



EU Research and Innovation priorities in the EU Bioeconomy Strategy under revision

9 April 2025

BIOEAST Initiative Conference, Bucharest

Tomasz Calikowski
DG Research and Innovation, Green Transitions,
European Commission

Meet the new Commissioner

- ▶ In December 2024, Ekaterina Zaharieva was appointed Commissioner for Startups, Research and Innovation.
- ▶ Priorities:
 - ▶ Strengthening research ecosystems.
 - ▶ Unlocking EU innovation
 - ▶ Boosting EU capacity in key technologies
 - ▶ Building an inclusive Research and Innovation Union
 - ▶ Delivering an ambitious successor to Horizon Europe





New mandate, new priorities

- These 5 priorities are focused on how we **enable** researchers and innovators to thrive in Europe.
- Equally important is **driving** research and innovation forward in key areas. **E.g. bioeconomy, biotechnology, oceans, seas and water, and circular economy.**

R&I for the green transition/**bioeconomy**



Clean energy



Climate change and biodiversity



Urban environment and mobility



Food and health

- ▶ **Clean Industrial Deal**
- ▶ Action Plan on Affordable Energy
- ▶ Industrial Decarbonisation Accelerator Act

- ▶ **European Oceans Pact**
- ▶ Water Resilience Strategy
- ▶ **Updated Bioeconomy Strategy**
- ▶ **European Biotech Act**
- ▶ **Circular Economy Act**
- ▶ European Climate Adaptation Plan

- ▶ Strategic dialogue on the future of the European automotive industry and Industrial Action Plan
- ▶ Sustainable Transport Investment Plan
- ▶ European Port Strategy
- ▶ Industrial Maritime Strategy
- ▶ High Speed Rail Plan

- ▶ **Vision for Agriculture and Food**
- ▶ **Life Sciences Strategy**



Knowledge and citizens



European Life Science Strategy

update

A Strategy for European Life Sciences



Your Voice Matters!

From human and animal health to food and agriculture, life sciences research and innovation can **help drive progress** in key sectors and make Europe more **competitive and sustainable**.

The upcoming **Strategy for European Life Sciences** will identify key challenges and opportunities to drive **innovation, growth, and impact** across Europe, supporting Europe's green and digital transitions.



Share your insights through the Call for Evidence.
Open until **17 April 2025**.

 [Read more](#) |  [Have your say](#)

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Bioeconomy Strategy - Road Ahead

(on behalf of)

Agata Kotkowska

Unit B.1 "Circular Economy, Sustainable Production and Consumption"

Directorate for Competitive circular economy & clean industrial policy

Directorate General for Environment, European Commission

Commissioner Roswall to lead on the Bioeconomy Strategy



Jessika Roswall

COMMISSIONER (2024-2029) | Environment, Water Resilience and a Competitive Circular Economy



As Commissioner for Environment, Water Resilience and a Competitive Circular Economy, Jessika Roswall leads on **2 key policy initiatives** related to the **Clean Industrial Deal**:

- **Circular Economy Act**
- **New EU Bioeconomy Strategy**

*“develop a more **circular and resource-efficient economy**, driving forward the industrial development of clean technologies, reaping the full benefits of the bioeconomy”.*

- Strategic Agenda of the European Council -

Towards a New Circular Economy Act 2026

- **Enhance free movement** of circular products, secondary raw materials and waste
 - **Push:** better availability of high quality recyclates
 - **Pull:** stimulate demand for secondary materials and circular products
- **Harmonise** 'end of waste criteria'
- **Simplify, digitalise and expand** Extended Producer Responsibility schemes
- Public procurement
- Roll out of the work plan for the Ecodesign for Sustainable Products (April 2025).
- Trans-regional Circularity Hubs for smart specialisation and economies of scale for recycling.
- Moving away from fossil-materials, use of new material sources like recycled and biobased plastics.

