

ROADMAP

Roadmaps aim to inform citizens and stakeholders about the Commission's work in order to allow them to provide feedback and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have.

TITLE OF THE INITIATIVE	Update of the 2012 Bioeconomy Strategy
LEAD DG – RESPONSIBLE UNIT	DG RTD F1
LIKELY TYPE OF INITIATIVE	Communication
INDICATIVE PLANNING	Q3 2018
ADDITIONAL INFORMATION	https://ec.europa.eu/research/Bioeconomy/index.cfm?pg=policy&lib=strategy

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A. Context, Problem definition and Subsidiarity Check

Context

The 2012 EU Bioeconomy Strategy aimed "...to pave the way to a more innovative, resource-efficient and competitive society that reconciles food security with the sustainable use of renewable resources for industrial purposes, while ensuring environmental protection". In 2017 the Commission carried out a review of its 2012 EU Bioeconomy Strategy (SWD(2017)374),¹ which concluded that the Strategy is delivering on key actions and that the importance of the opportunities offered by the Bioeconomy is increasingly recognised in Europe and beyond. Nevertheless, as shown in the SWD, while the objectives of the 2012 EU Bioeconomy Strategy continue to be relevant, and the accompanying Action Plan has delivered on its proposed objectives, a refocusing of the actions and assessment of the scope of the Strategy are considered necessary in light of recent policy developments. Proceeding in this way would

- a) optimise impact across all sectors of the Bioeconomy,
- b) provide a better alignment to the current environmental-techno-socio-economic landscape and rapidly evolving global and EU political contexts, and
- c) it would respond in a better way to political priorities linked to the Sustainable Development Goals, the Paris Climate Agreement, but also a number of EU political initiatives such as: the Commission Work Programme for 2018-2020 (COM(2017) 650 final), EU Plastics Strategy (COM(2018) 28 final), the Energy Union, the EU Communication on the Future of Food and Farming (2017) 713 final), the renewed EU Industrial Policy Strategy (COM(2017) 479 final) the EC Communication on Accelerating Clean Energy Innovation (ACEI) COM(2016)0763 final), the FOOD 2030 Research and Innovation agenda (SWD(2016) 319), the ongoing implementation of the EU Action Plan for the Circular Economy (COM(2015) 614 final) and the proposals for a new waste legislation, the EU Biodiversity Strategy Mid-Term Review (COM/2015/0478 final), the Common Fisheries Policy², the EU Forest Strategy (COM(2013) 659 final), Multiannual Implementation Plan (SWD(2015) 164 final) and Mid-term Review, the Blue Growth Strategy (COM(2012) 494 final), the Convention on Biological Diversity³.

Problem the initiative aims to tackle

In light of the context described above, an update of the Bioeconomy Strategy and its Action Plan is needed to

¹ https://ec.europa.eu/research/bioeconomy/pdf/review_of_2012_eu_bes.pdf

² REGULATION (EU) 2015/812

³ <https://www.cbd.int/doc/legal/cbd-en.pdf>

ensure that its scope and framing are better focused and aligned with the EU political priorities and future challenges. This will lead to the Strategy having more impact and delivering more effectively results in all relevant policy areas, thus enabling higher policy coherence and a reinforced sustainable, circular Bioeconomy across Europe, while also becoming a model for other regions.

Ensuring a sustainable economy through the substitution of non-renewable resources with biological and natural resources in industrial and energy processes remains a challenge that needs to be matched with the need that ecosystems are in good condition and continue to supply their services in the long term and biodiversity is not adversely impacted.

To this end, a systemic approach to future-proofing food systems in Europe, as part of a strategic, system-wide coordination across all policy areas relevant to the Bioeconomy, is essential. To achieve that we need to:

- a) reinforce investment in knowledge, research and innovation;
- b) address potential bottlenecks to dissemination and transfer of innovation and technology;
- c) facilitate market uptake through the appropriate framework conditions, including the regulatory frameworks at EU and national levels;
- d) develop the right performance monitoring and assessment SMART indicators (Specific, Measurable, Achievable, Realistic, Timely);
- e) facilitate the improved interaction among a wide diversity of stakeholders and across all levels of governance to improve the sustainability of the system;
- f) get a better understanding of the environmental and other impacts of (increased) biomass production and direct and indirect impacts of the Bioeconomy on natural resources (such as water, soil, forests, biodiversity and ecosystem services, land-use changes and land-sea interactions) and on existing sectors using biomass.

Basis for EU intervention (legal basis and subsidiarity check)

Articles 179(1), 181(1), 185 TFEU give the Union the overall competence to support, coordinate or supplement the actions of the Member States with regard to their research and technological development activities. Articles 191, 192, 193 give the Union the competence to preserve, protect and improve the quality of the environment and the prudent and rational utilisation of natural resources. The review carried out in 2017 (SWD(2017)374) concluded that some refocussing and further actions would optimise impact across all sectors of the Bioeconomy. The update of the Strategy and its Action Plan further responds to the Circular Economy Action Plan (COM/2015/0614 final). Furthermore, the European Parliament adopted a Resolution on the Bioeconomy Strategy (P7_TA(2013)0302) welcoming the Strategy and calling for more actions at EU level.

