has issued common debt on capital markets at this scale (D'Erman & Verdun, 2022), exercising fiscal capacities to an extent never seen before (Schelkle, 2021).

Raising funds collectively at the EU level, rather than through national contributions, is not the only novelty introduced by NGEU, which emerged after months of negotiation and political contention among member states. Beyond this financial breakthrough, the RRF reflects a broader shift, from the 'unconstrained institutionalism' of past crisis responses, as with the creation of the European Stability Mechanism during the Eurozone crisis, to a model of 'constrained supranationalism,' based on coordination and shared oversight (Buti & Fabbrini, 2023). This evolution has been driven by policy learning (Capati, 2023): lessons from the shortcomings of previous crisis management have fostered a collective commitment to maintaining EU cohesion and public trust, framing European cohesion as in the national interest to overcome divisions (Ferrera et al., 2021).

The RRF has also introduced a novel performance-based system for disbursing funds (Zeitlin et al., 2025), linking payments to the achievement of milestones and targets (Bokhorst & Corti, 2024; Pekanov, 2025). This approach replaces the sanction-based logic of earlier fiscal rules, such as the Excessive Deficit Procedure, with a reward-based mechanism that incentivizes compliance and progress. **Each member state has submitted a National Recovery and Resilience Plan (NRRP), outlining reforms and investments aligned with the RRF's six policy pillars, later complemented by *REPowerEU***. The plans remain under the ownership of national governments, with the European Commission (EC) serving in a consultative capacity during the drafting phase (Bokhorst & Corti, 2024). Funds are released in installments: twice a year, member states submit payment requests, which are reviewed and approved by the EC upon verification of progress. The NGEU program poses significant challenges, as it requires national governments to pass ambitious reforms and to make large public investments under a new governance framework in a very short period of time. This places high demands on national administrations, testing their capacity to plan, coordinate, and deliver effectively (Cotta & Domorenok, 2022).

This report focuses on Italy, the largest recipient of NGEU funds. Examining Italy's experience offers valuable insights into the institutional and administrative capacities needed to translate the NGEU's transformative ambitions into effective policy outcomes. The country's longstanding difficulties in managing funds efficiently (Domorenok & Guardiancich, 2022) make the €195 billion allocated to the Italian National Recovery and Resilience Plan a historic yet challenging opportunity to implement long-delayed reforms and investments following decades of fiscal austerity (Zeitlin et al., 2023). We examine institutional capacity, particularly at the subnational level, and identify strengths and weaknesses to inform strategies to improve implementation. Bolstering Italy's institutional capacity is essential not only to ensure the effective absorption of RRF funds but also to reverse long-standing patterns of underinvestment, weak industrial policy, and fragmented governance.

In the first two chapters, *Resilience and Recovery Plans Across Borders: Italy, France, Germany, and Spain, and Who Governs the Recovery? A Comparative Analysis of Degree of Centralization, Stakeholders Involvement, and Monitoring of the NRRPs,* we analyze **the content and governance system of the Italian NRRP in comparative perspective with other**

major EU countries: Germany, France, and Spain. Several academic studies have compared Italy with one or more countries in scope (Borghetto et al., 2025; Capati et al., 2026; Zeitlin et al., 2025), and institutional actors have contributed with important analyses, though their emphases vary. The European Parliament's Economic Governance Support Unit has provided detailed country assessments of fiscal, administrative, and implementation challenges (Martinez Mongay et al., 2022; Corti et al., 2022), while the Centre for European Policy Studies (CEPS) has offered comparative evaluations of reforms and investments across member states (Corti et al., 2021). The Recovery Watch initiative (Zeitlin et al., 2023) has focused on political legitimacy and stakeholder engagement in the implementation of RRF. Additional comparative efforts by Bruegel (Darvas et al., 2023), Eurofound (2023), or national banks (Bisciari et al., 2022) further expand understanding of the NRRPs' design, governance, and effectiveness.

Collectively, this body of work maps different aspects of recovery governance, revealing the importance of studying both national specificities and shared challenges in translating the RRF's ambitions into domestic policy practice. Our own contribution provides an exhaustive account of experiences within each country. Our objective is to provide readers with a comprehensive overview, enabling a deeper understanding of the entire process of funds allocation, from the European Commission to the final implementers, through the development, execution, and monitoring of national plans. We delve into the intricate governance structures and the diverse actors involved and use microdata to shed light on the concrete nature of different projects, providing plenty of examples of measures adopted within each plan and including a comparative analysis of measures adopted by the top 100 beneficiaries in each country.

More importantly, by focusing on Germany, France, and Spain, rather than exclusively on Italy, **we put Italy in a comparative perspective, emphasizing that there is no standard approach to organizing national efforts for the effective implementation of the NGEU**. Furthermore, our comprehensive analysis aims to familiarize readers with the terminology commonly used in debates and discussions surrounding the NGEU initiative and the NRRPs. Throughout the first two chapters, we strive to enhance information accessibility, ensuring that readers seeking clarity on the NGEU framework can navigate its complexities with ease.

The in-depth analyses in Chapter 1 underscore that **all four countries align their measures with NGEU's overarching pillars, yet their investment paths diverge according to distinct economic structures and social priorities**. Both Spain and Germany emphasize industrial policy, especially the automotive sector. Spain also invests in large-scale infrastructures, a priority shared with Italy. France prioritizes research and education, while Germany invests heavily in public-sector digitalization. Understanding these nuances is essential for policymakers to navigate the diverse challenges and maximize the NGEU's potential to build a resilient and sustainable European economy.

Chapter 2 highlights that **while the NGEU presents a unified vision for Europe's recovery, its implementation reveals differences in national approaches**. Italy and Spain's extensive funding and comprehensive, transparent reporting systems reflect their greater reliance on NGEU resources. Despite a general trend towards centralized fund allocation, differences emerge: Italy and France share responsibilities across central bodies, Germany concentrates control in the Finance Ministry, and Spain grants greater regional autonomy. Allocation tools are similar and include competitive tenders, direct implementation, and direct funding. All four countries exhibit centralized governance of their recovery plans, but Spain stands out for its greater regional and stakeholder involvement, whereas Italy, France, and Germany maintain more hierarchical, executive-driven approaches with varying degrees of consultation.

Chapter 3, *Parallel Tracks: The National Recovery and Resilience Plan and Cohesion Policy in Comparative Perspective*, shifts the focus from cross-country comparisons to a domestic

one. **It compares the NRRP with another major EU-funded program: Cohesion Policy**, the EU program for regional and local development. Unlike other comparative studies (see, for example, Conte & Molica, 2022), our main interest lies in how these two are implemented on the ground. We draw on Italia Domani and *OpenCoesione*, datasets that contain detailed information on hundreds of thousands of projects funded under the NRRP and Cohesion Policy, respectively. We show that, while total funding volumes are broadly comparable, the NRRP comprises far fewer, but significantly larger, projects than Cohesion Policy 2014-2020. The programs pursue broadly similar **policy objectives**, though the NRRP places stronger emphasis on the twin green and digital transitions. Substantial differences emerge in specific policy areas, most notably transport, where NRRP projects are disproportionately larger. With respect to **policy instruments**, the two display more similarities than contrasts, relying on purchases of goods and services, subsidies, public works, and equity injections. Lastly, we examine their **presence across territorial levels and jurisdictions**. Both programs largely consist of municipality-level projects, although the ownership of local actors over these projects may vary and merits further attention. Moreover, Cohesion Policy presents a more balanced regional distribution of funds than the NRRP, whose broader targeting of the South allows resources to concentrate in a few major areas.

Chapter 4, *The Determinants of Successful Project Implementation under the National Recovery and Resilience Plan*, **evaluates the NRRP's progress as of June 2025**. We begin by showing project completion differences across the three analytical dimensions introduced in the previous chapter: policy objectives, policy instruments, and territorial incidence, drawing on project completion data. We find that infrastructure projects under Mission 3 lag far behind schedule, underscoring overly ambitious planning, whereas RePowerEU projects stand out for their swift completion. Completion rates also vary sharply across policy instruments: while public works face delays, subsidies to productive units perform worse, and incentives to non-productive units are largely completed, revealing uneven implementation across funding types. The territorial dimension shows similar disparities: completion is generally higher in the Center-North than in the South, yet substantial disparities exist both between and within regions, highlighting uneven implementation at the municipal level.

When **examining the factors underpinning this variation in project completion**, Chapter 4 distinguishes between three sets of variables: project-level characteristics, endogenous municipality-level variables derived by aggregating project characteristics at the municipal level, and exogenous municipality-level variables. We show that variation in project completion arises primarily at the project level and is thus best explained by project-level characteristics. Holding policy objectives, policy instruments, and regional characteristics constant, we find that **project completion is strongly associated with project size, with whether the project predates the plan or has been designed *ex novo*, and with the actors responsible for project implementation**. Specifically, projects overseen by the Presidency of the Council of Ministers are less prone to delays than those overseen by line ministers, and projects executed by national government authorities than those executed by subnational government authorities or non-governmental actors. Conversely, municipality-level variables, whether endogenous or exogenous, tend to show weak or statistically nonsignificant correlations with project completion.

Overall, this report offers scholars and practitioners an opportunity to reflect on the challenges and opportunities posed by the NRRP as it approaches its natural completion. Compared to the existing literature, it places greater emphasis on how projects financed under the NRRP are designed and executed, drawing on extensive and granular data collected and made available by public authorities. These empirical insights are contextualized through strategic comparisons with similar plans implemented in other European countries, as discussed in Chapters 1 and 2, and with existing development programs in Italy, as examined in Chapter 3.

Chapter 4 then builds on these insights to assess how the NRRP has progressed to date.

A key finding emerging across the four chapters is that these challenges and opportunities cannot be reduced to the institutional capacity gap between the Center–North and the South of Italy that is often invoked in public debate. Instead, they largely reflect the complex mechanisms through which the NRRP is actively governed. While the actors involved in designing and executing interventions experience significant institutional capacity constraints, especially in the South, they typically have greater ownership than existing literature suggests, through which they may shape trajectories of success or failure.

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01

RESILIENCE AND RECOVERY PLANS ACROSS BORDERS: ITALY, FRANCE, GERMANY, AND SPAIN

ALESSIA ASPIDE, GABRIELE BERETTA, AND CAMILLA LOCATELLI

Germany, France, Italy, and Spain are the four largest economies of the European Union. The NGEU funding allocated to these countries collectively represents approximately 65% of the Recovery and Resilience Facility (RRF): €194,4 billion to Italy, €163 billion to Spain, €40,3 billion to France, and €30,3 billion to Germany (European Commission, 2025a). The size of their cumulative share underscores the pivotal role that the success of the implementation of the NRRPs in these countries plays in the overall success of the NGEU. Moreover, the analysis of the NRRPs in these four countries allows us to put the Italian experience in a comparative perspective and reveals that there is no one single approach to organizing national efforts for the effective implementation of the NGEU.

The RRF allocates the most generous amount of grants to Italy and Spain, €71,9 billion and €79,8 billion respectively, followed by €40,3 billion to France and €30,3 billion to Germany. Notably, Italy has requested the maximum amount possible of loans, €122,6 billion, while France and Germany have opted not to request any, and Spain has updated its plan with €83 billion in loans after initially passing on them (European Commission, 2025a).

In the first semester of 2023, the European Commission (EC) amended the RRF Regulation[1], allowing member states to reassess their original national plans in response to significant disruptions in the global energy market and escalating raw material costs following Russia's invasion of Ukraine (Lupo, 2023). Concurrently, the amendment made additional funds available to facilitate the implementation of initiatives geared towards mitigating member states' reliance on Russian fossil fuels and fostering diversification within their energy suppliers. Since then, member states have updated their plans to include a new chapter on reforms and investment measures to reach the objectives of the RepowerEU Plan (European Parliament & Council of the European Union, 2023). In total, to date, Italy has been disbursed €51,03 billion in grants and €89,35 billion in loans, Spain €55,09 billion in grants and €16,27 billion in loans, France €34,13 billion in grants, and Germany €19,76 billion in grants (European Commission, 2025b).

	Grants (billion)	Loans (billion)	Total (billion)	Total (% of GDP)[2]	Total disbursed (billion)
Italy	€71,780	€122,602	€194,382	9.12 %	€140,65
France	€40,270	0	€40,270	1.43%	€34,13
Germany	€30,325	0	€30,325	0.72 %	€19,76
Spain	€79,854	€83,160	€163,014	10.88%	€71,36

Table 1.1 – RRF: Planned and disbursed funds (as of July 2025) *Source*: Author's elaboration based on European Commission (2025a).

1 Regulation (EU) 2021/241.

The larger share of grants to Italy and Spain is explained by allocation criteria favoring countries with higher pre-pandemic unemployment rates and whose economies had been more severely impacted by the pandemic (Bisciari et al., 2022). 70% of the RRF grants are allocated based on Member States' population, the inverse of their GDP per capita, and their average unemployment rate over the past 5 years (2015-2019). The allocation of the remaining 30% replaces the 2015-2019 unemployment rate indicator with the observed loss in real GDP over 2020 and the observed cumulative loss in real GDP over the period 2020-2021[3] .

This chapter opens with a description of the structure of national plans across the four countries (1.1). In their national plans, Italy, France, Germany, and Spain identify transversal priorities or cross-cutting pillars, guiding principles for their investments and reforms. These plans are organized around missions or themes, further articulated into multiple components. While the number and specific focus of components vary among the countries, they align with the six pillars outlined by the NextGenerationEU initiative.

The chapter continues with the process of fund allocation from complementary perspectives. Section 1.2 considers the key actors distributing and receiving funds, tracing back the process of funds allocation from the European Commission to the final implementers of the projects. Section 1.3 shifts the focus from actors to how resources are allocated across the EC's six pillars, while Section 1.4 investigates the allocation of funds across economic sectors by looking at projects implemented by the first 100 recipients by funds allocated.

Section 1.2 illustrates that fund allocation in the four countries involves varying actors, from central to local authorities, and levels of competition depending on the legal instruments employed. Italy and France rely heavily on central administrations to channel funds vertically and horizontally, using a mix of direct implementation, transfers, and competitive procedures. Germany centralizes responsibility under the Ministry of Finance through calls for proposals, grants, and direct investments. Spain contrasts with the others, granting autonomous communities a larger role in distribution, mainly via grants, tenders, minor contracts, and collaborative strategic projects.

Section 1.3 introduces the EC's six pillars and details how resources are distributed across them, in order to meet the EC's requirements that 37% of NRRP funds support climate objectives and 20% support digital objectives, reflecting its broader commitment to the 'twin transition' of digitalization and sustainability. For each pillar, we provide concrete examples of measures implemented in the four countries. This descriptive account is complemented in section 1.4 by a comparative analysis of national investment strategies through an analysis of projects implemented by the first 100 recipients by funds allocated. This analysis highlights the coexistence of distinct logics of industrial policy, infrastructure, digitalization development, and investment in education and research.

We collect and analyze data from official reports, secondary studies, and administrative datasets. Two interviews with national experts (Spain and Germany) were carried out to validate and supplement the collected information. By synthesizing this evidence, we aim to offer a comparative perspective on the process of fund allocation and shed light on the nature of final projects under each pillar, as well as the characteristics of projects implemented by the major recipients in each country.

2 Calculated on 2023 GDP data.
3 Regulation (EU) 2021/241, Article 11.

1.1. STRUCTURE OF NATIONAL RECOVERY AND RESILIENCE PLANS

Italy

The Italian NRRP is structured around 3 **transversal priorities**, guiding principles aiming to reduce territorial, generational, and gender disparities (MEF, 2021). It is articulated in 17 **components** or intervention areas, further articulated in **measures** (investments and reforms). Originally, the components were grouped into 6 **missions** in alignment with the six pillars of the NGEU, which have expanded to 7 with the addition of a chapter on RepowerEU. These are:

- Mission 1 – Digitalization, Innovation, Competitiveness, Culture, and Tourism;
- Mission 2 – Green Revolution and Ecological Transition;
- Mission 3 – Infrastructure for Sustainable Mobility;
- Mission 4 – Education and Research;
- Mission 5 – Inclusion and Cohesion;
- Mission 6 – Health;
- Mission 7 – RePowerEU.

These missions collectively address pivotal aspects of national development. The first mission centers on the modernization of public administration, digitalization and enhanced competitiveness of enterprises, and increased investments in tourism and culture. The Green Revolution mission strives for an ecological transition, emphasizing circular economy practices and sustainable agriculture, renewable energy adoption, and improving buildings' energy efficiency. Infrastructure for Sustainable Mobility aims to modernize and sustainably develop transportation networks, including roads, railways, ports, and airports. The Education and Research mission focuses on building a stronger and future-oriented educational system, enhancing education services, supporting research and innovation, and exploiting synergies between universities and private companies. Inclusion and Cohesion targets social and economic inequalities, to eradicate them by supporting the innovation of the labor market, citizens' participation in the workforce, and female entrepreneurship, while promoting territorial cohesion. Health envisions enhancements in the national health system, bridging regional disparities. Lastly, RepoweEU integrates the European strategy to achieve independence from Russian fossil fuels by 2030, contributing to broader energy security objectives.

Moreover, alongside the funds under the RRF, Italy has allocated an additional 30.6 billion in national resources through Law-Decree 59 of 2021, under the National Complementary Plan (*Piano Nazionale Complementare*). This plan comprises 30 projects, with 24 exclusively financed by the complementary plan, while 6 are also part of the NRRP.

France

The French NRRP, France Relance, combines resources from the RRF with national resources. Its plan revolves around three overarching **themes**: Ecology, Competitiveness, and Cohesion. In its commitment to Ecology, France aims to lead as Europe's first major decarbonized economy, striving for carbon neutrality by 2050, accelerating the ecological transition, and emphasizing initiatives like thermal renovation, industrial decarbonization, green hydrogen, sustainable transport, and agricultural transformation (République Française, 2023a). In addressing Competitiveness, France focuses on upgrading production facilities, investing in

future technologies, reducing production taxes, and bolstering support for research, training, and skill development (République Française, 2023b). Finally, under the theme of Cohesion, the plan strives to build a well-trained workforce by 2030. Special attention is given to providing robust support for young and vulnerable individuals seeking employment, focusing on preventing the widening of inequalities across the country (République Française, 2023c).

Germany

The German plan is structured around 6 **missions**, reflecting the European six pillars outlined by NGEU and delineating the main areas of intervention (BMF, 2021). Mission 1 focuses on Climate Policies and Energy Transition, showcasing Germany's commitment to environmental sustainability. Mission 2 revolves around the Digitalization of the Economy and Infrastructure, highlighting the importance of technological advancements for economic growth. Mission 3 targets the Digitalization of Education, aiming to modernize the educational landscape. Strengthening Social Inclusion - Mission 4 - underscores efforts to reduce societal disparities. Mission 5, on Strengthening the Healthcare System and Pandemic Resilience, acknowledges the critical need for a robust healthcare infrastructure. Finally, Mission 6 emphasizes Modern Public Administration and the Reduction of Investment Barriers, signaling administrative reforms to encourage investments and foster economic development. Each Mission encompasses various **components**, totaling 10. The plan was amended in July 2024 to add a REPowerEU chapter.

Spain

The Spanish Plan has 4 **cross-cutting lines of action**: (i) green transition, (ii) digital transformation, (iii) social and territorial cohesion, and (iv) gender equality (Gobierno de España, 2021). The four pillars traverse ten **lever policies**, further articulated into 31 **components** grouping the investment and reform projects. The 10 themes encompass a comprehensive range of areas, addressing strategies for urban and rural growth, resilience in infrastructure and ecosystems, a fair and inclusive transition to renewable energy, modernization of public administration, digitalization of industries and SMEs, recovery and promotion of tourism, innovation in science and healthcare, education and skill development, policies for a new care economy and employment, support for the culture and sports industry, and a modernized tax system fostering inclusive and sustainable economic growth.

To sum up, the number, focus, and labels of missions or components differ across countries. Yet, in substance, all four NRRPs remain broadly aligned with the EC's six pillars (see 1.3). Moreover, across all four countries, there is a consistent emphasis on promoting cohesion and reducing disparities, whether territorial, generational, or gender-based, highlighting these objectives as transversal priorities. We return to comparisons of concrete plans within each pillar in section 1.3 and to differences in national strategies for prioritizing economic sectors in section 1.4.

1.2. FUND ALLOCATION: FROM THE EUROPEAN COMMISSION TO THE FINAL IMPLEMENTING ENTITIES

Italy

In Italy, **central administrations** play a pivotal role in distributing funds. Key administrators include the Presidency of the Council of Ministers, with its various departments - such as the Department of Civil Protection, the Department for Sport, and the Department for Policies in Favor of Persons with Disabilities - the Ministries, and the Council of State. **Each measure** (further articulated in sub-measures) **within its designated components is assigned to a**

central administration that oversees specific interventions and funding lines.

Responsible administrations may directly implement projects or delegate responsibilities to other entities, including other central administrations, regional and local authorities, and various public or private organizations. The plan stipulates that 40% of the territorially allocated resources (funds that can be linked to a specific territory, unlike nationwide measures that have no geographic allocation) have to be directed to the South. The process of funds allocation differs from case to case. Viesti (2022, p.209) outlines the following framework, which includes several methods:

1. Central administrations serve as direct implementers themselves;
2. Central administrations transfer funds directly to private implementers, businesses, or citizens, for instance, through mechanisms like 'invoice discounts' for citizens' building renovations or tax credits for businesses;
3. Central administrations transfer funds to other implementing entities. According to the Court of Auditors, more than 53% of projects and 42% of the allocated funding involve municipalities as implementing entities (Corte dei Conti, 2021, p.8);
4. Funds can be assigned ex-ante in the plan text itself to major players in the extended public sector, such as Rete Ferroviaria Italiana (RFI);
5. Funds are allocated through **competitive tenders** issued by central administrations, mostly involving municipal administrations. In some cases, resources are pre-allocated to regions, and municipalities compete for them within regions. However, the competitive nature of tenders risks favoring municipalities with stronger administrations and existing infrastructure, potentially penalizing weaker areas and smaller towns, thus exacerbating regional disparities and undermining efforts toward territorial rebalancing (Viesti, 2022: 211).