New Bioeconomy Strategy

*“Life sciences are driving innovation in biotechnology, and hold **great potential for competitiveness** across sectors, from pharma to agriculture to energy to food and feed. The EU Bioeconomy Strategy will position the EU in the **rapidly expanding bioeconomy market** with a significant growth potential in bio-based materials, biomanufacturing, biochemicals, and agri-biotech sectors, **reduce our reliance on fossil fuels** and **improve the economic perspectives of our rural areas.**”* **Competitiveness Compass, January 2025**

*“The Commission will also propose a Bioeconomy Strategy, to **improve resource efficiency** and to tap the **significant growth potential of bio-based materials** substituting fossil-based materials, and related industries. This can also further **reduce dependencies** on imported raw materials. The new bioeconomy sectoral plan will lay down priorities for manufacturing and using biomaterials, and for retaining them as long as possible in the economy.”* **Clean Industrial Deal, February 2025**

Scope of new Bioeconomy Strategy

Pillar I - Securing sustainably-sourced biomass supply

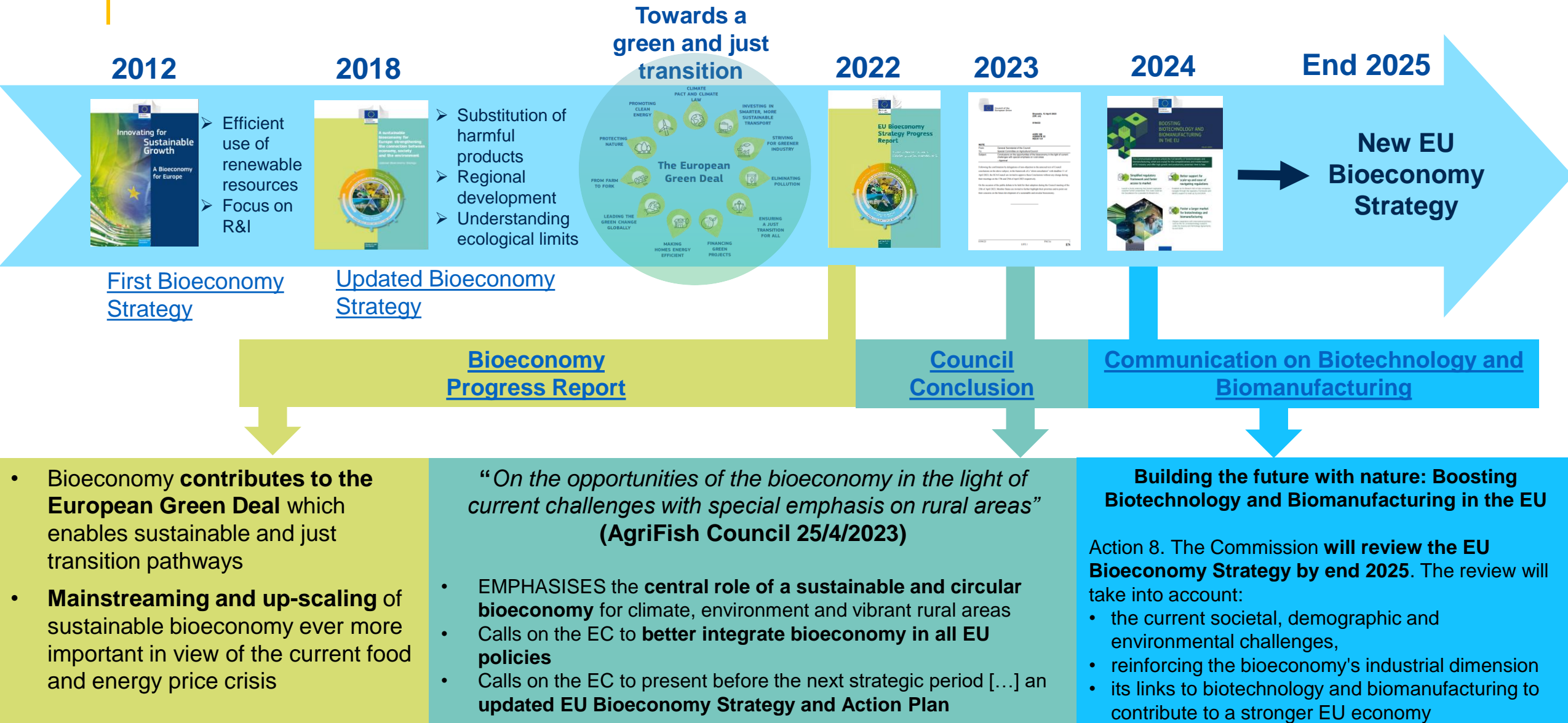
Pillar II - Creating efficient demand for more value from less resources

