Policies and measures

Tracking climate policies in European Union countries

Information reported to the European Environment Agency (EEA) shows that more than 1 500 national policies and measures have either been adopted, implemented or are being planned in the European Union (EU) to reduce greenhouse gas emissions, and achieve climate change and energy targets. However, quantitative evidence on the effectiveness and costs of these measures remains insufficiently reported. This briefing presents an overview of the main characteristics of these policies and measures, such as their status, main objectives, type and estimated effects. This information is also made available online by the EEA.

- Member States primarily report information on regulatory and economic instruments, energy efficiency measures (particularly in buildings) and actions addressing renewable energy and vehicle emissions.
- Quantitative information on national policies and measures, in particular greenhouse gas emission savings resulting from existing policies, continues to be underreported.
- Of the reported national policies, 74 % relate to the implementation of EU policies.
- EU policies promoting renewable energy and energy efficiency are expected to deliver significant emission savings by 2020.
- Despite important policy developments at international and EU levels between 2015 and 2017 (e.g. adoption and entry into force of the Paris Agreement and policy proposals to achieve the EU's 2030 climate and energy targets), Member States adopted few new policies and measures over this period.

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Tracking national climate action is necessary to monitor progress on climate commitments

In 1992, under the United Nations Framework Convention on Climate Change (UNFCCC), developed countries committed to adopting national policies and taking corresponding measures on the mitigation of climate change. To do this they agreed to limit their anthropogenic emissions of greenhouse gases, and protect and enhance their greenhouse gas sinks and reservoirs. Twenty-five years later, the 28 Member States of the EU have reduced their emissions by more than 22 % below 1990 levels [2] and reported information concerning more than 1 500 national policies and measures that limit or reduce greenhouse gas emissions or enhance the removal of CO_2 from the atmosphere [3].

A robust system to monitor national climate action and its effectiveness is essential to ensure commitments are put into action and lead to visible results, and to identify where additional efforts are needed. As such, reliable information on adopted, implemented or planned policies and measures is key for informing policy decisions. This is particularly so when long-term objectives to keep warming below 2 $^{\circ}$C, as agreed under the Paris Agreement, remain both ambitious and challenging.

An EU mechanism monitors Member State climate change mitigation policies and measures

In the EU, a 'monitoring mechanism' has been in place for more than a decade to:

- monitor anthropogenic greenhouse gas emissions and removals,
- evaluate progress towards meeting commitments,
- implement monitoring and reporting requirements under the UNFCCC and the Kyoto Protocol.

Under this mechanism, every 2 years Member States report information on national policies and measures that reduce greenhouse gas emissions. The EEA collects and checks the quality of this information, before making it available to the public and policy makers.

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The EU's climate 'monitoring mechanism' (Regulation (EU) No 525/2013) specifies that:
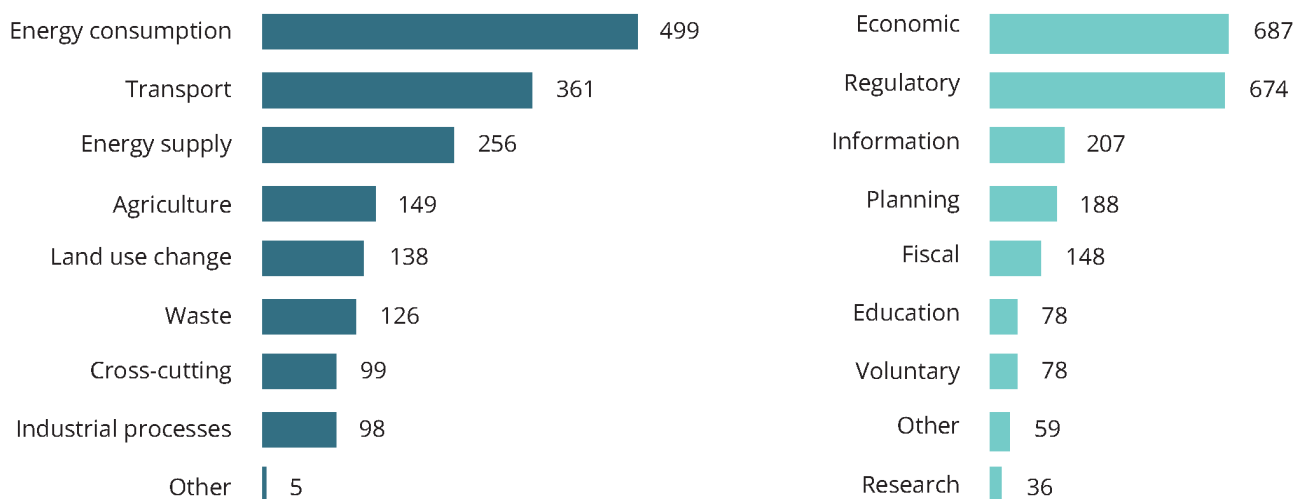
- '**policies and measures**' means all instruments which aim to implement commitments under [...] the UNFCCC, which may include those that do not have the limitation and reduction of greenhouse gas emissions as a primary objective;
- '**ex ante assessment of policies and measures**' means an evaluation of the projected effects of a policy or measure;
- '**ex post assessment of policies and measures**' means an evaluation of the past effects of a policy or measure.

