GreenDeal-NET

Governing the EU's Transition towards Climate Neutrality and Sustainability

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BRUSSELS SCHOOL OF GOVERNANCE
CENTRE FOR ENVIRONMENT, ECONOMY AND ENERGY

Towards an EU Climate Governance Framework to Deliver on the European Green Deal

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Towards an EU Climate Governance Framework to Deliver on the European Green Deal

Policy Options Paper

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The EU needs to devise a climate governance framework that fully empowers political systems in Europe to respond effectively to the super wicked challenge of climate change.
The upcoming reviews of the Governance Regulation and the European Climate Law provide a critical opportunity to reach this goal.

Executive Summary

The EU and its member states face the challenge of accelerating the transition to climate neutrality and negative greenhouse gas (GHG) emissions in increasingly turbulent times. But the challenge of governing the climate and energy transition goes far beyond phasing out GHG emissions. Given the urgency, dynamism, complexity, contentiousness, and long-term, cross-cutting nature of the "super wicked" climate challenge, the governance of the climate transition requires sustained, comprehensive, and integrated efforts across all relevant policy fields and the whole of society. To this end, the EU needs to devise political processes, structures and institutions that empower democratic political systems in Europe to effectively respond to the climate challenge (hereinafter referred to as the EU's "climate governance framework").

In this paper, we identify key options for enhancing the EU's evolving climate governance framework to this end. Building on the latest scientific knowledge of relevant best practice in Europe and elsewhere, as for example reflected and acknowledged in the Intergovernmental Panel on Climate Change's Sixth Assessment Report (IPCC, 2022b), we review the EU's existing climate governance framework and identify EU-level policy options for further enhancing it across the Union and its member states, while paying particular attention to key interactions, synergies and tensions between individual governance elements.

Our analysis identifies options in the following nine key areas:

- **National Energy and Climate Plans (NECPs)**, created under the EU's 2018 Governance Regulation: improve the NECPs by reinforcing public consultation requirements, strengthening the integration of the energy-security dimension, augmenting review and support, and enhancing requirements for consistency between NECPs and Long-Term Strategies.
- **Long-Term Strategies (LTSs)** under the Governance Regulation: strengthen national LTSs by enhancing public consultation and input, aligning NECP and LTS processes (timing and content), improving LTS quality and including emerging issues (such as carbon dioxide removal); regularly update the EU LTS alongside national LTSs to reflect dynamically evolving circumstances at the Union level.
- **Climate-neutrality targets**: to ensure a long-term policy perspective, require member states (in the Governance Regulation) to establish economy-wide climate-neutrality targets in line with the EU's 2050 target, or even to achieve economy-wide climate neutrality by 2050 at the latest; this may usefully be part of and guide national LTSs.
- **Consistency and climate policy integration** across different policy portfolios: focus consistency assessments mandated under the European Climate Law on key cross-sectoral policies (including potential for creating synergy between policies), further codify the

"Do No Significant Harm" principle, enhance integration of climate objectives in the European Semester process and EU (climate) spending, and strengthen climate expertise in relevant EU advisory committees.

- **Independent scientific expert advisory bodies**: support the establishment of appropriately designed national bodies in all member states, including by strengthening related requirements in the European Climate Law; specify the link between EU policy making and the European Scientific Advisory Board on Climate Change established under the European Climate Law (e.g., requiring input to the EU LTSs and regular pro-gress reviews) and ensure allocation of sufficient resources.
- **Review of progress and implementation** (transparency): strengthen reporting requirements for member states and review arrangements, including enhanced reporting on the just transition, investment frameworks and sectors beyond energy and transport; and issue targeted recommendations to member states.
- **Effective implementation (including enforcement)**: improve review and response mechanisms under the Governance Regulation (regarding NECPs, LTSs, renewable energy and energy efficiency targets), in particular by strengthening cross-compliance arrangements with EU funding streams, and by fully mobilising existing implementation mechanisms (infringements, technical assistance).
- **Access to justice** in climate matters: require EU member states to provide for such access on climate and energy issues, either in the Governance Regulation or in individual pieces of relevant EU climate legislation.
- **Public participation**: strengthen participation at the EU and member-state levels, including through the establishment of more specific participation requirements in the Governance Regulation (related to NECPs, LTSs, and other climate policy), the targeted use of new forms of deliberative democracy (climate assemblies, mini-publics, etc.) in the context of the European Climate Pact, and a further upgrading of consultation structures on EU climate policy.

This options paper does not aim to conclude the debate but rather to advance a continuing discussion on, and stimulate thinking about, the further development of identified options and their combination into coherent sets or packages. The upcoming reviews of the Governance Regulation and the European Climate Law, along with accompanying processes, provide a unique opportunity to make EU climate governance fully fit for supporting the climate and energy transition – an opportunity that, given the urgency of the climate challenge, must be fully exploited.

Introduction

Setting the scene

The EU and its member states face the challenge of accelerating the transition to climate neutrality and negative greenhouse gas (GHG) emissions in increasingly turbulent times. The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) has reinforced the scientific urgency to act (IPCC, 2021; 2022a; 2022b), which has been further underlined by the increasingly obvious impacts of climate change (droughts, heat waves, floodings, etc.). In addition, the climate transition needs to be managed amid intensifying political and social turbulence driven by a series of interwoven crises (migration, COVID-19, Russian invasion of Ukraine, climate impact events). As a result, constraints and opportunities for climate action continue to evolve and change in the transition process (von Homeyer et al., 2021, 2022; Gravey & Jordan, 2021; Skjærseth, 2021; Dupont et al., 2020; Rosenbloom et al., 2019).

Under these circumstances, the procedural infrastructure for policymaking and implementation of the climate transition has gained growing importance (Oberthür & von Homeyer, 2022; see also Ringel & Knodt, 2018). This *procedural governance* dimension encompasses a broad range of issues, including target setting, monitoring, policy revision, strategic planning, the design of the legislative decision-making process (including inputs by science and stakeholders), and effective implementation arrangements (implying mechanisms of reporting, review and accountability). We refer to this dimension as a whole as the EU's procedural "governance framework", which in EU parlance is frequently referred to as "governance" (as in "Governance Regulation"). In other contexts, the term "climate governance" is used in a much broader sense, e.g., also including the mix of substantive climate policies and measures (e.g., search for "climate governance" on Google Scholar; for the EU, see, e.g., Oberthür & von Homeyer, 2022; von Homeyer et al., 2021). The procedural governance framework plays a central role in climate policy because of the climate challenge's long-term, dynamic and cross-cutting nature which requires regular reviews of progress, follow up, and continuous policy development to strengthen climate action (IPCC, 2022b; Rosenbloom et al., 2019).

Regulation 2018/1999 on the Governance of the Energy Union and Climate Action (Governance Regulation) and Regulation 2021/1119 (the European Climate Law) form the core of the EU's current procedural climate governance framework, addressing both the EU and Member State level. Both Regulations are to be reviewed within six months of the Global Stocktake under Article 14 of the Paris Agreement, i.e. by May/June 2024. This upcoming review forms a suitable occasion to consider opportunities for upgrading the EU's climate governance framework. At the same time,

pertinent provisions are also contained in other parts of the EU's evolving set of relevant legislation and accompanying measures, and there may be significant potential to advance climate governance frameworks beyond legislative change.

Against this backdrop, this policy paper aims to identify key options for enhancing the EU's evolving climate governance framework to support and ensure an effective and just transition to climate neutrality and net negative emissions. To this end, the paper attempts to broadly review the EU's climate governance framework addressing both the Union and its member states. We strive to build on the latest scientific knowledge of best practice on climate governance frameworks, which has strongly evolved in Europe and elsewhere, as for example reflected and acknowledged in the IPCC's Sixth Assessment Report (IPCC, 2022b). On this basis, we identify policy options for further enhancing climate governance frameworks in the EU and its Member States through EU-level action, while paying particular attention to key interactions, synergies and tensions between individual elements. After clarifying the criteria of our assessment in the next section, this policy paper addresses nine key aspects of the EU's procedural governance framework, ranging from decision-making to implementation. We focus on overarching sectoral governance arrangements (i.e. not including detailed discussion of specific arrangements in more specific, sectoral legislative instruments) and include: (1) national energy and climate plans (NECPs); (2) long-term strategies (LTSs); (3) climate-neutrality targets; (4) policy consistency and integration; (5) scientific expert advisory bodies; (6) review of progress and implementation (transparency); (7) effective implementation (including enforcement); (8) access to justice; and (9) public participation. This list is not an exhaustive inventory of the EU's governance framework but captures key elements that have been identified in the literature and the policy discourse. We conclude with some final thoughts.