Pillar III - From Lab to Fab, priorities for scaling up

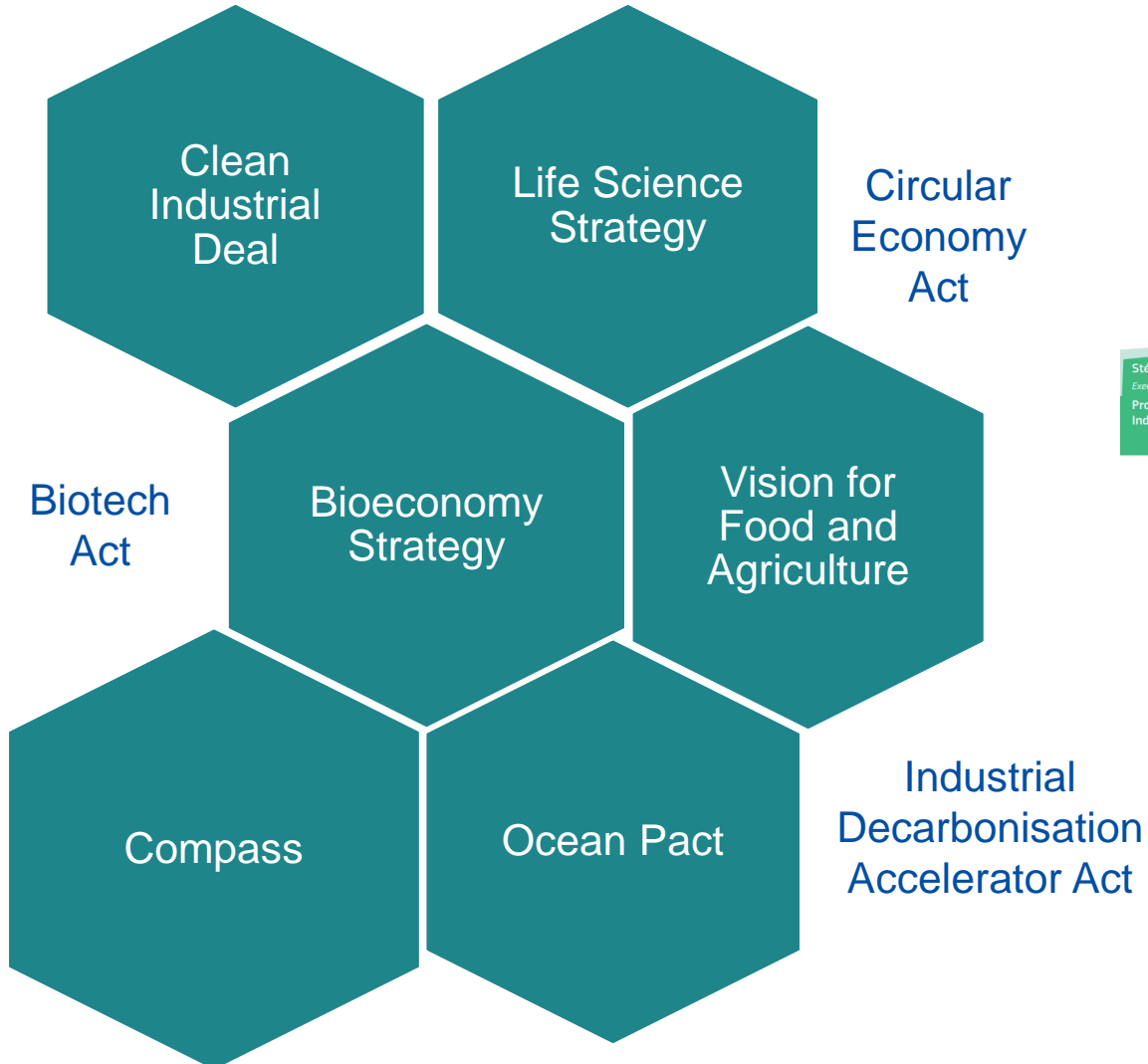
Pillar IV - A globally competitive European bioeconomy sector

- Enhance long-term competitiveness of the EU economy and strategic resilience
- Ensure industrial leadership in addressing climate change, biodiversity loss and pollution
- Lead in the emerging bio-based economy and drive biotechnology innovation
- Secure sustainably supplied biomass and sustainable production of biological resources for food, materials, energy and services
- Create new green jobs

