The landscape of national climate framework laws in Europe

A status update – Summer 2023

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Contents

1 Introduction

> **Box 1: How we define '*climate framework law'***
>
> Climate framework laws are legal instruments passed by legislatures that enshrine a binding long-term objective for climate action and, at least to some degree, the necessary processes, institutional responsibilities, and other mechanisms to achieve it.

National climate framework laws have become a common approach for establishing the governance machinery required to tackle the transition to a climate neutral society. While there is no fully agreed upon definition, we use the term 'climate framework law' (in the past referred to as 'flagship' law, see Townshend et al., 2011) to describe legal instruments passed by national legislatures that enshrine a binding long-term vision for climate action and, to varying degrees, the necessary processes, institutional responsibilities, and other mechanisms to achieve it (Duwe and Bodle, 2020; McIlhennon and Brennan, 2023; Muinzer, 2020). Such laws can be distinguished from other forms of climate legislation, especially those focusing on specific sectors as well as other non-legislative instruments, like strategies or executive actions.

As of August 2023, **nearly half of European countries have a climate framework law** as defined above and others are on the way. While no two laws are the same, they tend to draw on a set of common elements, such as targets, planning, monitoring, expert advisory bodies, institutional arrangements, and participation (Averchenkova and Lázaro-Touza, 2020; Duwe and Evans, 2020; World Bank, 2020). Although not required by EU regulation, climate framework laws are one way to operationalise the EU-wide target of net-zero emissions by 2050 at a national level (CAN Europe, 2022). A closer look at the substance of these laws thereby offers a sense of national and public ownership and agenda-setting as well as European national governments' commitment to the common EU project of climate neutrality.

To document and assess the different qualities of these laws in Europe as they are adopted, Ecologic Institute has developed a **Climate Framework Laws Info-Matrix**.[1] This online resource aims to collect, organize, and present information on the status and substance of national climate framework laws in Europe, currently encompassing the 32 European Environment Agency (EEA) member countries plus the United Kingdom. The matrix presents a side-by-side comparison of existing laws and their provisions. Importantly, to provide a comprehensive picture of the dynamic landscape of climate legislation in Europe, the matrix also lists climate laws which may not qualify as 'true' framework laws in full.[2] The resource is publicly available and is managed by Ecologic Institute. It undergoes continuous crowd-sourcing quality control and verification of accuracy through the input of its users, who are invited to submit comments and edits for review.

In this memo we offer a readout of key information contained in the Info-Matrix and thus a brief update on the status and substance of national climate laws in Europe, with a focus on framework laws. The following Section 2 considers the growth in climate framework laws over time, whereas Section 3 provides a summary assessment of their diversity. Section 4 then investigates five main provisions, often referred to as 'good practice' elements, in more detail. Section 5 concludes with several key takeaways.

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[1] To view and explore the Climate Framework Laws Info-Matrix visit: https://www.ecologic.eu/19320.

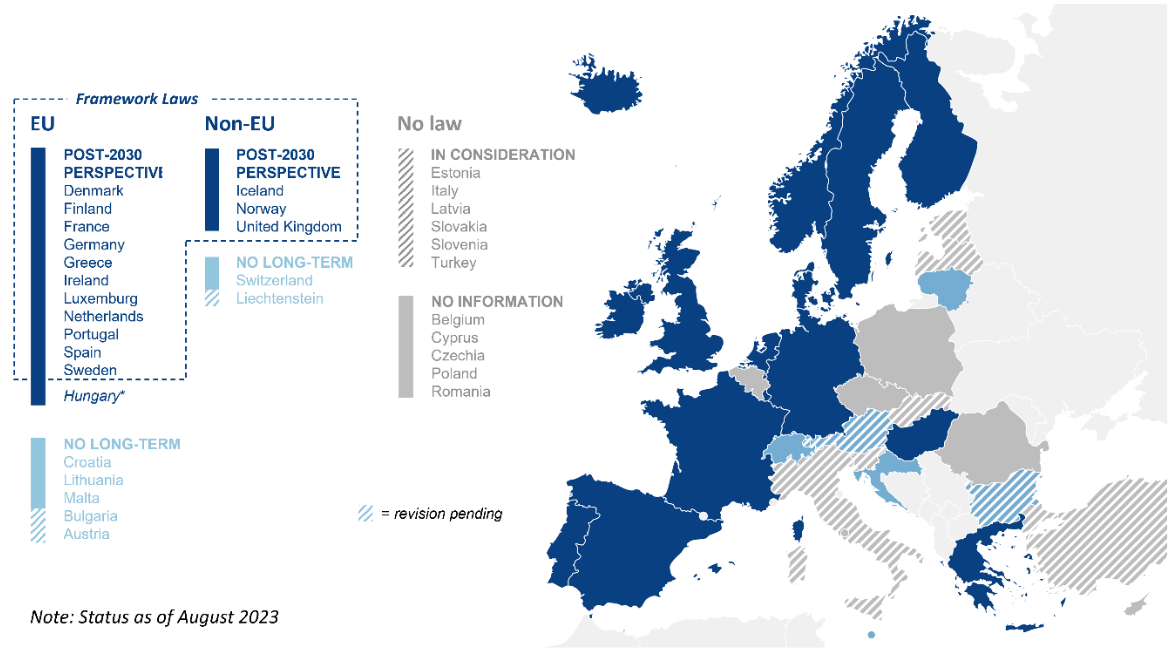
[2] In this paper, we use the terms 'climate laws' and 'climate framework laws' differently. The former refers to all laws covered by the Info-Matrix whereas the latter is a specific subset defined in Box 1—in short, while all framework laws are climate laws, not all climate laws are framework laws.