The website Italia Domani provides a platform listing all calls planned, in progress, or launched by central administrations. In each call for proposals, the responsible administration outlines several key elements, including the objectives and financial allocation of the project, the eligibility criteria for applicants as implementing entities, the deadlines and submission procedures, and the evaluation criteria for each technical proposal and the ranking process. These specific aspects vary significantly.

Each technical offer must provide precise assurances from the outset regarding the achievement of results, relying on indicators such as milestones (significant administrative and procedural phases) and targets (expected results of interventions). Given the complexity of the process and of the requirements to fulfill, businesses frequently engage professional consulting firms to identify funding opportunities and prepare project proposals (Deloitte, 2023). Likewise, central administrations and local authorities may procure technical assistance and consulting services, as outlined in Circular No. 6 issued by the Ministry of Economy and Finance on January 24, 2022. For instance, Cassa Depositi e Prestiti plays a crucial consulting role for municipalities.

France

In France, the allocation of funds is swift but rather complex and organized mostly through simple public procurement, one-stop-shop arrangements, and calls for projects, possibly preceded by calls for expressions of interest, where the selection of beneficiary projects happens, but requires deadlines (Cour des Comptes, 2023). However, the funds distribution and its mechanisms are very intricate and opaque to disentangle, due to the complexity of their

financing structure[4] . There is a dedicated and regularly updated calendar with opening and closing dates, expected submission and announcement dates, linking each project call to the corresponding 'France Relance' measure[4]. The application of funds is organized according to the possible beneficiaries. The procedure distinguishes between individuals, companies, local administrations, and public administrations. On a dedicated government website, a list of open tenders is available, including information on tracking the projects.

The direct recipients of France Relance can generally be divided into three categories:

1. **Businesses**: they are the primary beneficiary category of the economic recovery plan, helping them boost their economic activity and promote the transition to a more ecological and sustainable economy. It is estimated that they will receive about half of the financial resources of the plan, equivalent to approximately 48 billion euros. The main measure benefiting businesses in terms of financial burdens is the reduction in production taxes, amounting to 20 billion euros. Other sector-specific or cross-cutting measures are also planned, including investments in railways (4.7 billion euros), the aeronautics and automotive sector (4.5 billion euros), culture (1.6 billion euros), and so on;

2. **Private individuals**: they are expected to be direct beneficiaries of only a tenth of the resources, approximately 10 billion euros, through measures such as increased allowances for returning to school or the integration of personal accounts. However, private individuals are also expected to indirectly benefit significantly from funds allocated to businesses. For instance, if the government provides incentives to businesses for hiring young and disabled workers, these target groups should benefit as their integration into the job market is facilitated;

3. **Public administrations**: they should receive about a fifth of the allocated resources for France Relance. A significant portion of the recovery plan's resources is expected to be primarily allocated to investments in healthcare (6 billion euros), research (2.6 billion euros), and digital technology (1.5 billion euros).

Additionally, the recovery plan also foresees financial support from the state to local authorities through revenue guarantees and support for local investments, estimated by the government at 5.2 billion euros. Furthermore, a set of measures has a cross-cutting nature, benefiting at least two major categories of recipients, such as businesses and individuals, or businesses and administrations in particular. Estimates indicate that these measures constitute about a fifth of the overall allocation, approximately 20 billion euros. For example, the 'Territorial Bank Revitalization Plan' (2.5 billion euros) aims to support both the construction of social housing and the promotion of small businesses through the creation of real estate companies. Moreover, the 'Fund for Supporting the Emergence of Sustainable Tourism Projects' (50 million euros) is directed at both businesses operating in the region and structures connected to local authorities, such as mixed economy enterprises.

Germany

In Germany, the main authority responsible for the process of fund allocation is the Federal Ministry of Finance (BMF), which receives money from the EC according to milestones and targets set in the Council Implementing Decision of 13 July 2021 (ST 10158/21). The funds then flow the money towards the competent and responsible Ministry. The disbursement of funds for the measures of the NRRP to the final recipients is generally carried out on the legal basis

4 The Relance Plan is partially funded through the central budget and partially through the European funds. The difference between these two streams of financing is often very difficult to disentangle, especially as a consequence of the striking fragmentation of the French budgetary process (Gensel, 2024).
5 https://www.economie.gouv.fr/plan-de-relance/appels-projets

of **funding guidelines for the respective National Plan measure** and based on **individual grant notifications (administrative acts)** in favor of the final recipients.

The BMF, or the federal ministry to which the BMF delegates funding and control functions, is in charge of elaborating funding guidelines. These guidelines typically set out the formal and material requirements for eligibility to apply, as well as exclusion criteria and general conditions, and must be set in accordance with the requirements of BHO, the **Federal Budget Code**, and, in particular, the General Administrative Regulations (VV-BHO). Therefore, each of the Plan's component investments and reforms typically identifies not just the funding guidelines and criteria, but also the target group - the possible applicants - and the objectives of the measure.

The federal administration must regulate the following elements when issuing funding guidelines for grants for project funding: it must '*..clearly and verifiably regulate the funding objective and the purpose of the funding, the object of the funding, the group of funding recipients, the special funding requirements, the type and scope as well as the amount of the funding, the other funding provisions, the procedure for the application, authorisation, payment and proof of use as well as the period of validity of the funding measure.*' (Deutscher Bundestag, 2021)

The legal form in which the funding is allocated depends on each specific measure of the plan and the guidelines elaborated for it:

1. Usually, the funding authority publishes a **call for proposals at the federal level**. An important part of them is based on **competitive bidding**, especially targeting private firms and research institutes for projects related to industrial digitalization and decarbonization, for example, regarding electromobility[6] , climate protection, and decarbonization contracts[7] (European Commission, 2024);

2. Other measures involve a less competitive, **two-stage process:** in the context of an expression of interest procedure, possible applicants provide a funding and project plan, and selected applicants are then consulted by the granting/funding authority, which is usually the relevant federal ministry, and invited to formally apply for a grant. This is, for example, what happens with the Hydrogen projects and the **ICPEIs**. In some cases, this involves a first-come-first-served basis when funding is then granted until the exhaustion of funds. More discretion (for strategic or sector-specific measures) and less competition in the application process are therefore used as a deviation from competitive bidding if allowed by the guidelines;

3. Finally, some measures entail more direct forms of public investment, grant allocation, or under **public procurement law**, with the federal authority granting money to competent state (ministries) and local administrations or their agencies in a non-competitive fashion, especially regarding healthcare, education or public transportation.

Spain

In Spain, access to the funds is governed by different legal tools. **Public calls are published by ministries, autonomous communities, municipal councils, state-owned public companies,**

6 Regarding electromobility, for example, of which the Ministry of Digital and Transport (BMDV) is in charge, information on public calls can be found here: PtJ: Förderung von Elektrofahrzeugen und Infrastruktur and Electromobility R&D (8/2021) - NOW GmbH (now-gmbh.de).

7 For example, regarding the Decarbonization contracts: 'The projects that will benefit from the aid will be selected through an open competitive bidding process and will be ranked on the basis two criteria: (i) the lowest aid amount requested per ton of carbon dioxide (CO_2) emissions avoided (i.e. the primary criterion), and (ii) the speed at which the projects can achieve significant CO_2 emission reductions.' (European Commission, 2023).

and other local entities. These follow different procedures depending on whether they are calls for grants or public tenders. Funds can be allocated either on a first-come, first-served basis or through a competitive bidding process. With the first approach, projects are chosen solely based on the order in which applications are received until the available funds run out. Conversely, the competitive bidding method involves evaluating and selecting projects based on their merits and alignment with specific criteria through a competitive process.

The non-competitive process applies to applications for funds from physical people, who need to meet the requirements and send the relevant documentation to be granted funds (interview_SP1). Autonomous communities can allocate funds directly through collaborations with other local entities, but then, in the second step, the entity has to publish a tender to allocate funds to the final implementers (interview_SP1). Moreover, public administrations can rely on minor contracts that do not need to be published for projects of small amounts to make analyses and examine the context before they publish a tender (interview_SP1).

Next to this framework, the government has established two mechanisms:

- **PERTE**: large strategic projects (12 in total) that require collaboration between administrations, businesses, and research centers. Calls are issued for each project (extended over time);
- **Expressions of interest**: consultations conducted by different ministries to analyze possible areas of intervention. Through these consultations, priorities and needs are identified, informing the lines of calls issued.

A dedicated portal publishes a semi-annual calendar of potential calls, allowing final beneficiaries to identify in advance which calls are of interest to them and plan the submission of their applications. Furthermore, weekly bulletins gather all the published calls and news related to the Plan.

To sum up, in this section, we have shown that in all four countries, fund allocation relies on various entities, from central to local authorities, and is characterized by different degrees of competition depending on the legal instruments used. Both Italy and France rely heavily on central administrations to channel funds vertically to lower tiers of government and private implementers and horizontally to other state agencies. In Italy, central administrations oversee measures within each component of the plan, with options to directly implement, transfer funds to private and public entities, particularly municipalities, or conduct competitive tenders. In France, public procurement and tenders are primary, supplemented by specific arrangements and calls for expressions of interest. Germany follows suit with centralized responsibility, yet differs from Italy and France in its concentration of power under the Ministry of Finance, which, supported by other federal ministers, defines funding guidelines, objectives, requirements, amounts, types of recipients, and application procedures. The main allocation tools are federal-level calls for proposals, expressions of interest, direct public investments, and grant allocations. Spain, on the other hand, diverges significantly, with autonomous communities assuming a more substantial role in fund allocation, distributing funds mainly

through public calls for grants and tenders, as well as other legal tools such as minor contracts, expressions of interest, and strategic projects open to collaborations.

	Key actors	Key instruments	Degree of competition
Italy	Central administration, local authorities (especially municipalities, but in a second step)	Direct implementation, direct allocation, and competitive tenders	Both first-come-first-served and competitive bidding
France	Ministries and other specialized units within central administrations	Public calls, public procurement, one-stop arrangements, and calls for projects (following expressions of interest)	Both first-come-first served and competitive bidding
Germany	Ministry of Finance (BMF) and other Federal Ministers	Public calls for grants and subsidies, large projects, expressions of interest, direct allocation, and investments	Different degrees of competitiveness depending on the legal tool: mostly competitive bidding, but also direct non-competitive allocation of funds
Spain	Central government, autonomous communities	Public calls (grants, tenders, and calls for large projects), minor contracts.	Both first-come-first-served and competitive bidding.

Table 1.2 – Process of funds allocation.

1.3. ALLOCATION ACROSS THE SIX PILLARS

With Regulation (EU) 2021/241 establishing the RRF, EU institutions have identified six policy areas, called 'six pillars', expected to be addressed by the NRRPs:

1. Green transition;
2. Digital transformation;
3. Smart, sustainable and inclusive growth;
4. Social and territorial cohesion;
5. Health, economic, social and institutional resilience;
6. Policies for the next generation.

The EC has further established that at least 37% of the expenditures of NRRP must be allocated to projects contributing to climate objectives and at least 20% to digital objectives. This prioritization aligns with the EC's policy objectives and its commitment to advancing the 'twin transition' of digitalization and sustainability (European Commission, 2020). Figure 1 shows how resources have been allocated across the six pillars in each original national plan

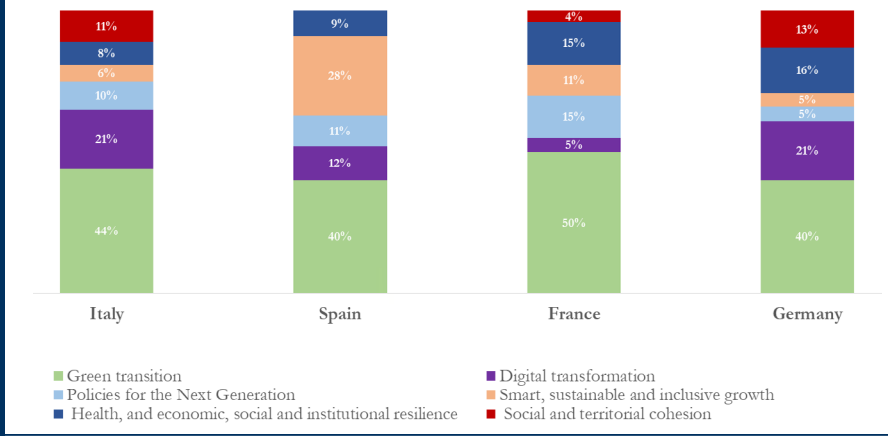

Figure 1.1 – Initial distribution of resources across the six pillars, as described in the national plans as for 2021. *Source*: Author's elaboration based on Corti et al., 2021.

Below, in Sheets from A to F, we analyze a sample of projects implemented in Italy, France, Germany, and Spain within each of the EC's six pillars to open the black box of sometimes elusive labels such as 'Green Transition' and identify some of the concrete measures behind them. To do so, we rely on a sample of projects reported by the EC[8]. The EC uses these projects to create an interactive map illustrating supported projects in member states. As the EC notes, the map is an ongoing project and serves primarily an informational purpose. While it does not constitute an exhaustive database of projects nor capture the entire spectrum of projects, we contend that the specific examples it provides still offer valuable microdata for a more detailed understanding of the nature of projects under each pillar. Given the limitations of this database in terms of representativeness of the whole universe of projects, in the next section (1.4) we complement this analysis with a careful assessment of the projects implemented by the first 100 main recipients in all four countries, data made available upon the EC's request to enhance transparency given the difficulty of pinpointing the exact projects receiving funds (Jones, 2023).

8 The sample, accessed in March 2023, is available at the following website: https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en#rrf-supported-projects-in-the-member-states

Sheet A – Green Transition

Italy	The focal point of projects revolves primarily around the advancement of high-speed railways aimed at diminishing travel time and augmenting railway capacity. Upon completion, the travel duration between Naples and Bari is anticipated to be reduced to 2 hours, a significant improvement from the current 3.5 hours, accompanied by an enhanced capacity from 4 to 10 trains per hour. A similar transformation is expected between Palermo and Catania, where the travel time will be condensed to less than two hours. Notably, projects, such as the railway connecting Salerno and Reggio Calabria, are strategically designed to enhance network accessibility for areas of considerable tourist significance. The overarching plan sets ambitious objectives, aiming for the development of 274 km of high-speed railways in the South and 180 km in the North of Italy by 2026. Furthermore, it envisions the creation of 87 km of high-speed railways to facilitate diagonal connections in the Centre-South.
France	The examples of projects span from the thermal renovation of public buildings and sustainable urban housing to the revitalization of industrial sites. According to the database, the thermal renovation of the Pavillon Gréard in the 'Cité internationale universitaire de Paris' has already resulted in a 53% reduction in energy consumption. Other universities' residences are involved, such as the Vauban Building at Nîmes University, but also public buildings, as well as private housing, are involved in thermal renovation projects. To repurpose underutilized areas for sustainable housing solutions, an industrial brownfield has been converted into 25 social housing units in Yvré-l'Evêque. Other measures supporting the decarbonization of the industrial sector, such as a project dedicated to modernizing the production processes of the textile company Petit Bateau in Troyes and a project aiming to cut CO2 emissions by 40% in the Industrial Site of Luzéal in Récy. Additionally, the French Green Pillar includes measures that allocate funding to municipalities to support their efforts to increase housing density in areas affected by housing shortages.
Germany	The only examples reported concern Hydrogen projects within the framework of IPCEIs (Important Projects of Common European Interest), which involve a total of 22 EU countries (and Norway) and aim to promote market ramp-up of green hydrogen through 62 projects planned in Germany[9] , and support for the development of a climate-friendly timber construction production in Bavaria.
Spain	Several initiatives concentrate on the transport sector. Unlike the Italian counterparts, the examples reported are more oriented towards urban transportation rather than interconnecting distinct urban or rural regions. The overarching goal is to decrease the use of private vehicles in urban settings by 35% by 2030 nationwide. Specific endeavors include expanding biking lanes in Madrid, enhancing public transportation in Barcelona, and supporting the deployment of electric and connected vehicles, exemplified by the expansion of public charging stations. Funds are also allocated directly to autonomous provinces for the acquisition of electric vehicles and the establishment of charging infrastructure. Furthermore, examples encompass initiatives such as the development of a prototype for a 12-meter electric bus or the integration of hydrogen technology into its sustainable mobility model in the city of Palma. Aside from projects to improve the sustainability of urban transportation, other examples of projects falling under the Green Pillar in Spain include the rehabilitation of public buildings, efforts to enhance the sustainability of maritime transport through decarbonization, and initiatives for energy renovations in public spaces. Moreover, there are a plethora of projects dedicated to improving the efficiency and sustainability of irrigation and to the conservation of terrestrial and marine biodiversity. These range from initiatives contributing to the restoration of soils and biodiversity to the regeneration of salt lakes and sandy areas. Additional examples include pilot projects focusing on energy communities, efforts to boost competitiveness and industrial sustainability, the introduction of waste regulations, the promotion of the circular economy, and projects dedicated to strengthening the sustainability of the tourism sector.

9 Bundesministerium für Wirtschaft und Klimaschutz, BMWK. (2021): 62 large-scale hydrogen projects are to receive public funding under an Important Project of Common European Interest (IPCEI) for hydrogen. The IPCEI Hydrogen was launched to promote the market ramp-up of green hydrogen. It was signed by 22 EU member states and Norway in order to interlink national hydrogen projects and use spill-over effects at the European level. The 62 selected German projects will be funded with a total of 8 billion euros, of which 1.5 billion euros will come from the Recovery Plan.

Sheet B – Digital Transformation	
Italy	The initiatives reported focus solely on the digital transformation of Italian schools. The projects involve creating technologically advanced facilities and flexible environments to facilitate increased digitization of teaching. The aim is to transform 100,000 classrooms into innovative learning environments by 2025. These environments will be equipped with a blend of digital, physical, and virtual technologies to enhance the overall learning experience.
France	Several specific digital transformation initiatives are reported. One initiative consists of training 300 digital advisers in rural and deprived areas, training and hiring 4.000 additional digital advisers for the general public. Other measures target SMEs, providing them with subsidies to promote a digital upgrade of industrial companies, with more than 3.500 industrial SMEs having already received subsidies by the end of 2022.
Germany	The examples of digitalization initiatives center primarily on the digitalization of railway operations, under the 'Digital Rail Germany' and 'fast track' programs that gather public and private stakeholders. The beneficiaries of these initiatives have received funding to replace outdated signal boxes and level crossing protection systems with modern, interoperable digital security solutions. Furthermore, Germany has implemented measures to enhance digital teaching and learning in schools nationwide. The federal government, supporting individual states (Länder), allocated funds for the provision of mobile devices and software to aid teachers in the preparation of lessons and in the implementation of digital teaching.
Spain	The different examples have a distinct focus. Firstly, there is a significant investment aimed at digitalizing the value chain, modernizing medium-sized enterprises (SMEs), and including them in the value chain. This involves the expansion of digital infrastructure through advisory and training services. Additionally, projects are underway to modernize municipal markets, for example, by establishing free Wi-Fi zones and installing photovoltaic plates, enhancing local trade, improving road infrastructure, and providing technological tools for effective co-governance between the commercial sector and local administration. Small enterprises, together with micro-enterprises and the self-employed, are also beneficiaries of a program to boost their digitalization by providing digital vouchers to firms, through which beneficiaries can acquire services from a list of digital service providers. Spain is also making strides in quantum computing infrastructure and has launched a program to accelerate the digitalization of small enterprises, micro-enterprises, and the self-employed through digital vouchers. Next, telecommunications operators are actively involved in deploying high-speed broadband infrastructure. Furthermore, a comprehensive cybersecurity initiative spans various sectors such as mobility, aerospace, smart industry, energy, health, and smart cities, with a plan to create an interconnected network across Autonomous Communities. Other examples of initiatives concern cultural heritage benefiting from intelligent services, a national blockchain network under construction, AI development in various entities, a project developing a digital and territorial network for monitoring forests and reducing environmental disasters, and solutions to promote assistive robotics or accelerate digital transformation in the agro-food sector. The digitalization drive also encompasses language preservation, as seen in the project dedicated to defending and promoting the Spanish language in the digital realm and within artificial intelligence technologies. Additionally, strategic initiatives in the field of aeronautics, including funding for R&D-intensive projects, underscore Spain's commitment to technological advancements in key sectors.

Sheet C – Next Generation

Italy	The project examples encompass diverse initiatives aimed at enhancing various aspects of educational and infrastructural development. These include seismic retrofitting interventions and other maintenance work to enhance buildings' safety and the creation of new buildings to host schools, preschools, and kindergartens.
France	The focus of this pillar centers on employment, primarily through subsidies for hiring individuals below the age of 26. This reflects a commitment to support the younger workforce and mitigate unemployment challenges among the next generation.
Germany	German projects emphasize childcare facilities as a key aspect of its Next Generation initiatives. The country has embarked on an initiative to fund the creation of new childcare facilities and refurbish existing ones, with a significant goal of generating an additional 90,000 childcare places.
Spain	Initiatives span vocational training, the establishment of new higher-level vocational professional training courses, the recruitment of researchers and research technicians, and the creation of additional places in the first stage of infant education. Notably, a project focuses on enhancing pre-employment skills for vulnerable young individuals in the horeca sector.

