



European
Commission

SCIENCE FOR POLICY BRIEF

Bioeconomy strategies



The European Commission's
Knowledge Centre for
Bioeconomy

National bioeconomy strategies in Europe - State of play September 2025

HIGHLIGHTS

- In Europe 12 countries (11 in the EU-27) have dedicated bioeconomy strategies: Austria, Estonia, Finland, France, Germany, Ireland, Italy, Latvia, Netherlands, Norway, Portugal and Spain (see details in Section 5).
- 10 of the 12 national bioeconomy strategies cover all primary biomass supplying and biomass processing areas, including biotechnology. Organic waste and ecosystem services are covered by almost all countries (Section 3).
- In the national bioeconomy strategies, three common policy actions are consistently emphasised (Section 4):
 - Encouraging investments in bioeconomy research, innovation and market development.
 - Supporting the principles of cascading use, circularity and resource efficiency for biomass.
 - Promoting communication campaigns to raise awareness.

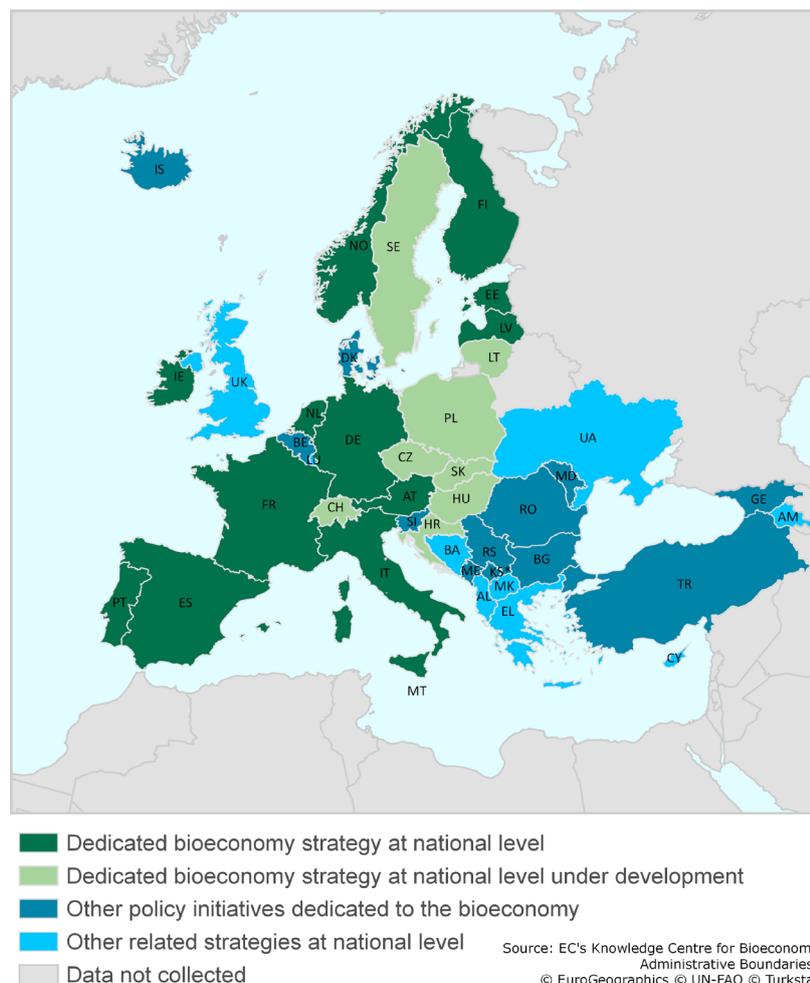
1. NATIONAL BIOECONOMY STRATEGIES AND RELATED POLICY INITIATIVES IN THE EUROPEAN COUNTRIES

This science for policy brief provides an up-to-date summary of bioeconomy policy developments in 43 countries in the European region, based on data from the Bioeconomy country dashboard¹. The dashboard is developed by the European Commission's Knowledge Centre for Bioeconomy, in collaboration with national experts. The dashboard offers comprehensive data and knowledge on national and regional bioeconomy strategies, institutions and initiatives, informing about the implementation of the EU Bioeconomy strategy across European Union and beyond.