An overview of the 1 513 policies or measures reported in 2017 has been made. This provides a detailed understanding of the main mitigation options followed by Member States in terms of policy objectives, instrument types, targeted sectors, etc., as well as the status of these policies and their links to EU policies [1, 4], as follows:

- Most of the climate change mitigation policies reported primarily target energy-related greenhouse gas emissions (which represent 80 % of all greenhouse gases emitted in the EU).
- Measures commonly address energy efficiency in buildings, renewable energy deployment, switching to low carbon fuels or electric vehicles and the energy efficiency of vehicles (Figure 1).
- Most reported policies or measures are economic (e.g. subsidies or feed-in tariffs) or regulatory instruments (e.g. energy efficiency standards) (Figure 1).
- Most of the reported policies and measures were implemented in the 5 years following the adoption of the 2009 climate and energy package (between 2010 and 2014).
- The main EU policies responsible for the adoption of national policies and measures are the EU's 2009 Renewable Energy Directive, the 2012 Energy Efficiency Directive, the 2006 Energy End-use Efficiency and Energy Services Directive, and the 2010 recast of the Energy Performance of Buildings Directive. A total of 26 % of reported national actions are not directly related to a specific European Union policy.

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Figure 1 Main sectors (left) and instrument types (right) related to national policies and measures reported in 2017[4]

Sector	Value
Energy consumption	499
Transport	361
Energy supply	256
Agriculture	149
Land use change	138
Waste	126
Cross-cutting	99
Industrial processes	98
Other	5

Instrument type	Value
Economic	687
Regulatory	674
Information	207
Planning	188
Fiscal	148
Education	78
Voluntary	78
Other	59
Research	36

Information on policy effectiveness remains insufficient

While qualitative information on policies and measures helps to understand better the nature of climate actions at national level, additional information on the effects of these actions is needed to help highlight successes and failures, and to provide a key knowledge base to inform policy decisions. This is why Member States must also report, where available, quantitative information on the greenhouse gas emission savings achieved by, or expected from, the reported policies and measures either individually or for groups of policies and measures.
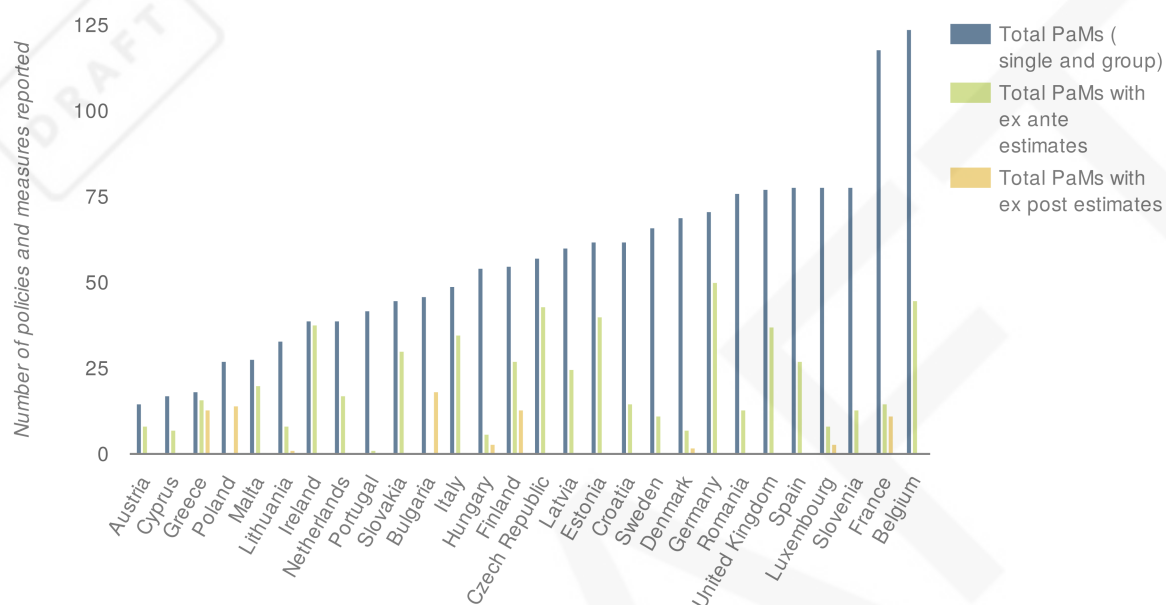
The quality of the information reported in 2017 improved in terms of its completeness, consistency, accuracy and transparency, compared with the reporting cycle in 2015. However, quantitative information onex postpolicy evaluations, costs and benefits, and indicators remains underreported.

