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How policy capacities shape the green transition: explaining the use of EU sustainable finance in the EU's Central and Eastern European member states

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ABSTRACT

This article investigates how policy capacities influence governments' decisions on allocating funding for the green transition. Our theoretical framework outlines how political, analytical and operational capacities can be expected to affect green transition funding. We probe the plausibility of these linkages by examining how EU member states from Central and Eastern Europe are using the European Recovery and Resilience Facility – the EU's main 'green recovery' financial instrument, which runs parallel to regulatory attempts of aligning private financial flows with climate mitigation and adaptation. In a comparative case study of Bulgaria and Estonia, we analyse how different configurations of policy capacities have influenced the allocation of green transition funding in the countries' Resilience and Recovery Plans (RRPs). We show that the distinct configurations of policy capacities contributed to significant differences between Estonia and Bulgaria. Political capacities affected the prioritisation of the green transition agenda in the RRPs, while analytical and operational capacities shaped the private-public mix, legacy v. future-orientedness, and technological v. behavioural focus in the selected projects and investments.

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Introduction

The 'green transition' is a grand challenge (Kattel & Mazzucato, 2018) that entails addressing super-wicked problems, with no straightforward or linear solutions (Hsu, 2015; Vink *et al.*, 2013; Wanzenböck *et al.*, 2020). The steering

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of the green transition by governments encompasses many policy domains, including energy, transport, housing, forestry, and education, to name just a few (Köhler *et al.*, 2019). It also requires considerable coordination with the private sector (Kattel & Mazzucato, 2018; McLaren & Kattel, 2022). Thus, when additional funds do become available for countries to facilitate the green transition, governments are faced with substantial challenges in terms of the exact framing of the problems they need to address, which policy measures and instruments to use, and which projects to finance.

The Introduction to this special issue indicates that the processes of puzzling and powering are likely to play a crucial role in shaping governments' decisions related to sustainable finance (see Mertens and van der Zwan, this issue). The notion of puzzling captures cognitive and information dimensions of addressing policy challenges: identifying plausible options for addressing problems (Heclo, 1974; Stock *et al.*, 2021; van der Steen *et al.*, 2016; Vink *et al.*, 2013). Powering entails exercising authority and exerting pressure to achieve an acceptance of a problem definition and a solution to that problem in a situation of potentially clashing aims and preferences (Heclo, 1974; Vink *et al.*, 2013). While the puzzling and powering lenses offer useful starting points for exploring how policy choices related to financing the green transition come about (e.g., Stock *et al.*, 2021; van der Steen *et al.*, 2016; Vink *et al.*, 2013), they fall short on explaining which mechanisms drive these processes. We propose that in order to advance our understanding of how puzzling and powering shape sustainable finance, it would be useful to examine the role of policy capacities. Various studies on green transition have highlighted the crucial role of policy capacities to examine policy changes in such a complex domain (Craft & Howlett, 2013; Kattel & Mazzucato, 2018; McLaren & Kattel, 2022; Williams & McNutt, 2013). Furthermore, the literature has recently paid more careful attention to the role of the state as a catalyst for large-scale societal transformations, such as the green transition (Larsen, 2023; Mikheeva & Ryan-Collins, 2022). Speaking to this literature, and nuancing it further, adopting a policy capacities lens allows us to unpack the role of the state by disaggregating policy sectors. As Williams and McNutt (2013) and Wu *et al.* (2015) emphasise, policy capacities can vary considerably between different policy sectors in a single country. Hence, adopting this perspective (rather than the more abstract state capacity) allows us to take a more differentiated approach (Woo *et al.*, 2015) and examine how policy capacities affect decisions about the green transition across policy sectors with more granularity.

In the empirical part of our article, we probe the plausibility of our theoretical expectations by investigating how different configurations of policy capacities have influenced the allocation of funds from EU's Recovery and Resilience Facility (RRF) to green transition in investment-constrained Central and Eastern European (CEE) member states (MS). The RRF – a

financial resource of 650 billion euros under the framework of NextGenerationEU – enables the European Commission (EC) to borrow from international financial markets on behalf of the member states (MS) to foster the economic recovery from the covid-19 pandemic and the green transition during the period 2021–2026 (European Commission, 2021; European Commission, 2025). The RRF is the biggest source of direct EU financing for the green transition that runs parallel to regulatory attempts of aligning private financial flows with climate mitigation and adaptation (see Mertens and van der Zwan, this issue). It is especially important for MS that otherwise lack investment resources for the green transition. Given that the green transition entails potential reconfigurations in state-market relationships (see Mertens and van der Zwan, this issue), investigating the allocation of RRF funds helps shed light on the role of public sustainable finance more broadly.

We seek to make the following contributions. First, our theoretical contribution is to complement the discussions of this special issue on puzzling and powering over sustainable finance with insights from the literature on policy capacities. We explore how the configuration of policy capacities in a country can influence the dynamics of puzzling and powering when faced with the challenge of funding the green transition. Second, drawing on the conceptualisation of sustainable finance in this special issue as 'an emergent policy regime' that is constitutive of the EU's dominant approach to achieve climate neutrality by 2050' (see Mertens and van der Zwan, this issue), we aim to shed light on how the CEE MS set policy priorities regarding the funding of green transition projects. To achieve this, we use the theoretical lens of policy capacities to explore how two CEE countries – Estonia and Bulgaria – allocate RRF financing for the green transition. Concretely, we examine how different configurations of policy capacities (political, analytical, operational) influence these countries governments' choices of the green transition projects included in the national RRPs.

The case selection logic was to choose two CEE countries that face similar constraints in terms of prior investments and carbon-based legacies but exhibit very different configurations of policy capacities. Our in-depth qualitative study allows us to explore how different configurations of policy capacities influence the allocation of green transition funding in the two national RRPs regarding: (1) projects entailing public-private mix in the allocations; (2) division between legacy v. future-oriented innovative projects; (3) technology v. behavioural change focus in the funded projects. Governments' decisions related to green funding may also be influenced by other factors, including the ideology of governing parties and differences in economic structures. However, our study focuses specifically on whether policy capacities could be a useful lens for understanding green transition funding.

The article is structured as follows. Section 2 outlines our theoretical framework. Subsequently, we present the methodology and empirical analysis of

the two cases in sections 3 and 4, respectively. Section 5 summarises the main findings and proposes directions for further research.

Theoretical framework: the role of policy capacities in funding the green transition

The green transition is a highly complex policy area, entailing uncertainties on various dimensions. Policy actions related to the green transition are likely to pose considerable challenges not only because of considerable uncertainties involved but also because those actions have to be layered onto other, already pre-existing policy fields that have their own policy instruments in place (Newman *et al.*, 2013). In his classic work, Heclo (1974) suggests that in order to address complex policy issues, governments need both puzzling and powering. As Heclo (1974) emphasised, the processes of puzzling and powering tend to be intertwined and influence each other. Inspired by Heclo's study, in studies of green transition, policymaking has become 'understood as an interplay of organizing knowledge about uncertain and ambiguous issues and organizing power amidst conflicting interests and goals' (Vink *et al.*, 2013).