For each of the aspects included, we attempt to: (a) identify the aspect's significance for addressing the climate challenge (as characterised in the next section); (b) synthesise the status quo of existing legislation and measures; (c) assess this status quo with a focus on the potential for further improvement; (d) highlight key interactions (synergies and trade-offs) with other governance aspects; and (e) identify options for reaching this potential. While the synthetic nature of the assessment cannot do justice to all details and nuances of the issues, it has benefited from discussions at two governance workshops involving experts from research, policymaking and civil society that took place on 29 September and 12 October 2022.

The benchmark: fit for addressing the climate challenge

To be fit for purpose, climate governance frameworks at both EU and member-state levels should respond to the main characteristics of the challenge of climate change. In this regard, climate change has been diagnosed as a "super wicked" problem (e.g., Rosenbloom, 2019; Levin et al., 2012; Lazarus, 2009). Super-wickedness entails a number of characteristics, including in particular:

- **Urgency**: the urgent need to drastically reduce GHG emissions to net zero, realise negative emissions, and upgrade climate resilience.
- **Long-term nature**: the need to sustain and develop climate and climate-coherent policies over the long term (across decades to come) and with a long-term perspective (i.e. so that policies are consistent with long-term objectives).
- **Cross-sectoral and whole-of-economy/society**: the need for solutions to reflect that the problem transcends sectoral borders and societal groups (societal scale of the required transformation), while responding to specific, highly varied sectoral conditions (barriers and drivers).
- **Dynamism and complexity**: the need for constant review and further development of policies and measures in view of the evolution of the problem and the availability of solutions due to evolving science, technology, society and politics – and multiple feedback mechanism across these.
- **Contentiousness**: the need to address and manage societal contestation of the climate transition arising from the far-reaching and deep changes required (affecting sensitive distributive and socio-cultural aspects) and the creation of (relative) winners and losers, which interacts with other areas of growing contestation in modern (democratic) societies (von Homeyer et al., 2021).

These problem characteristics provide guidance for how effective climate policy frameworks (in the broad sense) could and should generally be designed. For example, ambitious targets and stringent policies should reflect the urgency of the problem. "Thick" policy mixes should be tailored to varying sectoral conditions and address "climate justice". Widespread climate policy integration should reflect the cross-sectoral scope of the challenge. Regular review provisions should facilitate policy adaptation, which should be guided by a long-term perspective (Oberthür & von Homeyer, 2022; Jordan & Moore, 2022; Rosenbloom, 2019; see also more generally, Sabel & Zeitlin, 2010).

The problem characteristics also have significant implications for procedural climate governance frameworks. They especially indicate that a number of interrelated aspects have importance, including the following: (a) (re-)aligning short-, medium- and long-term policymaking towards long-term climate objectives, including through medium- and long-term planning/strategizing (to address the problem's long-term nature); (b) ensuring strong climate policy integration into all relevant policies (cross-sectoral); (c) promoting effective implementation (including through transparency, accountability and enforcement – urgency); (d) a robust science base (in a broad sense) (urgency; complexity and dynamism; contentiousness); (e) arrangements for enhancing democratic legitimacy, building trust and societal support, engagement and ownership (contentiousness); (f) procedures for monitoring, regular review and flexible policy development (dynamism and complexity).

Nine Key Issues

Key Issue 1: National Energy and Climate Plans (NECPs)

Role in addressing the climate challenge: The long-term, evolving, cross-sectoral and whole-of-society nature of the climate mitigation challenge calls for comprehensive medium- and long-term strategic planning as a key component of climate governance to prevent a situation where climate policies are fragmented, lack in coherence, and lead to carbon lock-in. Climate policy plans and strategies have come to form an important part of overarching climate governance frameworks. Based on current knowledge, the following elements of best practice can be identified: (a) integration of all relevant government departments and planning across relevant sectors; (b) broad societal and stakeholder participation (to support societal engagement in the climate transition and help manage its contested nature); (c) regular updating and review to incorporate technological innovation, changes in scientific and expert knowledge as well as socio-economic and political framework conditions, and increases in mitigation ambition (e.g., Moallemi & Malekpour, 2018; Dubash et al., 2022).

Status quo: The 2018 Governance Regulation requires each member state to undertake a ten-year planning cycle that produces and regularly updates a National Energy and Climate Plan (NECP), thereby constituting the EU's core national-level medium-term planning requirement in this area (Kulovesi & Oberthür, 2020, pp. 153–154). Each NECP addresses a member state's plans to achieve objectives related to the five Energy Union dimensions of (1) decarbonisation of the economy; (2) energy efficiency; (3) energy security; (4) the internal energy market; and (5) research, innovation, and competitiveness. Importantly, NECPs must specify the national contributions to the EU's overall renewables and energy efficiency targets. Annex I to the Governance Regulation stipulates the areas to be covered by, and the information to be included in, NECPs, including overall targets, planned policies and measures, modelling for business as usual as well as with planned measures, bringing together several previously separate planning obligations (European Commission, 2016).

The NECP process is organized around a ten-year cycle, beginning when a draft NECP is submitted by a member state, which is evaluated by the Commission and then revised and submitted in final form. Approximately halfway through the ten-year cycle, member states must submit an update of the NECP in light of, e.g., changes to EU climate and energy objectives. In November 2022, the Commission published guidance for the NECP updates, emphasizing the importance of taking into account the changed energy-related circumstances in the aftermath of the Russian invasion of Ukraine (European Commission, 2022d). This mid-cycle update has taken on

increased importance in the first NECP cycle due to the European Green Deal and the Fit for 55 Package of implementing legislation. This update is subject to the same review-and-recommendation procedure as the original NECP. "Early and effective" public consultation on NECPs is required (Art. 10), and NECPs should contain information on these public consultations (Art. 3.2). There is also a system of biennial progress reports and related review (see Key Issue 6).

The first draft NECPs were due at the end of 2018, followed by a Commission review by mid-2019 (European Commission, 2019b), and a final submission by the end of 2019 (European Commission, 2020a). The first biennial progress reports are due in March 2023, followed by drafts of the NECP updates in June 2023 and final NECP updates in June 2024.

Assessment: The experience with the first round of NECPs in 2018/19 has been mixed. All 27 member states submitted their draft and final NECPs to the Commission based on the guidelines in the Governance Regulation. Although underlying legislation specified the categories which each NECP needed to cover, their substantive content and length varied greatly (see Schmidt et al., 2022)requiring significant changes within carbon-intensive sectors. In this article, we examine EU Member States' climate strategies in the aviation sector, where greenhouse gas emissions have doubled since 1990. We analyse EU National Energy and Climate Plans (NECPs. There were also widespread problems with the timely submission of draft and final NECPs, and it is unclear to what extent the recommendations of the Commission were taken on board in final documents. The Governance Regulation requires member states to ensure coherence between NECPs and NLTSs (see Key Issue 2) but does not specify a procedure to do so (Duwe, 2022, p. 26).

There is also concern that the NECP process in some member states does not rise to the level envisioned – i.e., an embedded and integrated strategic planning process – and instead is limited to a reporting exercise for already existing policies and measures, which is covered separately under the Governance Regulation (Chapter 4). Also, analysis has suggested that national consultation procedures varied widely by member state, with some allowing only a short time for comment (Duwe, 2022, p. 26; LIFE PlanUp, 2021; LIFE Unify, 2022, p. 9).

Key interactions with other governance aspects:

- **Long-Term Strategies and climate-neutrality targets:** NECPs and national LTSs should form a coherent whole, with medium-term planning leading to long-term goals and the latter informing the former. Both also need to align with EU-level climate neutrality planning and fitness checks under the European Climate Law. Climate-neutrality targets can give important direction to medium- and long-term planning.

- **Public participation:** NECPs can help increase public participation and engagement in climate policymaking, while public participation can in turn help enhance NECPs.
- **Scientific advice:** An effective independent advisory system can provide important input to effective medium-term planning (NECPs), coherent with LTS, including development of effective policy mixes.

