

Towards Paris-compatible climate governance frameworks

An overview of findings from recent research into 2050 climate laws and strategies

Andreas Rüdinger, Judith Voss-Stemping, Oliver Sartor (IDDRI), Matthias Duwe (Ecologic Institute), Alina Averchenkova (GRI)

GOVERNMENTS BENEFIT FROM STRONG CLIMATE GOVERNANCE FRAMEWORKS IN MULTIPLE WAYS

Legally enshrined governance frameworks are crucial to establish and maintain political support for the low-carbon transition and facilitate the implementation of policies. They provide a platform for the political debate, define the tools to establish credible long-term goals and strategies, and set out clear transparency and monitoring mechanisms to enhance transparency and compliance.

NATIONAL CLIMATE GOVERNANCE FRAMEWORKS: IDENTIFYING KEY DESIGN FEATURES ALONG THREE CRITERIA

Firstly, the *robustness* of the framework defines its ability to steer the low-carbon transformation over time, depending on the degree of high-level political support, stakeholder participation, the legally binding nature of targets and mechanisms to adjust the framework over time.

In terms of *effectiveness*, it appears essential to secure the 'right' level of ambition of targets. In most cases, this might require a gradual approach to ensure the compatibility with the Paris Agreement (i.e. moving towards climate neutrality) and safeguard high levels of political support. Strong coordination between long-term planning and short-term implementation and clear processes to monitor, evaluate and adjust the strategy appear as key conditions to foster effective implementation.

Finally, the *institution set-up* can significantly foster both the robustness and effectiveness of the framework, based on the creation of dedicated institutions with clearly assigned powers, responsibilities and accountability mechanisms and a clear role for independent expertise.

EMBEDDING THE NATIONAL FRAMEWORK IN A MULTI-LEVEL GOVERNANCE APPROACH

The current reform of the EU energy and climate governance framework presents an opportunity for the EU and its member states to preserve their reputation as a climate leader and protect Europe's ability to reap the socio-economic dividends of being an early mover on climate action. However, to be fully effective and create additional value for the implementation of climate action at the national level, the EU framework has to ensure that the key elements of the Paris Agreement, including the ambition cycle and long-term vision, are fully reflected in the governance frameworks at the EU and national levels.

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1. INTRODUCTION: MOMENTUM ON LONG-TERM CLIMATE GOVERNANCE

Long-term climate governance frameworks are multiplying around the world. More and more governments are extending conventional time-frames of policy orientation (usually focused on time horizons of 5 to 10 years) and committing to ambitious long-term climate frameworks with objectives to be reached by 2050. A combination of enabling factors (political, legal and economic), most notably the adoption of the Paris Agreement in 2015 with its clear long-term objectives and the call upon all countries to communicate long-term low greenhouse gas strategies before 2020, strengthen this international momentum. In addition, in the EU the currently negotiated proposal for a Regulation on the Governance of the Energy Union demands future low-emissions strategies by countries, which thus makes another strong case for EU Member states to commit to long-term climate governance.

Although often used as synonyms, it is important to distinguish ‘long-term strategies’ and ‘climate governance frameworks’ conceptually, with the first being one component or output of the second. A national climate governance framework encompasses the *institutional set-up*, determining the key actors, their powers and responsibilities, as well as *key processes for decision-making*, which usually include planning instruments (such as long-term strategies), means of implementation (such as action plans or policy packages), and monitoring and review mechanisms.

As illustrated in Figure 1, the governance framework encompasses three levels:

- First, the governance framework consists of four main building blocks: a **legal basis** (e.g. a law

containing the framework), **long-term targets**, the establishment of dedicated **institutions** and processes to allow **stakeholder participation**, all of which affect the development of long-term climate strategies.

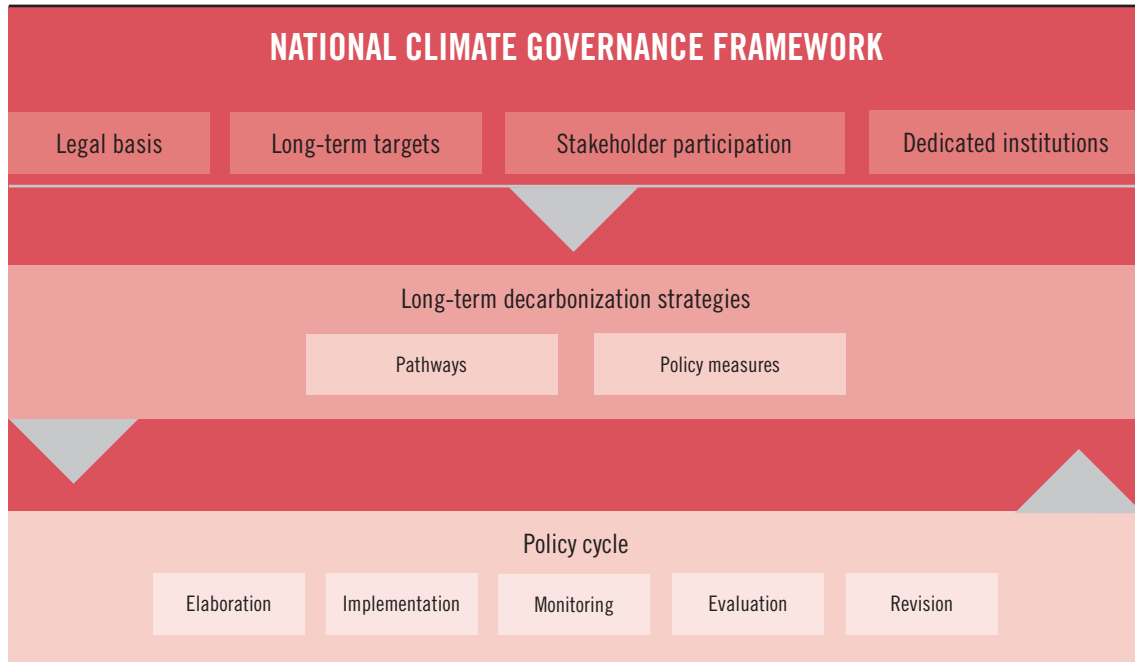
- Secondly, the governance framework includes different processes forming the “policy cycle” which integrates all the mechanisms that support the elaboration, implementation, monitoring, evaluation and revision of a long-term low-carbon strategy.
- Lastly, the long-term decarbonization strategy itself can be considered the main output and dynamic centrepiece of the climate governance framework, as the main guidance for policy implementation spanning from the short to the long term. It encompasses both the pathway to the long-term objective, and the policy measures that aim to turn it into reality.

