

Bioeconomy in European perspective

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EU Bioeconomy Strategy

The bioeconomy is defined as the activities that deliver sustainable solutions based on biological resources to create added value.

These include

- products, services, science and technologies benefiting sectors ranging from
- agriculture, forestry, fisheries and aquaculture
- to value chains based on biomass processing, biomanufacturing and biotechnologies such as
- in **food, health, energy, industry, ecosystem and other services.**

Biological resources include genetic resources, as well as primary and secondary biomass, such as by-products and residues, and biogenic carbon captured through innovative technologies.

Bioeconomy as a strategic opportunity



17.1 million jobs in the EU in biomass producing and converting activities - generating 5% of GDP

Up to EUR 2.7 trillion
estimated value in EU bioeconomy sectors including goods and services

18% per year growth rate
for the global biotechnology sector, worth over EUR 720 billion

2.9 additional jobs are generated in the EU for every job created in the bioeconomy

The 2040 vision for the European bioeconomy

Sustainable bio-based materials and products widely deployed in the EU

Mobilisation of the EU's strengths to deliver prosperity

Europe, a leading partner, and exporter of sustainable bio-based solutions



Strategic pillars to drive deployment

Scaling up innovation and investments: from lab to deployment



Developing lead markets for materials and technologies



Securing long-term prospects for the bioeconomy: sustainably sourced biomass



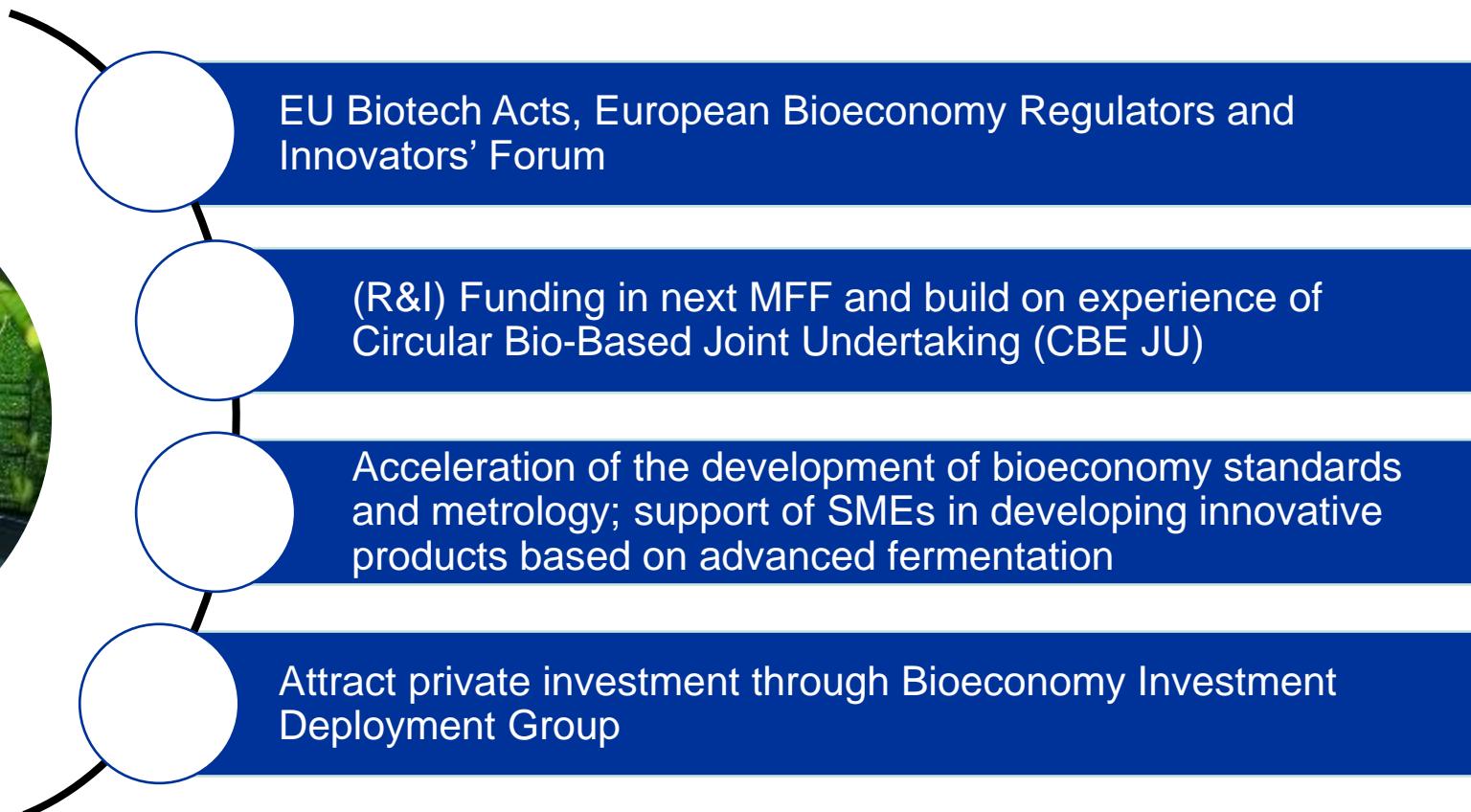
Harnessing global partnerships and opportunities