As of September 2025, the data available in the Bioeconomy country dashboard for 43 European countries show the following situation (Figure 1):

- 12 countries (11 in EU-27) have *dedicated bioeconomy strategies*: Austria, Estonia, Finland, France, Germany, Ireland, Italy, Latvia, Netherlands, Norway, Portugal and Spain
- 10 countries (8 in EU-27) have *dedicated bioeconomy strategies under development*: Croatia, Czechia, Denmark, Hungary, Lithuania, Poland, Slovakia, Slovenia, Switzerland and Sweden.
- 9 countries (3 in EU-27) have *other policy initiatives dedicated to bioeconomy*: Belgium, Iceland, Kosovo*², Moldova, Montenegro, Serbia, Türkiye, Romania and Bulgaria.
- 12 countries (4 in EU-27) have *other related strategies at the national level*: Albania, Armenia, Bosnia and Herzegovina, Cyprus, United Kingdom, Georgia, Greece, Luxembourg, Malta, North Macedonia and Ukraine.

Figure 1: Status of national bioeconomy strategies and related policy initiatives in Europe. September 2025.



Source: European Commission Knowledge Centre for Bioeconomy

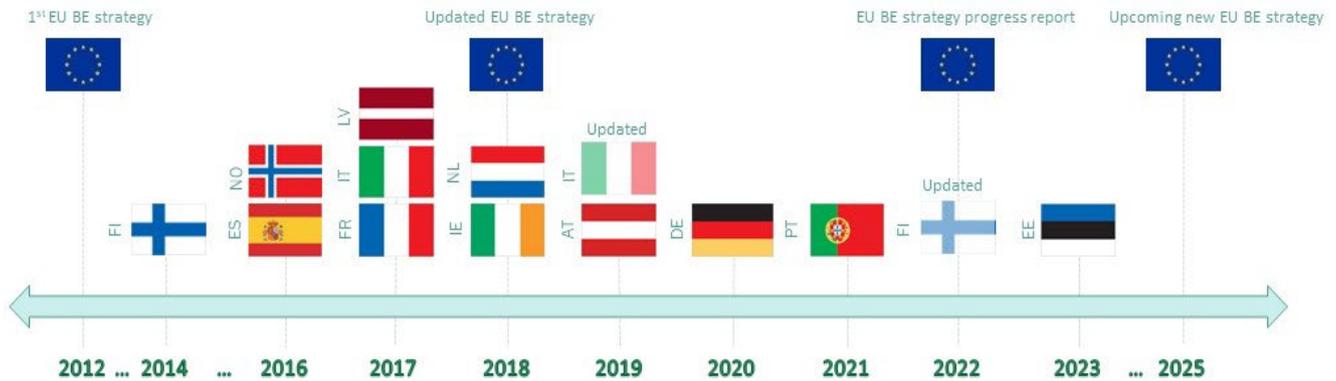
¹ https://knowledge4policy.ec.europa.eu/visualisation/bioeconomy-different-countries_en

² *This designation is without prejudice to positions on status and is in line with United Nations Security Council Resolution 1244/1999 and the International Court of Justice's opinion on the Kosovo declaration of independence or any other explanations.

2. TIMELINE OF NATIONAL BIOECONOMY STRATEGIES' ADOPTION

The timeline of bioeconomy strategy developments in Europe, following the first EU bioeconomy strategy adoption in 2012, is shown in Figure 2. The timeline displays when each country's bioeconomy strategy was initially adopted. Finland and Italy have updated their strategies after the first adoption (see Section 5 for details). The most recent addition is Estonia's circular bioeconomy strategy.

Figure 2: Timeline of national bioeconomy strategies adoption and update in Europe.



Source: Adapted from *Trends in the bioeconomy - update 2024* [1].