In 2017, only nine Member States (Bulgaria, Denmark, Finland, France, Greece, Hungary, Lithuania, Luxembourg and Poland) reported information on the emission reductions achieved, and for only 65 policies and measures (Figure 2). This does not allow for a comprehensive analysis of the impacts of existing national climate policies across the EU to be performed. It also highlights the further need for Member States to increase their efforts to assess the effects of their implemented policies more systematically.

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There can be technical explanations for the low level of quantitative information reported. For example, Member States do not use common evaluation approaches and methodologies, and may use different assumptions or find it difficult to separate the effects of individual policies from others. There may also be political reasons for this. Some policy makers may prefer to focus on new proposals and are often not very interested in communicating the actual effects of past actions. Comparing and summingex postemission savings therefore becomes a highly uncertain exercise.

Figure 2 Number of policies and measures (PaMs) reported with ex post (achieved) or ex ante (projected) emission savings

Data sources: EEA. EEA database on climate change mitigation policies and measures in Europe

Explore chart interactively

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Reporting quality can improve through incremental steps

Detailed and transparent information on national policies and measures is essential to track climate action at national and EU levels. Additionally, policy evaluation plays a crucial role in policy processes, for example, by allowing policy makers to assess the contribution of specific policies to the achievement of climate mitigation objectives, and to understand success factors and obstacles to policy implementation. Further efforts on reporting and evaluation activities, even if incremental, are considered important to help improve the quality of the information reported under the EU monitoring mechanism and to support climate policy.

On the Member States' side, there have been recent quality improvements in the consistency, comparability, completeness and transparency of the information —particularly qualitative information – reported on national policies and measures. Efforts on quantitative aspects must, nevertheless, be further enhanced, notably onex postpolicy evaluation results, costs and benefits, and monitoring indicators. Member States could, for example, better exchange experiences and promote best practices on reporting and policy evaluation, reinforce their capacity to develop robust evaluation methods and demonstrate more clearly how evaluation results feed into the policy cycle.

At the European level, the new Regulation on the Governance of the Energy Union is expected to facilitate the streamlining and reporting of climate and energy policies and measures, as well as their integration across policy domains. In addition, the EEA will continue its capacity building activities to develop and improve tools to make reporting more comparable across countries, to provide support and guidance to Member States and to promote exchanges of information, experience and knowledge among Member States. The EEA also intends to complement its online database on policies and measures with an inventory of evaluations of environment and climate policies, which will be made available online.

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Reference:

[1] EEA, 2018, 'EEA database on climate change mitigation policies and measures in Europe', available online: http://pam.apps.eea.europa.eu

[2] EEA, 2018, 'Data viewer on greenhouse gas emissions and removals, sent by countries to UNFCCC and the EU Greenhouse Gas Monitoring Mechanism (EU Member States)', available online: http://www.eea.europa.eu/data-and-maps/data/data-viewers/greenhouse-gases-viewer

[3] EU, 2013, 'Regulation (EU) No 525/2013 of the European Parliament and of the Council of 21 May 2013 on a mechanism for monitoring and reporting greenhouse gas emissions and for reporting other information at national and Union level relevant to climate change and repealing Decision No 280/2004/EC'.

[4] EEA, 2018, National policies and measures on climate change mitigation in Europe in 2017, EEA Report No 9/2018, European Environment Agency.

Identifiers