Sheet D – Smart, Sustainable and Inclusive Growth

Projects under this pillar exhibit a diverse range of heterogeneous measures across various sectors, aligning with initiatives under different pillars, in particular the green and the digital ones.

Italy	The examples reported highlight Italy's commitment to assisting 4.000 SMEs in their digital and ecological transitions or internationalization efforts. Concrete illustrations encompass the installation of photovoltaic panels and energy consumption reduction measures in a textile company and support for the creation of a new website to introduce product innovations to the market, digitalization of operations, and IT systems upgrade, along with internationalization activities for another company.
France	Initiatives involve the ecological bonus scheme, providing bonuses to households for purchasing clean vehicles, funding projects to modernize the EODA production process, making it greener, and expanding and improving the energy efficiency of the cultural center Fabrique Pola.
Germany	This pillar includes a special program to expedite the research and development of urgently needed vaccines against SARS-CoV-2, supporting the development of three different vaccines, enabling the production of 3 billion BioNTech vaccine doses only in 2020. Additionally, 23 projects promote the use of timber as a climate-friendly building material, fostering innovation clusters and consulting activities for the greater utilization of timber in construction, aligning with digital transformation initiatives.
Spain	Projects aim to promote R&D, expand the workforce, and enhance access to culture. R&D initiatives involve developing advanced AI solutions for efficient industrial management in the food sector and vaccines against the syncytial respiratory virus. Active labor market policies include measures to improve employability, facilitate integration into the labor market for women, and encourage the recruitment of unemployed people in rural areas. Cultural access improvements include initiatives to enhance reading rates in public libraries and the preservation and modernization of the historical heritage of the Paradores network.

Sheet E[10] – Health	
Italy	Measures center on the training of employees in the health sector, as well as on the modernization of technologies, equipment, and buildings. Measures include, for example, an infection training course and general practice training. Moreover, measures also include urban interventions to increase safety in cities, such as hydrogeological risk containment measures and the renovation of roads in areas prone to floods.
France	No example was provided.
Germany	Examples reported concern the modernization of several hospitals, promoting their digitalization, with an eye on cybersecurity, and fostering their infrastructures as well as medical care and capacity to respond to emergencies.
Spain	These measures focus on refurbishing high-tech equipment throughout the national territory. The initiative involves replacing pieces of equipment that are over 12 years old and increasing their numbers to enhance the diagnostic capabilities of health centers. Additionally, two measures concern the creation of a nursing home and tests to develop technology related to polymer science. These efforts contribute to the advancement of new medications for diseases such as cancer, Parkinson's, and Alzheimer's.

10. Table updated with data accessed in September 2025.

Sheet F – Social and territorial cohesion

Italy	Examples of measures include projects aimed at increasing the autonomy of people with disabilities, such as renovation of home spaces and provision of ICT devices to disabled people, accompanied by training on digital skills. Other initiatives concern the creation of social housing units, urban renewal of streets and squares, the creation or requalification of sports centers, and a measure to support parents with children with the development of a new framework that supports parents in daily struggles and fosters families' integration in their territory through local services that bring together groups of parents and children.
France	No example was provided.
Germany	No example was provided.
Spain	Several measures are focused on improving access to culture. Efforts to increase the reading rate involve the purchase of paper books for public libraries, with an anticipated addition of 450,000 new books. Next, there are initiatives targeting vulnerable groups through pilot projects to develop socio-economic programs for minimum income beneficiaries. These programs concentrate on various areas, including labor markets, education, social support, digitalization, health, long-term care, and housing. Renovation aid at the district level is another area of intervention, encompassing measures for the refurbishment of 22,622 dwellings across 10 Autonomous Communities. Multiple measures concern the construction of social housing. Moreover, a project funds an international talent attraction program, designed for European entrepreneurs living outside of Spain, which also aims at creating a European network of female entrepreneurs. Additionally, this pillar includes initiatives that target migrants, and in particular aim at ensuring an inclusive and high-quality reception of migrants, particularly focusing on ensuring an inclusive and high-quality reception through projects like the construction of a migrant arrival center.

1.4. FIRST 100 BENEFICIARIES: A COMPARATIVE ANALYSIS

Since 2023, following an amendment to the RRF Regulation, the EC requires recipient countries of the NGEU funds to publish a list of all the 100 major beneficiaries, in an effort to facilitate monitoring and increase transparency.

Such a legal obligation to transparency has been interpreted to different extents by countries: whereas in some cases a clear and sincere effort to guarantee transparent, open and informative data is recognizable, in others, the list of recipients has been published mostly to comply with the rules. This different interpretation of the requirement has also influenced the quality of the data coming from those lists: in some cases, one can easily find extensive data on the recipients as well as a detailed description of the projects, whereas in others, information is rather schematic and scarce. For example, the data provided by the Spanish and Italian governments, in terms of completeness and clarity, is much more accessible than their German and French counterparts: both Italy and Spain published the entire list of recipients with rather clear descriptions of the projects connected to the funding allocation. Notably, Spain has detailed in its list, in cases of beneficiaries who successfully applied for more than one project, which are the different projects, their relative quota of funding, and the component they address. Moreover, it also published a separate document with the list of the 50 biggest tender winners, namely the 50 main companies responsible for carrying out the public works and services, i.e., the actual Plan projects. Construction, engineering, and logistics companies in railway infrastructure or public transport, that are also carrying out the incorporation of electric vehicles, and digitalization entities clearly stand out. In this way, the Spanish data make it possible to '*follow the mone*y' one step further to the concrete tender winner and implementer/provider company.

Conversely, in Germany and France, information is limited to the main 100 recipients, and the description of the projects is rather vague, mostly connected to each pillar it should address. In Germany, for example, when a beneficiary receives money for different pillars, or components, it is not possible to know how much of the total funding goes to what specific project.

These differences and limitations require, therefore, a number of caveats. Data is not fully harmonized, and therefore perfectly comparable across our four cases, and its incompleteness leaves some specific projects/beneficiaries particularly difficult to categorize and interpret. Also, the data provided represents only a minor part of the whole National Plans and their funding. However, they still represent the biggest beneficiaries in absolute terms, and therefore a valid proxy for each government's set of priorities, and leave some space to reflect on the wider scope, ambition, and interpretation of each plan, which we will try to address in the final paragraph of this section.

Below, we analyze and compare the 100 biggest recipients across Italy, France, Germany, and Spain[11] . Table 1.3 reports the value of the total funding allocated to these countries in absolute and relative terms. Such a comparison can help us understand the main priorities of governments in setting up the plans: we have analyzed the projects in reference to different spending categories, shedding some light on which sectors of the economy benefited more from the different national plans. From such observations, we can inductively assess what type of sectors, industries, public and private actors have been prioritized by the governments and the EC. We therefore analyzed the recipients in reference to the sectors in which they operate.
The comparison follows the previous order of countries.

11 The European Commission publishes data on the 100 final recipients on the Resilience and Recovery Scoreboard, available at: https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/disbursements.html?table=finalRecipientByCountry.

	Italy	France	Germany	Spain
Total funding, first 100 recipients	53,421,204,064	26,130,809,210	3,857,369,186	5,111,912,896
% of National Plan	27,48%	64,88%	13,76%	3,13%

Table 1.3 – Funds allocated to the first 100 recipients.

Italy

In Italy, the first 100 projects of the RRF have benefited almost exclusively from investments in infrastructures. Investments in physical and transport infrastructures represent more than half the projects. In the area of physical infrastructure, most of the investments are concentrated on transport, both at the national and the local level. Many of the projects categorized in this sector are carried out by Rete Ferroviaria Italiana for the development of the national railway network. Next, we find investments to improve local transportation by modernizing and greening the local public transport systems. The remaining investments are spread across sectors and are mainly implemented by public companies.

Several investment projects cover digital infrastructures: these investments involve either public-controlled or private companies for the development of broadband networks, smart grids and increasing cybersecurity. Similarly, in the healthcare sector, many interventions aim at increasing its level of digitalization.

Concerning social protection and employment, a large chunk of projects is dedicated to ADI (*assistenza domiciliare integrata*), a social project that involves healthcare authorities and social services to help people with underlying fragility. Moreover, a few large projects also included investments in social housing and urban development.

On the contrary, support for industry, in the Italian plan, is very limited, showing the lack of an industrial policy strategy behind the creation of the plan.

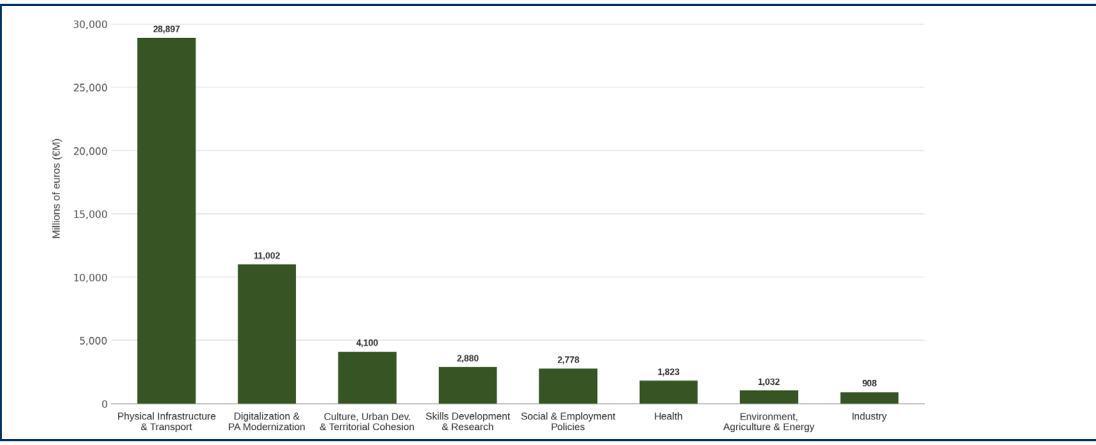

Figure 1.2 – Allocation of funds for the first 100 recipients across different categories in millions of euros in Italy (Italia Domani, *n.d.*).

France

The French plan exhibits an ambivalent strategy of investment. A considerable share of the beneficiaries listed in the top 100 includes public entities like universities and various sectors of public administration. Numerous small-scale projects have supported medium and small universities and research centers, emphasizing research and skill development. Additionally, a significant part of projects has addressed environmental concerns and decarbonization, particularly through building retrofitting and support for the agricultural sector in adapting to climate change. Furthermore, a notable number of projects fund large cultural institutions, including major museums and national attractions. This emphasis on large cultural institutions suggests that the plan also aimed to compensate the tourism sector for losses incurred during the pandemic, to bolster its recovery through fresh investments.

When examining the millions disbursed for each category, a different picture emerges: investments in social employment policy are the largest component. This disparity is primarily to be attributed to the substantial size of one of the largest projects within the French RRF, an employment support initiative aimed at incentivizing the hiring of young workers under 26. This initiative accounts for over 40% of the entire French plan and serves as a cornerstone of the competitiveness strategy outlined in the French RRF, representing a significant portion of the overall financing. Under the '1 Jeune 1 Solution' program, companies receive approximately 4000 euros per year for each worker hired under this scheme. Additionally, investment in transportation gains prominence when considering the amount of euros disbursed due to the substantial costs associated with the few projects implemented. One such project, focused on enhancing public railway infrastructure, ranks as the third largest project within the entire plan.

The perceived decrease in the importance of skills development and environmental funding can be attributed to the smaller scale of many projects within these categories. Other categories, such as support for the industry, demonstrate a modest number of projects, albeit with relatively small individual project sizes.

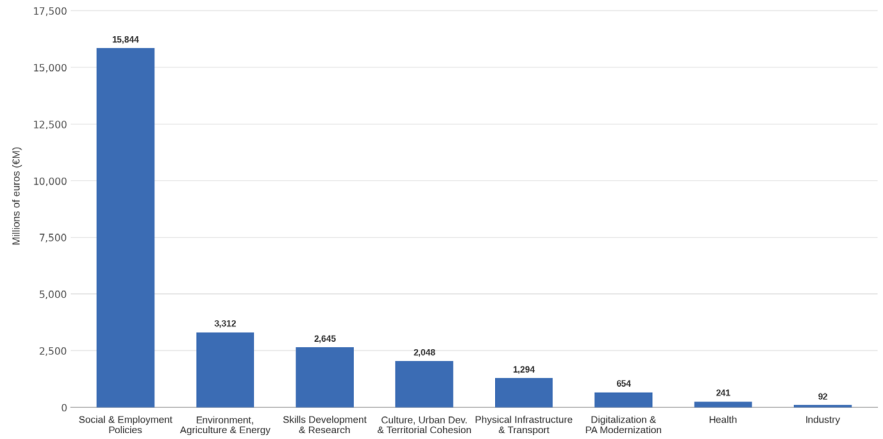

Figure 1.3 – Allocation of funds for the first 100 recipients across different categories in millions of euros in France (Ministère de l'Économie, 2025).

Germany

In Germany, *Digitalization & PA Modernization* represents the largest spending category in terms of both absolute funding and the number of projects[12] . However, it is noteworthy that nearly 40% of these funds are allocated not directly to public sector entities or public law companies,

12 The information and data in the following section and in the graphs are retrieved by the list provided by the Federal Ministry of Finance (BMF, 2024), own translation, calculation and categorization.

but predominantly to private consulting firms. These consist of large and famous transnational consulting firms - such as McKinsey, Ernst & Young, and Accenture - or less famous international or German companies. The remaining is channeled to public providers of IT services at the subnational level or to PD (*Berater der öffentlichen Hand GmbH*) - a large public sector consulting and publicly owned company that provides counseling and management services to various levels of the German state - or to private IT services, cloud, computing, and digital providers. Administrative digitalization through the implementation of the Online Access Act (OZG) or the Register Modernization Act (RegMog) is the main goal of these projects (BMF, 2024).

Skills development & Research comprises spending for Education in primary and secondary school, which is almost exclusively disbursed to Länder authorities (Ministries of Education, or equivalent) for the *purchase of teachers' terminals*. This amounts to almost 60% of this category. There is not, in the first 100 projects, any skilling, re-skilling, ALMPs, or public teachers' employment plans, and so on. The rest is divided between R&D investment (15%), mainly to Research Institutes, or to the German Aerospace Center, for example, with a quite diversified R&D orientation, and the remaining 25% made up of 3 important grants to Military Schools and research institutes for training and education facilities of the Bundeswehr.

Health represents the third biggest category of spending. Almost 75% of it consists of two - very large - disbursements to giant private biochemical companies (375mln to BioNTech and 200mln to CureVac) for measure 5.1.3. of the Plan '*a special program to accelerate the development of urgently needed vaccines against SARS-CoV-2*', and only the remaining 25% to public hospitals, research clinics, medical schools, or universities. These are mainly granted as subsidies for the '*Future Program for Hospitals*', or as grants to competent Ministries at the Länder level for the 'Digital and technical strengthening of the public health service'. Regarding *Infrastructure and Transport*, the single biggest project in this category, and also the biggest project in the German Recovery Plan, consists of an investment grant to Deutsche Bahn of 500.000.000 euros to promote the digitalization of the railway and accelerate the rollout of the '*Digital Rail Germany*' program[13]. This single project represents almost 90% of the whole category.

In the realm of *Industry*, the automotive and vehicle-producing sector emerges as the sole recipient of funding, amounting to nearly 500 million euros overall. This sector notably constitutes a significant portion of the first 100 projects in numerical terms, ranking as the second-largest category with 24 projects. However, what stands out as particularly interesting is the unique approach taken by Germany in the automotive sector. While direct support to car manufacturers and their suppliers, including components like EV batteries and digital components, could have been categorized as 'direct support', this represents less than 33% of the total allocation to the sector. The majority of the funding is allocated to private vehicle renting, subscription, and sales companies, incentivizing the sale and circulation of electrically powered vehicles. This is primarily facilitated through innovation (tax) bonuses, indicating a 'market-making' strategy oriented towards stimulating the market for electric vehicles rather than directly enhancing production capabilities or technological advancement in the automotive sector. Therefore, this approach could also be seen as a form of 'indirect support' for the automotive industry. This is mostly made through 'innovation (tax) bonuses': this strategy seems not oriented towards an increase, or a modernization, of the supply of electric car production, but rather through a sort of mechanism, incentivizing the sale, renting, and circulation of electric vehicles. It could also, therefore, be categorized as a form of 'Indirect support' for the automotive sector. The far-sightedness, impact, and efficiency of this strategy, of course, are debatable, but it remains a distinctive aspect of the German Plan, setting it apart from approaches seen in other countries such as Spain, where the automotive industry also plays an important role.

13 https://www.digitale-schiene-deutschland.de/en

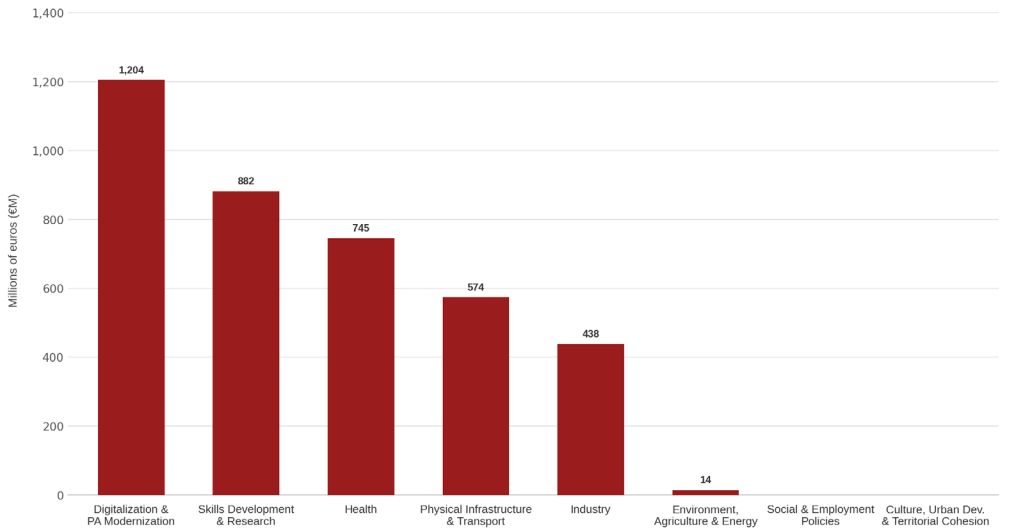

Figure 1.4 – Allocation of funds for the first 100 recipients across different categories in millions of euros in Germany (BMF, 2024).

Spain

According to the Spanish government, approximately 89% of the funds received by the top 100 recipients in the list were earmarked for '*...green investments, especially for sustainable mobility in three areas: rail infrastructure, conventional and high-speed rail, sustainable mobility in urban areas and the value chain of electric and connected vehicles*' (Gobierno de España, 2023b).

According to our analysis, the Spanish Plan, similarly and even more so than Italy, exhibits an evident and strong focus on physical and transportation infrastructure. This accounts for more than €4 billion, 80% of the money and nearly half of the projects of the first 100 recipients. 80% of this category is for larger, national infrastructures and in particular for funding investment and modernization of the train transportation system, railways, and logistics, with the beneficiaries comprising in particular railway companies, from production to freight and consumer transportations, public and private; but also large international and national logistics and maintenance providers. Of secondary but still noteworthy importance, projects related to ports and shipping infrastructure. It is important to note that the two biggest projects in the Plan, accounting for more than €2.5 billions, are granted to ADIF (*Administrador de Infraestructuras Ferroviarias*), which is the country's railways infrastructure public monopolist company, and especially to its high-speed provider branch. The remaining 20% is directed to municipal and local transportation, in particular to the development, production, and construction of EV buses, or tramways; in these cases, most of the money flowed directly to the *Ayuntamientos* or to municipal, public transport providers.

Industry, almost 600 million and 25 projects, especially catered to ramp up *Industrial Policy* 2030. The automotive sector, which represents 65% of it, is the central focus of these projects, but not as exclusively as in the German plan. Among the biggest recipients, the Spanish branches of transnational car manufacturing giants such as Stellantis, BMW, Volkswagen, and SEAT. An important portion of the money also went to Spanish and international firms in the vehicle-producing supply chain, mostly connected to specialized suppliers of technologically advanced components connected to digital systems production (Industry 4.0) and electromobility, batteries, and so on.

Projects related to Digitalization and Modernization of the administration, or to R&D, are less

important numerically than in the other countries, and concentrated in a few big grants to public Research Institutes, such as the Barcelona Supercomputing Center or the *Instituto Nacional de Ciberseguridad de España*, but also to private engineering and industrial corporations.

The other categories cater to other specific sectors of the Spanish economy: for example, in Environment, Agriculture and Energy, an important (although maybe indirectly) benefited sector is tourism, which benefits indirectly from the projects of preservation of the coastal environment and the littoral areas, and, less importantly, the energy sector. The housing sector, which forms an important part of the category Culture, Urban Development and Territorial Cohesion, a category for which Spain has the highest number of projects, mostly disbursed as grants to municipalities for '*plans of Housing Rehabilitation and Urban Regeneration*'. Finally, and interestingly, Spain has only one project related to Health, setting the country apart from the other cases, especially Germany and Italy.