**Joining forces for delivery:
with Member States, industry, investors & civil society**

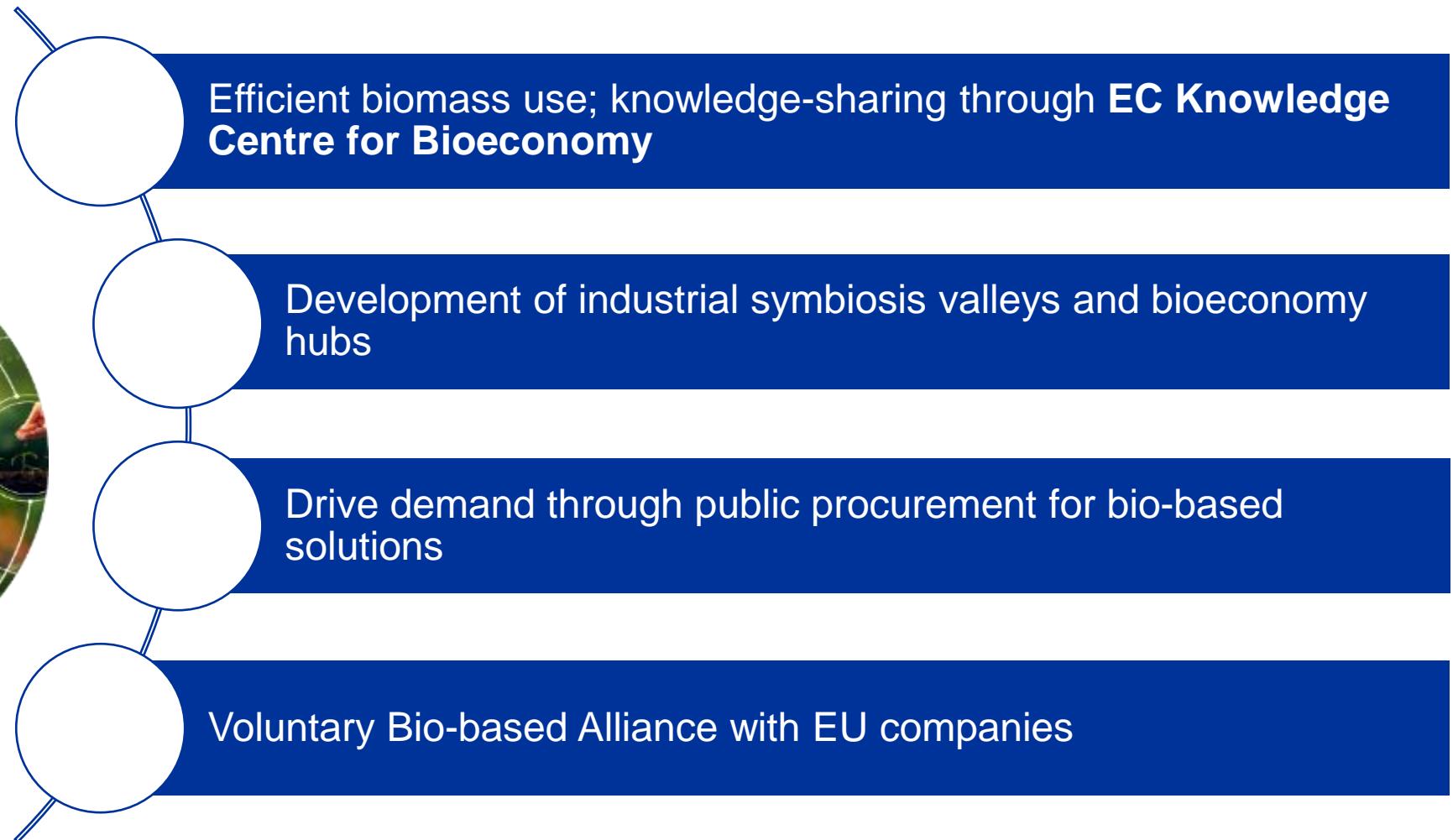
Scaling up innovation and investments

Key actions



Developing lead markets for materials and technologies*