OPTIONS:

- F**urther enhance guidance on content and process of NECPs** in light of experience from the first NECPs. For example, specify more detailed requirements for longer comment periods and early public consultations and incorporate public consultation into NECP implementation (LIFE Unify, 2022). **Sharing of best practice,** for example, via the Technical Working Group on NECPs (Duwe, 2022, p. 18), should be a continuous process drawing on the first NECPs as well as draft NECP updates due in 2023.
- **Further integrate the energy security dimension:** While this has been advanced through the Commission's 2022 guidance for the NECP updates, there is room for further integrate energy security with the other dimensions, including through the Governance Regulation itself. It is also important that member states respond to the energy security challenge in ways that enhance the move towards climate neutrality.
- **Enhance review of draft NECPs and means to ensure high-quality NECPs**: e.g., introduce possibility to reject incomplete NECPs combined with "cross-compliance" provisions to limit access to relevant funding (e.g., LIFE Unify, 2022, p. 11).
- **Increase consistency between NECPs and national Long-Term Strategies**, including clearer requirements to do so in the Governance Regulation and/or aligning of both (see Key Issue 2).

Key Issue 2: Long-term Strategies (LTSs)

Role in addressing the climate challenge: As discussed in the previous section on NECPs, the long-term, evolving, cross-sectoral and whole-of-society nature of the climate mitigation challenge calls for comprehensive medium- and long-term strategic planning. LTSs complement medium-term-oriented NECPs by focusing on the longer term (see Key Issue 1).

Status quo: The Governance Regulation (Art. 15) requires each member state to submit a **national Long-term Strategy (NLTS)** every ten years covering at least the next 30 years (which can be updated at five-year intervals if necessary). In doing so, the Regulation also implements (and hardens) the invitation in Art. 4.19 of the Paris Agreement for elaborating such strategies. The Commission must then analyse the NLTSs as a whole to assess whether they are "adequate for the collective achievement" of the Energy Union goals (Article 15.9). As of late 2022, this assessment has not yet become available (Velten et al., 2022, p. 10). Following guidance provided in Annex IV of the Governance Regulation, NLTSs are focused on targets for 2030, 2040, and 2050, indicative estimates of emissions overall and in various sectors, financing needs, and planned decarbonisation options/policies. The first NLTSs were due to be submitted by 1 January 2020, the second NLTSs are due by 1 January 2029 (with updates in 2024/25).

The Governance Regulation also requires the European Commission to undertake a one-time **EU Long-term Strategy (EU LTS)** for GHG emission reductions, which the Commission duly published in November 2018 (European Commission, 2018). The main focus was to set out scenarios for the achievement of various climate-related targets, and the process eventually led to the proposing of the EU's 2050 climate-neutrality target, now enshrined in the European Climate Law.

Assessment: In their recent analysis, Velten et al. (2022, p. 5) found that "developing an LTS has had a positive impact on national policy" in a number of member states. As of November 2022, 24 member states have submitted their first NLTSs. In September 2022, the Commission launched infringement proceedings against four member states who had not yet submitted the NLTSs. Nevertheless, at the time of writing, Ireland, Poland, and Romania had not yet submitted their NLTSs, nearly three years after the deadline set out in the Governance Regulation. While further assessments of the experience from the first NLTSs are underway (see Velten et al., 2022), available evidence suggests a number of challenges and related room for improvement, including:

- **NLTS processes** have *inter alia* suffered from: (1) lack of investment in technical capacity building for national governments, unlike the NECPs (Duwe, 2022, p. 25), and (2) varying levels of public participation and input from the scientific community (Velten et al., 2022, pp. 67 and 73).

- Relatedly, the NLTSs are **not subject to the same type of review-and-recommendation process at the EU level as the NECPs** (see Key Issue 1) – the Commission is required to analyse their contribution to overall EU targets but is not required to provide feedback on individual NLTSs.
- The **content of available NLTSs** has also displayed significant shortcomings. Of the 24 NLTSs submitted to date, 23 were missing at least one mandatory element required by the Governance Regulation (Bulgaria's has not yet been analysed). Several NLTSs contained "few" (Germany, Denmark) or "very few" (the Netherlands) of those elements (see English-language summary tables at European Commission, 2022c). It is unclear to what extent existing NLTSs are coherent with NECPs.
- Many if not most of the **existing NLTSs are already dated** (Velten et al., 2022, p. 104), since they were submitted shortly after the European Council agreed to the 2050 climate-neutrality target in December 2019, prior to the adoption of the European Climate Law, at the beginning of the COVID-19 pandemic, and/or prior to the Russian aggression against Ukraine and the evolving energy crisis.

The **EU LTS** was a one-off strategy, with much in common with, e.g., the 2011 EU 2050 Low-carbon Roadmap (European Commission, 2011). Although the 2018 EU LTS played an important role in broader climate strategy, there is a lack of regular updates resulting from a structured process (including public consultations, etc.).

Key interactions with other governance aspects:

- **NECPs and climate-neutrality targets:** National LTSs and NECPs form different, complementary components of the national planning processes created by the Governance Regulation, which requires that they be coherent. Climate-neutrality targets play an important role by providing guidance to these medium- and long-term planning instruments/processes.
- **Public participation:** LTSs can help increase public participation and engagement in climate policymaking, while public participation can in turn help enhance LTSs.
- **Scientific advice:** An effective advisory system is key for effective long-term strategy at both EU and national levels. The distance to the end point implies reliance on tools such as modelling for possible scenarios, the likely pathways to climate neutrality, effective policy packages, and other issues.

OPTIONS:

The following options for improvement may be addressed in the context of the upcoming review of the Governance Regulation:

NLTSs

- **Enhance guidance on NLTSs**, including on public participation/consultation (LIFE Unify, 2022), inclusion of key content aspects such as carbon dioxide removal required to reach climate neutrality (Duwe, 2022, p. 11; IPCC, 2022b, p. 40), and coherence with NECPs (Velten et al., 2022, p. 104). Technical assistance for NLTS processes can also be enhanced (irrespective of revision of Governance Regulations; in combination with assistance for NECPs, e.g. via a Commission working group; see Key Issue 1).
- **Align NECP and NLTS processes.** This entails in particular two elements: (1) introduction of NECP-style review-and-recommendation system, including possibility to reject incomplete national LTSs combined with "cross-compliance" provisions to limit access to relevant funding (e.g., LIFE Unify, 2022, p. 11); (2) align timing of national NECP and LTS processes (Velten et al., 2022, p. 104) so as to promote efficiency, effectiveness and coherence (e.g. public consultations), including requiring mandatory 5-yearly updates of both.

EU LTS

- **Update the EU LTS** and create a continuous process of strategic planning similar to the national LTS process, to inform subsequent policy package(s) (Duwe, 2022, p. 13). This could be based on input from the European Scientific Advisory Board on Climate Change.

Key Issue 3: Climate-neutrality targets

Role in addressing the climate challenge: Climate-neutrality targets (CNTs) are a key element of effective climate governance frameworks. Many countries, including many EU member states, have adopted economy-wide CNTs, frequently in the context of broader climate laws. Especially if established in law, CNTs can provide important guidance for the long-term "direction of travel" of the climate transition. As such, CNTs also provide important benchmarks for the determination of interim targets on the way towards net zero. They are hence one means that – not least together with NECPs and LTSs (see above) – aim to ensure an ambitious long-term policy development in response to the long-term nature and urgency of the climate challenge. While econo-

my-wide CNTs may be considered most in line with the crosscutting and encompassing nature of the climate challenge, they can be complemented and specified by, and can inform, more sector-specific CNTs (Dubash et al., 2022; Averchenkova et al., 2017; https://zerotracker.net/).

Status quo: The EU has adopted a legally binding CNT for 2050 in the 2021 European Climate Law. In addition, the Emissions Trading System's linear reduction factor would suggest that GHG emissions in the ETS sectors are on their way toward net zero well before 2050. As of spring 2022, 13 EU member states had established in law a CNT by 2050 or earlier. Another six member states envisaged climate neutrality by 2050 in policy documents, and eight member states had not determined a CNT at all (see Table). For member states that have established a CNT in law, the target generally forms part of a broader climate governance framework.

Table: Climate-neutrality targets of EU member states

	EU member states
CNT in law	**13** (DK, IE, FR, GR, HU, LV, LU, NL, PT: 2050 – SE, DE: 2045 – FI: 2035 – ES: "before 2050"
CNT in policy	**6** (AT, IT, LT, MT, SK, SI)
No CNT	**8** (BE, BG, HR, CY, CZ, EE, PL, RO)

Source: based on WWF national climate neutrality targets map (visited 12 September 2022).

Assessment: About half of the EU member states lack a legally binding, economy-wide CNT. While the EU CNT might be argued to provide a certain level of long-term guidance for each member state, available NLTSs suggest that this may not inject a clear trajectory and direction for national decision-making towards climate neutrality in all member states (Velten et al., 2022). Clear national-level benchmarks and pathways to climate neutrality remain vital given the importance of national (and subnational) policymaking for implementing the climate transition. In addition, what "climate neutrality" means is not necessarily understood in the same way across member states. As a result, there is a lack of clarity how member states' long-term planning adds up to achieving EU-wide climate neutrality by 2050 (and negative emissions thereafter). Available evidence also suggests room for improvement in effective public participation and consultation in national LTS processes (that may be relevant for the development of CNTs) (see Key Issue 2).