While the lenses of puzzling and powering offer useful starting points for exploring how policy choices related to funding green transition to come about, they fall short on explaining which mechanisms drive these processes. The way puzzling and powering processes unfold and interact in addressing the green transition can be influenced by various factors. We argue that an important element in understanding how puzzling and powering influence the allocation of green transition financing is policy capacity. Indeed, various studies have highlighted that in order to understand policy choices in complex domains like the green transition, we need to examine policy capacities (Craft & Howlett, 2013; Kattel & Mazzucato, 2018; McLaren & Kattel, 2022; Williams & McNutt, 2013; Wu *et al.*, 2015, 2018). Policy capacities are expected to influence the ability of the government to set strategic directions, evaluate policy alternatives, and utilise knowledge in policymaking (Wu *et al.*, 2018). As McLaren and Kattel (2022) and Kattel and Mazzucato (2018) emphasise, policy capacities are likely to play a key role in the government's ability to utilise a broad range of funding instruments and manage portfolios of different projects and investments.

Wu *et al.* (2015, p. 166) define 'policy capacity' as 'the set of skills and resources – or competences and capabilities – necessary to perform policy functions'. They distinguish between three sets of competences that constitute policy capacity: analytical, operational, and political. While analytical capacities help ensure that 'policy actions are technically sound' and able to attain policy goals, political capacities 'help to obtain and sustain political support for policy actions', and operational capacities 'allow resources to be

aligned with policy actions, so that they can be implemented in practice' (Wu *et al.*, 2018, p. 5). Next, we discuss how these different types of policy capacities can affect the puzzling and powering processes related to the funding of green transition.

Political capacities and green transition funding

The problem definitions and solutions that may emerge as a result of the process of puzzling may not have immediate support (van der Steen *et al.*, 2016). In the green transition, 'the goals and processes are contested, creating winners and losers across stakeholder groups' (Zepa, 2022, p. 1). Thus, policy actors have to direct their efforts – via powering – towards making sure that the relevant stakeholders endorse the solution (Stock *et al.*, 2021; van der Steen *et al.*, 2016). To secure the approval of a specific framing of a problem and its solution, the actors need to mobilise support for it and construct power coalitions (Hall, 1993; Stock *et al.*, 2021; van der Steen *et al.*, 2016). Given the complexities and uncertainties involved in green transition, there is likely to be fragmented approval of different problem definitions and solutions and hence efforts are needed to galvanise support for taking steps (and allocating funds) towards specific directions (van der Steen *et al.*, 2016; Vink *et al.*, 2013; Weber & Rohracher, 2012).

Political capacity captures capabilities that enable key stakeholders in the policy process 'to sustain public support for policy reform and resolve conflicts arising from policy actions' (Wu *et al.*, 2018, p. 13). Political capacity is shaped by the levels of political accountability, legitimacy, trust, and the degree to which non-state actors participate in the policy process (Woo *et al.*, 2015; Wu *et al.*, 2015, 2018). For example, effective communication with the stakeholders and citizens can enhance the support for government's policy choices and ensure responsiveness of government policies to public expectations (Woo *et al.*, 2015; Wu *et al.*, 2018). Extensive competencies related to negotiation and consensus building help to resolve conflicts arising from the potentially clashing interests of different stakeholders (Wu *et al.*, 2018). Woo *et al.* (2015) suggest that system-level political capacities serve as a precondition for exercising analytical and operational capacities.

Political capacity is likely to influence the dynamics of powering in financing green transition. For example, it can contribute to whether the sustainability transition becomes a political priority (or one of the priorities) in the first place (e.g., Weber & Rohracher, 2012). It is likely to shape how broad-based the support for the green transition is among the different political parties and whether focusing on green transition would be dependent on which party (or coalition) is in government at any given point in time. It may influence how contested policy actions are resolved (McLaren & Kattel, 2022).

As Heclo (1974) emphasised, the processes of puzzling and powering tend to be intertwined and influence each other. Indeed, the way problems that need to be addressed by green transition are framed in the puzzling process – e.g., in terms of their focus, scale, and time-frame – can play a role in how easy or challenging it would be to mobilise support for them in the powering process (van der Steen *et al.*, 2016). Furthermore, powering can also influence puzzling: those in positions of power can decide whom to involve in the deliberation processes and that, in turn, influences what kinds of knowledge systems and information are likely to feed into the puzzling processes.

Analytical capacities and green transition funding

In the process of puzzling, policy actors explore different perspectives and lenses for viewing the problems and their solutions, drawing on different knowledge systems (Stock *et al.*, 2021). In the case of a complex policy area, like green transition, puzzling is required because understandings about the policy area may be ambiguous and the knowledge about problems and solutions uncertain (Van Buuren *et al.*, 2016; van der Steen *et al.*, 2016). How the puzzling processes affect decisions over green transition funding is likely to be affected by a government's analytical capacities.

Analytical capacity refers to the government's ability to effectively acquire, process, and utilise information and data relevant for performing policy functions (Howlett, 2015; Howlett & Joshi-Koop, 2011; Hsu, 2015; McLaren & Kattel, 2022; Oliphant & Howlett, 2010; Wu *et al.*, 2015, 2018). It entails, for example, analytical skills necessary for diagnosing key problems, identifying conditions for addressing the problems, assessing the feasibility and challenges of different policy solutions, and forecasting their impacts (Howlett, 2015; Howlett & Joshi-Koop, 2011; McLaren & Kattel, 2022; Williams & McNutt, 2013). Policy analytical capacity includes competencies to undertake policy analysis and employ appropriate research methods, analytical techniques and modelling approaches (Craft & Howlett, 2013; Hsu, 2015; Oliphant & Howlett, 2010). In the case of the green transition, it can include the extent to which evidence like statistical data and scientific findings are used in decision making over funding decisions as well as benchmarking and monitoring (Howlett & Joshi-Koop, 2011; Hsu, 2015; Williams & McNutt, 2013).

While civil servants working in government may be important carriers of policy capacity and a central source of providing policy advice (Howlett, 2015; Migone & Howlett, 2023; Newman *et al.*, 2013), crucial information about the green transition can be provided by a wider range of societal actors (Howlett & Joshi-Koop, 2011; Hsu, 2015; Williams, 2012; Williams & McNutt, 2013). Thus, analytical policy capacity also refers to the ability of the governmental actors to solicit and exchange information with the

relevant network of stakeholders, in order to ensure the flow of relevant information and knowledge to the policymakers (Howlett, 2015; Hsu, 2015; McLaren & Kattel, 2022; Migone & Howlett, 2023; Williams & McNutt, 2013; Wu *et al.*, 2015, 2018). Wu *et al.* (2018, p. 11) suggest that in addition to quality and scope of policy-relevant data collection, analytical capacity is captured by 'the level of competition and diversity in the production of policy knowledge'. As Migone and Howlett (2023, p. 4) put it, 'having more sources of policy advice is better than fewer' and 'additional sources of information from non-governmental organizations and members of the public may enhance the diversity of information collected and analysed'.

Higher analytical capacity for the green transition is characterised by more extensive information sharing between the relevant stakeholders in the public and private sector (Williams & McNutt, 2013). As McLaren and Kattel (2022) argue, analytical capacity is likely to affect the government's ability to utilise the range and types of levers in the policy field. Thus, in the case of green transition financing, collecting analytical input from a broader range of relevant stakeholders is likely to contribute to the diversity and relevance of projects and investments included in a country's portfolio of public sustainable finance.