Key actions



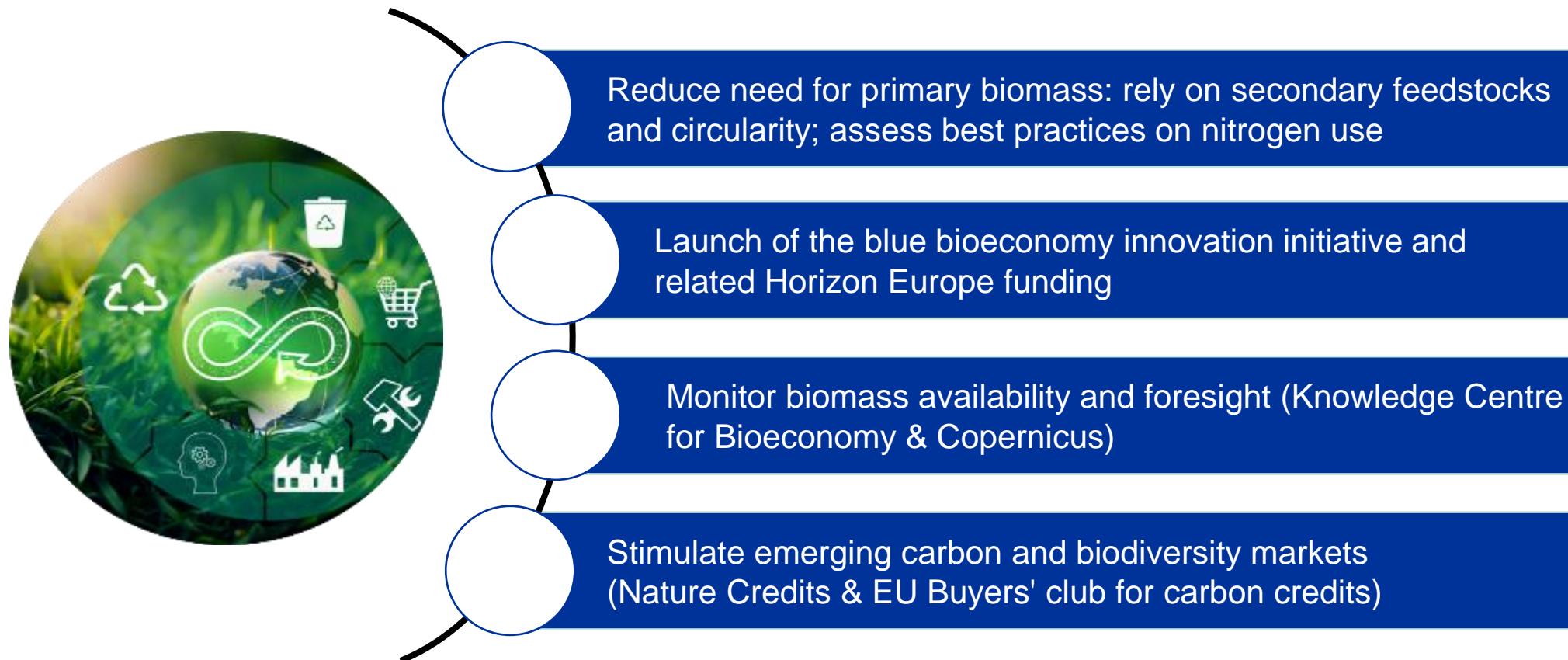
*Lead markets:

- Materials: bio-based plastics, textiles, chemicals, construction products, fertilisers & plant protection products