Key interactions with other governance aspects:

- **NECPs and LTSs**: CNTs inform LTSs and NECPs and may indeed best be an integral part of LTSs.
- **Public participation:** CNTs are likely to be most effective if they are established and further developed with broad political and public participation and deliberation to enhance societal ownership and engagement.

OPTIONS:

EU-level guidance to member states could strongly encourage them to establish CNTs and align their understandings of climate neutrality. This guidance could form part of the forthcoming revisions of the Governance Regulation and/or the European Climate Law. However, given the timeline of these revisions, consideration of options for establishing such guidance (and even a requirement) earlier may be appropriate to advance timely implementation. In substance, the following options and elements may be particularly worth exploring (not necessarily exclusive):

- A **requirement for each member state to achieve economy-wide climate neutrality by 2050** at the latest (as a benchmark for its national policy planning);
- A **requirement for each member state to establish its own economy-wide CNT** by a certain date, either with 2050 as the latest possible date or with a requirement to explain how the CNT fits with the EU's CNT by 2050 (or a combination of both) (this might benefit from sectoral specification);
- A **specification of the EU's CNT for the ETS and the effort-sharing sectors**; this might, as regards the effort sharing, imply a distribution across member states (and could complement the above elements).

In view of the need for a firm anchoring of CNTs in national political systems and societies ("ownership"), CNTs may best be established and further developed/updated in broad and inclusive participatory processes, which may be closely related to LTSs and NECPs (see Key Issues 1 and 2). Commission guidance may be one way of furthering such participatory processes.

Key Issue 4: Consistency and policy integration

Role in addressing the climate challenge: The cross-sectoral and crosscutting nature of the climate challenge requires an approach that integrates climate objectives into a broad set of policies. This includes policies addressing: (1) the main GHG emitting sectors (energy, transport etc.), (2) systems that play a major role in shaping relevant investment (finance, trade, etc.) and (3) flanking sectors that can help maintain and further strengthen societal support and engagement (social policy, education etc.). Effective climate policy integration requires that the relevant policies are consistent/coherent (i.e., they do not undermine each other) and synergise as much as possible (Rosenbloom et al., 2019; Perlaviciute et al., 2021; Oberthür & von Homeyer, 2022; Dubash et al., 2022; Dupont, 2016; generally also: Howlett & Rayner, 2007).

Status quo: Aiming at **environmental policy integration more broadly**, Article 11 TFEU calls for the integration of environmental protection requirements into the definition and implementation of EU policies. Going further, the European Green Deal aims at coherence of other policy areas and calls for all EU initiatives to "live up to a green oath to 'do no harm'" (European Commission 2019a, p. 19). The 2020 Taxonomy Regulation and the EU COVID recovery funding specifically refer to the "Do no significant harm" (DNSH) principle, while EU guarantees under the InvestEU programme are subject to a "sustainability proofing". In addition, the Commission's formal impact assessments of its legislative proposals consider environmental impacts. EU legislation also mandates specific environmental impact assessments of certain projects (infrastructure etc.) and public plans at member state level (Environmental Impact and Strategic Environmental Impact Assessment Directives).

Specifically **concerning climate change**, the European Climate Law requires the Commission to assess the consistency of its proposals with the EU climate neutrality target, intermediate emission targets and progress on adaptation (Art. 6.4). In addition, the Commission is obliged to review the consistency of both EU measures and Member State measures with these targets by the end of September 2023 and every five years (Arts. 6-8). Where it finds inconsistencies, it is to adopt corrective measures (EU policies) or may make recommendations (national policies) (ibid.). Consistency also features in the NECP process under the Governance Regulation. Furthermore, the Regulation also requires NECPs to be consistent with Member States' LTSs (Art. 15.6). Finally, the Commission may issue recommendations to member states if it, in reviewing biennial progress reports, finds that "policy developments" are inconsistent with "the overarching objectives of the Energy Union" (Art. 30).

Climate considerations have to some extent been integrated into **EU economic and fiscal policies**. Since 2015, the European Semester no longer systematically addresses climate and ener-

gy policies in country recommendations (Climate & Company, 2022). Concerning the EU budget for 2021-27, the EU has committed to spending at least 30 percent on climate. The climate share rises to 37 percent for EU recovery funding which, as mentioned above, is also subject to a DNSH test. The European Investment Bank has pledged to become the climate bank, with more than half of its investments in 2021 going to climate and environmental projects. The European Central Bank also aims to further integrate climate change into its work (banking supervision, risk assessments, asset purchase programme) (see Oberthür & von Homeyer, 2022).

Assessment: Especially the European Green Deal and developments under it (EU budget and funds, European Climate Law, etc.) have significantly advanced climate policy integration in the EU (Oberthür & von Homeyer, 2022). It also provides an opening for further advances. In this regard, the following challenges may deserve particular consideration:

- Despite some progress, **climate policy integration remains incomplete and insufficient in key sectors**. For example, according to the European Court of Auditors the integration of climate objectives into the Common Agricultural Policy has so far failed to significantly affect emissions and the EU failed to reach its previous target of 20 percent climate spending (EU budget) by a large margin (7 percentage points) (European Court of Auditors, 2021, 2022). Although the European Green Deal has been declared the new EU growth strategy, climate change has also not been wired into economic policy coordination under the **European Semester** (e.g., Climate & Company, 2022).
- It remains unclear how the **consistency assessments under the Climate Law** can be implemented in a way that effectively enhances the consistency of EU and national policies with the climate targets. It has potential to enhance climate policy integration, where there is currently a lack of processes to identify and exploit related benefits.
- Beyond the Green Deal strategy, **the DNSH principle is currently only anchored in selected individual legislative acts** (Taxonomy Regulation, EU recovery fund, etc.). It also arguably focuses on avoiding damage and incoherence, while not fully addressing the scope for synergy and reinforcement of climate action.
- Climate interests and expertise may not always be adequately represented in **EU advisory committees,** such as the InvestEU Advisory Board and/or the Steering and Investment Committees, so as to support implementation of the DNSH principle.
- The **multitude of different national plans** mandated by EU climate and other relevant legislation and processes risks creating incoherence (Climate & Company, 2022). This includes the consistency between NECPs and national LTSs (see Key Issues 1 and 2), but

also extends to a variety of other national plans (Just Transition, Social Climate Fund, NextGenerationEU, etc.).

Key interactions with other governance aspects:

- **NECPs and LTSs**: coherence and policy integration are major crosscutting themes of NECPs and LTSs, which in turn are key vehicles for advancing policy integration.
- **Review of progress and implementation**: coherence and policy integration are also major themes in the system of review of progress and implementation.
- Measures to enhance consistency and policy integration can usefully be informed by analysis by the **European Scientific Advisory Board** (see Key Issue 5).

OPTIONS:

- Ensure an effective contribution of the **consistency assessments under the Climate Law**. In particular, the assessments could systematically address key cross-sectoral policies, such as public budgets and economic policies driving critical climate investments.
- Beyond avoiding contradiction as reflected in the DNSH principle, consistency assessments should specifically aim to strengthen the potential for **enhancing synergy** among climate and non-climate objectives (see, e.g., Karlsson et al., 2020), thereby reflecting the priority given to climate objectives in the European Green Deal. This could eventually be reflected in revisions of the European Climate Law.
- Legally codify the **DNSH principle** in the Climate Law and/or the Governance Regulation.
- Strengthen the representation of climate and DNSH expertise in **EU advisory committees.**
- Enhance **coherence across various national plans and strategies (and their implementation)**, including of NECPs and national LTSs (see Key Issues 1 and 2).
- Include systematic monitoring of Member States' green transition progress based on critical indicators in the **European Semester** process, including full integration at the recommendation stage.
- Strengthen and align the **methodology and criteria used to identify EU climate spending** to minimize "greenwashing" opportunities across EU institutions, including appropriate mechanisms for review. Extend such an approach across Member States.