Analytical capacities could, for example, play a role in whether the projects are more future oriented or legacy-focused and whether they emphasise technological aspects or behavioural changes (Rogge & Reichardt, 2016). Legacy-oriented projects have usually been on the national policy agenda for some time and tend to focus on lock-in technologies, incumbent companies, and incremental innovation (Tõnurist *et al.*, 2019). Such projects would, for example, prioritise the upgrading of existing energy and transportation infrastructure or housing stock. In contrast, forward-looking projects are more innovative and entail high-risk ground-breaking pilots (Tõnurist *et al.*, 2019). Green transition projects can vary with regard to how much they emphasise technological change as opposed to aspiring to fundamentally change people's behaviours (Kaufman *et al.*, 2021). The literature on green transition suggests that in order to enable systemic change from old socio-technical regimes to new and more sustainable ones, more innovative and behaviour-oriented projects should be included in the portfolio of funded projects (Markard *et al.*, 2012). The broader the range of key transition stakeholders from whom analytical input for green transition funding is collected, the more likely it is to include projects that are future- (rather than legacy) oriented and emphasise behavioural (rather than just technological) change.

In the multi-level governance context of RRF implementation, the supranational institutions can play a role, especially in MS with weak policy capacities. Zeitlin *et al.* (2024, pp. 10–11) demonstrate the important steering role of the Commission when the MS were developing their NRRPs. Similarly, we expect that by highlighting green transition as a political priority for the EU as a

whole, the EC can increase its salience in the MS domestic political agendas. Furthermore, the analytical inputs from the EC can enhance the MS analytical capacities by providing information and evaluations that would not otherwise be available from domestic sources.

Operational capacities and green transition funding

In addition to the political and analytical capacities, decisions over the green transition funding are likely to be affected by the *operational* capacities of the government. At the system level, *operational capacity* refers to how responsibility is managed in a particular policy sector but also how well the government can manage issues that cross the boundaries of established policy areas, which do not correspond to the institutional responsibilities of individual organisations (Williams & McNutt, 2013; Wu *et al.*, 2018). A high level of operational capacity requires that the different organisations involved in the policy process have clear roles and responsibilities but at the same time constitute a coherent network that collaborates to address policy issues (Brenton *et al.*, 2023; Peters, 2015; Williams, 2012; Williams & McNutt, 2013; Wu *et al.*, 2018).

Given that many policy measures dedicated to the green transition would have to be layered on top of existing policy fields, such as transport, energy, and forestry (Newman *et al.*, 2013; Rogge & Reichardt, 2016; Weber & Rohracher, 2012; Williams & McNutt, 2013), the capacities related to coordinating activities in these various policy fields are likely to play a role in shaping what kinds of green transition actions are chosen by a government. A high level of operational capacity for a complex field like green transition funding entails balancing the modes of hierarchical and network coordination (McLaren & Kattel, 2022; Peters, 2021; Wanzenböck *et al.*, 2020). On the one hand, a clear designation of roles and lines of control and responsibility for making green transition funding would help avoid situations of 'passing the buck', stalling, and lack of ownership (Williams, 2012; Wu *et al.*, 2018). On the other hand, network coordination would potentially avoid duplication of activities and contradictory actions in green transition funding (Rogge & Reichardt, 2016; Weber & Rohracher, 2012; Williams, 2012; Williams & McNutt, 2013).

Finally, funding the green transition effectively requires that the various public sector investments are coordinated but also that the private investments are crowded in (Kattel & Mazzucato, 2018). Thus, in addition to the coordination efforts between government organisations, a high level of operational capacity would also entail network coordination taking place between private and public sector organisations, via formal and informal interactions dedicated to that purpose (McLaren & Kattel, 2022; Wanzenböck *et al.*, 2020). We can expect that network coordination is likely to give rise to a

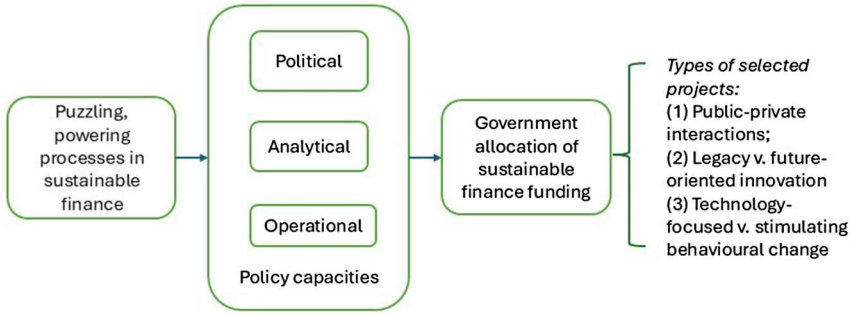

Figure 1. Linkages between puzzling and powering, policy capacities, and green transition funding allocation (authors' own elaboration).

more significant cooperation between the public and private sectors in green transition funding compared to a hierarchical coordination that favours top-down government-led approach and gives privileged access to the public sector. Figure 1 summarises our theoretical discussion and the linkages between puzzling and powering, policy capacities, and governments' green transition funding allocations.

Methodology

We adopt a comparative qualitative case study approach to examine how different policy capacities have influenced the allocation of European RRF sustainable finance in Bulgaria and Estonia. Our case selection proceeded from the following considerations. First, both countries have experienced bouts of austerity during the past decades and have kept up low public debt to GDP ratios, aiming to maintain sound public finances. This has also meant that in both countries only modest financial resources were available for large-scale investments targeting the green transition (Bruszt & Langbein, 2020; Schelkle & Bohle, 2020). Therefore, the two cases offer an opportunity to investigate what happens when MS have access to a substantial financial resource, such as the RRF, after a prolonged period of underinvestment, while facing carbon-based legacy constraints (coal in Bulgaria and oil-shale in Estonia). This case selection will shed light on the impact of policy capacities on decisions related to sustainable public finance in a more pronounced way, compared to studying member states with more ample resources and longer-term experiences with green transition projects.

Second, in order to uncover whether policy capacities matter in a theoretically expected way for green transition financial allocation, we selected two cases from two extreme ends of the policy capacity spectrum. In relevant country rankings, such as government effectiveness indicators, Estonia

Table 1. Configuration of policy capacities in Estonia and Bulgaria.

Policy capacities	Estonia	Bulgaria
Political capacities	Strong political and institutional support and consensus for green transition	(Initially) low prioritisation of the green transition for the government in power
Analytical capacities	Broad-based consultation, expert advice sought, additional analyses conducted	Narrow expert community in the lead
Operational capacities	Combination of hierarchical and network coordination pattern among ministries and with other social and economic actors	Hierarchical coordination among government ministries and with other social and economic actors

Source: Authors' own elaboration.

stands out as the top scorer among the CEE countries, whereas Bulgaria is one of the laggards (World Bank, 2025).

While Oellerich and Simons (2024) find that fiscal and state capacity matter in the national implementation of the RRF, none of the existing studies have adopted the lens of sector-specific policy capacities nor focused specifically on green transition projects. If policy capacities play a role in governments' decisions on green transition finance, we would expect different patterns of funding allocation, for example, regarding the legacy v. future-oriented innovation focus, behavioural v. technological focus and private-public mix, to emerge in the two countries. Table 1 below summarises the key distinctions between policy capacities in Estonia and Bulgaria (see also sections 4.1. and 4.2).

We analyse the allocation of RRF sustainable finance, drawing on all available public documents published by the EU and the MS that detail the implementation of the RRF and the rationale for the governments' choices. To triangulate this data, we conducted expert interviews with six Estonian and six Bulgarian officials (November 2023–November 2024) (see Appendix I). We contacted all key officials in both countries who had been involved in the RRP process and conducted interviews until we reached a saturation point, where little new information was provided. The interviews were recorded, transcribed, and thematically analysed in light of the theoretical framework.