2 A dynamic landscape

Across the 32 European Environment Agency (EEA) member countries plus the United Kingdom (UK), 22 governments have enacted some form of climate law, albeit only 15 of these include objectives beyond a time horizon for 2030. In addition, the Hungarian law enshrines a 2050 net-zero target but no other concrete provisions for managing the transition to climate neutrality. Thus, only 14 of the existing climate laws in Europe qualify as 'true' framework laws as per our definition introduced above in Box 1.

Even a quick look at the map in Figure 1 shows the regional disparity; most laws are concentrated in the central and northern European countries, with the recent notable exceptions of Greece, Portugal, and Spain. However, the landscape is continuously in flux as new laws are adopted and existing laws revised to account for international, EU, and national developments. At the time of writing, an additional five laws are currently being drafted or are in consideration in Estonia, Latvia, Slovakia, Slovenia, and Turkey.[3]

Figure 1: Landscape of national climate (framework) laws in Europe – status as of August 2023



Source: Data compiled from Ecologic Institute (2023): Climate Framework Laws Info-Matrix; (*) the Hungarian law enshrines a 2050 net-zero target but no other concrete provisions for managing the transition to climate neutrality and thus does not qualify as a framework law as per the definition in Box 1 above.

Most climate framework laws have been revised at least once, often to account for a change in national ambition in emission reductions. At the time of writing, at least four laws are currently undergoing revision—Austria, Bulgaria, Germany, and Liechtenstein. In Austria, the revision was intended to enshrine the country's target of net-zero emissions by 2040 as spelled out in its national long-term strategy. However, its adoption ran up against political headwinds, and the old law expired at the end of 2020. While the process is still ongoing, this makes Austria one of the only European countries that has backpedalled or weakened a climate law. Past

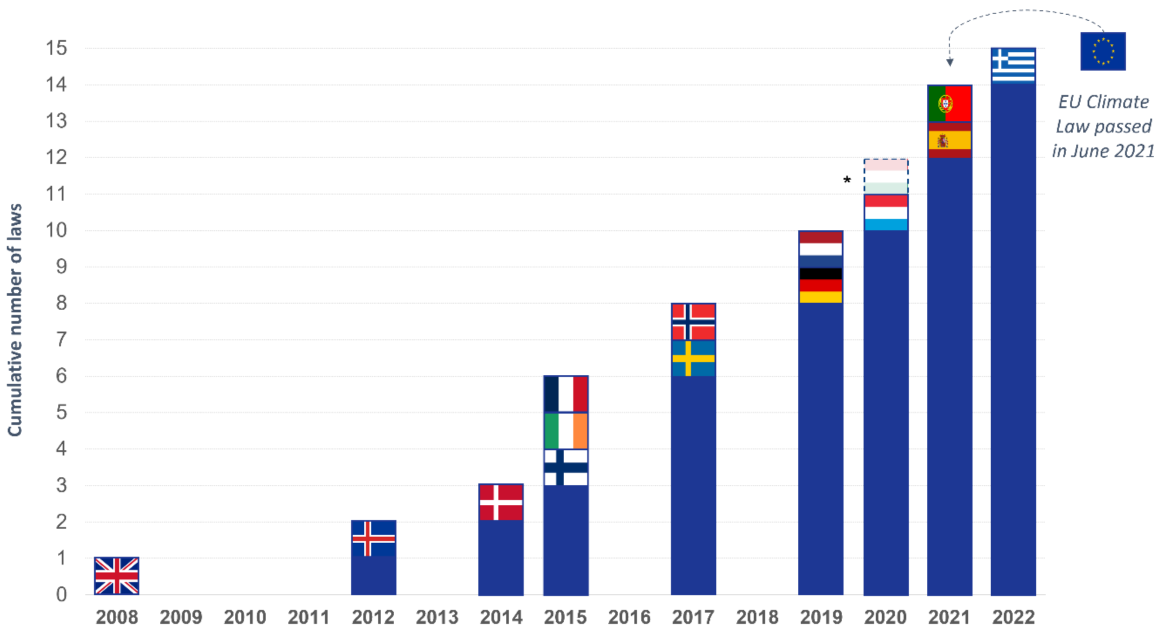
[3] At the time of writing, civil society campaigns were underway in, e.g., Italy and Poland to raise national attention on the need for a national climate framework law, but these had not yet led to a clear commitment by government.

revisions to other national laws served to strengthen and expand frameworks by among other things increasing overall target ambition (e.g., Denmark, Ireland, Germany), adding new expert oversight (e.g., France), or integrating a budget approach (e.g., Ireland) (Ecologic Institute, 2023; Nash and Steurer, 2022; Torney, 2021).

A draft amendment to the German Climate Protection Act published in June 2023 has been criticized by civil society and the government's own Council of Experts for weakening the existing framework by dismantling a unique system of sector-specific accounting and monitoring (see also section 4.4 below).[4] Discussions are still ongoing as of summer 2023 but should the German Bundestag pass the new amendment law it would mark another instance of a national long-term frameworks being watered down.