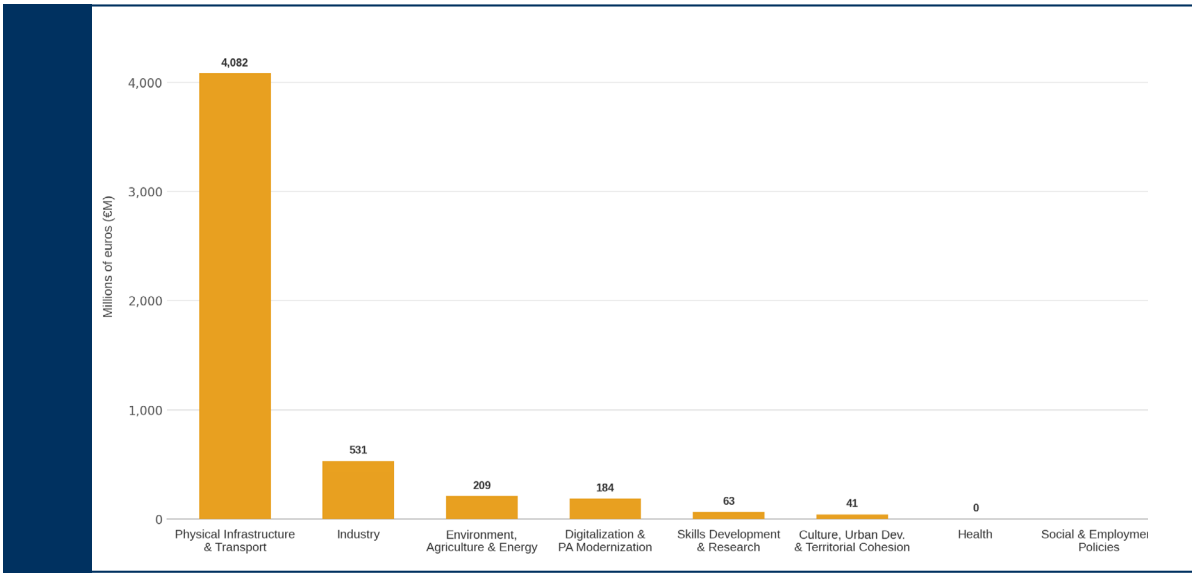

Figure 1.5 – Allocation of funds for the first 100 recipients across different categories in millions of euros in Spain.

1.5 THE FIRST 100 RECIPIENTS - COMPARISON BETWEEN COUNTRIES

Drawing a comparison between the first 100 recipients in the four countries considered, we can infer some of the priorities of governments in setting up the plans. We identify at least four different interpretations of the plans.

First, some countries have used the Recovery Fund as a strategy to sustain their industrial sector directly, while others have not. For instance, Spain and Germany have devoted many funds to industry support, especially and almost entirely to the automotive sector. These funds are mainly channeled with the aim of sustaining and stimulating the ecological transition and modernization of the vehicle-producing sector of their economies, with the obvious centrality of the car-manufacturing branch. This sector is indeed, while of course particularly central for the green transition, also extremely subject to technological, competitive, and sustainability pressures that have placed it in difficult terrains. Italy and France, on the contrary, show little to

no direct or indirect support for industry, signaling the absence of industrial policy priorities in their plans.

This difference can be justified by the sheer importance of the automotive sector in the considered economies: in turn, Germany and Spain are the largest automotive producers in the European Union, with Spain having surpassed Italy in the second position (Montoriol-Garriga & Diaz, 2021). However, this different emphasis can also conceal a different understanding of a recovery plan as an instrument to sustain industry, or symbolize a less coherent, and ultimately less effective capacity of elaborating industrial policy strategies, a particularly worrying takeaway given that, for example, Italy - despite the decline of its automotive sector and the process of deindustrialization of the country - remains the second manufacturing and industrial economy in the Eurozone (Pianta, 2021). Furthermore, if we look more closely at the industrial policy use of the Recovery Fund, we can see some differences between Spain and Germany. Both countries used the NGEU grants as an opportunity to transform their automotive industrial base towards green objectives. In Germany, while the totality of the investments catering to industry among the biggest 100 recipients is oriented towards the automotive sector, less than a third is directly spent on investments on productive innovation, electrification and decarbonization of the industry (direct support to its car producers, or suppliers), while the majority of the funds are spent, in a sort of market-making attempt, to stimulate the consumption, sale, circulation and renting of electric vehicles, through tax incentives and other benefits to renting and car sales companies. In Spain, on the other hand, the funds for Industry, which are explicitly earmarked for a component called Industrial Policy 2030, are still heavily (65%) but not exclusively catered to the automotive sector, showing a more variegated and diversified attempt to modernize the country's industrial base. At the same time, the investments for the automotive sector, both to car producers and suppliers, show a remarkable interest in developing a high-quality and competitive supply niche for Industry 4.0 and EV batteries in the automotive sector.

Second, there is a strong emphasis in all plans on investment in infrastructure, especially transport infrastructure. Striking examples are the Spanish and Italian recovery plans, where investment in national rail infrastructure and local public transport is a clear priority. This category includes both investment in high-speed networks and urban and local transportation, such as through the replacement of local bus fleets with electric vehicles. This emphasis on infrastructure development, which is particularly evident in Spain, is part of a broader strategy to increase the potential of the economy. In contrast, Italy's plan lacks a clear alignment of this infrastructure-focused strategy with the emphasis on industry, raising questions about its overall objective. For Germany, among the 100 recipients, this emphasis is less important, and concentrated in only one relevant investment grant, worth half a billion euros, to Deutsche Bahn for the digitalization and modernization of the country's railway system.

Third, countries such as France have used the plan to promote a competitiveness strategy based on active labor market policies and an active role for the state in investing in the country's growth potential. This strategy focuses in particular on promoting youth employment. In fact, one of the plan's main interventions is the financing structure of a new government-backed scheme for hiring young people under 26. In France, this strategy is also accompanied by a focus on skills development and research, with particular emphasis on investment in less central and larger universities. In this type of investment, we can see the pursuit of the French principle of the 'investor state', i.e., a strategy of increasing the growth potential of the economy by investing in research and education with an applied vision (Lepont, 2023). Research and education are seen as engines of transformation and innovation for the economy, capable of generating new growth opportunities in the medium and long

term. This strategy sees public investment as a self-repaying form of expenditure, since it can increase future revenues thanks to its growth-enhancing properties. Although this strategy is in continuity with the French approach to public investment and to public spending in general in recent decades, we can see here the inclusion of a redistributive logic, as it targets a wide range of institutions, even outside the country's traditional centers of excellence. This could be an attempt to reduce territorial inequalities and to mitigate the typically elitist nature of the French university system.

Fourth, and finally, we detect an approach centered on the digitalization and modernization in the public sector, especially in Germany, the country that spent more of its funds on this category, and to a lesser extent in Italy. On the surface, such an approach could be seen to have possible similarities and complementarities with the one presented above and centered on the French example, also considering the important spending of Germany on other categories, like Skills and R&D development and Health, which could complement a strategy centered on the modernization, innovation and strengthening of the broad public sector, not just in administrative terms but also including research and skill formation. However, at a closer look we see that, regarding the former (R&D), Germany had no plans among the biggest 100 related to ALMPs or education, if not for an important funding of teachers' terminals in primary and secondary schools. Regarding Health, we showed how a huge part of the money went directly to biochemical manufacturing giants for the production of emergency anti-COVID vaccines, rather than as human or capital investments in research institutes. If we then look more closely at the projects related to Digitalization and modernization of the PA, the biggest category in Germany (30% of the projects and 1.2 billions), we notice that these funds were channeled importantly through consulting companies and secondarily to IT service providers, mainly to increase digitalization of the administration, rather than increase the workforce or the skill level of the public administration, or into substantive public investments. Our interpretation is that this overall approach of Germany is more an attempt to compensate for previous weaknesses of the underfunded, underinvested and comparatively less digitalized public sector of the country, coupled with the delegation of money and counseling functions to private consulting companies (with dubious effects on long-term growth), rather than an organic growth strategy based on the creation of a strong, knowledge-economy oriented public sector (Pavolini et al., 2023; Hassel & Palier, 2025).

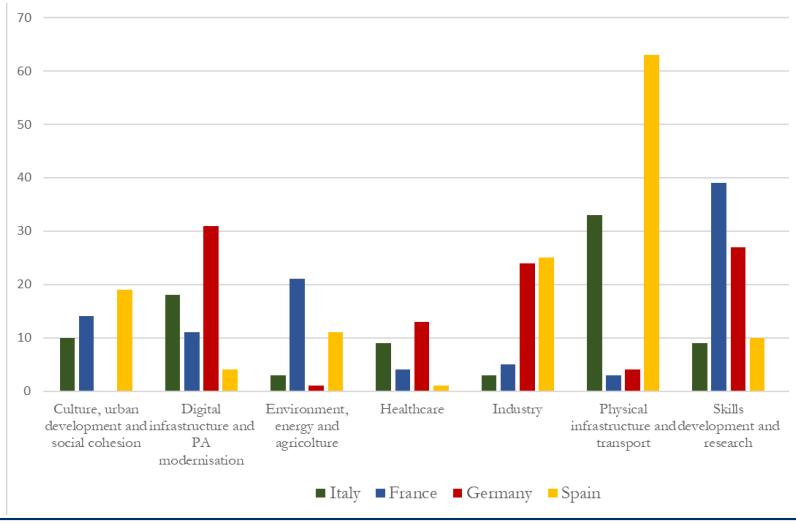

Figure 1.6 – Comparison in terms of number of projects per category.

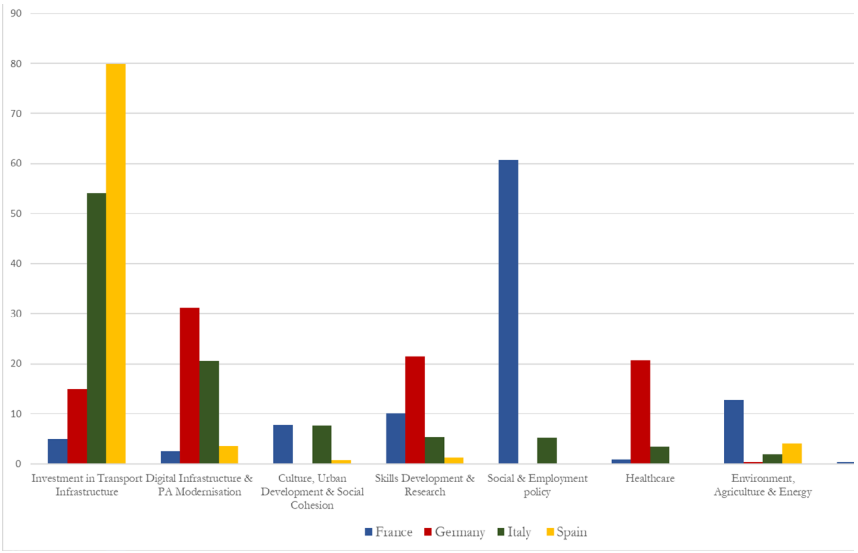

Figure 1.7 – Comparison in terms of percentage of millions per category.

1.6 CONCLUSIONS

The NGEU initiative represents a transformative moment for the European Union, aimed at fostering recovery and resilience across member states. However, its significance varies considerably among Italy, France, Germany, and Spain. For Italy and Spain, the NGEU is seen as a historical opportunity to undertake long-delayed investments and reverse the painful austerity experienced over the past decade (Zeitlin et at., 2023), which also harmed public investments in infrastructures, innovation, and education. It also created scope for reforms that would have been unlikely without the initiative, given both resource constraints and domestic political obstacles (Bokhorst & Corti, 2024). This perspective is reflected in the

substantial financial support these countries have received: Italy has been allocated €194.4 billion and Spain €163 billion. For these countries, the successful implementation of their plans and investments has been seen as both a high-stakes test for the legitimation of a post-austerity strategy (Jones, 2021) and as 'the only (fiscal) game in left in town', especially with the perspective of monetary and fiscal tightening following the return of inflation and the reintroduction of the SGP (Di Carlo & Simoni, 2024). In contrast, the National Plans of France and Germany, with allocations of €40.3 billion and €30 billion respectively, are hardly comparable in terms of stakes. They are seen more as enhancements or complementary sources of funding and investments to nationally financed recovery plans or stimulus packages, integrated into their own national strategies.

All four countries have structured their national plans around the six pillars outlined by the EC: digital transformation, green transition, smart and sustainable growth, social and territorial cohesion, health and policies for the next generation, with the more recent integration of REPowerEU to mitigate energy shortages. Some of the investment projects contained in these broad investment categories are illustrated in this report to give a sense of how those European goals have been concretely interpreted and translated into each national reform plan. To complement this description, an analysis of the projects implemented by the first 100 recipients in each country has zoomed in on differences in terms of sectoral orientation, country's priorities, and types of recipients (e.g., car manufacturers, energy companies, research institutes, public administrations), opening the 'black box' of the sometimes elusive language of the NGEU pillars.

In particular, this analysis of top recipients reveals that, while all aim to advance the NGEU pillars, each country has prioritized different sectors based on its unique economic and social priorities. We have therefore traced the presence of different orientations in each country's approach. First, an industrial policy logic emerged, with funds channeled into direct and indirect interventions in support of strategic manufacturing sectors. This is the case of Spain and Germany, which share the same, almost exclusive focus: the automotive sector. Instead, in France and Italy, industrial policy is tellingly absent (Pianta, 2021). Second, we find a dominant infrastructure-based approach that privileges interventions in large-scale infrastructures such as railways and transport networks to pursue green investment goals, especially in the case of Italy and Spain. Third, investments in research and education are prioritized by France as a long-term means to enhance the growth potential of the economy. Finally, in Germany, investments and grants for the digitalization of the public sector administration are a major focus, likely to compensate for previous records of underinvestment.

Shifting to the key actors involved in the process of fund allocation, our analysis shows that while Italy, France, and Germany all centralize the allocation process, they differ in their administrative structures: Italy and France distribute responsibilities among various central administrations, whereas Germany centralizes control within the Ministry of Finance. Spain stands out with its greater autonomy granted to regional entities. All four countries make use of similar tools to allocate funds. These include competitive tenders, direct implementation, and direct allocation. Competitive bids can sometimes undermine the goal of territorial cohesion, which is not only one of the EC's pillars but also a transversal priority emphasized in all NRRPs. Even with territorial bonds, like Italy's allocation of 40% of resources to the South, competitive bids can create disparities within regions by favoring wealthier municipalities with stronger administrative capacities over those needing investments most. To navigate this obstacle and the complexity of preparing competitive bids, local authorities often rely on external consultants while also trying to enhance the size and skills of their personnel. However, these issues might extend beyond territorial allocation, as large companies often have more organizational capacity, personnel, and expertise to navigate the complex selection process, disadvantaging small and medium-sized enterprises.

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02

WHO GOVERNS THE RECOVERY? A COMPARATIVE ANALYSIS OF DEGREE OF CENTRALIZATION, STAKEHOLDERS INVOLVEMENT, AND MONITORING OF THE NRRPS

ALESSIA ASPIDE, GABRIELE BERETTA, AND CAMILLA LOCATELLI

In this chapter, taking a comparative lens, we examine the governance of the National Resilience and Recovery Plans (NRRPs) and their recent reforms in Germany, France, Italy, and Spain, focusing on the institutions that define and implement these plans. We look at three dimensions of governance, namely the degree of centralization/decentralization, the participation of stakeholders, and the monitoring system. We scrutinize the degree of centralization in governance in section 2.1 and examine the engagement of social partners through social dialogue in section 2.2. In section 2.3, our analysis delves into the accountability mechanisms embedded within the governance structures of the NRRPs. We rely on a thorough analysis of the national plans and their subsequent modifications, official documents, secondary studies, and interviews. Analyzing information from these diverse sources, we aim to present a comprehensive and informed perspective on the evolving landscape of NRRP implementation and oversight.

Across all four countries, the governance of recovery plans has strengthened executive authority, though each adapted this centralization to its own institutional tradition. In Italy, the already centralized governance of the NRRP has accentuated its degree of centralization as a result of recent reform, which has reinforced the role of the government and marked the prevalence of political authority over technocracy. Similarly, French governance is marked by centralization and a significant government role. Germany's governance is strongly centralized around the Finance Ministry. While the Spanish governance acknowledges a crucial government role, it also institutionalizes opportunities for public and private partnerships and involves various local authorities. In particular, autonomous communities play a key role given Spain's decentralized political system.

All the examined countries established new institutional bodies to oversee the implementation of their respective plans. These bodies were typically established within or in close proximity to the ministries of Finance. Their primary responsibilities include monitoring fund utilization, program implementation, and administrative processes across various levels of government. However, the effectiveness of this monitoring approach appears to be more robust for funds disbursed at the central state level compared to those distributed at the subnational level.

2.1. CENTRALIZATION VS DECENTRALIZATION

Italy

The definition of the governance of the Italian NRRP is the result of a gradual process. It was originally defined by the 2021 budget law and the Decree-Law No. 77 of May 31, 2021 (so-called 'Simplification Decree'). Article 2 of the Decree-Law 77/2021 establishes a Steering Committee (*Cabina di Regia*) within the President of the Council's Office, with a policy-making role composed of the President of the Council permanently and the ministers from time to time responsible for the specific public policies in question.

Initially, the Steering Cabin was supported by a Technical Secretariat (art. 4), tasked with preparing decisions and monitoring their implementation. In addition, article 3 established a Consultative Partnership Table (*Tavolo permanente per il partenariato economico, sociale e territoriale*), involving economic and social forces and local authorities, with a consensual (sharing choices) and non- consociational (preserving vested interests) purpose. Article 6 entrusted the Ministry of Economy and Finance (MEF), and the Department of General Accounting placed within it, with the financial management of the PNRR by establishing a Central Service for the NRRP (*Servizio centrale per il PNRR*) at the MEF. The Central Service was the national point of reference for the implementation of the NRRP and was also responsible for the Regis System, the monitoring system for reforms and investments.

In light of the altered international geopolitical context following the Russian invasion of Ukraine and the consequent wave of inflation, but also driven by concerns about state capacity, the Italian government started a discussion on the reform of the NRRP, which has materialized in the Decree-Law No. 13 of February 2023 (d.l. n. 13/23). The decree has reformed the governance of the PNRR, with a significant impact on the Steering Cabin, the Technical Secretariat, the Consultative Partnership Table, and the Central Service as well.

As a result of this reform enacted by the Meloni government, the degree of centralization characterizing the governance of the Italian NRRP, already highly criticized (Niccolai, 2022), has become even more accentuated. As Menegus (2023) explains, the pivotal coordination between the Presidency of the Council and the MEF is altered by concentrating a majority of functions within the Presidency of the Council, with the creation of the **Mission Structure for the NPRR** (*Struttura di Missione PNRR*). While formally surviving, the Technical Secretariat has had its tasks fully absorbed by the newly established Mission Structure. The Consultative Partnership Table is abolished and stakeholder consultations are moved within the Steering Committee, showing the difficulties of institutionalizing stakeholders' consultation (Menegus, 2023).

The newly created Mission Structure for the PNRR at the Presidency of the Council has assumed the majority of tasks from the Steering Committee and serves as the national focal point for NRRP implementation, replacing the Central Service. Additional responsibilities of the Mission Structure include, inter alia, verifying the alignment of the national plan implementation with planned objectives, implementing corrective measures, and overseeing the instructional process for formulating updates or modifications to the plan. The Mission Structure is directly subordinate to the Minister for European Affairs, the South, Cohesion Policies, and the NRRP. Its establishment marks a substantive shift in governance, consolidating the coordination of EU resource management and relations with the EU under a single authority (Lupo, 2023).

To conclude, the restructuring of the NRRP governance has resulted in increased centralization, at the detriment of regional authorities (Domorenok & Guardiancich, 2022), simultaneously strengthening the influence of political decision-makers over experts: while decision-making authority has become more centralized, the balance between political direction and technical expertise has shifted towards greater weight to political actors. Still, local governments play a crucial role as final implementers, particularly municipalities, but face significant challenges due to depleted resources and competencies over the past decades, which impact their ability to effectively manage the increased responsibilities and large investments allocated to them. The strategies currently implemented to strengthen administrative capacity, such as temporary employment of technical personnel contracts to improve human capital skills, might not suffice as they face challenges due to existing inadequate administrative skills, which, for example, slow down the recruitment process (Barbieri et al., 2022).

France

The French NRRP has a markedly centralized governance in the central government, with some projects that are delegated to the departments. The Budget Law for 2021 (LOI n° 2020-1721 du 29 décembre 2020 de finances pour 2021) established a France Relance National Monitoring Committee to monitor the implementation of the measures in the NRRP, both in terms of budget spending and effectiveness. The committee is attached to and chaired by the Prime Minister and is composed of, among others, representatives of the state, financial institutions, associations of elected representatives, trade unions, and trade associations (Décret n° 2021-824 du 28 juin 2021).

At the national level, the implementation and monitoring of France Relance are led by the

Ministère de l'Économie, des Finances et de la Relance. As far as the NRRP is concerned, the Ministry collaborates with the Secretariat General for European Affairs, the inter-ministerial coordinating body for European affairs (*Secrétariat général des affaires européennes, SGAE*), under the authority of the Prime Minister.

As regards the involvement of other subnational levels of government, the role of Local and Regional Authorities (LRAs) in implementation is mainly described in the third section of the Plan, which states that regions and departments are responsible for implementing the measures at the local level and monitoring them, together with national officials working in the same regions and departments. For monitoring purposes, the competencies of regions and departments are to be transferred to the relevant ministries responsible for national public finance.

Taking into account also the compensation measures, the financial participation of local governments in France Relance is expected to be very limited. The reduction in production taxes provided for in the NRRP (in the order of 10 billion euros per year) will reduce local revenues. However, the state has announced full compensation for this reduction by transferring in particular an additional fraction of value-added tax (VAT) (Cour des Comptes, 2024).