EU Bioeconomy Strategy: building on solid ground



Bioeconomy strategy: interplay with other policy areas



EU Bioeconomy strategy 2025: challenges to address

From Lab to Fab –
priorities for scaling
up



Securing sustainably-
sourced biomass
within planetary
boundaries

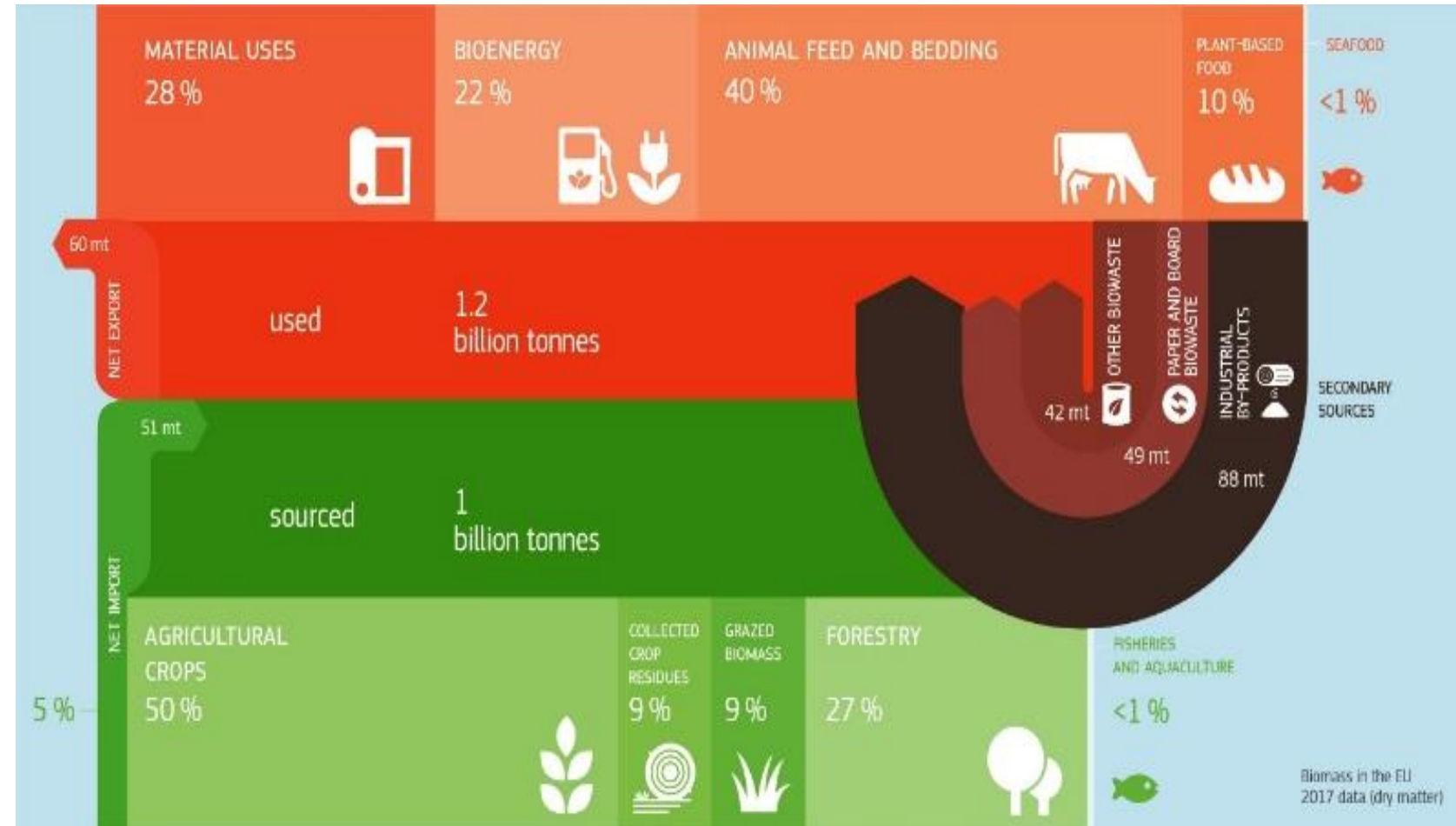
Creating efficient
demand for more
value from less
resources