The spread of laws that enshrine long-term target, i.e., those with a post-2030 perspective, has picked up pace over the last five years (see Figure 2). This includes the passage of the EU Climate Law in June 2021—to date, the only supranational law of its kind. The first European country to enact such a law was the UK in 2008 with the Climate Change Act. This also includes the Hungarian law, which as mentioned above, serves solely to establish national targets with few other supporting provisions.

Figure 2: Growth in post-2030 climate laws across Europe

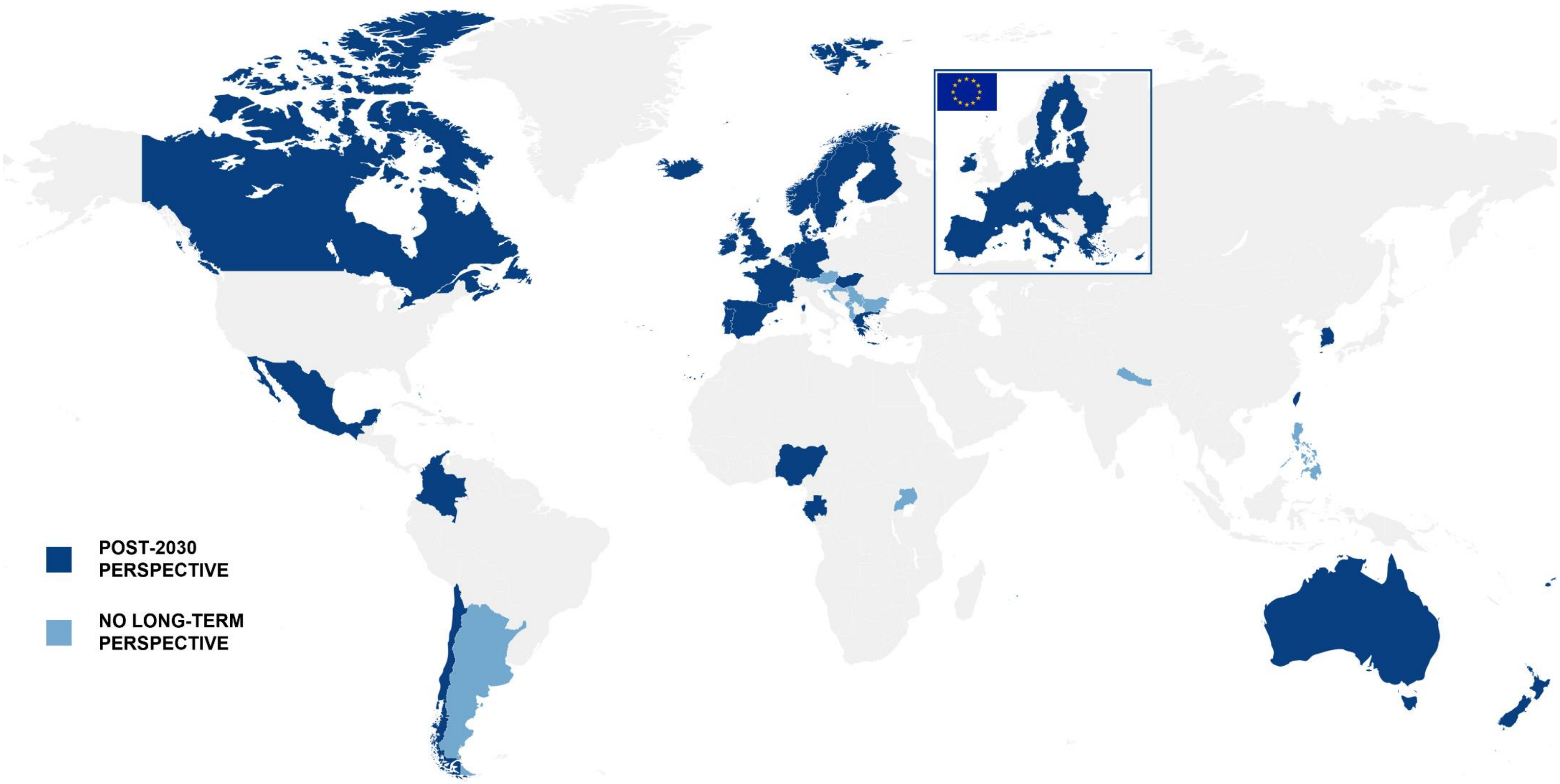


Source: Data compiled from Ecologic Institute (2023): Climate Framework Laws Info-Matrix; (*) the Hungarian law enshrines a 2050 net-zero target but no other concrete provisions for managing the transition to climate neutrality and thus does not qualify as a framework law as per the definition in Box 1 above.

This trend is not limited to European countries; climate framework laws aimed at the long-term transformation of the economy are spreading globally (see Figure 3). According to the Grantham Institute Climate Laws Database, as of April 2023, 13 countries outside of Europe have a framework law with some form of long-term climate target. This includes seven of the eleven non-European Organisation for Economic Co-operation and Development (OECD) member countries. Notably, most of these laws came about only in the last three years—with eight adopted in 2021 alone. A full list of non-European laws adopted through April 2023 can be found in the annex to this memo.

[4] See https://www.tagesschau.de/inland/innenpolitik/expertenrat-klima-103.html, accessed 18 April 2023.