Germany

The Federal Ministry of Finance coordinates the request for funds from the RRF and the use of the money, and is the responsible authority for the entire process, acting as a contact point for the EU institutions. The process is coordinated in close cooperation with the Federal Chancellery, the relevant ministries, and the German Bundestag. The focal point of the NRRP, in all its phases, is the Coordination Unit at the Ministry of Finance (made up of the Secretaries and bureaucracy of the BMF and economists and economic advisors).

The involvement of other main actors is reflected in the definition of priorities and in the specific projects and reforms envisaged in the recovery plan. In principle, it is envisaged to submit a semi-annual report on the status of implementation of the NRRP in connection with the Draft Budgetary Plan (DBP) and the National Reform Program (NRP). According to the text of the Plan, the German Federated States (Länder) '*play a key role and act as multipliers in the preparation of the GRRP [German Recovery and Resilience Plan, ndr] and are therefore involved in the drafting of the GRRP project from the early stages*' (BMF, 2021). A regular consultation in this regard took place during the conference of finance ministers, together with a first debate on the NRP. The Bundesrat was involved later in the process, before the NRRP was submitted to the European Commission for evaluation and to the Council for approval. The NRRP also states that: '*for projects that directly affect the competences of the Federated States in the context of the division of responsibilities between the various levels of government in Germany, close technical coordination with the Federated States is imperative in both the development and implementation of the projects. Therefore, the federal government plays a coordinating role at the national level.*'
(BMF, 2021). However, the Plan's directing and coordinating functions remain strictly at the federal and executive level.

The social partners represent important contact points for the federal government regarding framework conditions and investments aimed at preserving employment. Therefore, the social partners were involved in the drafting of the NRRP in accordance with the recommendation of the European Commission in its Annual Sustainable Growth Strategy 2021. The federal government consults the social partners during the preparation of the annual economic report, including the relevant part to the NRP. (BMF, 2021). The independent German Institute for Economic Research (DIW) is responsible for providing both an ex ante and ex post opinion on

the plan. An evaluation (both ex-ante and ex-post) is also required for the National Productivity Board (*Nationaler Produktivitätsausschuss*) – composed of the Representatives of the Commission in Germany and the Council of Economic Experts (SVR) (Scheller & Körner, 2022)[1].

The Ministry of Finance, the Ministry of Labor and Social Affairs, the Ministry of Economic Affairs and Energy, and the Chancellery, together with the Bundesbank, lead discussions at the national level with the social partners (represented by BDA, BDI, DGB, and Ver.Di) on current economic and fiscal policy issues, and discuss productivity trends with the NPB. During the Macroeconomic Dialogue on 24 November 2020, the focus of the NRRP was discussed with the social partners and the president of the National Productivity Council[2].

The Ministry of Economy is responsible for the implementation of many reforms envisaged by the NRRP and manages more directly around €11 billion of the planned investments, almost a third of the plan, including in particular three Important Projects of Common European Interest (IPCEI). However, in the drafting and writing phase of the plan, some voices within the Ministry complained about a substantial centralization by the Ministry of Finance and the Chancellery, complaining that '*they had been deprived of the lead in decisions on the EU billions for Germany*' (Tillack, 2022; see also Tillack, 2021).

In general, the NRRP seems to be characterized by a strong centralization around the Finance Ministry and its related bodies both from the point of view of its drafting, writing, and approval phases, and in the disbursement, control, and monitoring stages, but also both from the perspective of the relationship between the Federal State and the Laender, and in the relationship between the Government (and especially the relevant Ministries) and the Social Partners. The Ministry of Finance (BMF), and especially the coordination unit, even more than the Chancellery, centralizes many functions and acts as a broker between the supranational and subnational levels. There is, however, a non-negligible role for advisory bodies like the SVR or economists and experts (DIW, members of the Coordination Unit) that advise the government, following the corporatist policy-making tradition of the country (Campbell & Pedersen, 2015).

Spain

Spain is a decentralized political system with regions (autonomous communities) wielding significant competence in key areas (Alonso & Verge, 2014). To guarantee efficient governance, effective oversight, and broad participation, Spain adopted the Royal Decree-Law 36/2020, a structural reform to simplify administrative procedures, modernize the legal and administrative environment, and facilitate cooperation between the public and private sectors (Gobierno de España, 2021). This original framework has been updated multiple times (Gobierno de España, 2023a).

Through multiple Royal decrees and laws, new governance bodies have been created. The Ministerial Committee for Recovery, Transformation and Resilience (*Comisión para la Recuperación, Transformación* y *Resiliencia*), chaired by the President of the Government, and composed of all ministers (plus other members), establishes general policy guidelines for the development and execution of the Recovery Plan and strategically monitors the Plan. The Technical Committee (*Comité Técnico*) is composed of 20 members of the public administration, chaired by the Secretary General of European Funds (*Secretaria General de Fondos Europeos*). It has the task of providing technical and legal support to the Ministerial Committee, gathering expertise and resources for the implementation of the Plan. The private sector, civil society and universities are also involved as advisors.

1 For more information on the SVR: https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/national-productivity-boards/germany-german-council-economic-experts_en.

2 Here is the ex-ante opinion (April 2021) on the first draft of the German Plan: https://www.sachverstaendigenrat-wirtschaft.de/en/topics/productivity/productivity-board/statement-on-the-german-recovery-and -resilience-plan-2415.html.

The Secretary General serves as a point of contact with the European Commission, responsible for integrating management information and results. The responsibility for promoting multilevel coordination between the central government, autonomous communities, and local entities mainly falls under the Sectoral Conference, chaired by the Ministry of Finance, called 'Conferencia Sectorial del Plan de Recuperación', together with the 'Comisión de Coordinadores de Fondos Europeos'. In addition, the NRRP provides for a complex system of monitoring and accounting (Gobierno de España, 2023a, p.28) and foresees continuous collaboration between the government and other actors involved in the implementation of the Plan, through numerous forums or advisory councils, sectoral or cross-sectoral working or advisory groups (Gobierno de España, 2021).

The collaboration between the central government and autonomous communities is integral at all stages of the process. While the central government plays a crucial coordinating role and establishes general guidelines for different components, it is the autonomous communities, through agreements with relevant ministers, that determine specific investment and reform projects within each component (interview_SP1). The influence of local government politics impacts this process, shaping how autonomous communities define their interventions within each component (interview_SP1). Central and local authorities' collaboration includes the phase of the original formulation of the plan, the reformulation of the plan, as well as the implementation and monitoring phase, in which central and local authorities engage in dialogue and address concerns together.

2.2. SOCIAL DIALOGUE AND STAKEHOLDERS' INVOLVEMENT

Italy

In Italy, social consultation showed an uneven pattern over time and political leadership behind the plan. As described before, Italy experienced a great deal of change in the political composition of the governments' dealing with the plans, which influenced their attitudes and inclination towards social consultation. Overall, however, according to Eurofound (Rodriguez Contreras & Sanz de Miguel, 2023), Italy shows a rather high formal involvement of social partners in the Recovery Fund process: it is one of the few countries that recorded more than 3 meetings between the governments and social partners in the RRF elaboration process. Already in 2021, Italy presented to the parliament two RRP: one by the outgoing government in January 2021 and another one by the incoming Draghi government on the 25th of April 2021. In both cases, it seems that the opinions of social partners were heard by the relevant committees of the parliament (Rodriguez Contreras & Sanz de Miguel, 2023). The involvement of social partners was usually relatively informal and never institutionalized (Rodriguez Contreras & Sanz de Miguel, 2023): it was mostly carried out through bipartite or tripartite meetings, organized ad hoc by the government.

Moreover, despite involvement being present and reported by social partners themselves, the quality of such involvement was considered relatively poor (Rodriguez Contreras & Sanz de Miguel, 2023). Both trade unions and employers' associations perceived that they did not receive enough information from the government to be able to evaluate the plans, nor sufficient feedback on their suggestions to perceive that they had an impact. They felt like their role was limited to an informational one rather than a proper consultation (Rodriguez Contreras & Sanz de Miguel, 2023). However, Pritoni et al. (2023) reported how appraisals of the NRRP changed with time and with government change, in particular with business groups being more positive with the Draghi Plan. Although the quality of the involvement was not satisfactory, social partners perceived that they could, at least, have some impact on the

implementation and monitoring of the plan through the creation of the Tavolo permanente per il parternariato sociale, economico e territoriale. Such a forum was created with a special document in May 2021 as a venue where social partners, the government, regions, local authorities, and other important national stakeholders could meet and discuss the various implications of the plan's structure and implementation. Recently, however, the 2023 reforms of the NRRP governance de facto eliminated the venue by absorbing it into the directing cabinet of the government and strengthening the control of the executive on social partners' consultations.

In contrast with the relatively high, although limited in quality, social partners' oversight of the plan, the contribution of parliament in the NRRP creation was rather limited, especially under the Draghi government. The Conte government forwarded a first draft to Parliament, which had three months to analyze it, before April 2021, when Italy requested the first payment. The Draghi government, on the other hand, sent a new version of the NRRP to Parliament, but with no real opportunity for Parliament to intervene. Overall, the plan was drafted with modest public debate (Viesti, 2022).

France

During the first week of the COVID-19 outbreak, the French government did not involve the social partners in any major decisions, relying mainly on the advice of a technical committee of medical professionals. In general, even later, the government's strategy for managing the pandemic crisis relied heavily on consultation with the social partners (Meardi & Tassinari, 2022).

Conversely, during the preparation of the RRF plans, the social partners were involved from the outset, at least in the consultation phase, in a well-established institutional framework (Rodriguez Contreras & Sanz de Miguel, 2023). As early as autumn 2020, a few months after the approval of the RRF, the French government started to involve the social partners and to collect proposals. The consultation took place within two bodies: the Social Dialogue Committee for European and International Issues, a consultative body within the Ministry of Social Relations, and the constitutional body of the Economic, Social and Environmental Council (Rodriguez Contreras & Sanz de Miguel, 2023). In addition, three 'social conferences' have been convened by the French Prime Minister in July and October 2020 and March 2021 to discuss labor market measures. In the survey conducted by Eurofound, the French social partners agreed that they had devoted sufficient time to the assessment and development of the RRP and that their involvement had been balanced between employers' organizations and trade unions (Rodriguez Contreras & Sanz de Miguel, 2023).

However, as in many other countries, the role of these consultations in France was often limited to an informative process rather than a proper consultative one: social partners were often not provided with adequate responses and were only involved when policy decisions had already been taken (Rodriguez Contreras & Sanz de Miguel, 2023). Moreover, the social partners' views were often not explicitly included in the plan. On specific issues, such as sustainability, the relatively limited consultative role influenced the social partners' satisfaction with their role in the preparation of the RRF, which was overall rather positive (Rodriguez Contreras & Sanz de Miguel, 2023).

Germany

German stakeholders have expressed dissatisfaction with their delayed and inadequate involvement in the preparation of the NRRP (Rodriguez Contreras & Sanz de Miguel, 2023; Jochheim & Mildebrath, 2023). The Confederation of German Trade Unions (DGB) complained

that social partners were insufficiently involved in the substantive drafting of the NRRP. DGB was also quite disappointed with the fact that the time allowed to propose a written opinion on the drafting of the NRRP was four days (DGB, 2021). In the comparative study by Eurofound, it emerges that – in Germany - there has been no substantial imbalance in the government's treatment and involvement of the Social Partners (at least according to the self-reported perception of their representatives), with business associations and trade unions united in criticizing the lack of involvement, and insufficient time to provide any meaningful input, to the drafting of the NRRP (Rodriguez Contreras & Sanz de Miguel, 2023).. A representative of a large German employers' association, cited in Tillack (2022), reportedly said: '*The German government was not interested in a dialogue*'.

From the DGB's side, despite an overall appreciation of the objectives drafted by the central government, some criticisms of the content of the NRRP were nonetheless vocal, and, in particular, the fact that 80% of the expenses and investments were already planned anyway by the German economic recovery program in 2020. No more funds went on top of the already agreed-upon projects, signaling a quite modest economic ambition. Second, the Unions complained about the absence of any mention of the European Pillar of Social Rights in the first draft; no generalized link to 'decent pay' and 'decent work', or binding conditionalities to training, upskilling, and re-skilling for the recipient firms.

One interesting note, however, is that the Unions reported some more involvement in the later stages of implementation (DGB, 2023; Interview_DE01). On one hand, following the pressures towards greater social partners' involvement from the European Commission, a procedure of regular (every three months) consultation was institutionalized. This was an appreciated development and considered as an important step ahead, but, at the same time, in terms of the substantial impact of social partners, still considered as a '*fig leaf*' (Interview_DE01): in fact, these consultations granted no binding force to the social partners' positions and criticisms on the government reporting. DGB also reported positively that they managed to reach an agreement and a more intense level of cooperation with the government but specifically limited to decarbonization projects in Pillar 1 (1.1.3 *Investment and reform: Pilot programme for climate protection contracts*) based on the principle of Carbon Contracts for Difference, where tripartite cooperation brought to the signing of 'social conditionalities' connected to decarbonization contracts and subsidies, for which recipients companies have to assure that a) there are some upskilling and reskilling measures and b) they are going to maintain their production plants in Germany for at least three years (DGB, 2022; BMWK, 2024; European Commission, 2024b). On the other hand, in a personal interview with a representative of Ver. Di (*Vereinte Dienstleistungsgewerkschaft*), which represents the service sectors, it emerged that the service unions' opinion on the plan, be it in terms of priorities, involvement in the drafting, or in the implementation, is even more negative (Interview_DE02), possibly signaling a different perspective compared to the more industrial, manufacturing core unions.

However, the DGB has signaled a marked preference for the **Structural Funds style of governance**[3] , pinpointing in particular the lack, in the case of the RRF and the implementation of the NRRP, of monitoring committees connecting unions and firms with also civil actors 'on the ground' and providing more continuous, constant, bottom-up feedback on the implementation process. This gives more space for adjusting projects' implementation in itinere and increases technical and organizational capacities (Interview_DE01).

3 For a comparison between the performance-based style of the RRF and the Structural Funds governance style, see Chapter 3. Also cf. Zeitlin et al. (2023).

Spain

In Spain, the NRRP underscores the vital role of social dialogue and the active participation of all stakeholders, including institutions, civil society, and businesses. Zeitlin and colleagues (2023) describe the drafting of the Spanish NRRP as a 'choral exercise' dominated by a bottom-up approach, yet with some Spanish regions expressing dissatisfaction with their level of involvement. The government emphasizes the importance of engaging with public institutions, political groups, and social and business actors in formulating the plan, seen as essential for designing transformative reforms and investments (Gobierno de España, 2021). The goal is to ensure a broad consultative process, where social actors contribute significantly to shaping and implementing the plan. The inclusion of diverse stakeholders enhances transparency in the drafting process.

To facilitate this participatory process, several consultation spaces were defined in order to gather proposals and opinions from all relevant stakeholders, including: social actors, Autonomous Communities, Local Authorities, parliamentary forces, institutions and organizations representing each of the sectors involved, companies that are potential beneficiaries of the Plan, and citizens in general. In particular, to guarantee the involvement of social partners - trade unions and employers associations - from the first steps of the formulation of the plan, the Spanish government has created a Social Dialogue Table (*Mesa de Diálogo Social*) (Gobierno de España, 2021). The Table is chaired by the Prime Minister and includes two vice-presidents, five ministers and the leaders of the main trade unions and the business organizations: the President of the Spanish Confederation of Business Organizations (CEOE), the President of the Spanish Confederation of Small and Medium-sized Enterprises (CEPYME), as well as the General Secretaries of the General Union of Workers (UGT) and the Workers' Commissions (CC.OO). By 2024, more than 300 meetings specifically dedicated to the NRRP had occurred at different stages and among different political, economic, and social actors, including 14 meetings of the Social Dialogue Table, one of which was convened to discuss the amendment to the NRRP (Gobierno de España, 2023b).

However, the quality of such participation has sometimes been criticized, with some trade unions complaining that the consultation arenas have often been used by the government rather unilaterally to communicate decisions already taken (Citizens' Observatory for Green Deal Financing, 2023). On the green transition side of the plan, in particular, environmental movements have shown concerns about the lack of involvement in the selection of projects and their monitoring (Citizens' Observatory for Green Deal Financing, 2023). Mirò et al. (2024) note that, while the government retained a central role in drafting the plan, Spanish social partners enjoyed greater participation than in Italy, particularly regarding the contested pension and labor market reforms. However, when assessed against the potential for involvement offered by Spain's highly decentralized system, their role is still criticized as limited (Capati et al., 2026).

	Italy	France	Germany	Spain
Social partners' satisfaction	Medium	Medium	Low/Medium	Medium/High
Role of social partners	Mostly informative- consultative in the implementation until 2023	Informative	Informative in design, consultative and informative in implementation	Consultative
Parliament's oversight on the plans	Low	Low	Medium	Medium

Table 2.1 – Stakeholders' involvement.

2.3. MONITORING AND TRANSPARENCY

Prior to d.l. n. 13/23, in **Italy**, the oversight on the plan fell under the responsibility of the Central Service, created as part of the '*Ragioneria Generale dello Stato*', i.e., the budgetary side of the Ministry of Finance (MEF). The reform of the governance introduces a general inspectorate (*Ispettorato generale per il PNRR*), which now assumes the responsibilities formerly held by the Central Service. These include monitoring of the national plan, as well as control and reporting to the European Union (Menegus, 2023).

The ReGis system (developed by Ragioneria Generale), an online portal where administrators and other beneficiaries of the funds can report and track the usage of the funds (there is a report obligation once a month), is the cornerstone infrastructure for monitoring and reporting (Cabrini, 2023). It facilitates central administrations, local authorities, and final implementers to meet their monitoring, reporting, and control requirements for measures and projects funded by the Italian NRRP and serves as a central primary platform for information and documentation regarding the NRRP. However, the Italian Court of Auditors has pointed out incomplete, low-quality, and unsigned documents as severe issues affecting the ReGiS system (Corte dei Conti, 2023, p.127).

In **France**, the European Funds' oversight has been assigned to a small department created within the Ministry of Finance, i.e., the general secretary of recovery, whose tasks are limited to the control over the respect of milestones and deadlines set previously by the various ministries. The French Court of Auditors has recently underlined the limitations of this control since it is based mostly on conventional objectives, which do not include all measures (European Court of Auditors, 2022). Moreover, the assessment is not transparent to the general public. Overall, the assessment of the funds is done through administrative control of the central budget: this oversight, however, is limited only to projects carried out at the central state level, whereas the projects given to other actors, such as private companies and local authorities, slip through this form of control. At the current moment, there is a lack of centralized oversight over the overall funds' usage.

In **Germany**, accountability is guaranteed through the oversight of a coordination unit for the recovery fund created within the Finance Ministry (BMF). This unit oversees the milestones and the objectives reached by the projects included in the plan through qualitative and quantitative control over accounting data. The unit is also tasked to find and effectively act

on possible misuses of the funds and coordinate the corrective measures. It also acts as a counterpart for the European Commission, representing the junction point between the EU and both the Federal Court of Auditors and the audit, and between the internal control units and the implementing ministries. Considering Germany's federal structure, the centralization of oversight at the federal chancellorship and ministries could represent an important element to guarantee the cohesiveness of the plan, although it has also been criticized for its marked centralization, both vertical and horizontal (See sections on Governance and Stakeholders Involvement). Moreover, as in France, the assessments and the workings of these monitoring phases are not accessible or transparent to the general public.

In **Spain**, originally set by Royal Decree-Law 36/2020, the monitoring structure that oversees the implementation of the Spanish NRRP includes several bodies. It is a three-level control system (Gobierno de España, 2023a, p. 28, pp. 109 - 125). The first two levels refer to the internal control of the executing body and independent internal control bodies, supplemented at level three by ex-post audits and controls. The main bodies involved in this process include a monitoring unit called '*Unidad de Seguimiento del Plan de Recuperación*' in charge of monitoring the progress of the Plan, to keep the President of the Government constantly and directly informed. Next, the Authority for the Recovery and Resilience Mechanism (*Autoridad responsable del Mecanismo para la Recuperación y Resiliencia*), housed within the Ministry of Finance, manages funds in coordination with European institutions. Lastly, the Control Authority (*Autoridad de Control del Mecanismo para la Recuperación y Resiliencia*), part of the state administration, ensures financial management compliance, promoting transparency and accountability.

The Spanish monitoring and reporting system is a strict one and, similar to the Italian ReGis, Spain has recently introduced CoFFEE-MRR, a digital platform managed by the Ministry of Finance that serves as a central hub to report on projects[4]. This platform involves all of the different public and private authorities, with reports on milestones and targets reached. Often, when the public authorities lack the administrative capacity to comply with the reporting requirements, they contract external organizations, such as consultancies, which keep them posted on the new regulations and help them be compliant (interview_SP1).

	Italy	France	Germany	Spain
Concentration in the Ministry of Finance	High	High	High	Low
Overall Transparency	High	Low	Low	High
Main limitation	Some limitations on the quality of reporting and updates	Control only over what is managed at the central budget level	Lack of transparency	Complexity can induce reliance on consulting firms by local authorities to fulfil their reporting duties

Table 2.2 – Monitoring and transparency

4 https://www.gobierto.es/blog/coffee-mrr-plataforma-comun-de-fondos-europeos-modulo-mecanismo-de-recuperacion-y-resiliencia.