3. AREAS COVERED IN THE STRATEGIES

Most national bioeconomy strategies cover all primary biomass supplying areas (agriculture, forestry and aquaculture) and biomass processing areas (food, wood, pulp & paper, bio-based textiles, bio-based chemicals and materials, bioenergy) (Figure 3). For primary production areas, there are two exceptions: the Austrian bioeconomy strategy does not specifically address fisheries and the Estonian strategy only covers eight out of thirteen areas. For biomass processing areas, Estonia also omits biotechnology, bio-based textiles, and bio-based chemicals and. All national bioeconomy strategies, except Estonia's, include organic waste and ecosystem services. Some other specific areas addressed in national bioeconomy strategies include:

- Bio-pharmaceuticals in Germany.
- Bio-fertilisers, bioplastics, bio-stimulants and bio-lubricants in Italy.
- Construction, water treatment and supply and nature tourism in Finland.
- Footwear and natural resin in Portugal.

Figure 3: Overview of biomass areas covered in national bioeconomy strategies per country.

Areas covered in bioeconomy strategy by country	AT	DE	EE	ES	FR	FI	IE	IT	LV	NL	NO	PT
Agriculture	●	●	●	●	●	●	●	●	●	●	●	●
Forestry	●	●	●	●	●	●	●	●	●	●	●	●
Fisheries		●	●	●	●	●	●	●	●	●	●	●
Aquaculture	●	●	●	●	●	●	●	●	●	●	●	●
Organic waste	●	●		●	●	●	●	●	●	●	●	●
Food	●	●	●	●	●	●	●	●	●	●	●	●
Wood, wood products & furniture	●	●	●	●	●	●	●	●	●	●	●	●
Pulp & paper	●	●	●	●	●	●	●	●	●	●	●	●
Biotechnology	●	●		●	●	●	●	●	●	●	●	●
Bio-based textiles	●	●		●	●	●	●	●	●	●	●	●
Bio-based chemicals and materials	●	●		●	●	●	●	●	●	●	●	●
Bioenergy (incl. transport biofuels, bioelectricity, heat & cooling)	●	●	●	●	●	●	●	●	●	●	●	●
Ecosystem services	●	●		●	●	●	●	●	●	●	●	●
Other specific sectors	●	●				●	●	●	●		●	●

Source: Adapted from *Trends in the bioeconomy - update 2024* [1].

4. POLICY ACTIONS IN THE STRATEGIES

Figure 4 provides an overview of the policy actions foreseen in the national bioeconomy strategies. Across all countries considered, *three common policy actions are consistently highlighted*:

- Encouraging investments in bioeconomy research, innovation, and market development.
- Supporting the principles of cascading use, circularity and resource efficiency for biomass.
- Promoting communication campaigns to raise awareness.

Some specific *examples of actions to promote investments are*:

- Creating public funds or funding instruments for innovation partnerships, cooperation platforms, and bioeconomy specific research and innovation.
- Establishing open marketplaces based on public sector innovation and procurement needs.

The actions found in the national strategies aiming to “promote the principles of cascading use, circularity and resource efficiency for biomass” are typically generic statements to support the recovery and valorisation of different types of wastes and by-products.

Figure 4: Overview of policy actions in national bioeconomy strategies per country.

Policy actions in Bioeconomy strategy by country	AT	DE	EE	ES	FR	FI	IE	IT	LV	NL	NO	PT
Embed the bioeconomy into new legislative frameworks					●			●				
Revisit existing regulatory frameworks to include bioeconomy concepts and priorities	●	●	●		●	●	●	●	●	●	●	●
Promote establishment of intra-governmental groups to support policy coherence/collaboration amongst different stakeholders	●	●	●	●	●	●	●	●	●		●	●
Promote labels and standards for bio-based products	●	●		●	●	●	●	●	●		●	●
Promote public procurement of bio-based products	●	●	●	●	●	●	●	●	●		●	●
Enhance land management for new production systems and ecosystem functions	●	●				●		●	●		●	●
Promote specific bioeconomy sectors	●	●	●		●	●		●	●		●	●
Promote the principles of "cascading use", "circularity" and "resource efficiency" for biomass	●	●	●	●	●	●	●	●	●	●	●	●
Enhance knowledge on bioeconomy by setting-up knowledge hubs, observatories, information systems, web portals, conferences, etc.			●	●	●	●	●	●			●	●
Implement specific studies (e.g. on feasibility, impact assessments, land use, territorial development, market, foresight)	●	●		●	●	●	●	●	●		●	●
Develop monitoring systems for the bioeconomy		●				●	●	●		●	●	●
Promote communication campaigns for awareness raising (e.g. bioeconomy awards, information systems, events)	●	●	●	●	●	●	●	●	●	●	●	●
Promote educational/training programmes	●	●	●	●	●	●	●	●	●		●	●
Promote investments in bioeconomy research, innovation, market development	●	●	●	●	●	●	●	●	●	●	●	●
Market incentives for bio-based production/consumption (e.g. subsidies, taxes)	●	●	●		●	●		●	●	●	●	