Figure 3: Landscape of climate framework laws around the world – status as of April 2023



Source: Data compiled the Grantham Research Institute (2023): Climate Laws of the World Database

3 A diverse landscape

Some common provisions notwithstanding, climate framework laws come in many shapes and sizes, and this diversity is especially apparent among European countries. A growing body of literature identifies several ‘core elements’ found in most laws (Duwe and Evans, 2021; McIlhennon and Brennan, 2023; World Bank, 2020). Among these included in the Climate Framework Law Info-Matrix are: (1) climate targets, (2) clear processes for stakeholder and public engagement (2) policy planning instruments (e.g., long term strategies (LTS) and medium-term plans, such as national energy and climate plans (NECPs)), (3) independent expert bodies and (5) robust progress monitoring to enhance the accountability of government actions. Additional elements include coordinating commissions, risk and vulnerability assessments, and sanctioning mechanisms.

Together these provisions provide governments with the tools they need to manage the long-term transition in their country by providing a signal for the direction and speed of change, a process for formulating policy to get there, opportunities to enhance buy-in and transparency through participation, and accountability mechanisms and expert oversight to ensure actions stay on track and are based on the best available science.

Table 1: Climate Framework Laws Info-Matrix categories

Category		Description	Countries
1		A comprehensive climate framework law that organises national climate policy-making for the long-term transformation.	Denmark, Finland, France, Germany, Ireland, Portugal
2		Law is missing one or more elements but still serves to structure some aspects of national climate policy-making.	Greece, Luxembourg, Iceland
3		Law does not serve as a framework for organising national climate policy-making (e.g., only enshrines a headline target).	Bulgaria, Croatia, Hungary, Malta, Liechtenstein, Lithuania
4		Law exists but is out of date or 'expired'.	Austria, Switzerland

Source: Data compiled from Ecologic Institute (2023): Climate Framework Laws Info-Matrix

Based on the existence and relative strength of these provisions across existing laws, the Climate Framework Law Info-Matrix outlines four categories: (1) fully comprehensive frameworks, (2) less detailed laws with only some organisational power, (3) fledgling laws that typically enshrine a target with little surrounding institutional creation, and (4) out of date or expired laws.[5] Notably, only categories 1 and 2 therefore count as ‘true’ framework laws under the definition used in this paper, and therefore the Climate Framework Laws Info-Matrix includes laws that do not fully qualify. However, because these can serve as a first step towards more comprehensive legislation down the road (see, e.g., Torney, 2021) we

[5] These categories were developed for the Climate Framework Laws Info-Matrix for the purpose of streamlining an assessment of laws and are based on underlying assessment criteria. The tree metaphor was chosen intentionally to imply that framework laws can mature through revision and are often improved upon over time. For a full note on methodology refer to the Climate Framework Laws Info-Matrix here.

intentionally include them. Table 1 provides an overview of the categories and what they signify, alongside country examples.

Assessing laws for their quality is a challenge due to differing national circumstances and political cultures. Moreover, just because something exists in a law does not mean that it has been implemented fully. On the flip side, countries without dedicated climate framework laws still have some of the same mechanisms often found in such laws enshrined either in broader legislation or established by governmental decree (Evans and Duwe, 2021). For instance, Slovenia adopted a climate neutrality target in its overarching national Environmental Protection Act, which also establishes an expert council.

While the four qualitative categories used by the Climate Framework Laws Info-Matrix provide some orientation for the existing batch of laws in Europe, they do not capture all the complexity and variation in legal frameworks. The assessment criteria, for instance, do not consider the degree to which the laws establish institutional responsibilities, and they do not deal with climate adaptation or just transition. The categories nevertheless are an illustration of the variety found in the EU, with the symbols serving as a reminder of how frameworks are often revised and improved upon over time.

4 Deep dive into five 'good practice' provisions

In this section we dive deeper into five specific key provisions: (1) long-term (net-zero) emission reduction targets, (2) use of emissions budgets, (3) regular and reoccurring long-term planning, (4) robust accountability mechanisms, and (5) green budgeting and financial mainstreaming for climate mitigation. Table 4 in Section 4.6 provides a summary overview across all provisions.

It is important to note that while these good practice provisions are commonly referred to the literature and by the civil society community as examples of strong or transformational governance practices (see Averchenkova et al., 2020; CAN Europe, 2022; Duwe and Evans, 2021; World Bank, 2020), there is little empirical evidence on their impact across countries (McIlhennon and Brennan, 2023). Still, the fact that over time more and more European countries have incorporated these provisions in their own laws (see Velten et al., 2023, p. 170) is some indication that their added-value has been recognised by national governments.

4.1 Long-term (net-zero) emissions reduction targets

A clear long-term emissions reduction target, with at least a 30-year horizon, is essential for national climate framework laws to effectively translate the spirit of the Paris Agreement into national ambition (Duwe and Bodle, 2020). Targets can provide the government and society a 'clear direction of travel' and also an indication of the speed of transformation for policy-makers and private actors (Averchenkova et al., 2020). Furthermore, a well-defined long-term target plays a pivotal role in integrating climate action across all pillars of economies, encouraging concerted efforts (Lockwood, 2021; Nash and Steurer, 2019).