Key Issue 5: Independent scientific expert advisory bodies

Role in addressing the climate challenge: Mechanisms for ensuring that climate governance is firmly based on the best available science/knowledge are of key importance for ensuring the effectiveness of climate policies. Like other environmental problems, climate change can only be addressed effectively if action is in line with and informed by science and best available knowledge, including about the effectiveness, efficiency and broader impact of (sets of) policies and measures. Natural science, economics (including modelling) and a variety of other disciplines are hence important in providing "scientific" expert advice, as also reflected in the IPCC Assessment Reports (itself a model of independent scientific expert advice) (e.g., IPCC, 2021; 2022a; b). In addition to responding to the urgency of the climate challenge, ensuring independent scientific expert advice and input into policymaking also (1) serves to strengthen a much-needed long-term perspective and (2) can help build and maintain public trust and support required for the broad societal transformation which the climate transition entails.

Scientific advisory councils or committees have become a best-practice standard for ensuring appropriate expert input into climate policymaking (following the paradigmatic UK Climate Change Committee). Stable structures for scientific input into policymaking may be appropriate given the long-term nature of the climate challenge. Accordingly, independent climate advisory bodies of somewhat varying forms have frequently been established in the context of broader climate laws. It seems of particular importance that the input/advice of such councils or committees be closely and directly linked to the policy process so as to effectively inform the policy choices. Other key elements of best practice in the design of such arrangements include independence, a careful selection of members (broad range and depth of expertise, reputation), a clear mandate with specific roles and responsibilities, an obligation of policymakers to consider the advice in the policymaking process, regular public reports (at least annually), stakeholder consultation processes, and ample support capacity (Elliot et al., 2021; Evans & Duwe, 2021; Averchenkova and Lazaro, 2020).

Status quo: The European Climate Law has – upon the initiative and insistence of the European Parliament – established a European Scientific Advisory Board on Climate Change, composed by independent experts and hosted by and complementing the European Environment Agency (Arts. 3 and 12). Its mandate is kept rather broad; at its core is the task of "providing scientific advice and issuing reports on existing and proposed Union measures, climate targets and indicative greenhouse gas budgets" (Art. 3.2(b)). The Board determines its own work programme, while consulting the EEA Management Board (Art. 12). The Commission is to take into account the advice of the Board when proposing the 2040 emission reduction target and the indicative 2030-50 emission budget (Art. 4.4 and 4.5).

The Advisory Board makes a potentially important addition to a field of expert advice for climate policy that features a range of expert committees and groups organized by the Commission, data and analysis from agencies such as the European Environment Agency, and the European Parliamentary Research Service. The Advisory Board has a particular role and position because of its substantive mandate, independence and overarching scope.

In addition, a number of member states also possess relevant advisory councils/committees (mostly established prior to the European Scientific Advisory Board), which take different forms. The International Climate Councils Network has members from seven EU member states (https://climatecouncilsnetwork.org/members/, visited 24 September 2022). The European Climate Law has invited each Member State "to establish a national climate advisory body responsible for providing expert scientific advice on climate policy to the relevant national authorities" (Art. 3.4).

Assessment: The Advisory Board is still at an early stage of operation and released an initial work programme in mid-2022 (European Scientific Advisory Board, 2022). The members of the Board represent a broad range of scientific expertise and act independently. Contrary to the best practice mentioned above, the European Climate Law does neither define precise tasks of the Board nor establish clear links its activities into the policymaking process (beyond mandating the Commission to take into account the Board's advice for a 2040 GHG emission target and the emission budget 2030-2050). As such, the Advisory Board can – and has to – determine itself where it will provide specific input. The initial work programme also foresees opportunities for coordination and consultation with a broad range of stakeholders, including national advisory bodies (see above). While the Board can be expected to add an important voice to European climate policy debates, whether and how the advice delivered will eventually be considered in the policymaking process (from initiatives of the Commission to action by the European Parliament and the Council of the EU and European Council) remains uncertain. The initial budget of the Board (EUR 500,000) also seems very modest in comparison (UK Climate Change Committee: £ 3,500,000).[1]

At the level of the Member States, not all of them have yet established scientific advisory bodies. Where they have been established, the determination of their tasks and link to the policymaking process also vary significantly, as does resource allocation. Having said that, most advisory bodies publish annual reports on progress in delivering the national climate target and the quality of policy implementation (Evans & Duwe, 2021). In this context, it is interesting to note that the Advisory Body's work programme plans "to establish and structure a relationship with representatives from national climate change advisory bodies" (p. 10).

[1] It may also be noted that expert advisory bodies depend on the broader availability of scientific research and expertise. In this respect, policy and governance research may be particularly lagging. For relevant research needs, see Dubash et al., 2022: 83-85.

Key interactions with other governance aspects:

- Expert advisory bodies can contribute analysis informing **NECPs and Long-Term Strategies** and can play a strong role in the **review of progress** and in advancing **policy consistency and policy integration**. The presence of a **climate-neutrality target** can provide important direction to the work of such bodies.

- Expert advisory bodies may especially contribute to public trust if appropriately designed (see above) and in combination with strong **public participation** which may help to counter possible allegations of an "expertocracy/technocracy".

OPTIONS:

- **Mandate of the Board**: While the Board can determine informed priorities (building on its planned engagement with various stakeholders: European Scientific Advisory Board on Climate Change, 2022, 10), its mandate could be usefully further specified. For example, the Board could be requested to issue an opinion on the Commission's five-yearly progress and consistency assessments under the European Climate Law. It could also provide input to an EU-level Long-term Strategy (see Key Issue 2).
- **Link to policymaking**: A requirement for the Commission and the other European institutions (notably the European Parliament and the Council) to consider the advice by the Board on specific key components and to explain how this advice has been taken into account could significantly bolster the Board's impact.
- **Resources of the Board**: To enable the Board to provide scientific expert advice on a range of key topics, sufficient resourcing (supporting research staff and fees for Board members to enable them to focus a substantial amount of their time on work for the Board) should be ensured.
- **National advisory bodies**: The spreading of expert advisory bodies across all member states, their appropriate design (taking due account of varying national circumstances), and enhanced coordination across them could be advanced by: (1) strengthening of related requirement in the European Climate Law (including related member state reporting); (2) the specification of best-practice design of national advisory bodies (independence, expertise, etc.); (3) offering (non-financial) support for their creation; (4) establishing mechanisms for the closer coordination of advisory bodies across the EU.

Key Issue 6: Review of progress and implementation ("transparency")

Role in addressing the climate challenge: Monitoring and review ("transparency") are at the core of the Paris Agreement, and provide an essential basis for addressing the urgency, complexity, dynamism and long-term nature of the climate challenge. Evaluating progress over the short, medium, and long term allows decision makers to enhance policies and their implementation over time. It is hence crucial to effectively and continuously monitor the policy measures being taken and the progress towards climate objectives. Monitoring must be detailed enough to collect the information necessary to evaluate where the EU is in its journey towards climate neutrality, while keeping the reporting and review burden manageable. Like planning, the evaluation of policy and its implementation can also activate and enable governments to add to and improve their climate policymaking (Duwe et al., 2016, p. 2; European Commission, 2017; Gupta & van Asselt, 2019; Schoenefeld et al., 2021)

Status quo: Climate-related transparency has been a key component of EU climate governance ever since the EU Monitoring Mechanism was first adopted in 1993. From its beginnings, the transparency system in the EU has been closely tied to the reporting and review system under the UN Framework Convention on Climate Change (including the 1997 Kyoto Protocol and the 2015 Paris Agreement). In 2018, the EU's transparency system was integrated into the Governance Regulation.

Accordingly, **member states** must report biennially on policies, measures, and GHG emission projections, as well as progress on the five dimensions of the Energy Union (notably including on renewable energy and energy efficiency) every odd year by 15 March (Governance Regulation, Arts. 17-25). In addition, they must provide information annually on GHG inventory data (emissions and sinks) (Art. 26). Reporting is based on "national systems" that each member state is required to create and maintain (Art. 39). Further guidance on the structure and content of annual and biennial reports beyond the guidance in the Governance Regulation can be provided in implementing acts (Arts. 17.4 and 26.7).

The **Commission** is mandated to biennially review member state reports (by the end of October) to determine individual and collective progress towards climate and Energy Union targets (Art. 29). This review can lead to recommendations to member states individually or collectively (esp. Art. 34) and feeds into an annual State of the Energy Union report (also due by the end of October: Art. 35). According to Article 6 of the European Climate Law, the Commission is also required to submit a report on progress toward climate neutrality every five years from 2023 along with the State of the Energy Union report. The Governance Regulation furthermore foresees in-depth

reviews of inventory data in 2027 and 2032 (Art. 38). The reviews under the Governance Regulation and the European Climate Law are complemented by other review reports addressing more specific elements of EU climate policy. The European Environment Agency (EEA), drawing on member state reports, also provides yearly progress updates on the EU ETS, the Effort Sharing Regulation, and the EU's overall climate and energy targets (e.g., EEA, 2022).