2.4. CONCLUSIONS

When it comes to the governance of the NRRPs, a general trend of centralization of responsibilities within the executive (Capati et al., forthcoming) emerges, reinforced by tight time pressures (Mirò et al., 2024). Yet, Spain's more extensive involvement of autonomous communities (*Comunidades Autónomas*) in the implementation process contrasts with the more centralized approaches of Italy, France, and Germany. This decentralization is not surprising as it is a direct consequence of Spain's political system. In Italy, the reform of governance in 2023 has centralized the decision-making power even further, tilting the balance away from technical expertise towards more political influence. In Germany, despite the country's federal structure, the governance, drafting, and implementation of the NRRP have been characterized by a marked centralization of competencies at the central, ministerial level rather than at the Länder level.

Regarding stakeholder involvement, both Italy and Spain have engaged extensively with social partners since the elaboration of the plans, yet Italy's efforts have been hampered following reforms in 2023, and Italian social partners report less satisfaction compared to their Spanish counterparts. Spain demonstrates more consistent stakeholder engagement and has established a more institutionalized framework. France includes social partners from the implementation phase, although their involvement often remains more informational, despite stakeholders expressing high satisfaction with specific issues. In Germany, stakeholders initially expressed dissatisfaction with their involvement during the drafting phase but became more engaged later in the process, although lamenting the sometimes non-binding or ad-hoc nature of this involvement. Taking into account stakeholder inputs and insider information, from the drafting stage onward, is a crucial condition for success, especially for countries like Italy and Spain. These countries, having requested loans, must guarantee that investments yield returns, particularly given their substantial public debt burden. Moreover, institutionalizing stakeholders' involvement allows for a more transparent and participatory process, including opportunities for redefining reforms and investments, thereby increasing the overall legitimacy of the plans.

Finally, monitoring and reporting processes also vary, with Italy and Spain standing out for their higher levels of transparency, the availability of data, and more sophisticated and accessible systems for reporting and monitoring projects. Platforms such as Italy's Regis and Spain's COFFEE-ME serve as comprehensive hubs for collecting and disseminating information on the progress of project implementation. It is plausible that this heightened focus on reporting partly stems from the larger volumes of funds these countries are managing, necessitating more rigorous oversight to ensure effective use of resources.

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03

PARALLEL TRACKS: THE NATIONAL RECOVERY AND RESILIENCE PLAN AND COHESION POLICY IN COMPARATIVE PERSPECTIVE

LORENZO MASCIOLI

The previous two chapters examined how Italy's National Recovery and Resilience Plan (NRRP) compares with other national plans funded under the Next Generation EU (NGEU) framework. I continue this exploration in the present chapter, shifting the focus from cross-country comparisons to a domestic one. Specifically, I contrast the NRRP with Cohesion Policy – the European Union's (EU) flagship program for regional and local development.

Given that NGEU and Cohesion Policy are the largest EU-funded programs currently active, this comparison is both logical and timely, and I am not the first to undertake it (see, for example, Bokhorst & Corti, 2024; D'Erman & Verdun, 2022; Zeitlin et al., 2025). Conte and Molica (2022, pp. 188–192) highlight that the two programs share similar policy objectives and methods for allocating resources to member states but diverge in several fundamental ways. First, unlike Cohesion Policy, which draws from the EU budget and matching contributions from public and private actors, the national plans financed through NGEU are primarily funded by borrowing on financial markets. Second, NGEU places greater emphasis on performance, with funding disbursed conditionally on meeting targets previously agreed with the European Commission. Third, NGEU plans are typically centralized at the national level, whereas Cohesion Policy allows greater involvement of the European Commission in setting common regulatory frameworks and of regional governments in designing interventions. Finally, and closely related to the previous point, NGEU lacks an explicit subnational territorial dimension. While NGEU funding is allocated to member states in a broadly progressive manner, national governments have full discretion over how to distribute these resources within their territories.

While these differences are important, and I will return to some of them throughout this and the next chapter, my main interest here lies in *implementation*. Specifically, I examine how the NRRP and Cohesion Policy are implemented on the ground. One critical commonality, not mentioned in Conte and Molica's analysis, is that both programs allocate funding to discrete interventions with specific objectives, territorial scopes, and timeframes. These interventions are typically referred to as *projects*. The central goal of this chapter is to investigate whether the projects financed through the NRRP differ in meaningful ways from those financed through Cohesion Policy. More precisely, I compare NRRP and Cohesion Policy projects along three analytical dimensions: the policy objectives they pursue, the policy instruments used to implement them, and their distribution across territorial levels and jurisdictions.

For each of these dimensions, I analyze three simple yet informative metrics: the total funding allocated to projects, the number of projects undertaken, and the average project size (i.e., the total funding divided by the number of projects). I consider all three metrics because each sheds light on a distinct aspect of program implementation. Project funding captures the ability of different aggregates – whether objectives, instruments, or territories – to attract financial resources. Project count indicates the capacity to initiate new activities, which can have significant and lasting effects, even when modest in budget (Mascioli & Leek, 2025). Finally, average project size offers insight into the nature of interventions.

This comparative exercise is important for two reasons. First, identifying similarities and differences between NRRP and Cohesion Policy projects may help us illuminate the management practices underlying each program, including how these practices vary across space over time. Second, observed differences in project design between the two programs may help us explain variation in project performance. This latter point is particularly relevant for policymakers, many of whom, especially in Italy, have long been concerned with the uneven performance of EU-funded programs and have sought ways to improve and homogenize their effectiveness. Yet, to the best of my knowledge, no comprehensive comparison of NRRP and Cohesion Policy projects has been undertaken to date. The time is right for such an exercise, not least because, as the next section shows, rich project-level data are now available for both programs.

3.1. DATA

The following analysis draws on two publicly accessible data sources: *Italia Domani* and *OpenCoesione*. Italia Domani provides information on the NRRP, including an overview of the reforms pursued and a list of funding opportunities available to individuals and organizations. More importantly for the present purposes, it contains open data covering the population of projects undertaken under the NRRP. These data originate from a centralized repository called ReGiS, managed by the State General Accounting Department (*Ragioneria Generale dello Stato*), into which the actors responsible for executing NRRP projects upload information. This information is then validated by the national administrations responsible for overseeing project implementation, typically the Presidency of the Council of Ministers or line ministries. Among the many datasets published and regularly updated on *Italia Domani*, I primarily employ the project dataset and the project location dataset, last updated on 30 June 2025.

The NRRP project dataset includes 298,339 observations, representing a total investment of approximately €215 billion, of which €200 billion is from public sources and €159 billion from the NRRP itself. Based on information presented in the previous chapters, one can be confident that this dataset almost fully covers the universe of investments undertaken under the NRRP.

Each project in this dataset is assigned two distinct identifiers: the *Codice Unico di Progetto* (CUP) and the *Codice Locale Progetto* (CLP). CUPs are 15-character alphanumeric strings that uniquely identify public investment projects in Italy. Within the dataset, there are 292,586 unique CUPs, meaning that some CUPs (N = 871) appear more than once. This typically occurs when a single project is subdivided into multiple interventions. For example, the project *Non Solo Parco* has received €1.6 million from the Ministry of Culture's program for villages (*Bando Borghi*) to support cultural regeneration in the municipality of Gioia Sannitica. This amount has been divided across ten smaller interventions, each ranging from approximately €50,000 to €360,000 and targeting specific activities across six villages within the municipality. When such subdivisions occur, each intervention is also assigned a CLP. Importantly, CLPs are unique within but not across projects. In other words, the same CLP can appear under different CUPs but not within the same CUP. By combining CUPs and CLPs, it should then be possible to obtain a truly unique identifier for each intervention. Indeed, once this step is performed, the dataset no longer contains duplicate records.

To obtain geographic information on the projects, I merge the NRRP project dataset with an ancillary location dataset also available on *Italia Domani.* However, the location dataset includes a small number of interventions (N = 7,286) that cannot be uniquely identified even through the combined CUP-CLP code.To avoid double-counting, these interventions are excluded after merging the two datasets. The resulting compound dataset includes 291,053 projects, each uniquely identified by the combined CUP-CLP code, and 286,128 distinct CUPs. These projects represent a total investment of almost €158 billion, of which €147 billion is from public sources and €121 billion from the NRRP.

The second data portal, *OpenCoesione*, provides information on Cohesion Policy in Italy. It was launched in 2012 by the Department for Cohesion Policy and the South at the Presidency of the Council of Ministers. *OpenCoesione* follows a structure similar to that of *Italia Domani*, albeit with some technical differences. For instance, while *OpenCoesione* also operates with CUPs and CLPs, CLPs in *OpenCoesione* are globally unique and can thus be used to merge information across datasets. The primary project dataset, also updated as of 30 June 2025, spans interventions worth nearly €400 billion, of which €360 billion is from public sources and €103 billion from the EU. As with the NRRP, I merge this data with project locations and exclude projects that cannot be uniquely identified using the combined CUP-CLP code.

For Cohesion Policy projects, I also use a temporal filter. Unlike the NRRP, which is a one-off program, Cohesion Policy is a structural policy renewed every seven years in alignment with the EU's multiannual financial framework. Since the modern version of Cohesion Policy was introduced in 1989, the policy has gone through six programming cycles. *OpenCoesione* includes data for the last four cycles: 2000–2006, 2007–2013, 2014–2020, and 2021–2027. Because the nature of Cohesion Policy, as well as external factors influencing its design and implementation, have evolved over time, it is not advisable to compare NRRP projects with Cohesion Policy projects across all four cycles. Instead, I focus on 2014–2020. This cycle is particularly suitable for comparison because it overlaps, at least partially, with the NRRP. While the 2021–2027 cycle also overlaps, data for this cycle remain scarce. One reason is that the COVID-19 crisis and the launch of the NRRP delayed the implementation of many projects funded under the 2014–2020 cycle and postponed planning for the new cycle. As a result, even though the 2021–2027 cycle is nearing its natural conclusion, few of its projects have been completed.

After removing duplicate entries and filtering for the 2014–2020 period, the Cohesion Policy dataset includes 1,132,145 projects, worth approximately €127 billion, of which €111 billion from public sources and €41 billion from the EU.

Even a cursory look at these data reveals remarkable differences between the two programs. First, although they are comparable in total financial volume, and this volume is in fact slightly higher for the sampled NRRP projects, the number of projects funded under Cohesion Policy is nearly four times greater. This implies that Cohesion Policy projects are, on average, much smaller in financial scale than those funded through the NRRP. Second, financing structures differ substantially. Approximately 92 percent of NRRP funding comes from public sources, compared to 87 percent for Cohesion Policy. Thus, while private investment plays only a marginal role in both programs, its share is slightly higher under Cohesion Policy. More strikingly, EU funding accounts for a much larger share of public investment under the NRRP (83 percent) than under Cohesion Policy (40 percent). This suggests that government levels below the EU play a more prominent role in Cohesion Policy than in the NRRP, at least from a financing perspective.

3.2. POLICY OBJECTIVES

I begin comparing the NRRP and Cohesion Policy with respect to their policy objectives. Unfortunately, the two programs follow different classification systems. As discussed in Chapter 1, the NRRP is structured around seven missions, and these are further divided into seventeen components. Cohesion Policy, on the other hand, organizes interventions around eleven thematic objectives. Any effort to consolidate these categories into a common classification would involve imprecise and arbitrary choices. Therefore, I compare policy objectives separately for the two programs.

Table 3.1 presents the three core metrics – project funding, project count, and average project size – broken down by policy objective. Panel A focuses on the NRRP missions. The largest share of funding is allocated to the green transition (27 percent), followed by the digital transition (20 percent) and research and innovation (20 percent). Although the other missions receive smaller shares, none is negligible, except for RePowerEU, which accounts for only 1 percent of all funding. The distribution of project count is far more concentrated, with the three largest missions accounting for 90 percent of all projects. Average project size varies considerably across missions. Unsurprisingly, the relatively few infrastructure projects under Mission 3 (N = 192) are the most expensive, exceeding, on average, €60 million. Projects under RePowerEU and the health mission are also relatively costly, averaging nearly €7 million and

€2 million, respectively. All other missions have an average project size below €1 million.

Panel B reports the same metrics for Cohesion Policy thematic objectives. Project funding is more evenly distributed across objectives, with the largest shares allocated to enterprise competitiveness (19 percent) and transportation (16 percent), and the smallest to culture and tourism (4 percent) and digital networks and services (5 percent). Project count, however, is extremely concentrated, with a single objective (employment) accounting for more than half of all projects. Average project size also varies across objectives, though less dramatically than in the NRRP. Notably, while transportation projects are the most expensive in both programs, the average NRRP transportation project costs 18 times as much as its Cohesion Policy counterpart. This difference suggests that the nature of transportation projects differs significantly between the two programs. A qualitative inspection confirms this: NRRP transportation projects involve investments of strategic national or EU importance, usually in railway and port infrastructure, whereas transportation projects under Cohesion Policy tend to focus on local infrastructure, such as constructing cycling lanes.

In sum, although the policy objectives pursued by the NRRP and Cohesion Policy are not directly comparable, this analysis reveals some key similarities and differences. First, in both programs, project count appears more concentrated across policy objectives than project funding. One can confirm this impression by calculating Herfindahl–Hirschman Index (HHI) scores – a widely used measure of concentration. The HHI for project count is indeed higher – 0.28 for the NRRP and 0.34 for Cohesion Policy – than that for project funding – 0.19 and 0.11, respectively. Second, compared to Cohesion Policy, the NRRP places considerably greater emphasis on the twin green-digital transitions. This likely reflects the more recent design of NRRP projects, which were shaped by the heightened global focus on these objectives following the COVID-19 pandemic and the Russo-Ukrainian war. By contrast, the Cohesion Policy projects analyzed here largely echo the concerns arising from the European sovereign debt crisis, such as declining enterprise competitiveness and rising unemployment. Accordingly, one may expect projects from the 2021-2027 Cohesion Policy cycle to place greater emphasis on the twin transitions. This hypothesis can be tested once more extensive data on these projects becomes available from *OpenCoesione*. Subtler differences also emerge between the two programs, particularly concerning the nature of transportation projects. These are less a reflection of shifting political priorities than of an implicit division of labor between the two programs, with the NRRP focusing on national and transnational investment priorities and Cohesion Policy targeting more localized challenges.

Policy objective		Project funding		Project count		Average project size
		€ million	%	N	%	€ million
A. NRPP mission						
Code	**Title**					
M1	DIGITALIZZAZIONE, INNOVAZIONE, COMPETITIVITÀ E CULTURA	34,829.91	0.22	81,915	0.28	0.43
M2	RIVOLUZIONE VERDE E TRANSIZIONE ECOLOGICA	43,235.09	0.27	97,152	0.33	0.45
M3	INFRASTRUTTURE PER UNA MOBILITÀ SOSTENIBILE	11,741.58	0.07	192	0.00	61.15
M4	ISTRUZIONE E RICERCA	31,793.08	0.20	83,770	0.29	0.38
M5	INCLUSIONE E COESIONE	15,267.76	0.10	17,826	0.06	0.86
M6	SALUTE	19,053.81	0.12	9,896	0.03	1.93
M7	REPOWEREU	2,002.90	0.01	302	0.00	6.63
Total		157,924.13	1.00	291,053	1.00	0.54
B. Cohesion Policy thematic objective						
Code	**Title**					
01	RICERCA E INNOVAZIONE	13,642.26	0.11	15,790	0.01	0.86
02	RETI E SERVIZI DIGITALI	6,947.91	0.05	48,218	0.04	0.14
03	COMPETITIVITA DELLE IMPRESE	23,548.10	0.19	185,733	0.16	0.13
04	ENERGIA	4,232.46	0.03	7,862	0.01	0.54
05	AMBIENTE	14,527.22	0.11	9,182	0.01	1.58
06	CULTURA E TURISMO	5,540.03	0.04	10,795	0.01	0.51
07	TRASPORTI E MOBILITÀ	20,539.92	0.16	6,062	0.01	3.39
08	OCCUPAZIONE E LAVORO	7,991.76	0.06	591,954	0.52	0.01
09	INCLUSIONE SOCIALE E SALUTE	12,275.29	0.10	48,324	0.04	0.25
10	ISTRUZIONE E FORMAZIONE	10,460.27	0.08	201,062	0.18	0.05
11	CAPACITÀ AMMINISTRATIVA	7,145.63	0.06	7,163	0.01	1.00
Total		126,850.85	1.00	1,132,145	1.00	0.11

Table 3.1 – Project funding, project count, and average project size by policy objective. Source: Author's elaboration based on NRRP project data from *Italia Domani* and Cohesion Policy project data from *OpenCoesione*.

3.3. POLICY INSTRUMENTS

Next, I compare the NRRP and Cohesion Policy along the analytical dimension of policy instruments. While the two programs use different taxonomies for policy objectives, their classification of policy instruments is consistent, making comparisons easier. Specifically, each project is classified univocally into one of six categories: purchases of goods, purchases of services, public works, grants to non-productive units, incentives to productive units, and initial or increased equity participation.

Table 3.2 displays how the three metrics vary across policy instruments and between the two programs. Unsurprisingly, public works represent the most expensive item in both programs, accounting for 37 percent of total funding in the NRRP and 35 percent in Cohesion Policy. Purchases of services and grants to non-productive units follow, each accounting for between a fifth and a quarter of total funding. Grants to non-productive units are more prominent in the NRRP (12 percent) than in Cohesion Policy (7 percent), while the opposite holds for equity participation, which accounts for 4 percent of the Cohesion Policy budget but only 1 percent in the NRRP. Purchases of goods make up 7 percent of all funding in both programs.

Focusing on project count, service purchases, which often encompass internships or consultancies, emerge as the most frequently used instrument in both programs, representing nearly half of all projects. They are followed by subsidy instruments: grants to non-productive units account for 24 percent of projects in the NRRP and 27 percent in Cohesion Policy, while incentives to productive units account for 17 and 22 percent, respectively. Public works and purchases of goods are more commonly used in the NRRP (9 and 8 percent, respectively) than in Cohesion Policy (4 and 5 percent), whereas equity participation is rarely employed in either program.

As with policy objectives, there are striking differences between the two programs in average project size. Notably, the NRRP's three equity projects – two funded by the European Investment Bank, and one by the Ministry of Enterprises and Made in Italy – average €275 million each, compared to only €38 million in Cohesion Policy. Another significant difference concerns public works, which are, on average, more than twice as costly in the NRRP. This aligns with the pattern observed in the previous section: transportation projects, which are typically implemented as public works, tend to be significantly larger in the NRRP. Lastly, while subsidies to both productive and non-productive units are fewer in the NRRP, they are, on average, larger. This may reflect the NRRP's intent to target investments toward fewer enterprises with high potential for innovation and growth. In contrast, Cohesion Policy has traditionally dispersed funding to support a greater number of enterprises and has often been criticized for failing to achieve the critical mass necessary for investments to pay off.

Policy instrument	Project funding		Project count		Average project size
	€ million	%	N	%	€ million
A. NRPP					
Purchase of goods	11,191.70	0.07	24,419	0.08	0.46
Purchase of services	33,193.66	0.21	122,784	0.42	0.27
Public works	58,880.35	0.37	24,810	0.09	2.37
Contributions to non-productive units	19,083.36	0.12	69,063	0.24	0.28
Incentives to productive units	34,750.06	0.22	49,974	0.17	0.70
Equities	825.00	0.01	3	0.00	275.00
Total	157,924.13	1.00	291,053	1.00	0.54
B. Cohesion Policy					
Purchase of goods	84,36.89	0.07	54,858	0.05	0.15
Purchase of services	28,358.90	0.22	485,319	0.43	0.06
Public works	44,781.45	0.35	42.319	0.04	1.06
Contributions to non-productive units	85,86.17	0.07	304,307	0.27	0.03
Incentives to productive units	31,736.72	0.25	245,211	0.22	0.13
Equities	4,950.71	0.04	131	0.00	37.79
Total	126,850.85	1.00	1,132.145	1.00	0.11

Table 3.2 – Project funding, project count, and average project size by policy instrument. Source: Author's elaboration based on NRRP project data from *Italia Domani* and Cohesion Policy project data from *OpenCoesione*.

3.4. TERRITORIES

Having compared the NRRP and Cohesion Policy in terms of their policy objectives and instruments, I now turn to their territorial presence. Cohesion Policy is explicitly designed to address territorial disparities. One of its four founding normative principles – the concentration principle – states that interventions should be progressively targeted toward less developed regions (Brunazzo, 2016, p. 22). By contrast, the NRRP has been criticized for imposing interventions from the top down and paying limited attention to territorial imbalances (Viesti, 2022, pp. 212–216). In this section, I assess whether these design differences have concrete implications for the distribution of projects and funding across territories.

I begin by analyzing the territorial level at which projects are designed, distinguishing between national, regional, provincial, and municipal projects. Cohesion Policy also includes a small number of projects (N = 1,086) implemented outside Italy. It is important to clarify that a project's territorial level does not necessarily correspond to the geographic scope of action of the actors managing it. For example, an NRRP project aimed at upgrading the Turin railway node is classified as a provincial project because it spans the metropolitan city of Turin. However, it is managed by two national-level actors: the Ministry of Infrastructure and Transport and the national railway company (*Rete Ferroviaria Italiana*). To avoid confusion, I refer to territorial levels in lowercase (e.g., the metropolitan city of Turin) and to institutional actors in uppercase (e.g., the Metropolitan City of Turin).

Table 3.3 displays the three metrics across territorial levels. In both programs, nearly three-quarters of total funding is allocated to municipal-level projects. National-level projects are more prominent in the NRRP, where they account for 15 percent of funding, compared to 8 percent in Cohesion Policy. Conversely, regional projects represent a slightly larger share of funding in Cohesion Policy (14 percent) than in the NRRP (12 percent). Provincial projects account for roughly 3 percent of funding in both programs, while the financial incidence of foreign projects in Cohesion Policy is negligible.