As of the end of August 2023, fifteen European countries have a legally enshrined and binding long-term target emission reductions target (see Table 2). In most cases, the target comes in the form of a climate neutrality date by 2050 or earlier. **Finland**, **Germany**, and **Sweden** aim to be climate neutral at an earlier date than 2050, with Finland planning for 2035 net-zero and negative emissions thereafter and Germany for 2045 net-zero and negative emissions after 2050. Portugal's law notes that the government will consider pursuing a 2045 climate neutrality goal. Iceland aims for carbon neutrality by 2040. Although a full assessment is beyond the scope of this paper the way in which climate neutrality is formulated in the language of each law differs, see Table 3.

Alongside their climate neutrality target, five countries quantify long-term emission reductions in their laws (i.e., Finland, France, Portugal, Sweden, and the United Kingdom). Additionally, although the laws of the Netherlands and Norway do not include a formal climate neutrality target, both countries aim for emission reductions of 95% and 90-95% by 2050, respectively. Among the countries with a net-zero target, 11 also present interim GHG emission reductions targets for 2030 and/or 2040.

Table 2: Long-term targets in European climate framework laws

Country	Net-zero target year	Long-term reduction target	Long-term removal target
Denmark	2050, at the latest	n/a	n/a
Finland	2035, negative emissions thereafter	-90% (2050 vs. 1990), aiming for -95%	n/a
France	2050	-83.3% (2050 vs. 1990)[1]	n/a
Germany	2045, negative emissions after 2050	n/a	n/a
Greece	2050	n/a	n/a
Hungary	2050	n/a	n/a
Iceland	2040	n/a	n/a
Ireland	2050	n/a	n/a
Luxembourg	2050, at the latest	n/a	n/a
Netherlands	n/a	-95% (2050 vs. 1990)	n/a
Norway	n/a	90-95% (2050 vs. 1990)	n/a
Portugal	2050, possibly 2045	-90% (2050 vs. 2005)	13 Mt CO2eq (2045-2050)
Spain	before 2050 or in the shortest possible time	n/a	n/a
Sweden	2045, at the latest	-85% (2045 vs. 1990)	n/a
United King-dom	2050	-100% (2050 vs. 1990)	n/a

Source: Data compiled from Ecologic Institute (2023): Climate Framework Laws Info-Matrix

Note: for non-English laws without an official translation the authors used translation software Deepl; (1) tar-get formulated as 'a factor of more than six'

Portugal is the only country that enshrines a target for long-term GHG emission *removal* in a climate law. It aims to remove at least 13 MtCO2eq in the LULUCF sector on average between 2045 and 2050. No laws include targets for short-term GHG removals.

Nine countries include information about a process for revising targets in their laws. Generally, countries aim to comply with EU and international obligations for target revision. Denmark, France, and Greece specifically set a revision process every five years. The laws in Portugal, Spain, and the UK contain somewhat vague language on how new scientific knowledge about climate change *could* trigger a process for revision. According to the Finnish climate law, the government must monitor the 'adequacy' of targets, but this is likewise not further operational-ized. Such target revision clauses have the potential to increase national ambition overtime—

especially if combined with a 'no backsliding' clause (see Section 4.4). At the very least, a target revision cycle creates the basis for a regular national discussion on climate ambition.

In addition to legislating for climate neutrality, some countries also include additional thematic objectives in their laws. France, for example, provides numerous sectoral objectives for renewable energy, energy efficiency, fossil fuels, nuclear and hydrogen. Germany plans for climate-neutral governmental activity by 2030 and Greece includes a coal phase-out target by 2028.

Table 3: How climate neutrality targets are formulated in law

Country	Net-zero target formulation in law
Denmark	*[...] to achieve a climate-neutral society by 2050 at the latest* (Art. 1.1)
Finland	*[…] so that greenhouse gas emissions are at most equal to emissions in 2035 at the latest and that emissions will increase and emissions will continue to decrease even after that.* (Art. 2.1)
France	*[…] to achieve carbon neutrality by 2050 by dividing greenhouse gas emissions by a factor of more than six between 1990 and 2050.* (Art. 1.2 or Article L100-4 of the Energy Code)
Germany	*By the year 2045, greenhouse gas emissions shall be reduced to the point of net greenhouse gas neutrality. After the year 2050, negative greenhouse gas emissions are to be achieved.* (Art. 3.2)
Greece	*[…] ensure the country's gradual transition to climate neutrality by 2050, in the most environmentally sustainable, socially equitable and cost-effective way.* (Art. 1.1)
Hungary	*Hungary will achieve complete climate neutrality by 2050* (Art. 3.4)
Iceland	*The objectives of this law are: […] e. to achieve carbon neutrality no later than the year 2040.* (Art. 1)
Ireland	*[…] pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy* (Art 5. or Art. 3.1 of the Principal Act)
Luxembourg	*[…] long-term objective of climate neutrality, which consists of achieving 'net zero emissions' in Luxembourg by 2050 at the latest.* (Art. 4.2)
Portugal	*The Portuguese State undertakes to achieve climate neutrality by 2050, which translates into a neutral balance between greenhouse gas emissions and the sequestration of these gases by the various sinks.* (Art. 18.1) *Without prejudice to the provisions of the previous number, the Government is studying, until 2025, the anticipation of the climate neutrality goal, with a view to the commitment to climate neutrality by 2045 at the latest.* (Art. 18.2)
Spain	*Before 2050 and in any case, in the shortest possible time, Spain must achieve climate neutrality, in order to comply with internationally assumed commitments.* (Art. 3.2)
Sweden	*The goal must be for Sweden to have no net emissions (reach net zero emissions) of greenhouse gases into the atmosphere by 2045 at the latest, in order to subsequently achieve negative emissions.* (Art. 5.2)
United Kingdom	*It is the duty of the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 100% lower than the 1990 baseline.* (Art. 1.1)