International
dimension and green
diplomacy

Why EU needs to act: key data on biomass supply and use

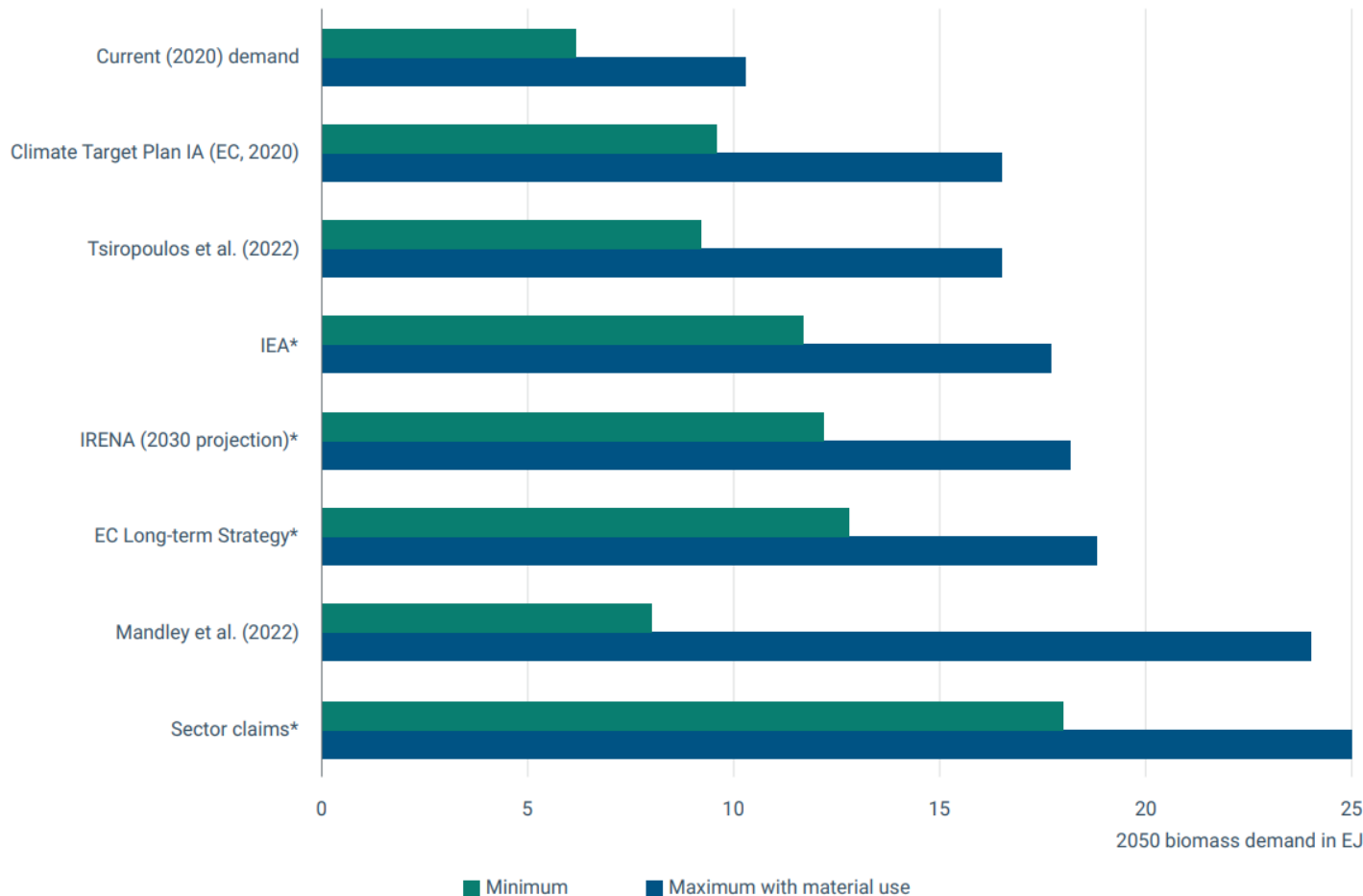
- Supply mostly covered by agriculture and forestry but also by secondary feedstock
- Demand is divided e.g.
 - 40% for animal feed and bedding
 - About 30% for material use
 - More than 20% to bioenergy
- Potential to boost **circularity and recycling** by valorising **bio-waste and by-products of industry**
 - How much is this potential and how to boost it by the new Bioeconomy Strategy?