Naturally, the nature, content and relative importance of each of these components vary greatly from one country to another and are necessarily shaped by political and legal culture.

Given the relatively nascent state of climate governance as a field of study and practice, and in particular the focus on long-term frameworks as a critical element of effective governance, the availability of expert analysis and assessment of the effectiveness of national long-term climate frameworks is, at this point, necessarily limited.

In particular, evidence-based guidance on how to design a robust institutional framework that is able to effectively steer the low-carbon transformation is only now emerging. The present research consortium consisting of IDDRI, the LSE’s Grantham Research Institute on Climate Change and the Environment, and the Ecologic Institute has

Figure 1. Differentiating governance frameworks and long-term decarbonization strategies



been collaborating over several projects in an effort to address this knowledge gap.¹ Most recently, the three partners have concluded three empirical studies drawing on a wide range of experiences with national and local climate governance frameworks. Two studies deal with an in-depth analysis of domestic experiences focusing on the example of France (Rüdinger, 2018) and of the UK (Fankhauser *et al.*, 2018). The third study takes a more aggregate stance and looks at several case studies focusing on six national, two sub-national and five city level frameworks (Duwe *et al.*, 2017). Together these studies provide insights for policymakers on the key design features and conditions for success of long-term climate governance frameworks.

Based on these previous studies, the present synthesis report seeks to draw upon the composite lessons learned at domestic and subnational levels and aims to respond to three fundamental questions facing policymakers and stakeholders at national and sub-national levels; namely:

- **Why do we need strong national climate governance frameworks and how do we get there?** This report seeks to elucidate why a growing number of countries, cities and regions with high climate ambition build overarching governance frameworks.

- **What are the key ingredients for an effective national climate governance framework?** Based on a review of the case studies produced by this research partnership and their evolving analytical matrix, the present analysis identifies several pillars contributing to an effective and robust climate governance framework.
- **What are the linkages and resulting challenges arising from the links between national and multinational governance frameworks?** The imbrication of climate governance frameworks at the national and EU levels represents a significant challenge. However, our analysis demonstrates that proactive engagement by member states with the rapidly evolving EU regulatory framework on climate and energy policy represents an opportunity to improve synergies and overall coherence. This could in turn lead towards more ambitious national and collective climate strategies and implementation.

The answers to these questions should support policymakers and stakeholders alike in formulating, fostering and contributing to effective national climate governance frameworks, capable of delivering the climate ambition set out in the Paris Agreement.

1. See for example joint IDDRI/Ecologic work (Sartor, Duwe *et al.* (2017)) on experience with national long-term strategies and the Grantham Institute's database on climate laws (Nachmany *et al.* 2017).

2. WHY DO WE NEED STRONG NATIONAL CLIMATE GOVERNANCE FRAMEWORKS?

Although the UK (2008) and Scotland (2009) are widely acknowledged as first movers in this context, the growing momentum behind the adoption of national long-term climate governance framework is apparent from the list of countries that passed climate laws since 2015, or decided to do so in the near future:

- Adoption of a new climate law:
 - France (2015), Finland (2015), Ireland (2015), Berlin (2017), Sweden (2017), Norway (2017)
- Decision to establish a climate law:
 - Spain (2016), Netherlands (2017), Germany (2018).

A key driver behind the timing of the current momentum is the Paris Agreement, adopted on December 12, 2015. But why is the Paris momentum so strong? And what value do governments hope to create by adopting overarching climate frameworks extending beyond standard 2 to 5-year policy cycles? The work on the range of case studies analysed by the research institutes involved has revealed which specific factors create added value for national climate policy. The ‘policy dividends’ can be roughly split into two main categories: 1) establishing political support and 2) enhancing implementation.

2.1. Establishing political support

A strong signal on the necessity of transformation towards deep decarbonisation

The Paris Agreement represents a global acknowledgement of the seriousness of the climate change threat and the scale of transformation required, as well as the crystallisation of political will across the international community to avoid this threat. Governments that adopt long-term climate frameworks incorporate this acknowledgement into national policies, demonstrating that they have accepted the necessity of a transformation to a decarbonised economy—and that they are working proactively towards it. Enshrining this policy imperative in a legal framework is the strongest way a government can commit to it. This commitment sends a signal to all stakeholders that a government ‘means business’ on climate change, and will remain committed over time. This stability and predictability allows stakeholder to engage, and adopt the new long-term policy objective as a basis for decision-making concerning their own strategies and investments.

Political backing for the transition - both at the outset and in the implementation phase

The transformation required by Paris compatible decarbonisation cannot be undertaken without political support across political parties and a broad range of stakeholders. The establishment of a climate governance framework allows the anchoring of stakeholder engagement activities, to allow a broad consensus to be forged regarding the need for such a framework and its various elements. This political buy-in is crucial not only to kick-start the appropriate level of policy development but to delivering effective implementation of the transformation over time.² Incidentally, reframing the debate with a long-term vision can also help to reduce resistance to measures in the short term that previously had been politically controversial. In effect, the long-term impulse and broader setting or conceptualisation of the policy challenge can advance the more immediate debate as actors move beyond their entrenched positions.

New political alliances possible beyond the climate agenda

A politically induced societal transformation cannot succeed unless aligned with broader objectives – and the process of establishing a long-term climate governance framework creates opportunities for building new political alliances in this area. Such links between the decarbonisation agenda and other national objectives regarding social and economic progress and development can be made in several points in time - either in the development process of the law or of a subsequent long-term strategy or via the institutional set-up.