Puzzling and powering about sustainable finance in Estonia and Bulgaria through the lens of policy capacities

Estonia and Bulgaria allocated the RRF funding differently in two important ways, first, regarding the initiation of new public-private sector interactions and, second, regarding the balance between 'legacy' investments and future-oriented innovation projects. While the Estonian government used the RRP as an opportunity to launch new types of public-private partnerships, the Bulgarian government allocated the RRF mostly to large state-owned

companies and used 'regular' public tenders as the main mechanism to involve the private sector. Second, large-scale 'legacy' investment projects dominate the list of foreseen investments in Bulgaria, whereas the Estonian government was eager to pilot more future-oriented innovative projects. We argue below that the distinct configurations of policy capacities contributed to the observed important differences in RRF allocation. Lastly, in both cases we observe a significant 'developmental' agenda in the use of the RRF in the sense of financing infrastructural and other large-scale investment gaps, for which the individual national budgets of the countries do not have sufficient means. Appendix II summarises the key reforms and investments aimed at the green transition in Estonia and Bulgaria, examined in-depth in the case studies below.

Examining the role of policy capacities in RRF sustainable finance allocation in Estonia

The key features of the policy capacities influencing puzzling and powering in the allocation of funding in the RRP are summarised in Table 1 above. Political capacities, characterised by strong political and institutional support for the main policy goal (green transition) contributed to powering that did not contest the overall direction of green financing in the RRP. The analytical capacities – reflected in the utilisation of a broad-based consultation – shaped puzzling over green transition funding. Expert advice and additional information were sought in cases where previous networks, knowledge and experience was lacking. The operational capacities involved a combination of hierarchical and network coordination between ministries and other social and economic actors. This shaped the accelerated puzzling and powering processes concerning the details of the RRP, in the context where there was only limited time for composing it. Next, we examine how these mechanisms influenced the allocation of green transition funds in the Estonian RRP.

The Estonian RRP was approved by the EC in October 2021 and amended in 2022. On the 16th of June 2023 the EC confirmed the modified RRP with a total budget of €953 million consisting of €863.3 million from the RRF and €90 million from REPowerEU (European Commission, 2023a). Appendix II presents the overall resource allocation between focus areas, with the Green Fund being the biggest project in terms of funding dedicated to the scale-up of green technologies (including new venture capital (VC) funds and direct investments into companies). It can be considered as a good example of a private-public mix and future-oriented investments (e.g., into innovative Greentech companies with high growth potential). However, even if some of the technologies might facilitate behavioural change, the focus of the projects is still mainly on technology and not on behavioural change.

In terms of *political capacities*, we observed strong political support in the ruling government for the overarching policy goal – prioritising and financing the green transition. One clear political and administrative evidence of this was the creation of the Ministry of Climate in summer 2023 to bring together the main climate related activities. During the last decade, several parties in Estonia (the Reform Party, the Social Democrats, Estonia200) have included green transition in their agenda (EE Interview 2). Hence, there is clear agreement on the political level that the green transition is needed, but there are somewhat diverging views about which measures to use to achieve broader impacts.

As a result of the broad-based consensus, the powering process of selecting and deciding on which green projects to include in the RRP did not entail much conflict domestically: most of the projects that were initially proposed also ended up in the plan (EE Interviews 1 and 6). There were some contested decisions, however. First, hydrogen investments were included in the RRP because of high support from the EC and the Government of Estonia, even though local experts did not see many potential implementation areas for hydrogen energy in local industry and transport (EE Interviews 4 and 5). Second, Estonian policymakers largely agreed that new military radars were needed for the development of offshore wind parks. However, some persuasion was necessary to get the EC to agree that this was more than just a defence investment (EE Interviews 1, 2, 4, 5 and 6). In addition, the Commission has criticised the plan for insufficient focus on phasing out oil shale and for not envisaging green taxation (EPRS, 2023; EE Interview 6). In this matter, Estonia and Bulgaria face similar challenges. Due to the complexity of the energy system and industrial transition to renewables, politicians hesitate to set ambitious goals and deadlines. For example, the phasing out of oil shale electricity production in Estonia by 2035 is not explicitly written into any law, but is supposed to be driven by economic incentives, such as high CO2 tax.

One of the key reasons why there were not many heated political discussions over the green transition projects in the RRP, was that the priorities had already been discussed between the main ministries during the process of preparing the Estonia 2035 strategy which had happened just before the RRP (EE Interview 1). The key goals and priorities that were relevant for the RRP had been agreed upon during public deliberations over the Estonia 2035 strategy with a wide range of stakeholders and interest groups. The discussions that had taken place across Estonia over a period of two years, and had involved around 17 000 people, set the long-term goals for Estonia. The strategy (ratified in 2021) established the green transition as the overarching priority (Estonia, 2035 Strategy). Such a broad-based puzzling process in turn bolstered the political capacity of the government to prioritise the green transition, secure public support for green transition funding in the RRP process (EE Interviews 1–5) and also contributed to the selection of future-oriented innovative projects in the RRP.

The decisions for the RRP were based on consensus among the coalition, but the opposition was not involved (EE Interviews 1 and 2). However, the opposition parties had been involved in the preceding Estonia 2035 discussions, which helped to secure the continuity of RRP decisions concerning green transition funding even after the change of government in January 2021 (EE Interview 1). That illustrates how broad-based puzzling processes over green transition can underpin political capacities necessary for the stability of green transition funding decisions.

Regarding *analytical policy capacities*, the Estonian case highlights the use of broad-based consultations and expert advice in the puzzling process over the RRP and selecting the projects to be funded. However, due to the limited time (i.e., only one year) foreseen for compiling the RRP, even though the process was coordinated by the Ministry of Finance, most of the analysis and prioritisation of projects (the *puzzling*) was done by the line ministries, based on previous analyses and studies conducted for the national development plans of their fields and the Estonia 2035 strategy. The Ministry of Finance conducted the socio-economic impact analysis for the whole RRP and the reforms and investments therein.

Due to the short timeline, there were only some general engagement events dedicated to puzzling over the RRP. The engagement processes of ministries, in turn, differed depending on the knowledge, studies and networks that the ministry already had for developing the specific projects in the RRP (EE Interview 5). For example, the academia was involved in the broader EU funds discussions but for the RRP, expert feedback was asked for the decisions that had already been made (EE Interview 3). In light of the strict deadline, the informational grounds for the RRP were seen as sufficient due to the fact that the decisions were based on the analysis done for the sectoral development plans, state budgeting process, and the above-mentioned Estonia 2035 strategy (EE Interviews 1, 2, 4 and 5). However, more comparative international studies on the implementation and impact of different measures would have been useful, but this was not possible due to the short deadline of the RRP development process (EE Interview 1) leaving only limited time for the *puzzling* processes. There was also some critique from the academia observing that as behavioural change in society is crucial for green transitions, more studies on these areas and how ministries could work together to generate more mission-oriented soft measures targeting behavioural change (instead of just investing in physical infrastructure) were needed (EE Interview 3). This is also reflected in the small amount of resources dedicated to behavioural changes: the development of green transition skills in the RRP received only 15 million EUR of the total budget.

Coming to *operational policy capacities*, the Estonian case showcases a combination of hierarchical and network coordination mechanisms (EE Interviews 1, 5), which shaped puzzling and powering over green transition

funding in the RRP. The balance between these coordination mechanisms contributed to the involvement of different stakeholders in the RRP formulation, good alignments between higher and lower-level processes, and facilitated the adoption of RRP projects entailing future-oriented focus and private-public interactions.