Source: Data compiled from Ecologic Institute (2023): Climate Framework Laws Info-Matrix

Note: for non-English laws without an official translation the authors used translation software Deepl; (1) target formulated as 'a factor of more than six'

4.2 Emission budgets

Emission budgets, and in particular sectoral emission budget, help divide up an overarching future target into concrete reduction periods. This helps implementation in the medium term by offering a clear trajectory for emissions with interim targets based on the length of the budget periods (Guy et al., 2023; Rüdinger, 2018).

An emissions budget approach is becoming more and more common in climate laws, the **Irish** revision from 2021 introduced sectoral budgets and more recent laws in Greece and Portugal also apply a budgeting system. Seven countries (eight including Austria's now expired law) have integrated some form of a budget approach. Most operate on a five-year cycle set 10-15 years in advance (e.g., France, Greece, Ireland, Portugal, United Kingdom). Luxembourg uses a ten-year cycle and Germany applies annual emission budgets.

All but the **United Kingdom** and **Portugal** breakout the emissions budget into sectoral limits. The existing **German** climate framework law sets annual budgets for the energy, industry, transport, buildings, agriculture and waste management and other sectors for the period 2021-2030. This approach is unique among national climate laws in Europe, as it is the only one to prescribe annual sector-specific caps and thus a very detailed form of monitoring. However, based on coalition agreements, a draft bill to amend the Climate Protection Act introduced in June 2023 proposes to replace the obligation to comply with annual sectoral caps with an obligation to comply with cross-sectoral annual emission levels. As mentioned, this move has been strongly criticized because it has the potential to water down the German framework by diminishing accountability on the part of relevant ministries, e.g., transport, buildings, etc. (Expertenrat für Klimafragen, 2023). Because ministries are regularly managed by different parties, often with divergent priorities this may undermine the successful and consistent integration of climate across government.

4.3 Long-term planning

A vision or plan with long-term scenarios for the necessary restructuring of the economy to achieve the long-term climate goal is important so that the appropriate measures can be identified and implemented (Rüdinger et al., 2018; Velten et al., 2022). Article 4 of the Paris Agreement calls on all countries to communicate 'long-term low greenhouse gas emission development strategies'. EU Member States are required under the Governance Regulation to produce a long-term strategy (LTS) every ten years and are supposed to update these strategies every five years 'where necessary'.

While some laws translate these obligations into national law, frequent long-term planning is surprisingly missing from the landscape of climate framework laws in Europe compared to other good practice elements. While nine of the existing laws have some provision requiring government to produce and revise a long-term strategy or plan, only four countries require more frequent, five-year updates—**France**, **Ireland**, **Malta**, **Spain**.

The German Climate Protection Plan 2050 (LTS) is mentioned in the **German** law, but a cycle of review and revision is not legally enshrined. This indicates a current weakness of the law, as updates of the medium-term climate protection programs are only required after each update of the LTS. The LTS from 2016, however, has not yet been updated. In the draft of the amended climate protection law, this mandatory link is to be abolished. Without a regularly updated LTS it is more difficult to do the backcasting required to make sound policy decisions in the short term.

In **France**, the national low carbon development strategy is connected to the five-year emission budget schedule and must be updated accordingly. In **Ireland**, a long-term strategy must be submitted to the government for approval by the responsible ministry every five years. The law further states that the strategy must include information on reductions and removals by sector for a 30-year time horizon.

4.4 Accountability mechanisms

While there are many forms of accountability or monitoring mechanisms, three stand out as particularly strong forms: (1) ‘no backsliding’ clauses, (2) regular progress monitoring by government, (3) ‘action triggers’ that require the government to enact additional policies when progress is found to be lacking, and (4) the establishment of an independent expert council or advisory body with a formal watchdog role in policy-making.

‘No backsliding’ clause

Four laws contain ‘no backsliding’ causes. In **Denmark**, new climate targets cannot be less ambitious than the most recently set ones. Similarly, according to the **German** climate law, climate targets may be raised but not lowered. In **Portugal**, revision is carried out to increase a target’s ambition, while **Spain** may only contemplate an upward update of the pathways for reducing GHG emissions and increasing carbon removals.

Progress monitoring by government

Most national climate framework laws in Europe, especially those with long-term climate targets, include some form of governmental progress monitoring mechanism towards national objectives although in many cases this serves to fulfil EU reporting requirements. National-level monitoring is found less frequently and is done on an annual or biennial basis and usually by the ministry responsible for climate policy. In **Germany**, an annual report on the implementation of the climate action programs in each economic sector is submitted to the German Bundestag. Similarly, in **Denmark** an annual status update provides the basis for additional policy-making.

‘Action triggers’

The laws in four European countries have clear language establishing some form of an ‘action trigger’. These mechanisms require the adoption of additional measures when monitoring shows that progress is lagging. For instance, In the **Netherlands**, the law simply states that if progress towards targets is found to be missing ‘measures are taken’. However, elsewhere the action trigger is a more developed process. In **France,** a report by the High Council for Climate (HCC), an independent scientific advisory body, can require the government to propose new policies as a response. The **Danish** law includes a provision called ‘duty to act’. In each annual climate programme, the Ministry must provide an assessment of progress towards targets; if progress is deemed insufficient the programme must also present new initiatives.