A common fact base for a broad political consensus

Planning for and realising the fundamental transformations required for deep decarbonisation requires a clear analysis shared among all actors. Creating this fact base, sharing and discussing it with the relevant decision-makers and stakeholders can generate a common understanding of the underlying challenges and possible solutions, including on the impact on the economy as a whole as well as individual sectors. Creating such a joint understanding can help increase political feasibility and support, including in cases where

2. Parties to the Aarhus Convention have committed themselves to applying a set of key principles for public participation. However, also at EU level their application (and thus compliance with the Convention) needs to be monitored closely, including for long-term climate governance, as governments do not seem to fully grasp the benefits of proper stakeholder involvement (see Stockhaus, 2018).

there are economic or other socio-technical challenges (e.g. coal transition). The analysis shows that both stakeholder consultation and independent expert advisory institutions are key in this regard. While the former provides the basis for a just transition and to maintain political consensus on climate change, the latter can be an effective means to improve the quality of the political debate and establish a neutral base for rational decision-making.

2.2. Enhancing implementation in multiple ways

Increase probability of success through transparency and regular check-ins

An essential benefit of long-term governance frameworks is ensuring that short, medium and longer-term targets are actually met. Turning targets and (properly designed) monitoring and progress evaluation procedures into legally binding commitments for the actors involved improves adherence significantly. In short: it helps to keep policy-makers ‘honest’ – on the one hand because insufficient action will be made visible on a regular basis, but also because the traction of binding targets helps to support administrative co-ordination and investment in capacity building which are essential to implementation. Many national governance frameworks have additionally led to the creation of independent advisory institutions to provide further dedicated expertise in evaluating complex policy options and carrying out independent progress reviews.

Creating continuity over time across electoral cycles

While all laws, by definition, can be changed by the same means by which they have been adopted, once a law is in place, it becomes a powerful bulwark against inertia. The difficulty of repealing legislation makes the commitment system more robust against political changes and external ‘shocks’ – especially when legislation is adopted as a result of multi-party support. In effect, the ‘governance resilience’ offered by the rule of law can help to create a stable policy environment even across electoral cycles.

Coordinated policy development across sectors

A key ingredient to all effective climate governance frameworks is a process for deciding on the specific policies that will contribute to the progressive transformation of the economy and reduction of emissions. Establishing procedures and timetables for the elaboration and adoption of

policy packages at regular intervals across sectors (under the guidance of a long-term strategy and in connection with progress monitoring) produces a steady and reliable policy cycle. This might otherwise be left to initiatives by individual Ministers or Ministries and produce less predictable results for stakeholders and less certainty of progress towards the targets.

Pathways supporting transformational policies

Another important benefit of the long-term dimension as an innovation of establishing such governance frameworks is that it also helps to put short-term policy-making into a larger perspective.³ Setting out the long-term objective highlights the gaps between the actual pathway and what is required for 2050 goals and thus helps link short term action to long-term targets. This can help avoid the risk of high-emission lock-in and higher cost for reductions later on (including through stranded financial and infrastructure assets). A key additional feature in this context, often one provided as part of a broader framework through the elaboration of long-term strategies (or sectoral ones beneath it), is the definition of emission and technological pathways to achieving decarbonisation as important inputs to decisions on policies for the near-term. Beyond the technical analysis, these pathways can be critical in addressing the social dimension of the transition, by assessing the impacts of the transition on different groups of actors. Differentiating these impacts is a crucial step to identify adequate compensation measures and ultimately ensure a just transition that is paramount to achieve support across society as a whole.

Clear institutional set-up for effective coordination

Managing the adoption and implementation of a whole-economy decarbonisation strategy requires policy action in all sectors and across Ministerial portfolios. Spelling out the institutional set-up and interaction explicitly in a governance framework can improve integration across sectoral policies through better coordination and allocation of responsibilities as well as mechanisms to enhance accountability on the actual implementation of the objectives.

3. This insight had also already been in evidence in a previous study on EU national long-term strategy development, see Sartor, Duwe et al (2017).

3. THE PARIS TOOLKIT: KEY INGREDIENTS FOR AN EFFECTIVE CLIMATE GOVERNANCE FRAMEWORK

Each existing example of a long-term climate governance framework reveals a different and unique approach to their design, which is shaped by the distinctive forces of policy history, institutional framework, political economy, legal and constitutional culture and the respective needs and constraints of the policy in question. This reality indicates that there is no “one size fits all” approach, and no standardised blueprint for an effective climate governance system and how it should be brought to life. Nevertheless, most case studies share a number of key components and governance features that have enhanced both the robustness and effectiveness of the climate policy framework.

Based on Ecologic Institute’s analytical matrix of the key functions and design challenges posed by national climate governance (2017) developed within this project, the following section aims to serve as an inspiration for other countries, cities and regions and their stakeholders, through the illustration of best practices and challenges drawn from the various case studies.

In order to provide an overview, the analytical matrix distinguishes two guiding dimensions to assess the key pillars and design options:

- The first dimension relates to the **robustness**, i.e. the framework’s ability to stabilise and steer the low-carbon transformation over long periods of time, including the capability to adapt to changing circumstances. This includes factors such as the level and nature of political support (among policymakers and stakeholders), the legally-binding nature of targets, and the arrangements put in place within the framework to support policy responsiveness over time.
- The second dimension relates to the **effectiveness** of the policy framework in driving and implementing the structural transformations required for deep decarbonization. This includes key factors such as the quality (scope, quantification, milestones) and level of ambition of long-term targets, the coordination between planning and implementation of policies, as well as clear governance processes to monitor and evaluate policy implementation to provide for timely adjustments when needed.
- The **institutional set-up** can be cited as a third overarching category which contributes to both the robustness and effectiveness of the governance framework.

Table 1 illustrates the breakdown of the two main dimensions (robustness and effectiveness) into the underlying influencing factors and associated design features for the assessment of climate governance frameworks. Analysis shows that these design features can be shaped in a variety of ways.

The following section thus provides a more detailed assessment of each design feature listed below in combination with insights and lessons learned from the case studies.