- Technologies: Biorefineries, advanced fermentation and biomaterials

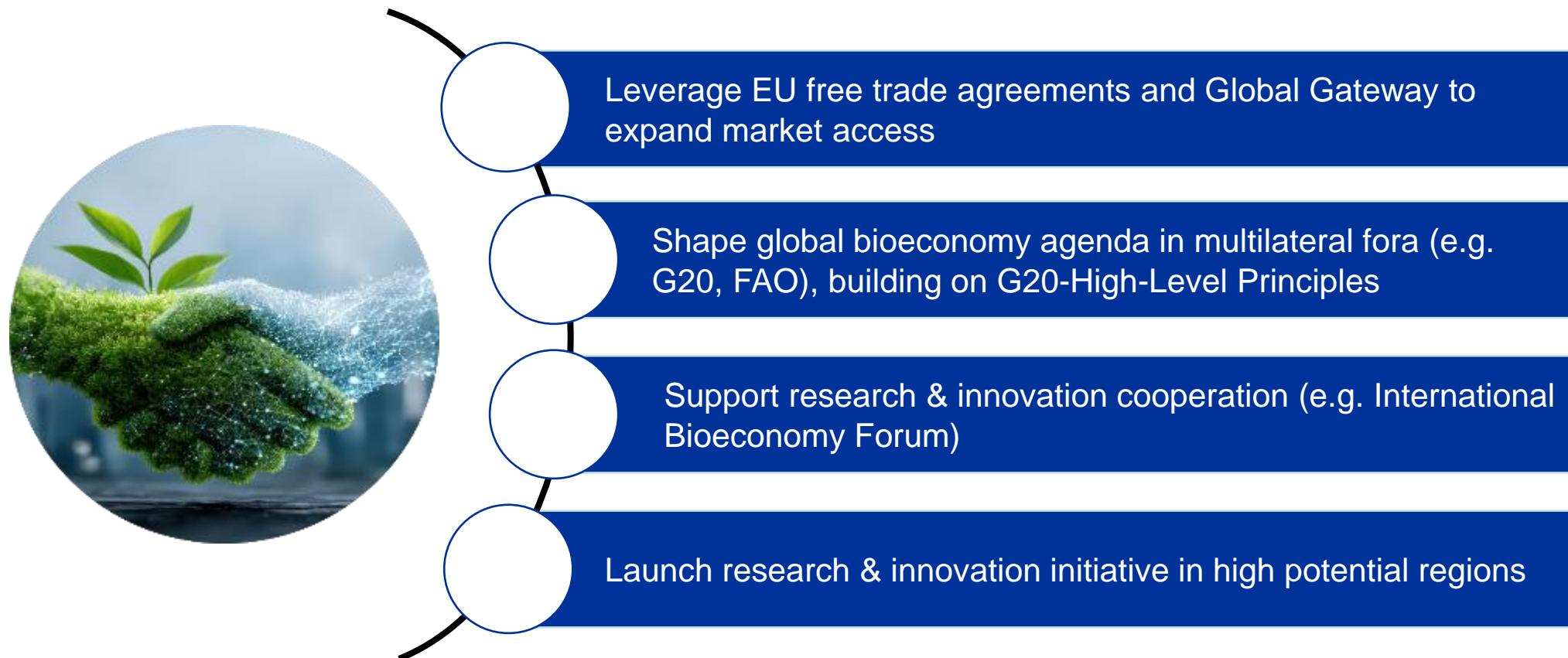
Securing long-term prospects for the bioeconomy: sustainably sourced biomass