Assessment: As shown above, the EU has a long-running and well-established system of progress reporting. However, high-quality reporting and review requires continuous attention and follow-up, including regular updating of related guidance (e.g., in relation to the climate-neutrality objective). In particular:

- Member state reporting of policies and measures and projected emission reductions has been heavily **focused on energy and transport**, whereas reporting on other sectors crucial to achieving climate neutrality can be further upgraded (Schoenefeld et al., 2021, p. 34).
- More generally, **ensuring high-quality reporting on policies and measures and related projections across member states** (and sectors) remains a challenge that requires continuous attention. This includes development of reporting on all key areas, including just transition aspects (such as impact of policies on vulnerable groups, related policies and their projected impact) and investment frameworks.
- **Commission progress reporting on climate neutrality** under the European Climate Law has not yet been clarified, including how it will differ from and complement existing progress reporting (Duwe, 2022, p. 16).
- The **contribution of the European Scientific Advisory Board on Climate Change** to the review of progress and implementation is not yet clear, although the Board seems to intend to reflect on its role in this respect (European Scientific Advisory Board on Climate Change, 2022).

Key interactions with other governance aspects:

- **Effective implementation:** Any response to implementation deficits depends on the availability of reliable information on progress and implementation.
- **Scientific expert advisory bodies** can make an important contribution to reviewing progress.

OPTIONS:

Ensure high-quality reporting on policies, measures, and related projections across member states and sectors, e.g., through more formal review of quality of reporting, recommendations to member states, technical assistance and further best-practice guidance. Encourage/require member states to advance reporting on sectors beyond energy and transport.

- **Further develop reporting to fully cover all key areas**, including just transition aspects and investment frameworks.
- **Adapt indicators in EU-wide and national level reporting related to climate neutrality** to better reflect the unique challenges of that target (such as public support for the climate neutrality target; (see, e.g., Duwe & Spasova, 2021).
- **Expand climate justice reporting** in biennial reports and effectively coordinate/integrate them with other processes such as under the emerging Social Climate Fund (see COM/2021/568).

Key Issue 7: Promoting effective implementation (including enforcement)

Role in addressing the climate challenge: The urgency of climate mitigation requires effective implementation of climate policies, ensuring compliance and incentivising overachievement. Effectively addressing implementation problems is crucial to ensure that the EU's climate objectives, targets, and standards do not become a "dead letter" but are actively pursued and corrective action taken where necessary. Relevant research has highlighted the importance of two complementary approaches for ensuring effective implementation: soft, "managerial" responses (capacity building, recommendations, support) and hard enforcement (sanctions and penalties) (Tallberg, 2002; see also Chayes & Chayes, 1998; Downs et al., 1996)management theorists embrace a problem-solving approach based on capacity building, rule interpretation, and transparency. In this article, I challenge the conception that enforcement and management are competing strategies for achieving compliance. Based on the case of the European Union (EU).

Status quo: The Commission can bring forward **infringement proceedings** under Articles 258 and 260 TFEU against member states that it considers do not fulfil an obligation under EU law. It has, for example, done so in 2022 in relation to the Energy Efficiency Directive, the Renewable Energy Directive (RED II), and the National Long-Term Strategies (European Commission, 2022a). Infringement proceedings start with a softer managerial phase but can lead to proceed-

ings before the CJEU and the imposition of penalty payments.

A number of **key pieces of climate legislation also possess their own implementation response/ enforcement mechanisms** for the actors to which they are addressed. For example, the EU ETS Directive determines a fine for every tonne of GHG emissions for which a covered installation does not surrender an emission allowance (Peeters, 2003). The CO_2 and Cars Regulation foresees fines for car manufacturers that do not comply with the Regulation's CO_2 emission standards. The Effort Sharing Regulation determines that Member States that exceed their emission allocation shall: (1) submit a "corrective action plan", (2) get 1.08 times the excess emissions added to their future emissions, and (3) become ineligible for transferring emission allowances to other member states (Articles 8 and 9). This in turn provides a significant incentive for exploiting flexibilities, such as buying surplus emission allowances from other member states (Peeters & Athanasiadou, 2020). Companies that do not meet energy efficiency requirements under the Ecodesign Directive cannot sell their products in the EU single market (making the requirements quasi self-enforcing).

The **Governance Regulation** has established a specific procedure for responding to insufficient ambition in a member state's NECP (and accompanying targets for renewables and energy efficiency) and its implementation. This has been referred to as "harder soft governance" (Knodt & Schoenefeld, 2020) in combining review (of NECPs and biennial progress reports; see also Key Issue 6), Commission recommendations, and follow-up action of the Commission with obligations by member states to react and respond to recommendations. These obligations are slightly sharper regarding renewables than in the case of energy efficiency (Kulovesi & Oberthür, 2020; Oberthür, 2019).

An increasing number of **funding instruments** have also enabled effective implementation of climate targets and policies by including conditionality criteria, including the ETS-financed Innovation and Modernisation Funds, the Just Transition Fund and the new Social Climate Fund (still to be established). Similarly, general EU funding instruments, including the NextGenerationEU recovery fund and the Multiannual Financial Framework 2021-27, have also earmarked parts of their expenses for climate purposes (see Key Issue 4). To some extent, technical assistance from the Commission has been available for implementation by member states.

Assessment:

- The **infringement procedure** has overall been found to foster enhanced implementation over time (e.g., Tallberg, 2002). However, it has also been critiqued for leaving significant discretion to the Commission, being too lengthy and at times being ended without public

explanation (Hildt & Weyland, 2022, pp. 11–15). It also requires that clear obligations for Member States have been established (cf. abandonment of national targets for renewable energy in RED II).

- Implementation response procedures under the **Governance Regulation** grant the Commission significant discretion but also entail severe limitations of its powers. For example, it is unclear and even doubtful whether the review-and-recommendations system under the Regulation will be able to ensure full implementation of the EU's targets for renewables and energy efficiency (Peeters & Athanasiadou, 2020, p. 207). In some areas, available response measures seem clearly insufficient, as evident from the long delay in submitting National Long-Term Strategies by some member states and taking corrective action (triggering of infringement proceedings in September 2022; see Key Issue 2).

Key interactions with other governance aspects:

- **Review of progress and implementation** are crucial for promoting effective implementation response, with the latter depending on policy monitoring that is capable of reliably identifying shortcomings in policy implementation.
- **Access to justice** helps activate litigation as an additional means of promoting effective implementation.

OPTIONS:

- Clarify and strengthen **response procedures and related powers/means in the Governance Regulation** (NECPs, LTSs, renewables, energy efficiency); e.g., reinforce member state obligations to take corrective action.
- **Increase Commission capacity for infringement proceedings and enforcement**, in order to increase speed and efficiency of the process (see general recommendations in: Hildt & Weyland, 2022).
- In this context, also consider strengthening and diversifying **cross-compliance mechanisms** with relevant funding streams (by making access to a wider range of funding conditional on fulfilment of relevant climate obligations).
- Increase Commission's **technical assistance** for member states related to implementation, potentially via new or existing working groups.

Key Issue 8: Access to justice

Role in addressing the climate challenge: Seen from a broader perspective, access to justice is a fundamental element of the rule of law and links to such core human rights as the right to a fair trial and right to an effective remedy. Access to justice enables the public to protect their rights and to hold the executive and legislative powers as well as polluters accountable for compliance with environmental law obligations. As such, access to justice can provide assurance that laws are effective, and binding obligations and rights are respected and effectively implemented.

Status quo: Climate change litigation has been increasingly used to challenge actions of both governments and companies in relation to climate mitigation. Setzer and Higham (2022) have identified 60 climate-related cases in the EU as of May 2022 (see also Pouikli, 2022, p. 570). High-profile cases (targeting increased governmental emission reduction ambition) include the German Federal Constitutional Court ordering the government in 2021 to revise the national climate act to avoid disproportionately burdening future generations, and the Supreme Court of the Netherlands finding that the Dutch Government was legally obliged to reduce Dutch GHG emissions by at least 25% by 2020. Overall, litigation has been found to be helpful in prompting more ambitious national climate legislation (Setzer & Higham, 2022; Grantham Institute, 2022; Wewerinke-Singh & McCoach, 2021; see also Gellers & Jeffords, 2018; Pouikli, 2022; McGlone, 2022a and b; Savaresi & Setzer, 2022).