The RRP development process was coordinated by the Ministry of Finance who followed the requirements set by the RRF regulation and involved policymakers, the Government Office, and social partners (EE Interview 1). The line ministries were responsible for compiling their proposals and undertaking as much engagement and analysis as needed from their perspective. The Ministry of Finance also kept an eye on other sources of funds and measures that already existed, with the aim to give additional support to areas with higher needs and to avoid duplicate measures.

In the first phase of the RRP development process, the ministries developed their concrete proposal for the RRP on their own, and in the second phase additional consultants were used to consolidate the projects that belonged under a broader topic (e.g., the green transition of companies that included measures developed by the Ministry of Environment, the Ministry of Education and Research, the Ministry of Communications and Economic Affairs and the Ministry of Rural Affairs) (EE Interview 5). In terms of stakeholder engagement for the Greentech startup acceleration programme measure that the Ministry of Environment was responsible for, since the ministry did not have many links with the Greentech sector and previous experience with business support measures, they intensively engaged the sector representatives and collaborated with other institutions with more experience (EE Interview 5). This, in turn, enabled the development of stronger cooperation with the private sector in implementing the RRP.

The largest project in the Estonian RRP – 100M EUR Green Fund – deserves extra attention due to being the biggest amount of EU money invested into green tech companies directly and through procured VC funds (SmartCap, 2023) and also due to its future-oriented focus. The Green Fund assets managed by SmartCap are invested in VC funds which, together with private investors, place capital into research and technology-intensive early stage small and medium-sized companies with large international growth potential, mainly located in Estonia (SmartCap, 2023). As Estonia already had previous experience with publicly managed funds it was also easier to use the already existing institutions and experience for the RRP investments.

Examining the role of policy capacities in RRF sustainable finance allocation in Bulgaria

After considering how the configuration of political, analytical, and operational policy capacities influenced the allocation of RRF sustainable

finance in Estonia, we now examine the allocation in the Bulgarian case. The *powering* process, characterised by initially low prioritisation of the green transition, was rather chaotic and top-down. *Puzzling* over green transition, as shown by the analytical capacities, took place in a narrow expert community, whose primary tasks are to liaise with the Commission regarding the EU budget and the European Semester (see Table 1). The insulated puzzling process was exacerbated by the operational capacities involving primarily hierarchical coordination, which in the end privileged the selection of 'legacy projects' for Bulgaria's RRP and well-established public sector companies, such as the National Electricity Company (NEK).

Bulgaria's RRP was first approved in May 2022 and subsequently amended in December 2023, with a total budget of 6.185 billion EUR consisting of 5.69 billion EUR grants from RRF and 495 million EUR grants from REPowerEU (Council of Ministers of the Republic of Bulgaria, 2021). At the same time, drafting the RRP unfolded in a period of heightened political instability, with seven parliamentary elections producing seven governments in quick succession 2019–2024, against the backdrop of a lacking national green transition strategy.

In terms of *political capacities,* the green transition was not a government priority, especially in 2020–2021. The main political parties, including those in government, heavily emphasised economic growth, development, and social investment. When it comes to 'green financing' instruments envisioned in Bulgaria's RRP, we glean the importance of, on the one hand, the overarching *European Green Deal* objectives and, on the other hand, the National Strategy 'Bulgaria 2030', adopted in January 2020, just before the outbreak of the covid-19 pandemic and the political upheaval in the country in 2021 (Bulgarian Ministry of Finance, 2024b). Neither climate action nor the green transition or sustainable finance received much attention in the 'Bulgaria 2030' strategy.

Bulgaria's government submitted five RRP drafts to the Commission in the course of 2020–2021. The fourth RRP draft (July 2021) was open to broader stakeholder consultation, albeit very briefly (IME, 2021). All in all, the protracted and chaotic preparation processes did not follow logical policy design and management best practices (BG Interviews 3, 6). Instead, political expediency and 'wish list' projects of key ministries and state-owned companies received priority (BG Interview 3). The current care-taker government, seventh since 2019, is carrying out the RRP project obligations agreed upon with the Commission but is unable to offer a long-term green transition vision or strategy.

Consequently, the main priorities underpinning the RRP were national economic 'developmental' policy goals (BG Interview 1). The flagship project in the Bulgarian RRP is dedicated to investments in renewable energy sources, electricity storage, and interconnection capacities (€1.5

billion), with the state-owned National Electricity Company (NEK) and the national Energy Grid System Operator (ESO) as main beneficiaries. Regarding our typology, this project captures well the typical pattern in Bulgaria: (1) predominantly public companies are involved; (2) the project has more legacy features; (3) the project funds the upgrading and expansion of existing energy infrastructure. Bulgaria's trade unions and experts have questioned the credibility of the politically controversial pledge in the RRP to close down the Maritsa Iztok coal power plants by 2026 (Bulgarian National Radio, 2023).

Further corroborating this pattern, Bulgaria's RRP features a significant number of transportation 'legacy' projects which were part of the government's long-term investment strategy before the covid-19 pandemic, such as the extension of the metro lines in the capital, Sofia, to facilitate urban mobility. While all these energy and transportation infrastructure projects are well-aligned with the European green transition agenda, they also fulfil a national economic and infrastructure modernisation agenda, which predates both the European Green Deal and the 'Bulgaria 2030 strategy'.

In 2021, Bulgaria risked foregoing access to RRF funding altogether, after the centre-right government collapsed and early elections were scheduled. Over time, the green transition has moved up on the government's policy agenda. The most recent annual government programme lists the 'implementation of RRP reforms and projects' as priority 4 (Republic of Bulgaria Government, 2024), but analysts have pointed out that the RRP fills in a strategic policy gap in the absence of a forward-looking national strategy concerning decarbonisation (IME, 2021, p. 4; BG Interview 3). Overall, the recent policy prioritisation of the green transition appears to be driven by the implementation of the country's RRP, periodically reviewed by the Commission.

Unpacking the puzzling processes through the lens of *analytical policy capacities*, we glean that a relatively small group of civil service experts in the Central Coordination Unit Directorate of the Finance Ministry was in charge of the overall organisation and coordination of the RRP as well as subsequent revisions (Bulgarian Ministry of Finance, 2024a). These are the same units that support the government's interactions with the Commission about the management and implementation of funds obtained from the EU budget (MFF) and oversee European Semester commitments (BG Interview 6).

Whereas the Estonian government conducted a broad stakeholder consultation well before the preparation of the country's RRP, the Bulgarian government conducted a more limited consultation open for a short period of time, upon the strong recommendation of the Commission to follow 'Better Regulation' guidelines. Ultimately, it remained unclear how the stakeholders' input was included (or not) in the RRP preparation (IME, 2021, p. 17). On a practical level, the head of the Finance Ministry Central Coordination Unit, Ivan Ivanov,

highlighted that due to the weak administrative and expert capacity in Bulgaria, it was a challenge to prepare and oversee 'green transition' projects (quoted in *24 Chasa* newspaper, 2023).

Coming back to the process of *puzzling* about sustainable finance, a small policy subsystem of experts in the state's public administration drafted, updated, and finalised Bulgaria's initial RRP (BG Interviews 1,2, 6). As a consequence, long-standing legacy investment projects compatible with green transition objectives, such as upgrading the country's energy infrastructure and extending the Sofia metro system were prioritised. Whereas the regular interactions with the Commission led to a higher government prioritisation of the green transition, the Commission had less influence on the types of projects and investments proposed by the Bulgarian government. The role of domestic advisory bodies was also limited. The Bulgarian Consultative Council on the European Green Deal, with a total of 45 members, provided some initial advisory input, but its impact was very limited (BG Interviews 2 and 5).