When shifting focus to project count, the distribution becomes highly concentrated. In both programs, nearly all projects – 98 percent in the NRRP and 96 percent in Cohesion Policy – are circumscribed to the municipal level. Regional projects make up the remaining 2 percent in the NRRP and 4 percent in Cohesion Policy, while national, provincial, and foreign projects are numerically marginal.

The average size of NRRP projects is consistently larger than that of Cohesion Policy projects across all territorial levels. The contrast is especially pronounced for national-level projects, which average over €30 million in the NRRP, compared to less than €5 million in Cohesion Policy.

Territorial Level	Project funding		Project count		Average project size
	€ million	%	N	%	€ million
A. NRPP					
National	24,331.78	0.15	798	0.00	30.49
Regional	18,370.14	0.12	5,232	0.02	3.51
Provincial	4,066.13	0.03	683	0.00	5.95
Municipal	111,156.07	0.70	284,340	0.98	0.39
Total	157,924.13	1.00	291,053	1.00	
B. Cohesion Policy					
National	10,608.26	0.08	2,289	0.00	4.63
Regional	18,053.05	0.14	42,739	0.04	0.42
Provincial	4,301.37	0.03	5,526	0.00	0.78
Municipal	93,694.61	0.74	1,080,523	0.95	0.09
Foreign	193.56	0.00	1,068	0.00	0.18
Total	126,850.85	1.00	1,132,145	1.00	

Table 3.3 – Project funding, project count, and average project size by policy instrument. Source: Author's elaboration based on NRRP project data from *Italia Domani* and Cohesion Policy project data from *OpenCoesione*.

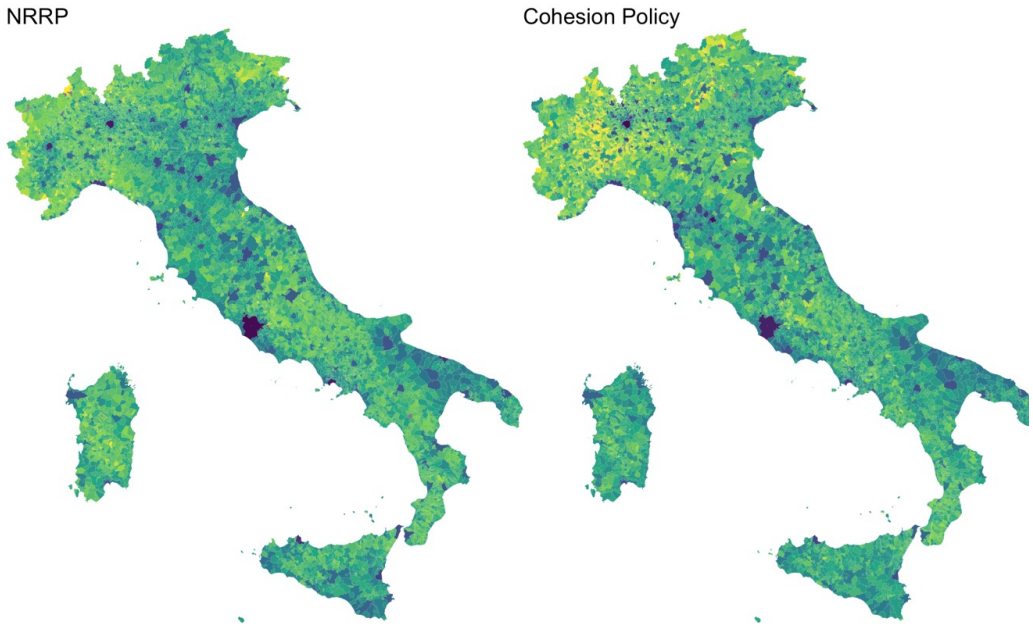
I next examine how resources are distributed across Italy. For this purpose, I use the most granular territorial unit available: the municipality. Projects designed at the national, regional, and provincial levels, as well as foreign projects under Cohesion Policy, are excluded from

this part of the analysis, as they cannot be uniquely linked to specific municipalities. To map the three metrics across municipalities, I merge the data employed thus far with geographic data from the Italian National Institute of Statistics (ISTAT). Since this latter data pertains to administrative boundaries as of January 2023, any municipality suppressed before this date is excluded.

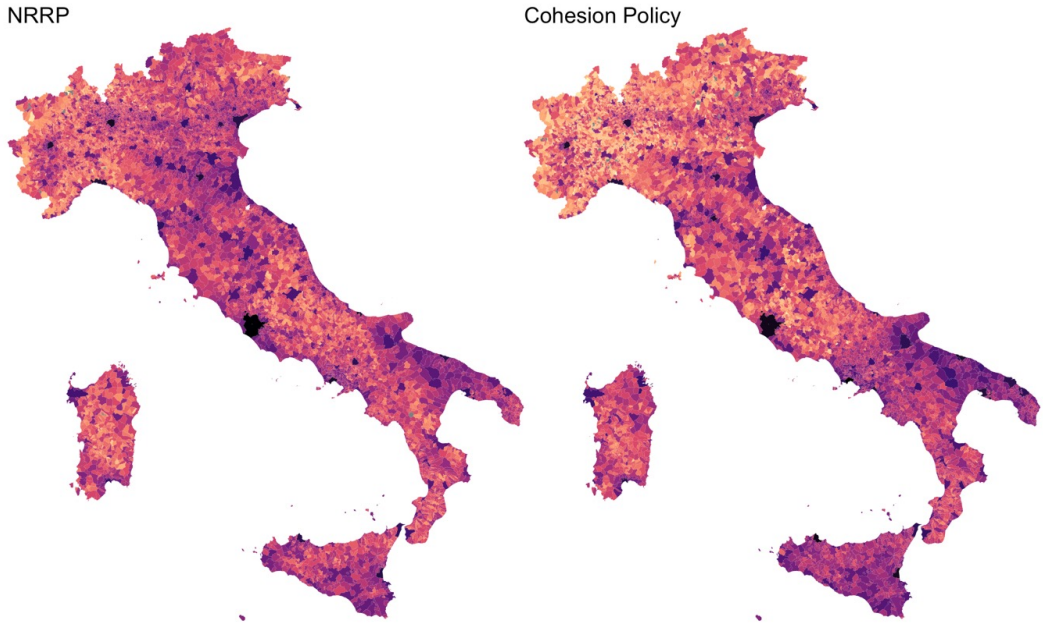
The geographic distribution of resources is influenced by the destination constraints embedded in each program. As explained in Chapter 1, under the NRRP, 40 percent of funding is earmarked for the eight southern regions (Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardegna, and Sicilia). By contrast, Cohesion Policy allocates resources to regions based on their GDP per capita relative to the EU average. For the 2014–2020 cycle, regions were classified into three categories: less developed (GDP below 75 percent of the EU average), transition (75–90 percent), and more developed (above 90 percent). Funding was distributed accordingly, with approximately 70 percent of the European Regional Development Fund and the European Social Fund directed toward less developed regions. Co-financing requirements also varied: less developed regions were required to contribute only 15 percent, compared to 40 and 50 percent for transition and more developed regions, respectively. In Italy, five southern regions (Basilicata, Calabria, Campania, Puglia, and Sicilia) were considered less developed, while the remaining three (Abruzzo, Molise, and Sardegna) were classified as transition regions. All other Italian regions were categorized as more developed (European Commission, 2022, p. 269). In both programs, destination constraints apply to funding as opposed to the project count. However, insofar as project count is correlated with funding, these constraints may still indirectly influence the geographic incidence of projects.

The following maps illustrate the geographic distribution of projects (Map 3.1) and project funding (Map 3.2). Both variables are log-transformed to reduce the influence of outliers. Average project size is not mapped because differences across municipalities are marginal. As expected, the highest incidence of projects is observed in large urban municipalities. The ten municipalities with the most NRRP projects – Rome, Milan, Naples, Turin, Palermo, Bologna, Bari, Padua, Genoa, and Florence – are also the largest by population. For Cohesion Policy, they include Milan, Florence, Rome, Brescia, Bergamo, Monza, Prato, Como, Genova, and Lucca. Considering Cohesion Policy's geographically progressive orientation, the prominence of Lombardian and Tuscan medium-sized cities in this list is somewhat surprising. One explanation may be a greater tendency among managing authorities in these regions to fragment funding into smaller, discrete interventions – a phenomenon known in the management literature as projectification (Fred & Godenhjelm, 2023). Alternatively, the criteria adopted for reporting and identifying discrete projects may vary across regions. In either case, one would expect average project sizes in Lombardy and Tuscany to be significantly smaller than the national average. This is indeed the case: the average project is worth €11,840 in Lombardy and €30,139 in Tuscany, compared to the national average of €86,712.

Both programs also exhibit significant intraregional variation. In many municipalities, particularly in northern Italy, only a handful of projects have been undertaken under either program. An exception is the region of Puglia, where most municipalities show a medium-to-high concentration of projects in both programs. The reasons for this regional homogeneity remain unclear and merit further investigation. The programs differ remarkably in where project scarcity is most pronounced. In the NRRP, sparse coverage is most evident in the inner areas of central and southern Italy. In contrast, for Cohesion Policy, the most underserved areas are located in the Northwest, consistent with the latter's stronger focus on rural development.



Map 3.1 – Project count across Italian municipalities. Source: Author's elaboration based on NRRP project data from *Italia Domani*, Cohesion Policy project data from *OpenCoesione*, and geographic data from ISTAT.



Map 3.2 – Project funding across Italian municipalities. Source: Author's elaboration based on NRRP project data from *Italia Domani*, Cohesion Policy project data from *OpenCoesione*, and geographic data from ISTAT.

Map 3.2 portrays the geographic distribution of project funding. Here, the differences between the two programs are more pronounced. While NRRP funding generally mirrors project count, Cohesion Policy funding exhibits a stark divide between the Center-North and the South, with a clear concentration of resources in the latter. Given that both programs impose destination constraints favoring the South, this discrepancy warrants explanation. Two factors are likely to have contributed. First, the allocation formula employed by Cohesion Policy, which combines more generous quotas and lower co-financing requirements, is arguably more effective at channeling resources, including from national and private sources, into the South. Indeed, in the datasets used for this analysis, the southern regions account for 65 percent of Cohesion Policy funding, compared to only 36 percent of NRRP funding. Second, the NRRP funding allocated to the South is not only smaller but also more concentrated. The NRRP's destination constraint applies to the South as a whole, without specifying allocations by region. While this reduces competition for resources between the Center-North and the South, it fails to dampen competition within the South. As a result, funding tends to cluster in municipalities with greater capacity to attract resources. In contrast, Cohesion Policy pre-allocates funding at the regional level, ensuring a more even distribution across southern regions.

In conclusion, the NRRP's reputation for neglecting territorial disparities, often contrasted with Cohesion Policy's geographically progressive orientation, should be qualified. Both programs direct nearly all projects and about three-quarters of total funding to municipality-level activities. The concentration of projects across municipalities is also broadly similar. However, Cohesion Policy achieves a more extensive and balanced distribution of project funding within the South. That said, the data examined in this section shed little light on the distribution of power over policy design and implementation. Even if both programs decentralize implementation to the local level, the NRRP may still centralize decision-making to a greater degree than Cohesion Policy.

3.5. CONCLUSION

These days, one has a rare opportunity to observe two major policy programs – the NRRP and Cohesion Policy – operating simultaneously across Italy. In this chapter, I compared the two programs, focusing on their implementation. Specifically, I analyzed whether the projects carried out under each program differ substantially in terms of policy objectives, policy instruments, and territorial levels and jurisdictions involved. I employed primary data made publicly available by the Italian government, selecting Cohesion Policy projects from the 2014-2020 programming cycle. Throughout the chapter, I consistently relied on three distinct metrics: project funding, project count, and average project size.

Even before delving into the three analytical dimensions, one striking fact emerges. Although total project funding is broadly comparable across the two programs, the number of Cohesion Policy projects is significantly larger. In other words, NRRP projects are, on average, much larger than their Cohesion Policy counterparts. This may reflect growing frustration with the traditional Cohesion Policy fragmentation of available resources into a multitude of financially modest projects. While this strategy may have struggled to achieve the critical mass needed to foster innovation and growth, it is often seen as equitable, allowing as many individuals and enterprises as possible to initiate or continue activities with public financial support. In sum, the two programs appear to take different positions on the efficiency–equity trade-off: the NRRP prioritizes efficiency over equity, whereas Cohesion Policy does the opposite.

When it comes to policy objectives, the two programs cannot be directly compared because they follow different classification systems – seven missions and seventeen components under the NRRP, and eleven thematic objectives under Cohesion Policy. Nonetheless, the comparison

revealed some interesting patterns. First, in both programs, project count is significantly more concentrated across policy objectives than project funding. Second, the programs pursue broadly similar objectives, although the NRRP places relatively greater emphasis on the twin transitions. Third, even when objectives overlap, the nature of the projects undertaken within them can differ substantially. This is particularly evident in transportation projects, which are disproportionately larger under the NRRP.

Conversely, the two programs share a common set of policy instruments: purchases of goods and services, subsidies to productive and non-productive units, public works, and equity injections. The relative distribution of instruments does not differ markedly between the programs. Furthermore, except for equity investments, which are rare in both programs, each instrument accounts for a non-negligible share of both project funding and project count. Once again, the most substantial differences emerge in average project size, with NRRP projects being consistently more expensive across all instruments.

I then examined the territorial dimension of the two programs, starting with the scale at which projects are designed. Both programs allocate nearly three-quarters of their funding and virtually all their projects to the municipal level. In this sense, both present themselves as local development programs. This does not necessarily imply decentralization: while both target municipalities, they may still differ in the degree to which projects are designed and implemented by local actors. Exploring this question in depth requires further investigation into the identity of project managers.

I finally assessed the distribution of municipality-level projects across Italy. While there are only modest differences between the two programs in terms of project count, project funding is more evenly distributed in Cohesion Policy, particularly across the southern regions. I suggested that this difference reflects the nature of the programs' geographic destination constraints. While both programs explicitly direct funding progressively toward the South, Cohesion Policy earmarks resources at the regional level, whereas the NRRP treats the South as a single block. This latter approach may allow for greater internal disparity, causing funding to concentrate in more attractive locations, notably the region of Puglia and large cities such as Naples and Palermo. This observation has important implications for both researchers and policymakers. In my view, there has been excessive preoccupation with the possibility that the NRRP would exacerbate disparities between the Center-North and the South. By contrast, relatively little attention has been paid to the more concrete risk that the plan may deepen inequalities within the South.

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04

THE DETERMINANTS OF SUCCESSFUL PROJECT IMPLEMENTATION UNDER THE NATIONAL RECOVERYAND RESILIENCE PLAN

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1 I am deeply thankful to Marco Simoni for his valuable feedback during the early stages of this research.

The previous three chapters examined the National Recovery and Resilience Plan (NRRP) descriptively, first focusing on its design in comparison with other national plans funded under Next Generation EU (NGEU) (Chapters 1 and 2), and then on its implementation in comparison with Cohesion Policy in Italy (Chapter 3). This chapter shifts the focus to evaluating how far the NRRP has progressed.

This exercise is particularly useful for two reasons. First, the NRRP represents an unprecedented scale of investment in Italy, significantly exceeding typical national spending levels. This extraordinary expansion requires a high degree of administrative capacity across all government levels. However, Italian administrations – particularly at subnational levels – have historically struggled to manage and disburse funds efficiently, especially in relation to Cohesion Policy. These challenges are further compounded by persistent territorial disparities, with northern and central regions generally displaying stronger administrative structures than southern ones (Polverari & Piattoni, 2022). Second, the NRRP's governance framework marks a departure from prior EU spending programs (Schelkle, 2021). It introduces a more centralized design and oversight, along with performance-based funding, with disbursements conditional on the achievement of pre-agreed milestones (Bokhorst & Corti, 2024; Zeitlin et al., 2025). This shift is intended to enhance efficiency and accountability. In short, implementing the NRRP represents a critical stress test for both the Italian public administration and the governance paradigm emerging around EU-funded programs.

In this chapter, I harness the NRRP project data already employed in Chapter 3 to document variation in implementation. I refer to the same three analytical dimensions previously examined: policy objectives, policy instruments, and territories. Understanding implementation differences along these dimensions is essential for assessing and improving the plan's effectiveness.

Additionally, I investigate which factors explain variation in project implementation. Drawing on existing literature, I estimate the likelihood that projects are completed on time as a function of three sets of variables: project-level characteristics, endogenous municipality-level characteristics (i.e., properties that emerge from project-level characteristics once projects are aggregated at the municipal level), and exogenous municipality-level variables.

As noted throughout this report, the NRRP is still ongoing, and a definitive assessment of its progress will only be possible after its completion. At the same time, substantial data is already available, allowing us to monitor the NRRP in real time. Recalling that funding is disbursed conditional on successful implementation, this exercise, however partial, has the potential to offer valuable insights for policymakers and practitioners.

4.1. MEASURING THE NRRP'S IMPLEMENTATION

I examine the NRRP's implementation progress using data on project completion.
The primary dataset includes a categorical variable describing the stage each project had reached as of 30 June 2025. Although this variable contains eleven distinct values, for the present purposes, I am interested only in distinguishing between completed and ongoing projects. I therefore recode the categorical variable into a binary one: completed projects are assigned a value of 1, and ongoing projects a value of 0.

By itself, this binary variable is ill-suited for measuring or explaining implementation progress. The NRRP is still ongoing: it is scheduled to run until 2026, and some projects in the dataset are not expected to be completed before 2028. Therefore, if a project is not marked as completed by 30 June 2025, this does not necessarily indicate a delay. Rather, the project may simply have a later planned completion date and be progressing as scheduled.

To avoid this bias, one might consider excluding from evaluation all projects whose expected completion date falls after the observation date, yet this approach would introduce another methodological issue. It would exclude all projects whose expected completion date is unknown (N = 36,493). This would not be problematic if one could safely assume that these projects are as likely to have been completed as those with a known completion date. However, this assumption is questionable. If a project is delayed, it may also be less likely that its data are reported to the central database in a timely fashion. To be sure, because the stage variable in the primary data treats projects with missing completion dates as ongoing, one can assess whether the likelihood of completion differs across projects depending on whether their expected completion dates are known. Projects with a known expected completion date are, in fact, almost twice as likely to be completed as those without one, and this difference is statistically significant. Therefore, excluding projects with unknown completion dates would likely bias the present measure of implementation progress. As a safer strategy, I retain all projects that were expected to be completed by the observation date or for which the expected completion date is missing.

Finally, I also exclude projects implemented at the national, regional, or provincial scale. As explained in Section 4.3, several variables used in the explanatory analysis are conceptualized and measured at the municipal level. Retaining higher-level projects would then be meaningless, since I would lack appropriately scaled explanatory variables to account for their variation. After these selection criteria are applied, the number of projects in the dataset falls from 291,053 to 181,959, and the total funding volume from almost €158 billion to less than €35 billion.

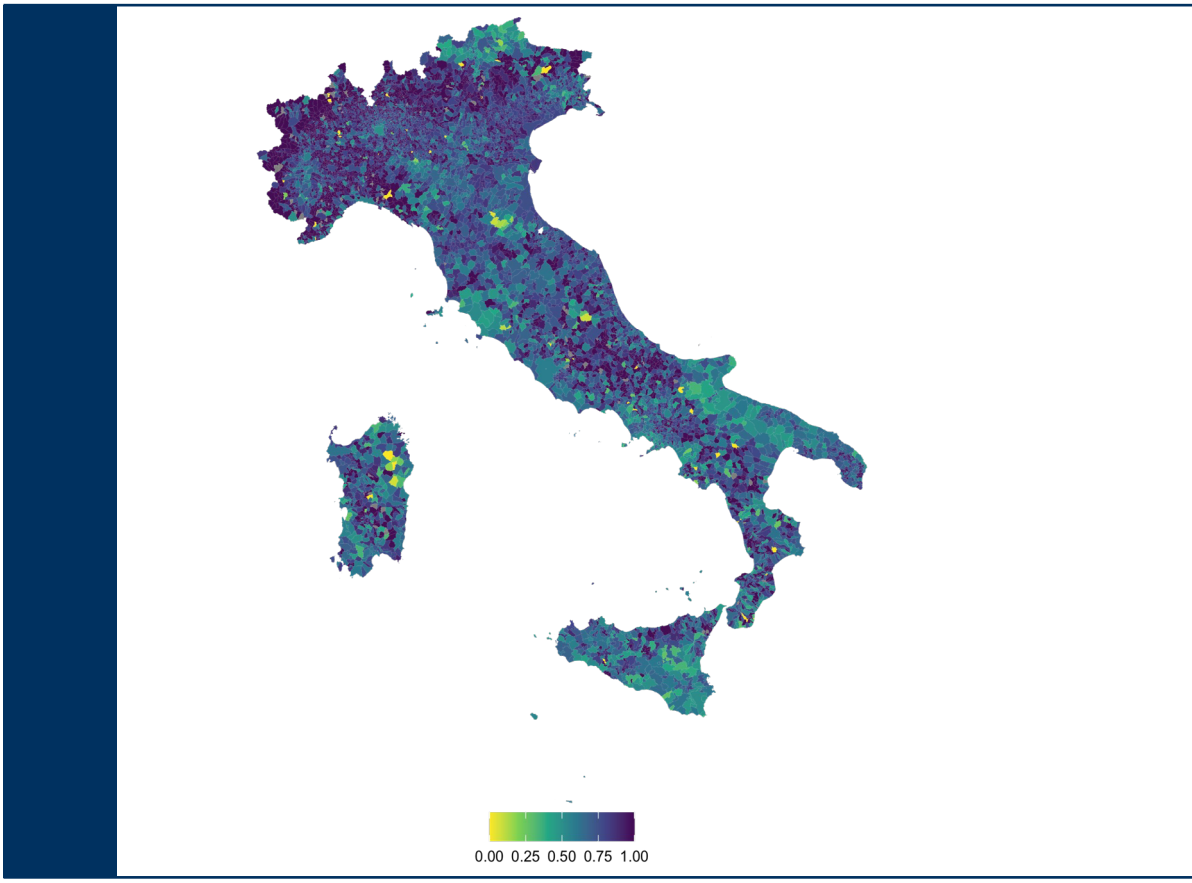
The remainder of this section explores variation in implementation progress along the three analytical dimensions introduced in Chapter 3: policy objectives, policy instruments, and territories. Starting with objectives (Table 4.1, Panel A), none of the 35 sampled projects under Mission 3 had been completed by the observation date. This is unsurprising, given that infrastructure projects are notoriously prone to delays. Still, this systematic implementation failure suggests that these projects may have been included in the NRRP despite unrealistic timelines, possibly to secure funding during a historic window of opportunity. At the other end of the spectrum, nearly all projects under Mission 7 (RePowerEU) have already been completed.