The provision for triggering measures at the sectoral level in the **German** law, the so-called ‘Sofortprogramm’, is unique among European climate framework laws. Should a sector be proven to exceed its annual emissions budget, the ministry concerned is obliged to propose new measures to compensate for the lack of progress. According to the draft bill amending the German Climate Protection Act, new measures by the government are required if, on a forecast basis, it is determined for two consecutive years that the overall cross-sector emissions budget for 2021-2030 will not be met—a development that was critically assessed by the Expert Council on Climate Issues in its 2022 review report (Expertenrat für Klimafragen, 2023).

Independent expert councils

Independent expert councils or advisory bodies are a common provision in European climate laws, although these advisory bodies take many forms and are not always best set up to have an impact on policy (Weaver et al., 2019). There is some evidence that those with a clear mandated role in climate policy-making to which the government must respond in some form are better positioned to influence policy-making (Evans and Duwe, 2021). Independent climate councils are a component of 13 of the 22 European national climate framework laws.

Importantly, independent climate councils are composed solely of scientists and operate independently from government. Some laws also include stakeholder or governmental commissions that similarly serve an advisory role.

The governments of Denmark, and the United Kingdom are required to *both* consult and respond to the independent council. For example, the **Danish** Climate Council must comment on each annual climate programme and accompanying climate status report and the government must provide a response to these recommendations. In the **United Kingdom** the Commission on Climate Change has a dedicated role in proposing the emissions budget and produces an annual progress report. The Secretary of State must respond to 'the points raised' in the report.

German law provides for the Council of Experts to prepare a progress report every two years, conduct an annual quality control of the emissions data reported by the Federal Environment Agency, and issue emission reduction statements on specific measures. However, the government is not required to officially respond to these submissions. According to the draft bill to amend the Climate Protection Act, however, it must consider proposals from the Council of Experts in climate protection programs and measures for remediation.

In **Greece** and **Portugal**, the expert council plays a slightly more limited role, at least under the provisions of the climate law, while in **Spain** the government must respond and participate in the public debate for an annual report, evaluating and making recommendations on energy and climate change policies and regulations. In **Sweden**, the government is only somewhat required to consult the advisory body as the latter must provide an assessment of the government's climate policy action plan.

4.5 Green budgeting

Green budgeting is not widely found in European climate framework laws. However, as a recent survey by the European Commission shows, at least 12 countries practice some form of green budgeting, even if it is not legally binding in a climate framework law. These include 'budget tagging' to determine which budget measures contribute positively or negatively to climate goals (e.g., Austria, France, Sweden), and assessments of the climate impacts of budget elements (e.g., Denmark, France, Finland, Netherlands, Sweden) (European Commission, 2023). The European Commission study uses a narrow definition of green budgeting, and there are no provisions in existing climate framework laws that would qualify. Five laws are nevertheless worth mentioning in the context of financial mainstreaming more generally.

The laws in **Sweden** and **Norway** align climate planning with the state budget proposal schedule to integrate climate action considerations with public spending. The **Spanish** climate law includes provisions on disinvestment of fossil fuels as well as an 'International Climate Finance Strategy'. **France's** law includes a special risk reporting obligation for the financial sector and requires a dedicated report on climate finance availability and needs attached to the budget draft every year.

The **German** law includes an obligation to ensure that federal investments and procurements are as climate-friendly as possible and provides for a CO_2 'shadow price' for this purpose. It also links reporting obligations to the budget cycle. However, this does not mean that sustainability criteria are systematically applied in budget planning or that an assessment of compatibility with KSG climate goals takes place. In a position paper of June 2023, the German civil society calls for the concrete linking of climate targets with the Federal Budget Code and the investment guidelines of the special funds of the federal and state governments, as well as an obligation to review the compatibility of public spending with the transition to climate neutrality (Klima-Allianz Deutschland, 2023).

Excluded from Table 4, several laws establish some form of funding mechanism for climate mitigation actions, often within the context of the sale of allowances under the EU Emissions Trading System (ETS). This includes the National Climate Change Program in Lithuania, the National Green Investment Scheme (NGSI) in Bulgaria, the Climate Fund in Iceland, the Climate Action Fund in Ireland, the Climate and Energy Fund in Luxembourg, the Climate Action Fund in Malta, and the Fund for Environmental Protection and Energy Efficiency in Croatia. Likewise, the Greek law includes language on 'financial resources', including provisions for where funding for climate action will come from and provisions on transparency and accounting and the Hungarian law calls on the government to issue Green Government Bonds. Notably, the laws in Liechtenstein and Switzerland introduce a carbon tax.