The insulated puzzling process is further visible when we examine the *operational capacities*, where we observe a clear hierarchical coordination pattern**,** with the Bulgarian Finance Ministry in the lead. Beyond the initial RRP preparation period, the external advisory bodies met relatively infrequently, and it was not clear how their input and recommendations were taken into account (BG Interview 2). Interviewees BG-1 and BG-2 pointed out that during 2022 and 2023, the responsibility for RRP project implementation increasingly shifted to the respective sectoral ministries, such as the Ministry of Innovation and Growth, Ministry of Energy, and Ministry of Economy and Industry, which created a somewhat disjointed 'siloed' approach. These findings corroborate NGO analyses of RRF implementation across the EU which have shown that '[e]ven though civil society platforms are consulted … they tend to have very limited ability to meaningfully influence the decision making process' (Citizens' Observatory, 2024, p. 20). While the Commission requires the MS to publicly disclose the list of top 100 beneficiaries of RRF funding, in the Bulgarian case the list is rather 'limited and vague' (Citizens' Observatory, 2024, p. 21), raising concerns about potential nepotism and corruption in the funding allocation.

In the Bulgarian case, the hierarchical coordination pattern in operational capacities reinforced the insulated expert community pattern in analytical capacities and further favoured directing the available RRF green transition funding toward large Bulgarian public companies, such as the Bulgarian power transmission system operator (ESO) which operates and maintains the country's energy grid. As this company has not received any large-scale investment upgrades since the 2000s, one RRP financing measure is dedicated entirely to the modernisation and digitalisation of the country's power transmission system (€0.26 billion) (European Commission, 2023b).

The majority of these projects are carried out by the state-owned National Electricity Company (NEK), with limited participation by private actors primarily in smaller pilot projects, such as creating storage capacity for hydropower generation (BG Interview 3). The investment emphasis in Bulgaria's RRP is also visible at the household level, similarly to Estonia and other MS, to upgrade the energy efficiency of homes through the purchase of energy efficient heat-pumps and solar heat supply systems.

We also glean a more innovative developmental finance approach in the interlinkages with the European Investment Bank (EIB) and the European Investment Fund (EIF). Bulgaria's government announced in 2022 that, together with the EIF, it would create the *RRF Bulgaria Equity Fund* of €180 million financed by the Bulgarian RRF for equity investments, such as large infrastructure projects to achieve climate neutrality (EIF, 2022). The EIB plays a very important advisory capacity-building role linked to the implementation of InvestEU and RRF projects especially for large public companies, such as NEK. We identified the lack of suitable RRF projects as a significant challenge in Bulgaria. The EIB's capacity-building function (see Thiemann and Mocanu, this issue) can help to overcome this challenge and develop more effective project preparation and management capacities in the MS, such as planning the project scope and goals, budget, resources, and organising site visits to European best practice examples where similar projects have been completed (BG Interview 4).

Conclusion

This article sought to explore theoretically and empirically how powering and puzzling processes examined through policy capacities can shape governments' decisions related to green transition funding. The theoretical contribution of our article – to this special issue and debates on public sustainable finance more broadly – was to shed light on how the processes of powering and puzzling work through political, analytical and operational capacities to shape governments' allocations of green transition funding. Political capacities can be expected to play a relevant role in powering processes over green transition funding and influence its priorities and stability. In terms of puzzling processes, analytical input from a broad range of stakeholders can contribute to selecting green transition projects that are future- (rather than legacy) oriented and emphasise behavioural (rather than just technological) change. In a similar vein, network coordination in the operational capacities is likely to facilitate public-private sector cooperation in green transition funding, compared to a hierarchical coordination that favours the public sector.

We probed the plausibility of these conjectures by exploring how policy capacities have influenced the allocation of the RRF sustainable finance

resources in CEE, focusing on Estonia and Bulgaria. Regarding the processes of puzzling and powering, political capacities were an important driver of the divergences between Estonia and Bulgaria. Due to the limited time governments had for compiling their RRPs, the powering processes were crucial in shaping the funding allocation. In Estonia, green transition objectives were seen as a policy priority both by the ruling government and by the main political parties even before the launch of the RRF. By contrast, in Bulgaria, the green transition only made it to the list of the government's top priorities in 2023, midway through the implementation phase of the national RRP and after several rounds of consultations with the Commission.

Subsequently, the processes of puzzling, examined through analytical and operational capacities, contributed to different allocation of sustainable finance in the two countries. While the Estonian government used the RRP as an opportunity to launch new types of public-private partnerships, for example, by creating investment funds focusing on ESG (environmental, social, and governance) principles, the Bulgarian government allocated the RRF mostly to large state-owned companies and large-scale 'legacy' infrastructure investment projects, such as the expansion of the Sofia metro system and the upgrade and digitalisation of the Bulgarian energy grid operator, ESO.

Moreover, in countries where analytical policy capacities entail broad-based stakeholder consultation and expert advice, such as Estonia, the EU financial resources and the Commission have played a role somewhat in the margins. By contrast, in Bulgaria, the extensive dialogue with the Commission had more influence on sustainable finance allocation. Thus, our empirical study indicates that in a multi-level governance setting like the EU, supranational actors, such as the Commission, can compensate for shortcomings in policy capacities at the MS level. The interaction between policy capacities and the Commission should hence be investigated in more detail in future research.

In sum, our study demonstrates that the theoretical angle of policy capacities can help to shed light on the dynamics of powering and puzzling over how to finance the green transition in the EU context. While the funds provided by the EU have a potential to spur shifts towards the green transition in the MS, policy capacities can influence the comprehensiveness and direction of the transition (for a similar understanding of the EU's Just Transition Mechanism, see Siderius, this issue). An important limitation of our study is that we have focused only on two countries – Estonia and Bulgaria – which constrains the external validity of our findings. In light of our theoretical discussion, we can conjecture that, on the one hand, other CEE countries with a policy capacities configuration (see Table 1) similar to that of Estonia (e.g., Latvia, Lithuania) are likely to exhibit similar patterns of puzzling and powering over EU sustainable finance, especially regarding more

extensive engagement with private sector partners and more future-oriented green transition projects. On the other hand, countries with a policy capacities configuration similar to that of Bulgaria (e.g., Romania, Slovakia) would favour public sector spending and opt for 'legacy' projects. However, further empirical research is needed to examine the validity of these expectations. We focused on the role of policy capacities in shaping green transition funding allocations in Estonia and Bulgaria. Further studies could explore how other potential explanatory factors, such as differences in the underlying structure of the economies, ideology of the political parties in government, and the influence of the Commission, can interact with policy capacities in influencing public sustainable finance. Beyond funding allocations, the actual implementation of green transition projects is another important avenue for further research.