International and EU law provide for access to justice in environmental matters. The Aarhus Convention requires its parties (including the EU and all its member states) to provide for access to justice in environmental matters, while the TEU/TFEU and the EU Charter of Fundamental Rights indicate that the right to access to justice applies to the EU and its member states (when implementing Union law). The EU's amended Aarhus Regulation contains a broad internal review mechanism that allows some NGOs (and, from 29 April 2023, individuals under certain conditions) to ask EU institutions to review their own decisions on environmental matters (including climate), with a right of appeal to the EU courts (see recent cases brought by NGOs against the inclusion of nuclear energy, gas and bioenergy under the Taxonomy Regulation: https://www.simmons-simmons.com/en/publications/cl96yg09s628w0a30jf7hywis/european-commission-faces-legal-challenge-to-eu-taxonomy). Furthermore, access to justice is specifically provided for under several environmental directives, such as the Industrial Emissions Directive, the Environmental Impact Assessment Directive and the Environmental Liability Directive (Ryall, 2019; McGlone, 2022b).

Procedural rules at the EU and national levels as interpreted by the CJEU and Member State courts determine who has standing to bring litigation and which issues can be pursued.

Assessment: Climate-related litigation has seen significant growth in the EU and beyond, in part as a result of improved access to justice. However, significant room for improvement remains:

- **Legal standing and scope at EU level.** While previously access to justice in climate matters was extremely restrictive (Hartmann, 2022), the amendment of the Aarhus Regulation in 2021 should result in increased NGO and public access to the CJEU. Having said that, it remains to be seen how the CJEU will interpret these provisions in practice (Hough, 2022). Furthermore, room for improvement remains regarding standing and the possibility to challenge the lawfulness of EU climate legislation itself (Kelleher, 2021). One specific issue concerns the exemption of State-Aid decisions by the Commission from the possibility of legal challenge under the amended Aarhus Regulation (McGlone, 2022a; Hadjiyianni, 2020; Berthier et al., 2019, p. 65).
- **Deficits at national level.** There is uneven and incomplete access to justice among EU member states. Member states' implementation of the right to access to justice in environmental/climate matters is fragmented in general, with a significant number of countries failing to execute such access effectively (e.g., Ryall, 2009; 2018; Milieu, 2019; Ohler et al., 2021; Kellehen, 2021). Some of the main barriers identified include narrow interpretation of legal standing, lack of resources of the judiciary, excessive and slow procedures, and prohibitive costs (ibid.) (apart from more fundamental rule-of-law issues in certain member states). The available evidence suggests that the introduction of specific access to justice provisions in relevant EU environmental legislation has significantly improved the situation through national court litigation and through TFEU Article 267 references to the CJEU (e.g. Rass-Masson & Rouas, 2017; Ryall, 2009; 2018; Lee, 2014; Hough, 2022). While proposals exist, such specific access to justice provisions have so far not been established in EU climate and energy legislation. Such provisions could be tailored specifically to support the effective implementation of climate obligations. They could also be designed to address concerns about a potentially resulting overburdening of the court system.

Key interactions with other governance aspects:

- **Public participation.** Citizen participation in general can enhance the integration of local knowledge into decision-making processes and increase public support for policies. The ability of citizens to use litigation constitutes a vehicle of political participation and may also contribute to more informed citizens better capable of monitoring and challenging government decisions and engaging in further participatory processes. It can thereby contribute to the legitimacy of the political system (Gellers & Jeffords, 2018).

- **Public participation and scientific expert advice**. While litigation constitutes a form of political participation, it may also – possibly reinforced by arrangements for scientific expert advice – be vulnerable to claims of politicisation, overreach and lack of democratic legitimacy. It may therefore be important to advance other forms of public participation (deliberative democracy – see Key Issue 9) in parallel.
- **Scientific and expert advice** can provide a key input into climate litigation by providing important evidence for use in front of the court (Pouikli, 2022, p. 581-2).
- **Effective implementation and enforcement.** Access to justice can make an important contribution to the effective implementation and enforcement of (EU) climate legislation.

OPTIONS:

- At the most fundamental level, **obligations in EU climate and energy legislation** should best be **clear, precise, and unconditional** to enable/facilitate litigation through national courts (Bogojević, 2020).
- **EU access to justice obligation on member states.** An EU obligation on member states to provide for wide and meaningful access to justice for challenging national decisions/omissions under relevant acts of EU climate legislation could address existing limitations and advance even access across member states, in line with the European Commission's 2020 communication on access to justice in environmental matters (European Commission, 2020b).

  Such enhanced access to justice could possibly be achieved through revising the Governance Regulation and the European Climate Law. Such a revision could aim to provide access to justice with respect to (1) specific obligations established under the Governance Regulation (e.g., regarding NECPs and NLTSs) in particular and/or (2) legal obligations under a broader set of climate and energy legislation. Other legal routes to this end may include a piecemeal approach of incorporating specific access to justice provisions across all relevant acts of EU climate legislation (see McGlone, 2022a).
- **Access to justice at EU level.** While the amended Aarhus Regulation has drastically enhanced access to justice at the EU level, it is unlikely to provide broad public access to the CJEU (Kelleher 2021). Direct access to the CJEU under TFEU Article 263(4) has remained closed to NGOs and members of the public in environmental matters (Hough 2022). Options for addressing this situation include (apart from amending the provisions

in TFEU Article 263 governing access to the CJEU) a further amendment of the Aarhus Regulation (to bring standing provisions for individuals in line with the Aarhus Convention) and the CJEU revising its interpretation of TFEU Article 263(4) to render the general standing rules for accessing the CJEU broader. A piecemeal approach of addressing the issue in individual pieces of climate and energy legislation would also be principally possible but would lead to uneven EU level access to justice across different areas of environmental law.

- **Capacity building.** In addition, providing capacity building and support measures for member states and the judiciary may address procedural ineffectiveness and improve skills of the national courts in handling access to justice cases for climate matters.

Key Issue 9: Public participation

Role in addressing the climate challenge: Due to its crosscutting and long-term nature, the climate challenge and the climate transition have a wide array of economic/distributional, cultural (lifestyles, identities etc.) and political implications for citizens (e.g., Colgan et al., 2021). The literature suggests that citizen and stakeholder participation has the potential to support the transition in various ways (see, e.g., Dubash et al., 2022; Jager et al., 2020; Liu et al., 2019), depending on appropriate conditions (e.g., Wamsler et al., 2020; Kiss et al., 2022). It may enhance the democratic legitimacy of climate action, thereby also addressing the contentiousness of the challenge by rendering the respective changes more acceptable to citizens. It can also advance climate policy by enabling informational input by citizens and stakeholders (values/preferences, "local knowledge", etc.; e.g., Lee, 2017), and by raising awareness, political engagement, and mobilisation of resources (cf. Weaver & Cousins, 2004; Jones et al., 2009).

Status quo: A number of pieces of EU climate legislation and further measures support public participation at **EU level**. The European Climate Law requires the Commission to "facilitate an inclusive and accessible process at all levels, including […] citizens and civil society", to contribute to achieving climate neutrality (Art. 9). Furthermore, the Commission shall engage with stakeholders on preparing voluntary indicative sectoral roadmaps, including the "facilitation of dialogue at Union level, and the sharing of best practice" (Art. 10). In addition, the Commission has launched the European Climate Pact that is designed as a broad "movement of people" promoting sustainability via climate "ambassadors", pledges, "peer parliaments", dissemination of information, etc. (European Commission, 2020c). In this context, it has supported a bottom-up (informally selected, self-moderated) "peer parliament", next to a top-down (formally selected

and externally moderated) national "citizens' panels" project supported by DG Research as a component of the Conference on the Future of Europe. These experiments in deliberative democracy have been inspired by the increasing number of citizen assemblies and "mini-publics" which have been held in various countries including EU member states such as Ireland, France and Belgium frequently with a focus on climate change (see, e.g., https://knoca.eu/national-climate-assemblies/). The country-level experience holds important lessons concerning the design of such deliberative forms of public participation (scope and focus, institutional embeddedness, organisation, frequency, etc.; e.g. Farrell & Curato, 2019; Elstub et al., 2021).

More generally, the Commission also undertakes **public consultations** prior to legislative proposals and certain policy initiatives, often in the context of its formal assessment of the impact of these proposals and initiatives. They are frequently internet-based but can also take the form of in-person meetings and more limited ("targeted") consultation of stakeholders (European Commission, 2021).