B. What does the initiative aim to achieve and how

The updated Bioeconomy Strategy and Action Plan should step up action to ensure that the Bioeconomy provides a long-term balance of social, environmental and economic gains by linking the sustainable use of renewable resources for food, feed, bio-based products and bioenergy, with the protection and restoration of biodiversity, ecosystems and natural capital across land and water. It will drive a system-wide approach, expanding beyond research and innovation, addressing trade-offs between sectors, strengthening circularity and sustainability and delivering on jobs and growth, in contexts valorising local resources and adapted to local needs, and at the different appropriate levels of decision making.

The updated Action Plan needs therefore to continue to address these challenges, while recognising that Europe and its land- and sea-based food systems are likely to be affected by global interconnected challenges, such as climate change, biodiversity loss, unsustainable production and consumption patterns, global demographic growth, migration, urbanisation, the double burden of malnutrition and undernutrition and the evolving attitude and behaviour of European consumers.

The updated Strategy and Action Plan should also provide the framework for a sustainable, secure and cost-effective biomass supply for the bio-based and bioenergy sectors, by using waste, forestry, aquatic and other resources that do not compete with food production, while preserving healthy, productive and resilient land, seas and oceans, and by involving more effectively primary producers in the supply chain and value created.

To reach this objective the updated Strategy and Action Plan should:

1. **Support strategic research and innovation** through the EU, focusing national and regional

investments and private funds for those areas that are key to the Bioeconomy with ambitious but realistic means to implement it.

2. **Strengthen support for the education and training** of a skilled workforce in the Bioeconomy and related fields.
3. **Strengthen and upscale the bio-based sectors** to sustainably convert agriculture-, forestry-, marine- and waste-based resources supporting industrial transformation and a Circular Bioeconomy, with all stakeholders engagement and equitable sharing for primary producers.
4. **Mobilise investments, including through the deployment of new financial Instruments to scale up** and roll out existing and new technologies, as well as industrial demonstrators.
5. **Support the creation of markets** for novel, innovative and more sustainable and circular bioeconomy products and processes through existing and emerging regulatory frameworks, including standards and labels, certification schemes, implementation of waste legislation, food and bio-based products.
6. **Develop better performance monitoring and assessment frameworks**, with SMART indicators, to assess the progress of the Bioeconomy and further support policy developments across relevant sectors.
7. **Encourage the adoption, update and coherence of national and regional Bioeconomy Strategies throughout Europe**, and support the EU rural, coastal and urban areas in exploiting opportunities offered by existing and new bioeconomy value chains, with citizens engagement.
8. **Strengthen the understanding and resilience of land and sea ecosystems**, with a view to increasing resource efficiency, minimising harmful impacts and maximising co-benefits of the bioeconomy, *i.a.* through research and innovation, policy action, guidance, foresight and awareness raising.

C. Better regulation

Consultation of citizens and stakeholders

The views of many diverse stakeholders were already gathered and discussed at a number of events addressing the core topics of the Bioeconomy, including the EU role in supporting Member States in advancing their Bioeconomies. These include Presidency Conferences, meetings of the Standing Committee on Agricultural Research (SCAR), the High-Level Conferences on FOOD 2030, the Expert Group on Forest-based Industries and Sectorally Related issues, Standing Forestry Committee and its Opinion⁴ and meetings of the European Bioeconomy Stakeholders Panel. A high-level conference on 16th November 2017, including parallel sessions organised by nine different DGs (AGRI, GROW, ENV, MARE, CLIMA, ENER, REGIO, SANTE, JRC), provided an opportunity for gathering the views of a diverse set of stakeholders on the current and prospective Bioeconomy. The main contribution to this update is provided by the SWD on the review of the Bioeconomy Strategy and Action Plan (2017). Further inputs were provided by the report of the Expert Group on the Bioeconomy Strategy and Action Plan (2017), the Bio-based Expert Group, the Bioeconomy Stakeholders Manifesto (2017), the Bio-based Industries Joint Undertaking (BBI JU) mid-term evaluation (2017) and the Horizon 2020 mid-term evaluation (2017).

Evidence base and data collection

The SWD on the review of the Bioeconomy Strategy and Action Plan (SWD(2017)374), the SWD on FOOD 2030 European Research and Innovation for Food and Nutrition Security (SWD(2016) 319), the report of the Expert Group on the Bioeconomy Strategy⁵, the work of the Blue Bioeconomy Forum, the mid-term evaluation of Societal Challenge 2 part of Horizon 2020⁶, the work done in preparation of the 2012 Bioeconomy Strategy, the work under the DG JRC-managed Biomass study and Bioeconomy Knowledge Centre, will provide much of the evidence base for the actions to be proposed. In order to underpin specific actions, this will be further supported by analytical evidence, modelling and data gathered through further research and analysis.

⁴ Opinion of the Standing forestry Committee regarding the role of forests and forest sector in bioeconomy https://ec.europa.eu/agriculture/sites/agriculture/files/forest/standing-committee/opinions/opinion-2017-forest_bioeconomy_en.pdf

⁵ <https://publications.europa.eu/en/publication-detail/-/publication/e5685a20-c9c9-11e7-8e69-01aa75ed71a1/language-en/format-PDF>

⁶ [http://ec.europa.eu/research/evaluations/pdf/archive/h2020_evaluations/swd\(2017\)221-interim_evaluation-h2020.pdf](http://ec.europa.eu/research/evaluations/pdf/archive/h2020_evaluations/swd(2017)221-interim_evaluation-h2020.pdf)