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References

24Chasa newspaper. (2023). Usvojavame evrosredstva trudno zaradi nedostig na eksperti. Retrieved November 20, 2023, from https://www.24chasa.bg/biznes/article/16033180

Brenton, S., Baekkeskov, E., & Hannah, A. (2023). Policy capacity: Evolving theory and missing links. *Policy Studies*, *44*(3), 297–315. https://doi.org/10.1080/01442872.2022.2043266

Bruszt, L., & Langbein, J. (2020). Manufacturing development: How transnational market integration shapes opportunities and capacities for development in Europe's three peripheries: Introduction to the special issue. *Review of International Political Economy*, *27*(5), 996–1019. https://doi.org/10.1080/09692290.2020.1726790

Bulgarian Ministry of Finance. (2024a). *Central coordination unit*. Retrieved November 20, 2023, from https://www.minfin.bg/en/1629, Accessed

Bulgarian Ministry of Finance. (2024b). *National development programme Bulgaria 2030*. Retrieved November 20, 2023, from https://www.minfin.bg/en/1394

Bulgarian National Radio. (2023). *Is Bulgaria obliged to close its coal plants by 2026?* Retrieved February 1, 2024, from https://bnr.bg/en/post/101844531

Citizens' Observatory. (2024). *Beyond profit: How to reshape the European Green Deal for people's well–being*. Retrieved March 17, 2024 from https://counter–balance.org/publications/beyond–profit–how–to–reshape–the–european–green–deal–for–peoples–well–being

Council of Ministers of the Republic of Bulgaria. (2021). *National recovery and resilience plan of the Republic of Bulgaria*. Retrieved August 22, 2023, from www.nextgeneration.bg (Original work published 2020)

Craft, J., & Howlett, M. (2013). Policy capacity and the ability to adapt to climate change: Canadian and US case studies. *Review of Policy Research*, *30*(1), 1–18. https://doi.org/10.1111/ropr.12000

Estonia 2035 strategy. (2021). Adopted by the Parliament of Estonia on 12 May 2021. Retrieved November 12, 2023, from https://www.valitsus.ee/sites/default/files/documents/2021-11/Eesti%202035_PUHTAND%20%C3%9CLDOSA_210512_ENG_0.pdf

European Commission. (2021). Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility. Retrieved April 2, 2024, from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32021R0241

European Commission. (2023a). NextGenerationEU: European Commission endorses Estonia's €953 million modified recovery and resilience plan, including a REPowerEU chapter, *Press Release*. https://ec.europa.eu/commission/presscorner/detail/en/ip_23_2709

European Commission. (2023b). Questions and answers on Bulgaria's recovery and resilience plan. Retrieved November 20, 2023, from https://ec.europa.eu/commission/presscorner/detail/el/qanda_22_2283

European Commission. (2025). *The recovery and resilience facility*. Retrieved May 5, 2025, from https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility_en

European Investment Fund (EIF). (2022). Bulgaria entrusts EIB Group with equity mandate under Recovery and Resilience Plan. Retrieved September 7, 2023, from https://www.eif.org/what_we_do/equity/news/2022/bulgaria-entrusts-eib-group-with-equity-mandate-under-recovery-and-resilience-plan.htm

European Parliamentary Research Service (EPRS). (2023). Estonia's national recovery and resilience plan. Latest state of play. Briefing, Next Generation EU (NGEU) delivery – How are the Member States doing? Retrieved June 28, 2024, from https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/698886/EPRS_BRI(2022)698886_EN.pdf

Hall, P. A. (1993). Policy paradigms, social learning, and the state: The case of economic policymaking in Britain. *Comparative Politics*, *1*, 275–296.

Heclo, H. (1974). *Modern social policy in Britain and Sweden: From relief to income maintenance*. Yale University Press.

Howlett, M. (2015). Policy analytical capacity: The supply and demand for policy analysis in government. *Policy and Society*, *34*(3–4), 173–182. https://doi.org/10.1016/j.polsoc.2015.09.002

Howlett, M., & Joshi-Koop, S. (2011). Transnational learning, policy analytical capacity, and environmental policy convergence: Survey results from Canada. *Global Environmental Change*, *21*(1), 85–92. https://doi.org/10.1016/j.gloenvcha.2010.10.002

Hsu, A. (2015). Measuring policy analytical capacity for the environment: A case for engaging new actors. *Policy and Society*, *34*(3–4), 197–208. https://doi.org/10.1016/j.polsoc.2015.09.003

Institute for Market Economics (IME). (2021). Pogled kam plana za vyzstanovyavane i ustojchivost (in Bulgarian), Retrieved September 7, 2023, from https://ime.bg/var/images/NRRP_IME_2021_FINAL.pdf

Kattel, R., & Mazzucato, M. (2018). Mission-oriented innovation policy and dynamic capabilities in the public sector. *Industrial and Corporate Change*, *27*(5), 787–801. https://doi.org/10.1093/icc/dty032

Kaufman, S., Saeri, A., Raven, R., Malekpour, S., & Smith, L. (2021). Behaviour in sustainability transitions: A mixed methods literature review. *Environmental Innovation and Societal Transitions*, *40*, 586–608. https://doi.org/10.1016/j.eist.2021.10.010

Köhler, J., Geels, F. W., Kern, F., Markard, J., Onsongo, E., Wieczorek, A., Alkemade, F., Avelino, F., Bergek, A., Boons, F., Fünfschilling, L., Hess, D., Holtz, G., Hyysalo, S., Jenkins, K., Kivimaa, P., Martiskainen, M., McMeekin, A., Mühlemeier, M. S., … Wells, P. (2019). An agenda for sustainability transitions research: State of the art and future directions. *Environmental Innovation and Societal Transitions*, *31*, 1–32. https://doi.org/10.1016/j.eist.2019.01.004

Larsen, M. (2023). Adding 'origination' to diffusion theory: Contrasting the roles of China and the EU in green finance. *Review of International Political Economy*, *30*(4), 1203–1219. https://doi.org/10.1080/09692290.2023.2204532

Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, *41*(6), 955–967. https://doi.org/10.1016/j.respol.2012.02.013

McLaren, J., & Kattel, R. (2022). Policy capacities for transformative innovation policy: A case study of UK Research and Innovation. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2020-04).

Migone, A., & Howlett, M. (2023). Assessing policy analytical capacity in contemporary governments: New measures and metrics. *Australian Journal of Public Administration*, *82*(1), 3–25. https://doi.org/10.1111/1467-8500.12564

Mikheeva, O., & Ryan-Collins, J. (2022). Governing finance to support the net-zero transition: Lessons from successful industrialisations. UCL Institute for Innovation and Public Purpose, Working Paper Series (No. WP 2022/01). https://www.ucl.ac.uk/bartlett/public-purpose/wp2022-01

Newman, J., Perl, A., Wellstead, A., & Mcnutt, K. (2013). Policy capacity for climate change in Canada's transportation sector. *Review of Policy Research*, *30*(1), 19–41. https://doi.org/10.1111/ropr.12001

Oellerich, N., & Simons, J. P. (2024). Supranational modernisation or national partisanship? Explaining variation in recovery and resilience plans in Central and Eastern Europe. *Journal of European Public Policy*, *31*(9), 2636–2662. https://doi.org/10.1080/13501763.2023.2231029

Oliphant, S., & Howlett, M. (2010). Assessing policy analytical capacity: Comparative insights from a study of the Canadian environmental policy advice system. *Journal of Comparative Policy Analysis*, *12*(4), 439–445.