Striking differences also emerge among different policy instruments (Table 4.1, Panel B). While public works might be expected to be most liable to delays, they show the second-lowest completion rate (56 percent). Instead, the lowest completion rate is found among contributions to productive units, with only one in three completed on time. These differ substantially from incentives to non-productive units, most of which have already been fully disbursed. The stark contrast between these two types of subsidies raises a puzzle with no straightforward explanation. Lastly, purchases of goods and services fall in the middle, with completion rates of 68 and 66 percent, respectively.

	Number of projects	Average completion rate
A. Policy objective		
M1	42,448	0.91
M2	83,773	0.81
M3	35	0.00
M4	45,261	0.40
M5	5,726	0.58
M6	4,449	0.71
M7	267	0.99
B. Policy instrument		
Purchase of goods	20,999	0.68
Purchase of services	63,786	0.66
Incentives to productive units	28,614	0.35
Contributions to non-productive units	63,098	0.98
Public works	5,462	0.56

Table 4.1 – Project count and average completion rate by policy objective and policy instrument. Source: Author's elaboration based on NRRP project data from *Italia Domani* and Cohesion Policy project data from *OpenCoesione*.

Turning to territorial variation, Map 4.1 maps project completion across Italian municipalities. This is higher in the twelve regions of the Center-North (75 percent) compared to the eight southern regions (66 percent), but substantial variation also exists within both clusters. In the Center-North, average completion rates range from 80 percent in Veneto to 66 percent in Lazio. In the South, Molise performs best (78 percent), while Sicily performs worst (63 percent). Further variation is observed within regions. Within the best-performing region, for instance, the provinces of Padua, Rovigo, and Vicenza show average completion rates of 82 percent, compared to 73 percent in Verona. Within the worst-performing region, completion rates vary from 68 percent on average across the province of Caltanissetta to 54 percent in Ragusa.



Map 4.1 – Project implementation across Italian municipalities. Source: Author's elaboration based on NRRP project data from *Italia Domani*, Cohesion Policy project data from *OpenCoesione*, and geographic data from ISTAT.

Overall, the implementation metric captures meaningful variation, and the three analytical dimensions discussed in the previous chapter – policy objectives, policy instruments, and territories – covary with it. These dimensions will therefore be included in the explanatory model as fixed effects, along with explanatory variables drawn from academic literature.

4.2. FACTORS CONDITIONING IMPLEMENTATION: EVIDENCE FROM COHESION POLICY

In predicting variation in project completion, I distinguish between project-level and municipal-level explanatory variables.

Project-level predictors

The project characteristic most obviously expected to affect implementation is size. Holding everything else constant, larger projects can reasonably be expected to take longer to complete. To be sure, the outcome variable does not measure the time taken to complete projects but rather whether projects have accumulated delays relative to their planned schedules. In other words, while larger projects may require longer implementation periods, as long as this is accounted for at the project design stage, they are not necessarily more likely to experience delays. Still, there may be reasons beyond duration why larger projects may encounter implementation challenges. For example, they may be subjected to additional or

lengthier audits by supervisory bodies such as the national court of auditors. Indeed, Santos et al. (2025) find that the speed of funding absorption in Cohesion Policy 2014–2020 was lower for operational programs that allocated a higher share of resources to large-scale projects. Based on this evidence, the explanatory model accounts for project size, measured by the total funding allocated to each project, including contributions from the PNRR and other public and private sources. To minimize the influence of exceptionally expensive projects, the variable is log-transformed.

More broadly, particularly complex projects are more likely to encounter additional challenges. Focusing on a sample of Italian Cohesion Policy projects similar to those undertaken under the NRRP, Crescenzi et al. (2021) find that projects targeting multiple territories or beneficiaries are more likely to experience delays. They also observe that projects activated through negotiated procedures are less likely to suffer delays than those initiated through standard competitive calls. While I do not include a specific variable for project complexity, I expect that it will be partly captured by other project-level variables such as size, policy objective, and policy instrument.

Third, not all NRRP investments are directed toward newly designed projects. A sizable share of funding is instead allocated to pre-existing projects. In the present sample, these projects account for nearly €3 billion. According to Viesti (2022, p. 203), the Italian government included existing projects in the NRRP for two reasons: to free up resources in the domestic budget, and to present a more favorable picture of the NRRP's progress to EU authorities by capitalizing on work already started. If this logic holds, one should expect pre-existing projects to exhibit a higher completion rate than newly designed ones. However, it is also possible that some of these projects were refinanced into the NRRP precisely because they had stalled under their original policy framework. Ultimately, whether the inclusion of pre-existing projects facilitates or hinders implementation remains an empirical question. To assess it, I include a binary variable in the explanatory model that takes the value of 1 for projects that predate the NRRP and 0 for those designed ex novo.

A third critical factor is project governance, understood as the actors responsible for project design and execution. Celli et al. (2025) compare a group of infrastructure projects in Puglia initially funded under Cohesion Policy 2007–2013, but later reassigned to a new domestic program, with a control group of projects that were not reassigned. They find that execution slowed significantly for reassigned projects after ten months, possibly due to the more stringent procedures associated with EU governance. Although this finding may be less relevant in the present context, since all sampled projects are at least partially funded by the EU and thus subject to its rules, remarkable governance differences may also arise among EU-funded interventions. Santos et al. (2025) show that regional operational programs under Cohesion Policy tend to absorb funds more slowly than national ones. Crescenzi et al. (2021) similarly find that delays are more common in regional than in national programs. Since the NRRP was drafted by the national government with limited involvement from subnational authorities (Viesti, 2022), this national–regional distinction is not directly applicable here. However, the NRRP has been coordinated across multiple national administrations. Each project can thus be classified according to the national authority that retains ownership over its implementation. This ownership entails activating allocation procedures, coordinating the actors involved, and monitoring and reporting progress. For simplicity, I construct a binary variable that takes the value of 1 if a project is administered by the Presidency of the Council of Ministers and 0 if it is administered by ministries or judiciary authorities.

In addition to administrative ownership, implementation is likely to depend on the actors that execute projects on the ground. In their analysis of Cohesion Policy project beneficiaries in southern Europe, Ballantyne and Mascioli (2024) document remarkable variation both

between and within countries. Crescenzi et al. (2021) find that Cohesion Policy projects led by individuals are typically timelier than those led by governments or non-governmental organizations. Del Monte et al. (2022) analyze a sample of Italian projects funded under Cohesion Policy 2007-2013 and observe that those managed by municipal governments are more prone to delays than those managed by other levels of government or non-governmental actors. Consistent with these studies, I construct a categorical variable that classifies projects by executing body, distinguishing between national governments, subnational governments, and non-governmental actors – whether individuals or organizations.

Municipality-level predictors

Explanatory variables at the municipal level can be divided into endogenous and exogenous types. Endogenous variables derive from project characteristics aggregated at the municipal level. The model includes two predictors of this type. As noted earlier, project complexity is expected to increase the likelihood of encountering implementation challenges. Complexity may manifest not only at the individual level but also across a municipality's project portfolio. For example, Foglia et al. (2025) examine 300 operational programs from Cohesion Policy and find that program complexity – measured by the number of projects, indicators, funding sources, and the incidence of large-scale projects – is positively associated with spending irregularities. While they conceptualize complexity at the program level, similar considerations may apply to municipalities. That is, a municipality managing a more complex project portfolio may be more susceptible to delays. I capture complexity at the municipal level by calculating the number of projects undertaken in each municipality and the total budget allocated to those projects. Both variables are log-transformed to moderate the influence of large municipalities. Because the correlation between these two variables is nearly perfect, to avoid multicollinearity, the explanatory model only includes the log-transformed project count.

The second endogenous municipality-level variable is the concentration of projects across policy objectives. In the Cohesion Policy literature, concentrating resources in fewer intervention axes is associated with faster funding absorption (Santos et al., 2025) and fewer spending irregularities (Foglia et al., 2025). Following these studies, I include a measure of how concentrated each municipality's projects are across the seven NRRP missions. A score of 1 indicates that all projects fall under the same mission, while lower values indicate greater dispersion.

Two additional municipality-level variables are exogenous to the NRRP. The first is institutional quality. Institutional quality has been found to affect a region's ability to absorb Cohesion Policy funds and comply with financial rules and targets (Mendez & Bachtler, 2024). It has also been found to moderate the impact of interventions at both the regional (Barbero et al., 2023; Rodríguez-Pose & Garcilazo, 2015) and the firm level (Bachtrögler et al., 2020; Bachtrögler-Unger et al., 2024). To measure institutional quality, this literature typically relies on the European Quality of Government Index (EQI), which is constructed at the regional (NUTS-2) level from a large-scale survey of perceived corruption, impartiality, and the quality of subnational public services (Charron et al., 2014). However, using this index in the explanatory model would only allow me to capture institutional quality differences among regions. Furthermore, when applied to Italian regions, the index primarily distinguishes between medium-quality regions in the Center–North and low-quality regions in the South and would thus de facto operate as a geographic fixed effect. By contrast, I employ the Institutional Quality Index (IQI): a provincial-level measure derived from indicators of corruption, government effectiveness, regulatory quality, rule of law, and voice and accountability (Nifo & Vecchione, 2015). Compared to the EQI, the IQI captures intra-regional variation more granularly and is more sensitive to differences within both the Center–North and the South.

The second exogenous variable is experience with EU programs, especially Cohesion Policy.

Prior exposure to the complex legal and financial frameworks governing these programs may also help the actors involved navigate the NRRP. Santos and Conte (2024) find that past involvement in Cohesion Policy increases the likelihood of applying for research and innovation measures funded by the Recovery and Resilience Facility in Portugal. Focusing on the Italian experience, Mascioli and Leek (2025) similarly find a strong relationship between prior experience with Cohesion Policy and municipal capacity to mobilize resources under the NRRP. Across all estimated models, the correlation between past and present performance proves stronger than that in present performance between neighboring municipalities. Although these studies do not focus on policy implementation, they suggest that the ability to manage NRRP projects may depend on previous experience with EU-funded programs, beginning with Cohesion Policy. Consistent with this insight, I regress the outcome variable on the log-transformed count of projects undertaken in each municipality under Cohesion Policy 2014–2020. Table 4.2 provides additional information on the variables included in the explanatory model.

Variable name	Expected effect	Mean	Range	Missing observations	Source
Outcome variable					
Completed		Binary		0	*Italia Domani*
Explanatory variables					
budget	Negative	11.14	(2.22-18.82)	0	*Italia Domani*
recycled	Ambiguous	Binary		0	
administration_pcm	Ambiguous	Binary		0	
executor	Ambiguous	Categorical		0	
total_projects	Negative	3.98	(0.00-8.08)	0	
mission_concentration	Positive	0.45	(0.23-1.00)	0	
institutional_quality	Positive	0.60	(0.00-1.00)	1,378	IQI
experience	Positive	5.12	(0.00-11.05)	377	*OpenCoesione*
Fixed effects					
Policy objective (NRRP mission)				0	*Italia Domani*
Policy instrument				0	
Geographic region				0	

Table 4.2 – Overview of the variables included in the explanatory model.

4.3. FINDINGS

In this section, I present results from project-level regression models that estimate the relationship between project completion and the explanatory variables discussed in the previous section. Although the outcome variable is binary, I use linear probability models instead of logistic regression. Linear probability models are faster to estimate given the large number of observations and variables, and their coefficients are easier to interpret. The main drawback is that predicted probabilities can fall below zero or exceed one, making them less intuitive in some cases.

The dataset has a nested structure, with projects clustered within municipalities and explanatory variables at both levels. To assess how variation in project completion is distributed across these levels, I begin by estimating an empty model and calculating the intra-class correlation coefficient (ICC). This coefficient estimates the share of total variation attributable to differences between municipalities. The ICC for the empty model is 0.14, indicating that 14 percent of the variation in project completion is due to differences between municipalities, while the remaining 86 percent is explained by differences within municipalities. This highlights the importance of including project-level variables in the explanatory model.

Table 4.3 presents several specifications of the explanatory model. All specifications include fixed effects for NRRP missions, policy instruments, and geographic regions. That is, I test whether the explanatory variables help explain variation in project completion after accounting for differences across missions, instruments, and regions. Continuous explanatory variables are standardized (i.e., transformed to have a mean of zero and a standard deviation of one). This enables comparison across variables measured on different scales. Standard errors are clustered at the municipal level to account for the data's nested structure.

Model 1 estimates the probability of project completion as a function of the four project-level explanatory variables. As expected, project size has a negative coefficient: a one-standard-deviation increase in project size is associated with a nine-percentage-point decrease in the probability of completion. The coefficient on recycled projects supports the idea that incorporating pre-existing projects into the NRRP has helped accelerate implementation. On average, recycled projects are 25 percentage points more likely to be completed than newly designed ones. Regarding governance, projects administered by the Presidency of the Council of Ministers are 12 percentage points more likely to be completed than those administered by line ministries. Projects executed by subnational governments or non-governmental organizations fall short of those executed by the national government by 23 and 21 percentage points, respectively.

Model 2 adds the two endogenous municipality-level variables: the log-transformed count of NRRP projects in each municipality and the concentration of those projects across NRRP missions. This does not meaningfully change the size or significance of the project-level coefficients. The coefficient on project count is negligible and not statistically significant. Surprisingly, a higher concentration of projects within fewer missions is associated with a lower likelihood of completion. More precisely, a one standard deviation increase in concentration corresponds to a four-percentage-point decrease in completion probability, although the coefficient is only marginally significant. This suggests that municipalities with more diverse project portfolios tend to perform better. One possible explanation is that diversification allows for a more balanced distribution of responsibilities among local actors, while concentration may lead to overload and inefficiencies.

Model 3 incorporates the two exogenous municipality-level variables: institutional quality and prior experience with Cohesion Policy. Neither variable yields a statistically significant coefficient. The null result for institutional quality is somewhat unexpected and may be due to the index being measured at the provincial level. When region fixed effects are included,

little variation in institutional quality remains, reducing the ability to detect its association with project completion. Indeed, if region fixed effects are removed, the coefficient on institutional quality becomes statistically significant at the 0.001 level, although its magnitude remains small compared to the project-level predictors. A similar pattern is observed for exposure to Cohesion Policy: this coefficient becomes statistically significant without region fixed effects, but in the opposite direction than expected. This suggests that both exogenous variables, along with region fixed effects, capture similar underlying geographic variation, particularly the divide between the Center-North and the South of Italy. This interpretation echoes concerns about regional implementation disparities under the NRRP (Viesti, 2022, pp. 212–216). In this third model, the coefficient on project concentration, which was only marginally significant in Model 2, becomes significant at the 0.01 level.

	Model 1	Model 2	Model 3
budget	-0.092*** (0.002)	-0.093*** (0.003)	-0.093*** (0.003)
recycled	0.256*** (0.011)	0.255*** (0.011)	0.255*** (0.011)
administration_pcm	0.121*** (0.021)	0.123*** (0.021)	0.120*** (0.021)
executor: subnational government	-0.232*** (0.036)	-0.230*** (0.036)	-0.226*** (0.036)
executor: not government	-0.210*** (0.033)	-0.212*** (0.033)	-0.208*** (0.033)
total_projects		0.001 (0.001)	0.003 (0.002)
mission_concentration		-0.004* (0.002)	-0.004** (0.002)
institutional_quality			0.004 (0.004)
experience			-0.003 (0.002)
Mission fixed effects	Y	Y	Y
Instrument fixed effects	Y	Y	Y
Region fixed effects	Y	Y	Y
Observations	181,924	181,924	180,169
R2 Adj.	0.538	0.538	0.538
p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001			

Table 4.3 – Project-level regressions of implementation of project and municipality-level factors.

In conclusion, most of the variation in project completion is found at the project level, and project-level variables are thus more effective at explaining it. Specifically, holding policy objectives, policy instruments, and geographic regions constant, I find that the likelihood of project completion decreases with project size. Additionally, recycled projects are more likely to be completed than newly designed ones, projects administered by the Presidency of the Council of Ministers than those administered by line ministries, and projects executed by the national government than those executed by subnational government or non-governmental actors. Among the municipality-level variables, only the concentration of projects across missions displays a meaningful and statistically significant association with project completion. Conversely, the total number of projects, institutional quality, and prior experience with Cohesion Policy do not have significant explanatory power, at least when region fixed effects are included. Still, even the most exhaustive model explains just over half of the observed variation in project completion. This suggests that other important explanatory factors, possibly at both the project and municipal levels, remain unaccounted for.

4.4. CONCLUSION

In this chapter, I shifted the focus away from describing the NRRP, as in Chapters 1, 2, and 3, and toward assessing how the plan has progressed to date. As noted in its introduction, a definitive evaluation will only be possible after the NRRP is completed. At present, it remains difficult to determine whether ongoing projects are behind schedule or simply progressing within longer time horizons. Nonetheless, I sought to address these methodological challenges and developed an empirical measure to document and explain variation in project completion, with the aim of providing policymakers and practitioners involved in the plan with useful insights.

The analysis uncovered significant implementation differences across projects pursuing different policy objectives, deploying different instruments, and targeting different territories. Notably, none of the mobility projects from Mission 3 expected to be completed before June 2025 had actually been completed by that date, suggesting that the deadlines imposed on those projects may have been unrealistic from the outset. At the other extreme, nearly all projects added to the NRRP through RePowerEU following the Russo-Ukrainian war – now grouped under Mission 7 – have already been finalized. The remaining five missions fall somewhere between these two poles.

Substantial variation also emerges across policy instruments. Only one-third of all incentives to productive units have been fully disbursed, compared to nearly all grants to non-productive units, while the other categories – purchases of goods and services, and public works – fall in between. The stark disparity between the two subsidy instruments lacks an obvious explanation and warrants further investigation by both scholars and policymakers.

Territorial variation is also evident. 75 percent of the projects sampled from the Center-North have already been completed, compared to 60 percent in the South. This lends some support to those concerned with a North–South divide in implementation capacity (for example, Viesti, 2022). However, substantial differences also appear within macro-areas, within regions, and – as the explanatory analysis showed – even within municipalities. Indeed, municipal differences only account for 14 percent of the total observed variation in project completion, while the remaining 86 percent is attributable to differences among projects within the same municipality.

To better understand this variation, I developed an explanatory model that identifies factors associated with project completion beyond those captured by policy objectives, policy

instruments, and geographic regions. Drawing on the Cohesion Policy literature, I identified three sets of explanatory variables: project-level characteristics, endogenous municipality-level variables (derived by aggregating project characteristics at the municipal level), and exogenous municipality-level variables. The model explains over half of the observed variation in project completion, primarily through project-level variables and fixed effects for missions, instruments, and regions.

Specifically, I found statistically significant associations between project completion and project size, the concentration of projects across missions, and several binary indicators – whether projects were refinanced into the NRRP or designed ex novo, whether they were administered by the Presidency of the Council of Ministers or by line ministries, and whether they were executed by the national government, subnational governments, or non-governmental actors. By contrast, the total number of projects per municipality, a composite index of institutional quality, and exposure to Cohesion Policy during the 2014–2020 programming cycle displayed null effects. These null findings do not necessarily mean that these factors are inconsequential for implementation, but may simply reflect insufficient variation within regions. Indeed, when region fixed effects are removed from the model, the coefficients on institutional quality and experience with Cohesion Policy become statistically significant.

While the coefficients on project size and recycled projects are straightforward to interpret, those associated with governance require further scrutiny. Holding everything else constant, I found that projects administered by the Presidency of the Council of Ministers are significantly more likely to be completed than those overseen by line ministries. Likewise, projects executed by national government actors show higher completion rates than those implemented by subnational governments or non-governmental entities such as agencies, private firms, or individuals. This latter finding echoes some of the literature on Cohesion Policy reviewed in Section 4.2.

Two interpretations are possible. First, projects administered by the Presidency or executed by national actors, which partly overlap, may differ from others in unobserved ways that also explain their higher completion rates. Alternatively, it is possible that the Presidency has genuinely proven more effective than line ministries in project administration and that the national government has outperformed all other actors in project execution. Further research is needed to determine which of these explanations is more likely. Once that question is settled, the next step would be to identify either the unobserved characteristics that systematically steer faster projects into certain governance structures or the organizational features that make some governance arrangements more efficient than others.

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