Table 1. Breakdown of overall effectiveness to individual design features

Effectiveness sub-themes	Influencing factor	Design feature
Ability to steer a long-term course	Political commitment	Support within the political system (level and depth) Extent of stakeholder participation – to create buy-in for framework and policies
	Legal bindingness	Formal legal status of the framework and individual elements
	Adaptability	Process for review foreseen at regular intervals? Important element: targets
Transformational potential	Quality of the long-term objective	Ambition of emission reduction goal, how it has been expressed and enshrined as the target
	Policy impact	Level of policy detail, process for policy creation and adoption
	Implementation stringency	Regular reporting, progress monitoring, gap filler procedures, enforcement
Overarching factor (contributing to both)	Institutional set-up	Dedicated capacity or institution? Distinct function? Strength of the mandate?

Source: Duwe *et al.* (2017)

3.1. Robustness of the governance framework: the ability to steer the low-carbon transition over time

3.1.1. Political Support

A strong political consensus is of paramount importance to make an ambitious climate governance framework politically and socially viable and ensure it can implement the structural transformations required for deep decarbonisation, while providing the necessary level of stability in order to resist to change in politics and circumstances (economic crisis, shifting priorities, etc.).

Several factors that might enable broad political support can be highlighted. First of all, **the ability**

to seize or create political windows of opportunity. In several jurisdictions (the UK, California, Scotland, Mexico, Germany), the adoption of the governance frameworks was stimulated by the momentum generated in 2007 by the publication of the fourth assessment report of the International Panel on Climate Change, which gave the most updated scientific information on the wide-spread risks of anthropogenic climate change, and contributed to significant climate governance innovation the same year or shortly afterwards.⁴ Similarly, the 2015 Paris Agreement translated into a new wave of long-term climate laws (Sweden, France, Norway, Finland, etc.).

It is also interesting to notice how in some countries, **a narrower but highly politicised debate on a specific energy issue generates an opportunity to push a broader and more ambitious climate strategy.** In both Germany and France, what started as a domestic debate on the future of nuclear eventually became the starting point for an ambitious strategy on the low-carbon transition until 2050.

A third important factor relates to **the exposure to the climate debate over time.** In many cases, it took several years to familiarize policymakers and stakeholders with the climate challenge and solutions in order to progressively shape the level of support needed to pass ambitious climate legislation, as can be illustrated by the policy process in Ireland (8 years until the adoption of the Act) or in France (3 years of sustained public stakeholder debate and one year of parliamentary negotiations).

Cross-party policy development is another lever to enhance political support, as shown by the UK, Mexican, German and Swedish examples, where the efforts to establish a multi-party commission to prepare a national climate law translated into broad political support beyond the governing majorities.

Strategies to de-politicize the elaboration of climate policy frameworks can be equally important, for example by handing the preparation over to independent authorities or commissions, as illustrated by the decisive role of the Californian Air Resources Board and the role of independent experts in the French national debate on the Energy Transition which preceded the 2015 law.

Another aspect can be linked to the **political framing and narrative** of the climate policy

initiative, which needs to be context specific. In many case studies, the implementation of a climate governance framework was based on an initiative exclusively focused on the climate agenda, the UK Climate Change Act being the most prominent example. In other cases, the success depended directly on the ability to provide a more inclusive political narrative (for example on economic development or sustainable future), where climate policy represents one pillar among others, as illustrated by the embedding of climate policy into the larger “Bogotá Humana” development plan in Bogotá, Colombia or by the “positive vision” created in Sidney.

Eventually, the engagement of stakeholders can play a major role in setting the political agenda, as illustrated in particular by the “Big Ask” public campaign in the UK, which mobilised a significant range of NGOs spanning environmental, church, trades unions, youth and women’s organisations - followed by a similarly broad initiative in Ireland.

3.1.2. Political commitment and the involvement of stakeholders

The direct participation of stakeholder groups at the various phases of elaboration and implementation of climate policies appears to be paramount to strengthen the political buy-in from all actors, which also helps increase the level of transparency and compliance for the actual implementation of the policies. While the processes for stakeholder involvement greatly differ among countries, several aspects can be highlighted from the case studies:

- Organizing a representative stakeholder dialogue can be a way to **create a level-playing field among the different interest groups**, thereby enhancing transparency on the overall process and avoiding a specific group of stakeholders having or being perceived to have excessive influence;
- Even though an open stakeholder consultation can be considered complex and time-consuming, it is critical to identify and address key issues, thus **strengthening buy-in and reducing (or avoiding) the risk of substantial opposition which might endanger the adoption or implementation of the climate governance framework at later stages;**
- Several case studies also highlight the relevance of **institutionalizing stakeholder involvement in the policy process through dedicated fora or institutions.** This is interesting insofar as it strengthens overall commitment and helps overcoming the frustration related to “one-shot” initiatives, where interest groups are consulted at a specific stage but not involved later on.

4. The Nobel Peace Prize awarded in 2007 to the IPCC and Al Gore for their efforts on building and disseminating knowledge on anthropogenic climate-change as well as the publication of the Stern review on the Economics of climate change can be cited as further factors triggering political change that same year.

3.1.3. The legal nature and bindingness of the framework

The legal nature of the climate governance framework remains a core factor to guarantee its effectiveness and stability over time. Insights from the case studies strongly indicate that **the strength of legal basis is a key design feature to enhance credibility, political commitment and the overall stability of the climate framework over time**, providing a clear anchor for all subsequent policies and increasing pressure on governments to actually deliver on the implementation. Inversely, without a strong legal basis, climate strategies are constantly at risk of becoming simple declarations of intent even in countries where climate ambition is traditionally high – as for example in Germany which is now struggling to meet its self-determined economy-wide climate targets (which are not enshrined in law) despite years of climate leadership.

While the definition of legally binding long-term targets is a first (and essential) step, the effectiveness of climate laws also relies on their **ability to establish compliance mechanisms** through appropriate plan making, regular implementation monitoring, evaluation and revision processes and oversight by dedicated institutions which ultimately form the backbone of the governance framework, ensuring that the targets are delivered in practice (see sections 3.2.4 and 3.3).

Another critical aspect that can be highlighted concerns **the assessment of the level of legal bindingness in practice**. Indeed, the extent to which governments feel accountable towards legally binding targets directly depends on **the ability of other actors to trigger a judicial review** in the case of under-achievement, as illustrated by the existence of climate-related legal action in a growing number of countries (Nachmany *et al.* 2017). Nevertheless, in many countries (such as France) the possibility of judicial review remains greatly limited due to different factors (characteristics of the legal system, resource constraints, etc.), thus requiring a focus on alternative compliance mechanisms and trust in the government's compliance habit.