Key actions



Harnessing global partnerships and opportunities

Key actions



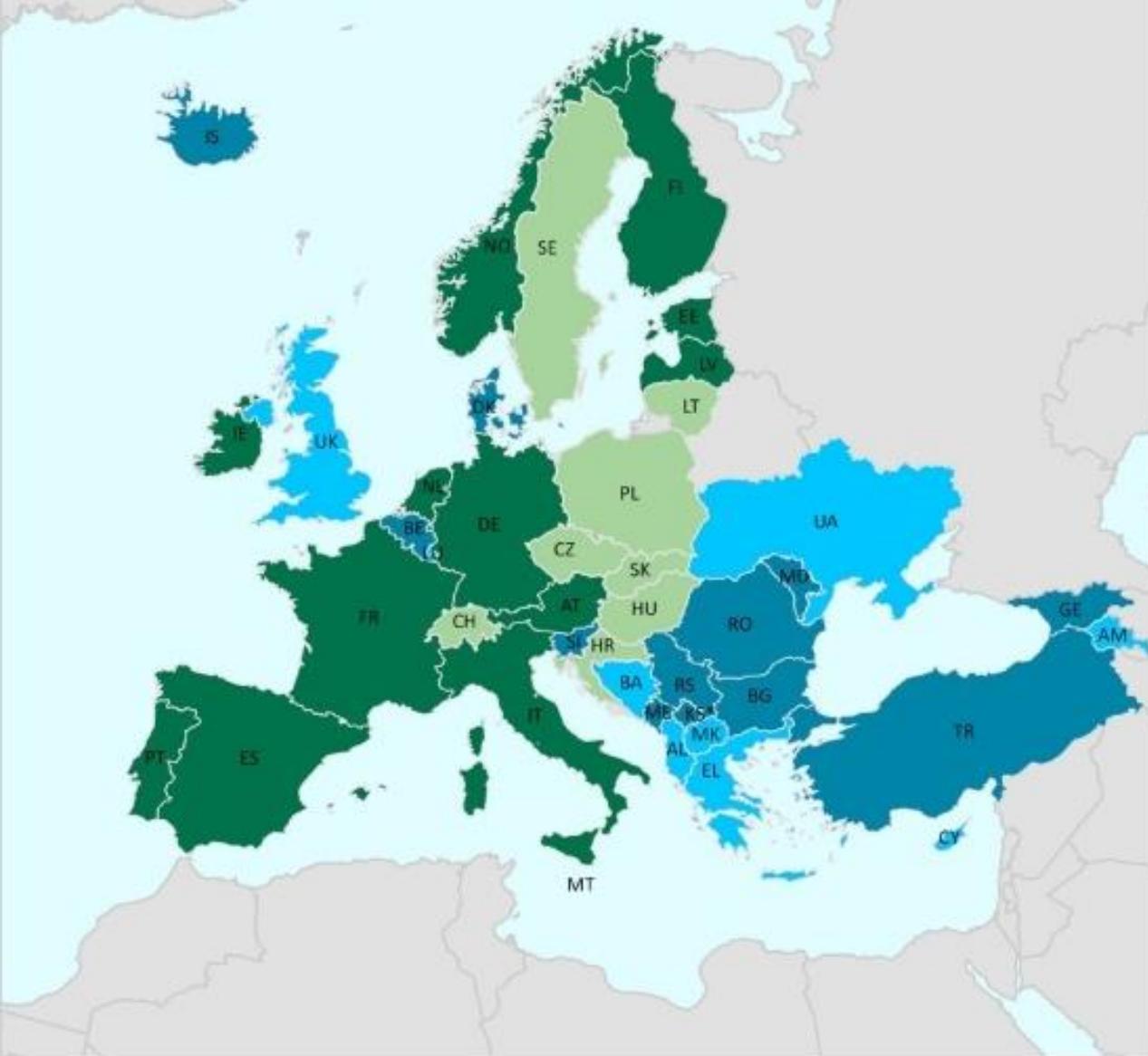
Joining forces for delivery

Dialogues with Member States, regions and stakeholders

EU Bioeconomy Youth Ambassadors  [more here](#)

Improved monitoring through EU Bioeconomy Monitoring System





■ Dedicated bioeconomy strategy at national level

■ Dedicated bioeconomy strategy at national level under development

■ Other policy initiatives dedicated to the bioeconomy

■ Other related strata
■ Data not collected

Source: EC's Knowledge Centre for Bioeconomy
Administrative Boundaries:
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Status of national bioeconomy strategies and related policy initiatives in Europe

- National and regional bioeconomy strategies are becoming more numerous throughout Europe
- Central and Eastern European countries have made significant progress in rolling out bioeconomy initiatives



Bioeconomy Strategy Development in Horizon Europe Associated Countries

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

Neškovič, V., Trofimtseva, O., Eliasson, Å., Barzach, M.T., Zelený, A.