4.6 Overview

Table 4: Summary of good practice provisions in European climate (framework) laws

Country	(1) Long-term (net-zero) emissions reduction target	(2) Emission budget	Emission budget broken down by sector	(3) Long-term planning	(4) Accountability mechanisms: No backsliding clause	Regular national progress monitoring by government	Action trigger	Independent expert council that government must consult or respond to	(5) Green budgeting**
Austria*		✓	✓			✓			
Bulgaria									
Croatia				✓					
Denmark	✓				✓	✓	✓	✓	
Finland	✓			✓		✓			
France	✓	✓	✓	✓		✓	✓	✓	(✓)
Germany	✓	✓	✓		✓	✓	✓	✓	(✓)
Greece	✓	✓	✓			✓		✓	
Hungary	✓								
Iceland	✓								
Ireland	✓	✓	✓	✓		✓		✓	
Lithuania				✓					
Luxembourg	✓	✓	✓	✓		✓			
Liechtenstein									
Malta				✓					
Netherlands						✓	✓		
Norway	✓					✓			(✓)
Portugal	✓	✓		✓	✓	✓		✓	
Spain	✓			✓	✓	✓		✓	(✓)
Sweden	✓					✓			(✓)
Switzerland									
United Kingdom	✓	✓						✓	

Source: Data compiled from Ecologic Institute (2023): Climate Framework Laws Info-Matrix

Note: (*) The Austrian law expired at the end of 2020 and a revision has since been held up for political reasons. The information contained in this table is based on the expired law; (**) The existing provisions would not qualify based on the definition used in the European Commission (2023) survey on green budgeting.

5 Summary and key takeaways

Several key takeaways can be drawn from the landscape of climate framework legislation in Europe as of August 2023:

(1) Twenty-two European countries have some form of climate law in place, but only 15 of these have a post-2030-time horizon. Three laws are under revision and an additional six countries are currently developing a law. This is a growing trend, and the rate of legislation being adopted seems to have accelerated in recent years—a dynamic that is also apparent globally. In addition to national developments, the European Climate Law passed in 2021 is unique as the only supranational law of its kind and could serve both as an example and impetus for further legislation among EU Member States.

(2) Thirteen countries include a climate neutrality target in their law, but these targets require further clarity in many cases. Most of these aim for net-zero emissions by 2050, with the notable exceptions of Finland (2035), Germany (2045), and Sweden (2045). Spain and Portugal leave the possibility of an earlier climate neutrality year open. Only a handful of countries qualify their net-zero date further by setting a binding absolute reduction target, and there is inconsistent reliance on international offsetting for reaching climate neutrality domestically. Notably, *only* Portugal has a long-term GHG removal target in its law. The lack of clarity on removals is particularly concerning and has been shown to be an information gap also when it comes to EU Member State long-term strategies (Velten et al., 2022). A the very least, long-term strategies should provide clarity on what a government means when it sets a 2050 or earlier net-zero date.

(3) When it comes to good practice provisions, even long-standing frameworks show national variation. Long-term planning is a core component of nine laws, but the Danish Climate Act is a notable exception. The Danish 'Climate Policy Wheel' or cycle enshrined in the law is aimed at in the country's long-term climate neutrality ambition, but a provision for strategic policy planning post-2030 is not included. Of the eight national climate framework laws that establish emission budgets, fewer still break these down into sectoral limits. The likely amendments to the German Climate Protection Law that will get rid of the sectoral budgeting and monitoring system is an indication that a sector-specific approach, while good practice, is contentious because it adds an extra layer of accountability for ministries. A concrete action trigger is apparent in only four of the 22 laws.

Strong provisions to align public spending with climate goals are missing in all laws. Existing provisions are limited to aligning planning schedules with budget cycles (such as Sweden) or climate finance strategies or reports (e.g., Spain, France).

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Annex: Climate framework laws around the world

Country	Title	Year of last revision (year adopted)
Andorra	*Law 21/2018, of 13 September, on the promotion of the energy transition and climate change*[1]	2018
Australia	*Climate Change Bill*	2022
Canada	*Net-Zero Emissions Accountability Act*	2021
Chile	*Framework Law on Climate Change*	2022
Colombia	*Law 2169/2021 promoting low-carbon development*	2021
Fiji	*Climate Change Act*	2021
Gabon	*Ordinance No. 019/2021 relating to climate change*	2021
Maldives	*Climate Emergency Act (Act no. 9/2021)*	2021
Mexico	*General Law on Climate Change*	2022 (2012)
New Zealand	*Climate Change Response (Zero Carbon) Amendment Act*	2020 (2002)
Nigeria	*Climate Change Act*	2021
South Korea	*Carbon Neutral Green Growth Framework Act to Tackle the Climate Crisis*	2022 (2021)
Taiwan	*Climate Change Response Act*	2023 (2015)
	Additional laws without long-term emission reduction targets	
Argentina	*Law 27520 on Minimum Budgets for Adaptation and Mitigation to Global Climate Change*	2019
Albania	*Law no 155/2020 on climate change*	2020
Bahamas	*Climate Change and Carbon Market Initiatives Act*	2022
Mauritius	*Climate Change Act (no 11/2020)*	2020
Montenegro	*Law on Protection from the Negative Impacts of Climate Change*	2019
Nauru	*Environmental Management and Climate Change Act no 34/2020*	2020
Nepal	*Environment Protection Act 9/2019 (2076)*	2019
Philippines	*Climate Change Act (RA 9729)*	2009
Serbia	*Law on Climate Change*	2021
Uganda	*National Climate Change Act*	2021

Source: Data compiled the Grantham Research Institute on Climate Change and the Environment (2023): Climate Laws of the World Database

Note: (1) Andorra's law does not include an emission reduction target post-2030 but has multiple sectoral and emissions intensity targets for 2050.

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