3.1.4. The adaptability of the climate governance framework

Adaptability refers to **the inclusion of specific procedures that enable the timely revision of the climate governance framework itself**, a feature that is also consistent with the process of regular stocktaking introduced by Article 4 of the Paris Agreement. Three complementary layers of policy adaptation can be distinguished.

First of all, **the adjustment and strengthening of targets** and milestones in line with new scientific evidence, international commitments and the need to readjust the decarbonisation pathway over time to maintain coherence. The most pressing challenge in this regard is the transposition of the ratchet mechanism introduced by the Paris Agreement at the national level. Indeed, most countries currently do not have long-term targets that are fully compatible with the overarching objective of the Paris Agreement, which implies a move towards net-zero emissions by 2050 at the latest for industrialized countries. Depending on the level of political support and prior level of ambition, adopting such an ambitious target can be challenging. One example of an existing national mechanism that provides for increasing ambition over time is the UK's carbon budget approach. An important factor in the success of this process as a mechanism for progressive ambition cycling has been having a clearly articulated long term target in the legislation together with pre-set processes and timelines for when decisions on each carbon budget are to be made (roughly 12.5 years in advance in the UK) and clear criteria for decision-making about revising near and longer term ambition (e.g. scientific evidence, role of expert advisory body, international and EU developments, etc.).

In this context, **several design features can be used to progressively improve compatibility with the Paris Agreement**. First of all, the possibility to **define a target range** (rather than a single value) with a clear minimum threshold and the possibility to substantially increase ambition (as illustrated by the EU objective of reducing GHG emissions by “at least” 80% and up to 95% by 2050). Secondly, specific stocktaking provisions to **clarify when and how targets should be adjusted**, ideally starting with a transparent science-based approach. And thirdly, a clear **commitment towards the ratcheting approach**, implying that targets can only be modified to increase ambition rather than the contrary. Reviews of the long-term target itself are also possible in this context, based on review procedures. In fact, Scotland has updated its own target based on inputs from the UK Committee on Climate Change, post-Paris. France is similarly updating its own legislation with a new (more ambitious) target formulation, and Mexico has also reviewed its legislation recently.

The second layer refers to **the monitoring, evaluation and revision processes focusing on the substance of policy implementation and achievement of targets**: in most cases, the governance framework provides clear provisions for regular stock taking and adjustment of the policies (annual progress reports to Parliament for

example, and frequent updates of policy plans), which is essential to address implementation gaps (see section 3.2.4).

A last aspect refers to the (often neglected) **review of the operational structures and processes of the governance framework themselves**. Considering the complexity of the low-carbon transition, its long-term time horizon and the lack of prior experience, the establishment of a climate governance framework essentially remains an iterative process of “learning by doing”. Thus, defining clear provisions to assess whether new institutions (such as an independent expert committee) or processes (e.g. the evaluation of policy implementation) perform effectively can represent a core challenge to improve the governance framework over time.

3.2. Enhancing the effectiveness of climate governance frameworks

3.2.1. The nature, scope and level of ambition of climate targets

Clear long-term objectives stand out as the single most important factor to drive the low-carbon transition over time. Nevertheless, the way these targets are defined varies greatly among case studies. Several key challenges and best practices can be identified.

First of all, considering the **absolute strength and level of ambition of climate targets**. As a matter of fact, only few jurisdictions currently have climate objectives that are fully in line with the Paris Agreement, i.e. **aiming for net-zero emissions by 2050**. This again reinforces the argument on the importance of defining clear stocktaking mechanisms to readjust and ratchet-up the climate objective over time (section 3.1.4).

Secondly regarding the **time horizon of the targets**. In the process of the Paris Agreement, most countries have focused on the definition of targets for 2030 (as part of their nationally determined contributions). Nevertheless, best practices and the Paris Agreement itself, indicate the importance of providing a clear long-term vision that extends at least until 2050 in order to provide a coherent vision for tackling the low-carbon transition and avoid delayed action or the shocks of policy failure and lock-in.

Thirdly with regards to the **formulation of targets**: while in some cases, there are no quantitative targets at all, most countries and cities define targets either in relative (e.g. carbon intensity of GDP, per capita emissions), others in absolute terms (emission reductions relative to a reference year). The feedback and analysis of the case

studies however suggest that targets expressed in absolute terms relative to a commonly accepted base year (1990) provide the clearest signal for ambition and action.

Another key challenge relates to the **scope of climate objectives**. The case studies highlight the importance of defining targets that encompass all emission sources, in order to drive the deep decarbonisation for the economy as a whole. In the past, the definition of targets focused at energy-related emissions (limited to CO₂ emissions in many cases) represented a common practice. While this approach was long-time considered relevant (insofar as the energy sector represents the lion’s share of total emissions in most cases), scientific evidence suggests that in order to reach climate neutrality, all emission reduction potentials have to be tapped, thus requiring an approach targeting the economy as a whole.

An additional challenge is related to the **definition of climate neutrality targets**. Or to put it differently: there are as many definitions of climate neutrality as there are countries who have made a pledge towards it. Most countries which have announced an upwards-revision of their long-term mitigation targets following the Paris Agreement (such as France and the UK) have yet to provide a clear definition regarding in particular the relative importance attributed to domestic reductions, international offsets and carbon sinks.

Sweden can be considered a clear best-practice example in this regard. In 2017, Sweden adopted a climate law which not only sets a climate neutrality target by 2045 (with a clear commitment to negative emissions afterwards), but it does so by specifying the respective weight of domestic emission reductions (at least 85% compared to 1990) and carbon offsets, while leaving natural carbon sinks out of the equation.

3.2.2. Bridging the gap: interim targets and milestones

The ability to establish a clear link between policy implementation in the short term and the long-term climate objective represents another major challenge for effectiveness. Regardless of the inertia of energy infrastructures and the fact that most investment decisions today directly affect our carbon footprint for the coming three or four decades, long-term targets often seem far away and out of scope for day-to-day politics.