Participation of stakeholders also occurs during **EU-level implementation of climate action**, e.g., in the context of the adoption of implementing legislation or supervision of EU funding. For example, supporting the implementation of the Just Transition Fund, the Just Transition Platform and its working groups feature participation of a broad set of stakeholders. Stakeholders are also included to varying extents in various working and advisory groups of the Commission.
The Governance Regulation requires **Member States** to conduct public consultations in the preparation of NECPs and NLTSs (see Key Issues 1 and 2). It also obliges Member States to create multilevel energy and climate dialogues (Art. 11) which are to include a broad set of stakeholders, to discuss different scenarios for climate and energy policy at national level. More generally, the EU Directives on Environmental Impact Assessment (for projects) and Strategic Environmental Impact Assessment (for public plans and programmes) require Member States to inform and consult the public on the relevant environmental implications.

The Electricity Market and Renewable Energy Directives promote active involvement of citizens as producers of electricity ("prosumers") in particular by facilitating "**citizens/renewable energy communities**". Owned by local shareholders/members, these communities primarily aim at delivering community benefits rather than financial profit (e.g. Savaresi 2018).

Assessment: A number of participatory elements exist and have been enhanced over the past years at both the EU and national levels. However, significant potential for further improvement exists. Key points include:

- **As regards NECPs and NLTSs**, public participation has been limited to their elaboration (not including their implementation), has varied significantly amongst member states and has frequently not been fully meaningful (see Key Issues 1 and 2).
- **Also more generally,** public participation in climate policymaking in the member states has varied significantly (including elements of deliberative democracy), leaving significant room for wider, more systematic and more targeted use.
- Neither the Climate Law nor the Climate Pact **specify the required "inclusive and accessible process at all levels" and sectoral "dialogues"**, e.g. through more concrete rights to participate or more specific procedural requirements (cf. Armeni, 2021).
- **Experiments of deliberative democracy at EU level** ("peer parliaments", "citizens' panels") have been at best loosely connected to decision-making (cf. European Commission, 2022b) and have not been deployed in a targeted manner.
- **Public participation arrangements in various EU-level committees and initiatives** leave room for a more systematic/balanced involvement of relevant stakeholders. For example, stakeholder representation in the InvestEU Advisory Board and/or the Steering and Investment Committees has been very limited.[2]
- A couple of years after its launch, the strengths, weaknesses and overall effectiveness of the **European Climate Pact** remain to be further clarified.
- As synergy between public participation and the climate transition depends on certain conditions, such as sufficiently capacitated participants (Wamsler, 2019; Kiss et al., 2022), it is necessary to clearly **identify and promote these conditions**.
- Under conditions of the intensifying polycrisis (see, e.g. von Homeyer et al., 2021), an "**emergency mode of governance**" dominated by the executive has arisen, including in energy policy (see, e.g., Kreuder-Sonnen & White, 2021). This has put much needed **public participation under pressure**.

Key interactions with other governance aspects:

- **NECPs and LTSs:** Public participation in their preparation and evaluation should be enhanced.

[2] For membership of the InvestEU bodies, see https://investeu.europa.eu/investeu-governance_en.

- **Access to justice** can be an important way for stakeholders and citizens to get involved in and affect policymaking and implementation.
- **Scientific/expert knowledge/advice** reflects a different source of legitimacy than public participation. Decontextualised reliance on expertise may fuel allegations of technocracy, while a lack of integration of scientific and factual information in public participation may breed populism (Caramani, 2017). Designed in the right way, both can and should be complementary and mutually reinforcing.
- The positive contribution of public participation to climate action will significantly depend on the realisation of a just transition.

OPTIONS:

- **Strengthen and concretise requirements for public participation** (rights to participate, procedural obligations; cf. Armeni, 2021), including in the Climate Law, for the Commission's impact assessments, and regarding the formulation and evaluation of **NECPs and NLTSs** under the Governance Regulation (see Key Issues 1 and 2), providing especially for a strong link to policymaking.
- Strengthen **public participation in climate policy in the member states.** This could be pursued through a mix of legal requirements (in the Governance Regulation), guidance on and sharing of best practice, and capacity building.
- Develop a more **systematic and focused use of citizens assemblies and mini-publics (deliberative democracy) at the EU level** (as part of the Climate Pact), taking into account national-level lessons concerning their design. For example, citizen assemblies could be organised especially in preparation of and accompanying major legislative decisions/packages or major moments of evaluation/review and strategy development (to strengthen the link to policymaking).
- Set up a more **permanent and comprehensive consultation structure on EU climate policy**, including various stakeholders (potentially building on experience with the 2000-2003 European Climate Change Programme; see Rusche, 2010).
- Systematically **review and revise arrangements for stakeholder representation and participation in EU advisory and implementing committees and bodies** to ensure sufficient representation of climate interests.

- Based on an in-depth evaluation, the **Climate Pact** could furthermore more systematically support participatory collaborative sustainability "experiments" (see, e.g., Ehnert, 2022; Dubash et al., 2022) and promote the engagement and empowerment of young people as a critical but often neglected "major group"/stakeholder (United Nations Agenda 21).
- EU and national planning and spending programmes such as the Just Transition and Social Funds could provide **more targeted funding for capacity building to support public participation** (informational, human resources, communication, etc.).
- **Improve public participation under an emergency mode of governance**, including by ensuring public participation in implementation (such as in REPowerEU chapters in National Recovery and Resilience Plans) and phasing in more effective public participation over time.

Conclusion

Realising the climate and energy transition calls for a coherent governance framework, including adequate political processes, structures and institutions. Beyond concrete mitigation (and adaptation) policies, this **procedural governance framework** needs to empower political systems to manage and respond effectively to the long-term and cross-sectoral nature of the challenge, its dynamism and complexity, as well as its contentiousness.

Building on an ongoing debate on EU climate policy and law and on the occasion of the upcoming reviews of the Governance Regulation and the European Climate Law, this paper aims to advance and reinvigorate the conversation on the EU's procedural climate governance framework. It has undertaken to review the status quo and the state of the art of relevant knowledge to identify key options for enhancing major areas of the infrastructure for making and implementing EU climate policy, from national plans and strategies to access to justice and arrangements for public participation. Putting the key items next to each other facilitates seeing interconnections and interactions, including potential unintended consequences and various ways in which the elements may, if designed accordingly, reinforce each other.

Significant potential for advancing the EU's procedural governance framework for addressing climate change exists in all nine key areas identified. These include key aspects of climate policy-making and implementation proper (including NECPs, LTSs, climate-neutrality targets, transparency and accountability/enforcement) as well as broader aspects implied by the cross-sectoral and whole-of-society nature of the challenge (policy integration and consistency, access to justice, public participation). As such, the challenge of governing the climate transition goes much beyond achieving emission reductions but implies a broader societal change and transition. Since the individual aspects are not independent but interact, the task is eventually to design an overall integrated framework that maximises synergy.

To this end, this options paper does not aim to conclude the debate but rather to advance a continuing discussion. The policy options identified need to be further developed and cast into coherent sets or packages. We hope that the current paper can assist in advancing thinking about such coherent packages. The upcoming reviews of the Governance Regulation and the European Climate Law, along with accompanying processes, provide a first-class opportunity to take a decisive step in making EU climate governance fit for purpose, namely for realising the climate and energy transition. Given the urgency of the climate challenge, there is no time to rest on the laurels of the remarkable achievements already made, but the remaining opportunities must be urgently realised to the fullest.

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The European Green Deal: Governing the EU's Transition towards Climate Neutrality and Sustainability (GreenDeal-NET) is a Jean Monnet Network that aims to dissect the European Green Deal, and the complex set of governance challenges related to sustainability and climate neutrality it poses. The network will deepen our understanding of what a fair and effective climate transition could look like by focusing on the governance of the European Green Deal. It is a platform for collaboration and debate on teaching and research.

GreenDeal-NET brings together research and teaching on European climate and sustainability governance and offers a space for collaboration and discussion. It actively seeks out engagement and debate with policymakers and others interested in the EU's transition to a low-carbon society.

While 12 European universities coordinated by the Centre for Environment, Economy and Energy of the Brussels School of Governance form the core of the network, it seeks out to expand beyond these to both the European and global academic community, and to other key players working on the EU's transition to a sustainable low-carbon society.

GreenDeal-NET builds on previous successful networking projects, including the COST Action on Innovations in Climate Governance (INOGOV), as well as the Jean Monnet Network on "Governing the EU's Climate and Energy Transition in Turbulent Times" (GOVTRAN).

VUB BRUSSELS SCHOOL OF GOVERNANCE

The Brussels School of Governance is an alliance between the Institute for European Studies (Vrije Universiteit Brussel) and Vesalius College.

GreenDeal-NET
Governing the EU's Transition towards Climate Neutrality and Sustainability

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