Source: EC's Knowledge Centre for Bioeconomy,
September 2025



Council conclusions on a potential Europe-wide R&I initiative

- Central and Eastern European countries have a comparative **advantage in the bioeconomy** due to its **abundant biomass resources**, which are however largely untapped
- 11 BIOEAST countries gathered political support for „**a potential Europe-wide R&I initiative**“
- The **Council conclusions** have been **adopted** in November 2024 in the Competitiveness Council
- The initiative aims towards enhancing competitiveness by advancing sustainable natural resource management, food system security and the deployment of the bioeconomy by **harnessing the potential of CEE Member States, Western Balkans, and candidate countries**, while supporting the **potential accession of Ukraine**
- A dedicated initiative could help making this macro region competitive in bioeconomy, **benefitting whole Europe**

OUTCOME OF PROCEEDINGS

From: General Secretariat of the Council
On: 29 November 2024
To: Delegations
No. prev. doc.: 15304/24 + COR 1
Subject: 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)

Delegations will find in the annex the Council conclusions on *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*, approved by the Council at its 4063rd meeting held on 29 November 2024.



Draft report on gaps, needs and potential

- The draft report is based on the outcomes of discussions at dedicated SCAR meetings and the Hungarian Presidency event
- Relevant contributions from the Joint Research Centre (JRC), Circular Bio-Based Europe Joint Undertaking (CBE JU), and Bio-based Industries Consortium (BIC)

Key outcomes (biomass):

- The Central and Eastern European countries, Western Balkans, and candidate countries have high and untapped potential in terms of biomass
- Despite high resource potential, effective bioeconomy development in these regions remains underexploited

Key insights: Abundant resources, Modernisation gap, Innovation divide, Need for customised actions, Collaboration and capacity building, Role of R&I, Governance and SMEs

EU value added

Boost biomass valorisation

→ More efficient and sustainable use of biological resources



Develop a more integrated common market for biomass

→ Enhanced cross-border cooperation and resource flow



Advance industrial capacity in rural areas

→ Job creation, local economic growth, and rural depopulation mitigation



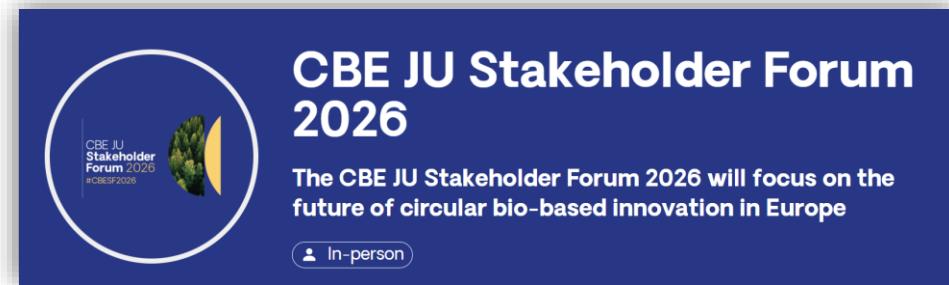
Excerpt from the New EU Bioeconomy Strategy

"The EU will launch a research and innovation initiative to develop and deploy sustainable bioeconomy solutions in regions with high biomass potential, including in BIOEAST countries, Moldova, Ukraine and the Western Balkans. This initiative will mobilise capital and strengthen industrial ecosystems beyond EU borders for the benefit of Member States and EU accession countries and ensure that all efforts are underpinned by robust environmental and social safeguards".

- A targeted approach to enhancing the bioeconomy in regions with significant biomass potential, particularly in Central and Eastern Europe
- These countries, including those part of the BIOEAST initiative, are recognized for their high biomass potential
- An opportunity for countries to enhancing their bioeconomy solutions
- Potentially leading to sustainable development, economic growth, and stronger regional cooperation

Horizon Europe Cluster 6 – examples of bioeconomy / biomass topics in WP 26-27

- HORIZON-CL6-2026-01-CIRCBIO-05: Understanding biomass flows in Europe
- HORIZON-CL6-2026-01-CIRCBIO-12: Bioeconomy policy support hub for Member States, regions and sectors
- HORIZON-CL6-2027-01-CIRCBIO-06: Towards a Europe of Bioeconomy Places
- HORIZON-CL6-2027-01-CIRCBIO-07: Improving biomass flows for a sustainable and circular bioeconomy





THE BIOECONOMY

Innovative Solutions
for a Sustainable
Future



Thank you!
Bioeconomy research and
innovation

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CORDIS Results Pack on microbial blueprints for bioeconomy



Microbiomes
and holobiomes
as drivers of a
sustainable circular
bioeconomy



CORDIS Results Pack on innovative bioeconomy solutions



Strengthening the
EU's prosperity
through sustainable
and circular
bioeconomy
innovations