Therefore, the effectiveness of a climate governance framework also depends on the existence of mechanisms which ensure that current policy measures are systematically evaluated against their compatibility with the long-term ambition.

The **definition of milestones and interim targets** are a practical means to achieve this by establishing a coherent decarbonisation pathway over several decades (including specific targets for 2020, 2030, 2040) and assess challenges related to the pace of transformation (backloading and delay of action, risks of generating stranded assets, etc.).

In this context, **the definition of carbon budgets** (as applied in the UK or more recently, by France) can once again be highlighted as a best practice governance tool, insofar as they help establishing a continuous process of interim target setting, monitoring and reviewing that is paramount to steer the transition over time.

While indispensable to display strong climate ambition and guide policy action, **emission reduction targets on their own do not trigger the key drivers for decarbonisation**. Thus, supporting targets related to the main drivers of emission reductions (such as energy efficiency in buildings, decarbonisation of transports, renewable energies, carbon pricing, sustainable agriculture and forestry) constitute another key design feature to elaborate a coherent strategy covering the short and long term. In other words, long-term whole economy climate governance frameworks do not replace the need for sectoral targets and interventions. Instead, they function to ensure that those measures are calibrated at the appropriate level of ambition and create a stable and holistic governance infrastructure for monitoring their implementation and adaptation over time.

3.2.3. Policy impact: combining targets and key measures

Any long-term objective is ultimately only a declaration of intent, unless backed with concrete measures for implementation. The different case studies show very different approaches in this regard. Most do not include specific measures in the legislation (or policy documents) that contains the overarching climate governance framework, but some use the adoption of these legal frameworks as an opportunity to integrate a myriad of detailed policy actions. Both approaches can have their strengths and weaknesses.

The French case can be quoted as an extreme example: the 2015 Energy Transition Act contains a total of 215 articles on 78 pages, including a variety of partly very technical measures together with provisions setting out the climate governance architecture. While this can be appreciated as a clear signal to provide all implementation measures beforehand, it comes at the risk of much greater complexity and a loss of visibility

for the core governance framework. In the French case, the level of detail was also one of the reasons the law spent over 1 year in parliament (and generated 5000 amendments), while most measures had no critical importance for the overarching climate plan as such. In the UK case study, on the other hand, most interviewed experts noted that the absence of provisions concerning sectoral policies in the Climate Act and the flexibility it afforded to future governments as to the choice of sectoral policies helped generate political support for its adoption and provided successive governments with the needed flexibility to adjust policies to economic circumstances.

Based on the case studies, the following two guidelines can be identified. First of all, it can be relevant to **include key transversal policy measures targeting the economy as a whole** (such as carbon pricing or cap-and-trade mechanisms) directly into the climate legislation, given their strategic importance for all sectors. Secondly and most importantly, **the governance framework has to establish clear processes to ensure the timely elaboration, adoption and review of existing and new sectoral policies**. In most cases, this is performed through separate implementation or **action plans** that have to be presented at regular intervals (every four years in Sweden, every five years in France, Germany and the UK and annually in Scotland).

3.2.4. Implementation stringency: progress monitoring and revision of policy action plans

Monitoring processes are a key building block of long-term climate governance frameworks. Regular reporting and evaluation fosters accountability and transparency over the policy process, in order to strengthen compliance.

A key challenge is related to the **transparency and credibility** of the monitoring process. In many cases, the monitoring and evaluation of policy implementation is performed by government institutions themselves, which bears the risk of being both the judge and the subject of evaluation. **Transferring this task to an external body**, or at least, having an independent institution that publishes a separate progress report can therefore greatly enhance independence and credibility, gives politicians cover for or distance from controversial decisions and enhances the quality of policy evaluation itself. The UK Climate Change Committee appears as a best practice: as an independent statutory body, it is directly in charge of reporting activities and the UK Climate Act foresees a clear obligation for the government to respond to its recommendations.

Based on the UK experience, many other countries⁵ (such as Germany, France, Ireland, Mexico, and Sweden among others) have implemented independent expert committees to organize an independent monitoring process and provide advice on the elaboration and implementation of long-term strategies. However, the international review shows that the specific mandate and institutional setting of these expert committees can vary a lot, ranging from a purely consultative role (in France for example) to an institutional remit with strong political influence, as displayed by the UK CCC.

Another point of attention concerns **parliamentary oversight**. While in some cases, the Parliament has a clear mandate for supervising the monitoring process to strengthen accountability by the government (for example in the UK, Scotland, Ireland and Sweden), the role of the legislative is merely consultative in other cases (such as France), which is not only a risk in terms of transparency, but can also greatly reduce the political buy-in over time.

A third major challenge concerns the fact that the value of monitoring reports directly depends on the existence of clear compliance mechanisms to push for the revision of policies, if targets are not reached. In the absence of direct sanctions or penalties, the definition of clear governance processes (monitoring, evaluation and revision of action plans) thus plays a crucial role in ensuring that implementation gaps are correctly identified and acted upon. The insights from the case studies suggest that in order to be effective, these processes should be planned as a sustained **policy cycle**, including regular monitoring (yearly or biannual progress reports), stocktaking (evaluation of policy implementation and identification of implementation gaps) and regular revisions of the policy action plans (every 4 to 5 years).

3.3. Institutional set-up: the creation of dedicated institutions

In many cases, the establishment of a comprehensive climate governance framework also includes the creation of dedicated institutions. These institutions can be of varying nature, depending on the existing institutional design and identified needs. In all cases, the establishment of a clear mandate (influence on the policy process or power to regulate) is crucial to foster accountability. Three specific functions stand out:

- **Policy co-ordination Institutions created within the government:** creating a specific governmental institution or committee tasked to ensure policy co-ordination can be a highly effective means of ensuring that all government departments are adequately engaged and that climate change is taken-up as a transversal or cross-cutting priority in the different policy sectors. Interministerial commissions (such as in Mexico) are an effective way to implement this type of institution.
- **Independent expert committees:** in many cases, independent expert bodies are created to provide additional expertise and function as “watchdogs” of the governance process. The analysis indicates however that their actual influence and added value within the policy process directly depends on **the strength of their mandate, expertise and the dedicated resources** to fulfil their responsibility. The comparison of the UK Climate Change Committee and French Expert Committee provides a blatant illustration: while the former has been created as a statutory body with a strong mandate and significant resources to achieve it, the latter has no explicit legal existence, no budget and a very weak consultative mandate, which greatly limits its range of influence.
- **Involvement of stakeholders:** in several cases, the governance framework also creates specific institutions to ensure a regular (or permanent) involvement of stakeholder groups at all stages of the policy process. This has for example been achieved in France through the creation of a *National Council for the Ecological Transition*, gathering representative interest groups, the Environmental Justice Advisory Committee in California, or by the Berlin Climate Protection Council. While this can be of great added value to foster political support, transparency and buy-in, it presents the same challenges mentioned above: their influence directly depends on the clarity and strength of the mandate provided within the governance framework.