Peters, B. G. (2015). Policy capacity in public administration. *Policy and Society*, *34*(3–4), 219–228. https://doi.org/10.1016/j.polsoc.2015.09.005

Peters, B. G. (2021). Public policies: Coordination, integration, coherence, and collaboration. In *Oxford research encyclopedia of politics*. Oxford University Press. https://doi.org/10.1093/acrefore/9780190228637.013.164

Republic of Bulgaria Government. (2024). *Five main priorities of the Bulgarian Government*. Retrieved January 15, 2024, from https://www.government.bg/bg/pravitelstvo/programa-za-upravlenie-na-republika-balgariya-yuni-2023-g-%E2%80%93-dekemvri-2024-g

Rogge, K. S., & Reichardt, K. (2016). Policy mixes for sustainability transitions: An extended concept and framework for analysis. *Research Policy*, *45*(8), 1620–1635. https://doi.org/10.1016/j.respol.2016.04.004

Schelkle, W., & Bohle, D. (2020). European political economy of finance and financialization. *Review of International Political Economy*, *28*(4), 761–774. https://doi.org/10.1080/09692290.2020.1808508

SmartCap. (2023). Growth can come from investing in sustainable business ideas. *News*. Retrieved June 28, 2024, from https://smartcap.ee/growth-can-come-from-investing-in-sustainable-business-ideas/?pageNumber=3

Stock, R., Vij, S., & Ishtiaque, A. (2021). Powering and puzzling: Climate change adaptation policies in Bangladesh and India. *Environment, Development and Sustainability*, *23*(2), 2314–2336. https://doi.org/10.1007/s10668-020-00676-3

Tõnurist, P., Valdmaa, K., & Raudla, R. (2019). Impact of climate discourse on national scientific networks in energy technologies: The case of Estonian science and industry linkages. *Halduskultuur: The Estonian Journal of Administrative Culture and Digital Governance*, *20*(1), 20–45.

Van Buuren, A., Vink, M., & Warner, J. (2016). Constructing authoritative answers to a latent crisis? Strategies of puzzling, powering and framing in Dutch climate adaptation practices compared. *Journal of Comparative Policy Analysis: Research and Practice*, *18*(1), 70–87. https://doi.org/10.1080/13876988.2013.877675

van der Steen, M., Chin-A-Fat, N., Vink, M., & van Twist, M. (2016). Puzzling, powering and perpetuating: Long-term decision-making by the Dutch Delta Committee. *Futures*, *76*, 7–17. https://doi.org/10.1016/j.futures.2016.01.001

Vink, M. J., Dewulf, A., & Termeer, C. (2013). The role of knowledge and power in climate change adaptation governance: A systematic literature review. *Ecology and Society*, *18*(4), 46.

Wanzenböck, I., Wesseling, J. H., Frenken, K., Hekkert, M. P., & Weber, K. M. (2020). A framework for mission-oriented innovation policy: Alternative pathways through the problem-solution space. *Science & Public Policy*, *47*, 474–489.

Weber, K. M., & Rohracher, H. (2012). Legitimizing research, technology and innovation policies for transformative change: Combining insights from innovation systems and multi-level perspective in a comprehensive 'failures' framework. *Research Policy*, *41*(6), 1037–1047. https://doi.org/10.1016/j.respol.2011.10.015

Williams, R. A. (2012). Operationalizing 'policy capacity': A case study of climate change adaptation in Canadian finance agencies. *Canadian Political Science Review*, *6*(1), 65–74. https://doi.org/10.24124/c677/2012375

Williams, R. A., & McNutt, K. (2013). Climate change adaptation and policy capacity in the Canadian finance sector: A meso analysis. *Review of Policy Research*, *30*(1), 91–113. https://doi.org/10.1111/ropr.12004

Woo, J. J., Ramesh, M., & Howlett, M. (2015). Legitimation capacity: System-level resources and political skills in public policy. *Policy and Society*, *34*(3–4), 271–283. https://doi.org/10.1016/j.polsoc.2015.09.008

World Bank. (2025). *Worldwide Governance Indicators – Government Effectiveness*. https://databank.worldbank.org/source/worldwide-governance-indicators/Series/GE.EST

Wu, X., Ramesh, M., & Howlett, M. (2015). Policy capacity: A conceptual framework for understanding policy competences and capabilities. *Policy and Society*, *34*(3–4), 165–171. https://doi.org/10.1016/j.polsoc.2015.09.001

Wu, X., Ramesh, M., & Howlett, M. (Eds.). (2018). Policy capacity: Conceptual framework and essential components. In *Policy capacity and governance: Assessing governmental competences and capabilities in theory and practice* (pp. 1–25). Palgrave Macmillan.

Zeitlin, J., Bokhorst, D., & Eihmanis, E. (2024). Governing the European Union's Recovery And Resilience Facility: National ownership and performance-based financing in theory and practice. *Regulation & Governance*, *ahead-of-print*. https://doi.org/10.1111/rego.12619

Zepa, I. (2022). From energy islands to energy highlands? Political barriers to sustainability transitions in the Baltic region. *Energy Research & Social Science*, *93*, 102809. https://doi.org/10.1016/j.erss.2022.102809

Appendices

Appendix I. List of interviews

Estonia

EE Interview 1. Ministry of Finance of Estonia, 23 November 2023.
EE Interview 2. Government Office of Estonia, 8 December 2023.
EE Interview 3. Estonian Council of Rectors, 19 December 2023.
EE Interview 4. Energy and Mineral Resources, Ministry of Climate of Estonia, 24 January 2024.
EE Interview 5. Ministry of Environment of Estonia, 15 February 2024.
EE Interview 6. Representation of the European Commission in Estonia, 10 June 2024

Bulgaria

BG Interview 1. Institute for Market Economics, 13 February 2024.
BG Interview 2. Bulgarian Industrial Association and National Consultative Council on the European Green Deal, 28 February 2024.
BG Interview 3. Energy Management Institute, 11 July 2024.
BG Interview 4. European Investment Bank, 26 July 2024.
BG Interview 5. Member of the Bulgarian Council for Economic Analyses, 26 August 2024.
BG Interview 6. European Commission, RECOVER Taskforce, Bulgaria desk, 12 September 2024.

Appendix II. Green transition reforms and investments in Estonia and Bulgaria's RRPs

	Estonia	Bulgaria
Resource allocation in national RRP (% of total and billions €)	**Green: 59% (0.56 billion €)** Digital: 24% (0.23 billion €) Other: 17% (0.16 billion €)	**Green: 57.5% (3.27 billion €)** Digital: 23.1% (1.31 billion €) Other: 19.4% (1.11 billion €)
Major *reforms* and green investments, incl. earmarked project costs in millions (M) or billions (B)	*Green transition of companies* Green Fund (€100M); Uptake of resource efficient green technologies (€53M); Green hydrogen technologies (€50M). *Encouraging energy efficiency and comprehensive reconstruction* Energy-efficient renovation of the housing stock (€76M). *Accelerating the green transition in the energy economy* Energy investments for increasing the share of renewables (€55M); Offshore wind parks development (€67M). *Accelerating the development of renewable energy (REPowerEU)* Grid improvements for integrating more renewables (€38M); Accelerating the development of renewable energy (€32M).	*Creating framework for the coal phaseout to cut greenhouse gas emissions in energy generation sector by 40% by 2025* *Market liberalisation of the wholesale and retail electricity markets* Investments in renewable energy sources, electricity storage, and interconnection capacities (€1.5B). *Encouraging energy efficiency and comprehensive reconstruction* Energy efficient renovation of the housing stock (€879M). *Transport decarbonisation, New electric trains for urban and inter-regional rail transport* Construction of the new line Sofia metro; Pilot scheme zero-emission public transport vehicles; Building charging station infrastructure (€533M).

Source: Authors' own elaboration, based on the RRPs.