Source: Adapted from *Trends in the bioeconomy - update 2024* [1].

5. SUMMARIES OF NATIONAL BIOECONOMY STRATEGIES

The national bioeconomy strategies and the main related documents are listed and summarised in Table 1.

Table 1: Bioeconomy policy documents in the 12 countries with dedicated bioeconomy strategies.

Country	Strategy documents and links	Summary of strategy
Austria (AT)	<p>Bioeconomy a strategy for Austria (2019)</p> <p>Flagships of the Bioeconomy in Austria (2021)</p> <p>Action Plan Bioeconomy (2022)</p> <p>First strategy adopted: 2019</p> <p>Landing page: Bioeconomy</p>	<p>“Bioeconomy - A strategy for Austria” sets six target areas which are broken down into operational targets that “will enable an effective transition to the actions in the “Bioeconomy Action Plan”.</p> <p>Furthermore, the Austrian strategy establishes “fields of action” in 23 different areas (called in the strategy “spheres”), including “circular economy”, “Wood as a Construction and Building Material”, “Science and Research”. For each of these fields of action, a series of more specific measures are detailed.</p> <p>“Flagships of the Bioeconomy in Austria” shows projects of the Bioeconomy in Austria - a progress report about the implementation of key measures.</p>
Estonia (EE)	<p>Circular bioeconomy roadmap for Estonia (2023)</p> <p>First strategy adopted: 2023</p> <p>Landing page: Bioeconomy</p>	<p>The strategy "Circular Bioeconomy Roadmap Estonia" aims for Estonia to become a recognised development centre for bioeconomy in Europe. Bioeconomy is integrated as a horizontal and cross-cutting theme in its Agriculture and Fisheries Development Plan 2030 and other related plans. Estonia has a strong biomass production base, but there is a need to increase added value and innovation potential for sustainable development of the circular bioeconomy, contributing to climate change mitigation, biodiversity preservation, social, and economic development. The circular bioeconomy roadmap defines activities for its development in Estonia, with regional roadmaps focusing on local bio-resources, community needs, and opportunities for innovative local initiatives and collaborations.</p>
Finland (FI)	<p>The Finnish Bioeconomy Strategy. Sustainably towards higher value added (2022)</p> <p>First strategy adopted: 2014</p> <p>Landing page: Bioeconomy</p>	<p>"The Finnish Bioeconomy Strategy. Sustainably towards higher value added" sets a vision and objective for the national bioeconomy, together with generic, but measurable, targets in terms of jobs and turnover. Furthermore, the strategy establishes four strategic actions to help implement such vision and targets, such as “creating a competitive operating environment for the bioeconomy” and “securing the accessibility and sustainability of biomasses”. For each of these actions the strategy sets specific (2 to 6) goals; each of these goals is accompanied by a series of (2 to 5) measures. The strategy allocates responsibilities for these measures (namely governmental organisations and ministries) as well as other actors to be involved.</p>
France (FR)	<p>The national bioeconomy strategy: restoring photosynthesis at the heart of our economy (2017, in French)</p> <p>Bioeconomy action plan 2018-2020 (2018, in French)</p> <p>First strategy adopted: 2017</p> <p>Landing page: Bioeconomy action plan (in French)</p>	<p>The French bioeconomy strategy outlines a framework for the sustainable development of the bioeconomy, tailored to the country's resources and needs, whilst avoiding overexploitation. This strategy is a collaborative effort among the ministries responsible for agriculture, environment, economy and research, considering also input from a wide range of stakeholders.</p> <p>The "Bioeconomy Strategy - Action Plan 2018-2020" identifies 5 priority axes, from “enhancing the knowledge on bioeconomy” to “removing obstacles and mobilise funding”. For each of those axes, the action plan establishes a series of (4 to 18) operational and specific actions, detailing an estimated timeline, expected deliverables, etc.</p>