5. Examples include Germany, France, Ireland, Mexico and more recently Sweden. New Zealand is also planning to set up an expert committee inspired by the UK CCC.

4. EMBEDDING THE NATIONAL FRAMEWORK IN A MULTI-LEVEL GOVERNANCE APPROACH

National climate governance frameworks are intrinsically connected to the international processes established under the United Nations Framework Convention on Climate Change (UNFCCC)—and to the European level for European Union (EU) Member states. This section discusses the implications of the Paris Agreement’s objectives and procedures for national governance systems—and for EU Member States also the link to the existing (and future) EU legislative framework.

Linkages between national and international Governance

At the international level, the Paris Agreement of December 2015, sets up an elaborate climate governance architecture in order to strengthen the international response to the global threat of climate change. Properly implementing this system requires all Parties, including the EU and its Member states, to integrate the overall logic (including timelines and ambition) of the Paris Agreement into their own respective governance frameworks.

Two key elements of the Paris Agreement are of particular relevance for domestic climate governance frameworks.

First, one of the core successes and the centrepiece of the Paris climate architecture is its **iterative ambition cycle** to ratchet up the ambition of Parties’ national determined contribution (NDCs): The Paris Agreement establishes regular global stocktakes on its implementation to assess the collective progress to achieve its purpose and long-term goals. The first global stocktake takes place in 2023 and every five years thereafter. Already this year, in 2018, the so called “Talanoa or Facilitative Dialogue” (TD), initially meant to be a rehearsal and smaller in scope than the regular global stocktakes, is in full swing and will culminate at the climate conference in Katowice in Poland. Parties being informed on the results after the TD and each following stocktake should commit to an enhanced NDC with the aim of iteratively augmenting their domestic climate ambition.

The underlying idea of the ambition cycle is to create sufficient global momentum around this mechanism and its informative outcome which would in turn create both domestic and international pressure for more ambitious NDCs (see also Bodle, Donat, Duwe, 2016). Thus, Parties need to ensure that their domestic climate governance systems are well aligned with the demanded timeline and ambition of this iterative process. Doing

so can help to provide cover for more ambition at home, while supporting the implementation of the Agreement at the UNFCCC level.

The second important key element of Paris Agreement is its **long-term vision**. According to Article 2 of the Agreement, global temperature rise needs to be kept well below 2 degrees with efforts towards 1.5 degrees. It further specifies that global emissions need to peak as soon as possible followed by rapid reductions thereafter in order to achieve a balance between emissions and sinks in the second half of the century. Furthermore, the Paris Agreement (with supportive text in the decision giving effect to the Agreement) also calls upon Parties to develop long-term low greenhouse gas emission development strategies by 2020. A special role is dedicated to developed countries, like the vast majority of EU countries, that should take the lead in undertaking emissions reductions and enhancing their efforts in mitigating the impacts of climate change. Therefore, for the development of these long-term strategies, Parties need to incorporate not only structural and deep decarbonisation commitments, ideally on a sectoral basis, but also embark on a pathway that achieves global GHG neutrality after 2050 (as per the PA’s Article 4). The “leadership principle” implies that developed countries need to achieve neutrality much earlier (followed by negative emissions thereafter). Furthermore, Parties’ long-term strategies should give guidance to short- and medium targets laid down in Parties’ NDCs, ideally corresponding to structural transformation pathways (for these to be consistent with long-term targets). On the other hand, experience with implementing NDCs, that are adjusted on a frequent basis over time, can also inform long-term strategies, that eventually need adjustments to adequately reflect progress towards the Agreement’s long-term vision.

Countries’ domestic climate governance frameworks should reflect both the NDC ambition cycle as well as the long-term vision set out in the Paris Agreement.

For EU Member States, there is yet an important layer between national and international governance, which is the European level, with the EU as the formal nexus. This is explored in the following.

Linkages between National and European Level Governance

The EU, historically a pioneer in environmental legislation, is currently struggling to maintain its reputation of being a global climate leader. For example, independent analyses rates the EU’s NDC, to commit to a 40% reduction of GHG emissions by 2030 compared 1990, as insufficient

(Climate Analytics *et al.* 2018, PBL 2018). To reinvigorate and strengthen climate ambition and EU climate legislation, the EU already adopted important legislation on carbon pricing and GHG targets in 2017 and is or is about to finalise negotiations on the major legislative “Clean Energy for All Europeans” package in 2018.

The Clean Energy Package supports the EU’s commitment to the Paris Agreement as well as the overarching concept of striving towards a European *Energy Union*. The packages different elements cover a wide range of policy areas and include a proposal for the Governance of the Energy Union (European Commission, 2016). This proposal of a so-called Governance Regulation seeks to create a long term and whole economy climate and energy governance framework which aims to ensure that “policies and measures at various levels are coherent, complementary and sufficiently ambitious” and is a novelty in European climate legislation. The core element is the introduction of integrated national climate and energy plans (NECPs) in which Member States lay out how to implement the objectives of the Energy Union (including on greenhouse gases, renewables and energy efficiency), including, ultimately, the EU’s NDC.

The case studies explored in the analysis that underpins this synthesis report show that a number of relatively sophisticated long-term climate governance frameworks, mostly in European countries, have already been set up. Furthermore, the studies undertaken acknowledge interaction of climate governance at national level and at EU level to be critical for moving beyond current ambition. Against this background, two questions need to be addressed:

- First, what is the appropriate **role and added value of the EU** for national level governance of countries that already have relatively good climate policy frameworks in place?
- Second, what needs to be considered to ensure a **sound linkage** between the national climate governance frameworks and governance at EU level?