Source: [JRC Biomass Mandate](#)

Why EU needs to act: key data on projections of biomass demand by 2050

Figure 3.1 Projections of biomass demand for bioenergy and bio-based material use in 2050



- **Increasing demand** especially for bio-energy but also for bio-based materials and products.
- **Potential biomass gap** between increasing demand and sustainable supply by 2050
- **Need for solutions** that reduce pressure
 - Environmental protection and regenerative practices (ecosystem resilience)
 - Sustainable and circular value chains (cascading principle)
 - Valorising bio-waste and by-products (secondary feedstock)
- If biomass gap is not solved it can lead to a competition of land use between different demands

EU BIOECONOMY





European Commission's Knowledge Centre for Bioeconomy

EMPLOYMENT
(MILLION JOBS)
17.19

VALUE ADDED
(BILLION EUR)
728

EMPLOYMENT
(MILLION JOBS) VALUE ADDED
(BILLION EUR) VALUE ADDED
(SHARE TOT)

	AGRICULTURE	8.6	204	28 %
	FORESTRY	0.5	25	3.4 %
	FISHING AND AQUACULTURE	0.2	6	0.8 %

	FOOD, BEVERAGES AND OTHER AGRO-MANUFACTURING	4.7	262	36 %
	BIO-BASED TEXTILES	0.7	25	3.5 %
	WOOD PRODUCTS AND FURNITURE	1.4	66	9.1 %
	PAPER	0.6	49	6.7 %

	BIO-BASED CHEMICALS AND PHARMA- CEUTICALS, PLASTICS AND RUBBER	0.5	78	11 %
	LIQUID BIOFUELS	0.03	8	0.8 %
	BIOELECTRICITY	0.04	6	1.0 %

2022 Progress Report:

- **Increasing number** of national and regional bioeconomy **strategies** promote cross-sectoral cooperation, sustainability principles and **investments in bioeconomy innovation**
- Progress on **bioeconomy deployment in Central and Eastern Europe**, aided by significant **EU funding** and new **fora and networks**
- Mobilisation of **private investments** and **research and innovations** in food and other bio-based industries are increasing
- Europe has a **strong position in the global market** for bio-based chemicals and materials

The Report also **identified gaps**:

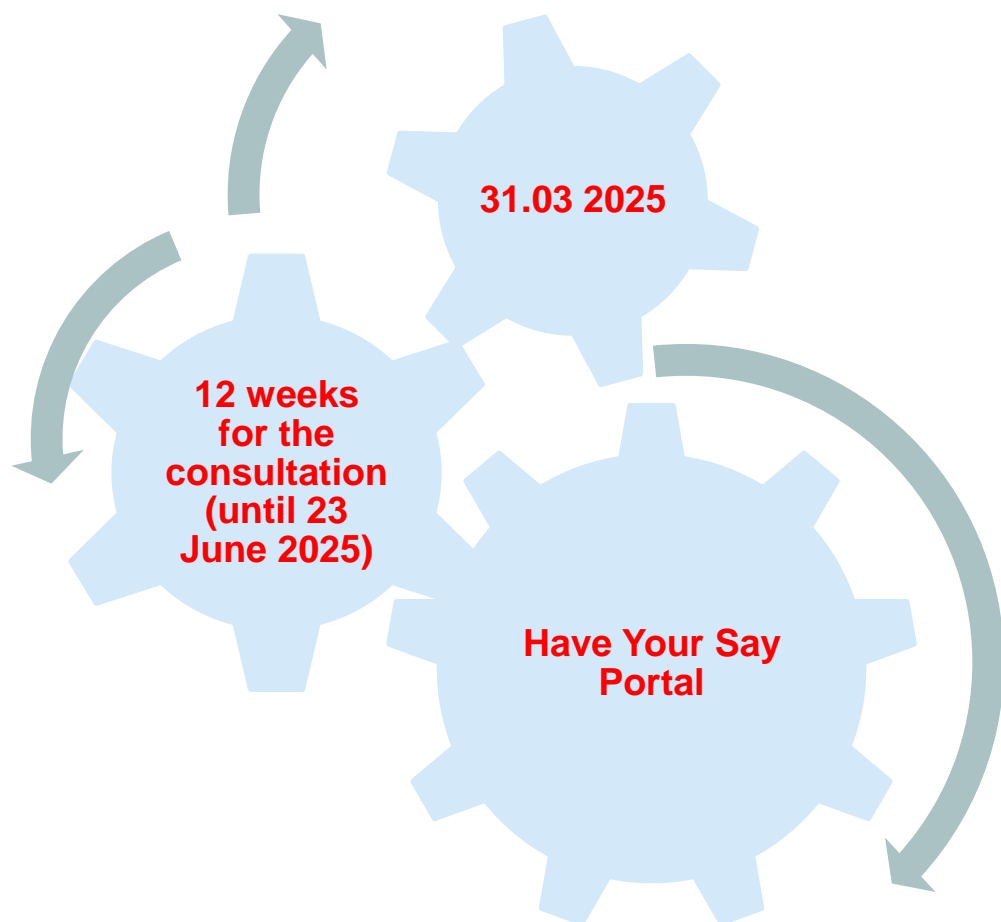
- **Better manage land and biomass demands** to meet environment and economic requirements in a climate neutral Europe
- Work on **more sustainable and circular consumption patterns**