Country	Strategy documents and links	Summary of strategy
Germany (DE)	<p>National Bioeconomy Strategy (2020)</p> <p>First strategy adopted: 2020</p> <p>Landing page: Bioeconomy at a glance</p>	<p>The German "National bioeconomy strategy" has 6 central action areas for a sustainable bioeconomy to improve the policy framework, from "Reduction of the pressure on land" to "Exploitation of the potential of digitisation for the bioeconomy". Furthermore, it includes an additional cross cutting action area on political coherence, which links industry, energy, agriculture, forestry and fisheries, as well as climate and environmental policies.</p>
Ireland (IE)	<p>National Policy Statement on the Bioeconomy (2018)</p> <p>Bioeconomy Implementation and development Group (First Progress Report, 2019; Second Progress Report 2023)</p> <p>Bioeconomy Action Plan 2023-2025 (2023)</p> <p>First strategy adopted:2018</p> <p>Landing Page: Bioeconomy Policy</p>	<p>The "National Policy Statement on the Bioeconomy" in Ireland identifies 7 broad key actions. The "Bioeconomy Action Plan 2023-2025" includes 33 actions to accelerate support for the development of the bioeconomy. The plan has a high focus on bringing sustainable scientific practices, technologies and biobased innovation and solutions into use on farms and by biobased industries in Ireland.</p> <p>The "Bioeconomy Implementation and development Group, First Progress Report" assessed the advancement in the seven key actions from the policy statement by taking stock of the specific milestones achieved at the time of its publication (2019). The "Second Progress Report" outlines steps on accountability, transparency, coherency, participation and fairness.</p>
Italy (IT)	<p>BIT II - Bioeconomy in Italy (2019)</p> <p>Implementation Action Plan 2025-2027 (2024)</p> <p>First strategy adopted: 2017</p> <p>Landing page: Bioeconomy</p>	<p>Strategy "BIT II - Bioeconomy in Italy" identifies the R&I agenda and priority actions as well as measures creating and guaranteeing the framework conditions required for its effective implementation. It also sets measurable targets of turnover and employment. The "Implementation Action Plan 2025-2027" is the second action plan. The updated Implementation action plan presents: a detailed action plan for 2025-2027 outlining a series of relevant targeted actions clustered into 5 main Bioeconomy macro-areas; flagship projects that are either in progress or ready for deployment, to provide concrete examples of how circular Bioeconomy investments can serve as catalysts to strengthen and expand the primary Bioeconomy sectors; legislative requirements and economic opportunities; and a plan for the dissemination and monitoring of the plans results and impacts.</p>
Latvia (LV)	<p>Latvian Bioeconomy Strategy 2030 (2017; Summary report)</p> <p>Latvia Bioeconomy Strategy 2030 (2017; translated to English, 2018)</p> <p>First strategy adopted:2017</p> <p>Landing page: Open Bioeconomy (in Latvian)</p>	<p>The "Latvian Bioeconomy Strategy 2030" establishes five key integrated and complementary groups of measures, from "Attractive business environment for the entrepreneurship in bioeconomy" to "Socially responsible and sustainable development". Each of these groups comprise a series of (3 to 10) actions, some quite specific and targeted (e.g. "Replacement of non-renewable resources with bio-resources in public procurement") some others rather broad and abstract (e.g. "Export promotion measures").</p>
Netherlands (NL)	<p>The position of the bioeconomy in the Netherlands (2018, pamphlet)</p> <p>First strategy adopted: 2018</p> <p>Landing page: Circular economy; Biotechnology</p>	<p>"The position of the bioeconomy in the Netherlands" document establishes 8 pillars (themes) vital in the development of bioeconomy policy, including "Using resources within the planetary boundaries", "Sustainable resource management" or "Regional strategy and rural development". The position paper also establishes a transition agenda to boost the bioeconomy in the Netherlands, most of them being quite general and some others (e.g. "transition agenda for biomass and food") more concrete.</p> <p>NB. Since the KCB survey, the document has been removed from official websites of the Dutch government.</p>