With regard to the first question, the EU has played an important role in getting its Member States started with long-term climate governance. First, the Monitoring Mechanism Regulation (MMR) of 2013⁶ which for the first time obliged EU Member States to develop a long-term climate strategy—without, however, specifying a concrete deadline for doing so.⁷ Although there is

little guidance on the process and content, countries were required to contemplate key emissions and abatement drivers to be addressed within a domestically feasible long-term strategy. Second, through national renewable energy action plans under an EU directive of 2009⁸ and later national energy efficiency action plans under an EU directive of 2012⁹, Member States need to plan for and then present regular progress reports on the development of renewable energy sources and energy efficiency improvements. Member States are thus not only bound to have sufficiently elaborate reporting systems but they also benefit from regular information on national trajectories which allows them to take deliberate, well-informed policy decisions. Moreover, the EU’s role of providing oversight and some push – including for ambitious Member States has historically proven useful as a support to national voices also pressuring their governments to implement their commitments (Duwe *et al.*, 2016).

Meaningful value-added to countries with relatively ambitious national frameworks might also be provided through a renewed focus on creating (or at least not inhibiting) enabling environments for “leader” countries to facilitate better implementation of sectoral transformations. Our national reports showed that even in countries with high ambition and relatively robust governance architectures, implementation gaps can remain in terms of deep sectoral change. In some cases, filling these implementation gaps can raise questions that would concern regional partners or even EU-level instruments and laws more generally. For example, some countries may be willing to pursue national carbon pricing reforms that go beyond or at least hedge the risk of the EU ETS CO₂ price uncertainty. In some cases, they may wish to alter the market conditions for renewable energy integration—e.g. through greater use of long-term contracting—in ways that may require some support from EU Commission (e.g. the directorate-general of Competition) and through State aid. Similarly, creating the

communication entitled “Roadmap for moving to a competitive low carbon economy in 2050”, which was the first document with a long-term strategic climate policy outlook at the EU political level and could be counted as a step toward a first EU long-term strategy. It certainly sparked some interest among EU Member states to develop similar 2050 roadmaps or strategies, but political controversy over adopting key messages from the roadmap as Council conclusions let some of those national initiatives fold again over time (e.g. in Slovenia).

8. See European Parliament and Council of the European Union (2009).

9. See European Parliament and Council of the European Union (2012).

6. See European Parliament and Council of the European Union (2013).

7. In 2011, the European Commission published a

necessary market conditions to drive low-carbon breakthrough innovations in sectors like steel, cement, aluminium or chemicals, may also require demand side support instruments that need to be squared with internal market rules.

With regards to the second question, two aspects for a sound functioning of national policy frameworks and governance at EU level (looking at both the NECP and national long-term strategies processes), need to be considered.

Member States' NECPs extend over a ten-year time horizon, beginning with the period 2021-2030 (European Commission 2016). Our case studies show that Member States national long-term governance frameworks, however, contain long-term targets, which are furthermore often broken down into milestones—as a reference point to assess progress. Setting respective long-term targets is not required within the NECPs process. Neither do national long-term climate strategies as proposed by the Commission contain milestones or interim targets nor do they refer to the NECPs process. This additional information however would contribute to coherence between short- and mid-term targets with the long term strategy and would also incentivise necessary review cycles. With regards to the current negotiation process of the governance regulation, the Commission and European Parliament texts propose that the NECP should be 'consistent with' national and EU mid-century strategies which must be adopted in parallel to 2030 plans. In addition, the recent European Council Conclusions invite the Commission to take into account national plans¹⁰ when developing its long-term strategy indicate an opportunity towards more consistency between the EU and MS plans and strategies.¹¹ Furthermore, the European Parliament proposed a binding documentation template for Member States' long-term strategies detailing a 2030 target and decadal milestones which would be line with the NECP process. Thus, the European Council Conclusions may lay the ground for more buy-in of Member States into the EU long-term strategy and the proposal by the European Parliament shows how to possibly operationalize more consistency between the national long- and short-term objectives. Yet, how these proposals will be anchored in the new governance legislation remains to be seen over the course of 2018.

Furthermore, NECPs required at EU level put a strong focus on energy following the five dimensions of the Energy Union. EU Member States' upcoming planning obligations are organised around these five dimensions as required by a respective documentation template. Implementing the Paris Agreement implies structural and deep decarbonisation which encompasses all emitting, including non-energy-related, sectors. The current structure of the NECP template does not require information on separate economic sectors—albeit having an economy-wide scope—and thus does not provide incentives to develop dedicated sectoral decarbonisation strategies at first hand risking blind spots in key sectors such as transport and agriculture.

Finally, to ensure a sound linkage between the national climate governance frameworks and governance at EU level, the EU should take into account the 5-year iterative ambition cycle of the Paris Agreement. That would translate into a regular 5-year revision of MS' NECPs and long-term strategies which permits to account for changing technological assumptions as well socio-economic developments whereby also the sequence of revision processes needs to be aligned thus enabling a coherent and more ambitious national pathway. The Governance Regulation should ideally clarify how and when the 5-year iterative ambition cycle applies giving indication and guidance to Member States which is currently insufficiently addressed.

To sum up, to comply with the logic set out in the Paris Agreement, national long-term climate governance frameworks need to incorporate the PA's ambition cycle and long-term vision. The EU can significantly contribute to enhanced national climate governance frameworks though a renewed focus on the facilitation of the needed structural transformation in Member states while ensuring that relevant processes get started. The design and implementation EU climate governance in particular the Governance Regulation as part of the Clean Energy Package provides opportunities for a sound linkage between national and EU climate governance and facilitating coherent and ambitious climate governance systems at MS level. Thus, EU as a whole would live up to the ambition laid down in the Paris Agreement. ■

10. The wording « plans » as such does not preclude NECPs and thus embraces consistency with NECPs and national long-term climate strategies.

11. See European Council (2018), European Parliament (2018), European Commission (2017).

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Towards Paris-compatible climate governance frameworks

An overview of findings from recent research into 2050 climate laws and strategies

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