New geopolitical context:

- Need for resilience and increased resource efficiency
- Renewed focus on EU competitiveness.

G20 started a Bioeconomy Initiative, and US and China announced new ambitious bioeconomy plans to strengthen their R&I.

Call for evidence and public consultation of the new EU Bioeconomy Strategy



First questionnaire on bioeconomy in
Have Your Say Portal



About this initiative

Summary

This initiative will aim to offer solutions for a circular and climate neutral economy, boosting the EU's prosperity and competitiveness within planetary boundaries. It will support citizens, regions, and key economic sectors (including agriculture, forestry, fisheries, biomanufacturing and biotechnologies industries and services) to make the best and most sustainable use of biomass, keep material and products in the economy for as long as possible, reconciling planet, people and prosperity.

Topic

Environment

Type of act

Communication

Call for evidence

Feedback: Upcoming

Public consultation

Feedback: Upcoming

Planned for
First quarter 2025

[Towards a Circular, Regenerative and Competitive Bioeconomy](#)

Target audience

The Commission invites stakeholders to provide their input, in particular:

- Citizens
- Businesses and Industries, including SMEs
- Primary producers of biomass, farmers and foresters
- Social partners and representatives of professions, industry, manufacturing and services
- Non-governmental organisations
- Consultancies
- Organisations supporting research and innovation
- Organisations active in education
- Organisations representing regional, local, and municipal authorities, other public or mixed sub-national entities

National and regional public authorities, EU decentralised agencies and other bodies (EU agencies) as well as third country public authorities, or international organisations



Bioeast Initiative connection

update

Council conclusions (HU Presidency)

A potential Europe-wide R&I initiative on advancing sustainable natural resource management, food systems security and the deployment of the bioeconomy, harnessing the potential of Central and Eastern Europe - Council conclusions (29 November 2024)

The following events have helped in collecting further evidence:

- **BIOEAST and Beyond conference** under the HU PRES in December 2024
- **SCAR SG ad hoc workshop** focused on the **bioeconomy needs and potential** in February 2025
- **SCAR SG meeting** with parallel discussion on identifying needs, gaps and potential in **Soil, Fresh water, and Food systems** in April 2025
- **Annual BIOEAST Conference** Bucharest in April 2025 / **Present event** /

Next steps:

- A first **draft report** on gaps and needs will be discussed in the next **SCAR Plenary** meeting in June in Warsaw

Horizon Europe Cluster 6 - support



The work programme 2025 is expected to be published in **mid-April**

More information about the event is available on the EU website

: <https://research-innovation-community.ec.europa.eu/events/6ILZRxBKVsWnJEtjwhVyl/overview>

Horizon 2020 / Europe Cluster 6 WP2023

- **BIOEASTsUP** Advancing Sustainable Circular Bioeconomy in Central and Eastern European countries CSA (2019 – 2023)
- **BOOST4BIOEAST:** BOOSTing the bioeconomy transformation FOR (4) the BIOEAST region (2024 – 2026)

Horizon Europe Cluster 6 WP2025 – draft

- Including a draft topic **HORIZON-CL6-2025-03-GOVERNANCE-07**: “*Strengthening the European Research Area by enhancing the bioeconomy research and innovation ecosystem in BIOEAST countries*”
- This topic targets proposals for the alignment of research and innovation agendas for sustainable natural resources, with a particular attention to soil and water resilience, food systems security, and sustainable biomass valorisation in the bioeconomy.
- The primary goal is to enhance research and innovation capacities, while fostering ownership in BIOEAST and EU accession countries, with special focus on Ukraine, Moldova, and Western Balkans.
- Collaboration with the BIOEAST Initiative is expected to be instrumental in achieving the outcomes of the project.

Thank you