Country	Strategy documents and links	Summary of strategy
Norway (NO)	<p>Familiar resources – undreamt of possibilities (2016, in Norwegian)</p> <p>Familiar resources – undreamt of possibilities, summary (2016)</p> <p>First strategy adopted: 2016</p> <p>Landing page: Publication archive, National strategy (in Norwegian),</p>	The Norwegian Government's bioeconomy policy aims to promote sustainable, effective and profitable production, extraction and use of renewable, biological resources into food, feed, ingredients, health products, energy, materials, chemicals, paper, textiles and numerous other products. National focus on the bioeconomy should lead to increased value creation and employment, reduced emission of climate gasses, as well as more efficient, profitable and sustainable use of renewable biological resources. Priority will be given to measures with a national effect on both value creation and employment as well as reduced climate gas emissions and/or more efficient and sustainable use of resources.
Portugal (PT)	<p>Action Plan for a Sustainable Bioeconomy. Horizon 2025 (2021, in Portuguese)</p> <p>First strategy adopted: 2021</p> <p>Landing page: Bioeconomy (in Portuguese)</p>	"Action Plan for a Sustainable Bioeconomy. Horizon 2025" The action plan identifies five axes of action, including "Encouraging sustainable production and intelligent use of regionally based biological resources"; "promoting research, development and innovation and enhance the national scientific and technological capacity of excellence"; "monitoring the bioeconomy", etc. For each axis, the action plan establishes several objectives and specific measures and points to relevant instruments and other relevant strategic documents. The measures are well described and classified into areas of intervention.
Spain (ES)	<p>Spanish Bioeconomy Strategy 2030 Horizon (2016, in Spanish)</p> <p>The 2016 Spanish Bioeconomy Action Plan (2016)</p> <p>First strategy adopted: 2016</p> <p>Landing page: Bioeconomy (in Spanish)</p>	The "Spanish Bioeconomy Strategy, Horizon 2030" sets a framework for the development of the bioeconomy, broken down into key sectors, including the agri-food sector, forestry, industrial bio-based products and bioenergy from biomass and services associated with rural environments. It also establishes a series of initiatives and projects, including innovation projects. It is developed by the Ministry of Economy and Competitiveness, in collaboration with the Ministry of Agriculture, Food and Environment and coordinated by the director of the National Institute of Agricultural and Food Research and Technology. The strategy is accompanied by the 2016 Action Plan. This action plan includes 5 groups of actions, each broken down into a series of specific measures.

Source: Adapted from *Trends in the bioeconomy - update 2024* [1].

For the bioeconomy policy development in the countries without national bioeconomy strategies, but with other policy documents dedicated to the bioeconomy, more information is found in the Bioeconomy country dashboard³. In addition, in the dashboard there is a dedicated section focusing on regional (sub-national) policy developments within the EU, based on a survey done in 2022 [2].

In 2025, the Bioeconomy country dashboard has been enriched with the status of the bioeconomy landscape in eleven Horizon Europe associated countries⁴, mapped and described in collaboration with two experts from Serbia and Ukraine [3].

6. METHODOLOGICAL NOTE

The data and information described in this brief are based on periodical monitoring of the status of the bioeconomy policy development in the EU and in selected third countries, through proactive monitoring of national websites, surveys, consultation with national contact points in the European Bioeconomy Policy Forum and selected experts from countries. However, data might have changed since the present status update (September 2025).

Country experts who would like to complement or provide an update to the data and information collected, can do so by contacting the EC Knowledge Centre for Bioeconomy at EC-Bioeconomy-KC@ec.europa.eu.

³ <https://knowledge4policy.ec.europa.eu/visualisation/bioeconomy-different-countries>

⁴ Albania, Armenia, Bosnia and Herzegovina, Georgia, Kosovo*, Montenegro, North Macedonia, Moldova, Serbia, Türkiye and Ukraine

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