

EU Bioeconomy Strategy

Bioeconomy in the New European Innovation Agenda

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Workshop del 'Gruppo di Coordinamento Nazionale per al bioeconomia' – State of implementation of the sustainable circular Bioeconomy in Europe and worldwide Online, 28/11/2023

EU's understanding of the **Bioeconomy**

All sectors and associated services and investments that produce, use, process, distribute or consume biological resources (animals, plants, micro-organisms, including organic waste), including ecosystem services.

- Primary production, based on naturebased solutions within ecological limits
- 'Waste-less' processing & distribution of food, fibre, biomaterials/chemicals, energy
- Services on land and sea



EU Bioeconomy strategy..

- ...addresses all <u>three dimensions</u>
 <u>of sustainability</u>
- ... addresses <u>five different</u><u>objectives</u>
- Cross-sectoral policy framework
- Holistic perspective, identify winwin-win solutions
- Strategic view on <u>trade-offs</u> (e.g. scarce biomass), co-benefits (e.g. for biodiversity)



2018 EU Bioeconomy Action Plan

14 actions in three priority action areas

Strengthen and scale up the bio-based sectors, unlock investments and markets

CBE-JU
Circular Biobased

Europe JU

ECBF
European Circular

Bioeconomy Fund

Blue bioeconomy forum

<u>Deploy local bioeconomies rapidly across the</u> <u>whole of Europe</u>

European Bioeconomy Policy Forum Regional Innovation Valleys for Bioeconomy and Food Systems

BIOEAST

<u>Understand the ecological boundaries of the</u> bioeconomy

Knowledge Centre Bioeconomy Bioeconomy Monitoring System

Integrated Land Use Assessment

STRENGTHEN AND SCALE-UP THE BIO-BASED SECTORS. **UNLOCK INVESTMENTS AND MARKETS** 000 Mobilise stakeholders in development and deployment of sustainable bio-based solutions Launch the EUR 100 million Circular Bioeconomy Thematic Investment Platform Analyse enablers and bottlenecks for the deployment of bio-based innovations Promote and develop standards, labels and market uptake of bio-based products Facilitate the development of new sustainable biorefineries Develop new biodegradable products, including bio-based plastic substitutes **DEPLOY LOCAL BIOECONOMIES RAPIDLY ACROSS EUROPE** Launch a Strategic Deployment Agenda for sustainable food and farming systems, forestry and bio-based products Launch pilot actions for the development of bioeconomies in rural, coastal and urban areas Support regions and Member States to develop Bioeconomy Strategies Promote education, training and skills across the bioeconomy



UNDERSTAND THE ECOLOGICAL BOUNDARIES OF THE BIOECONOMY



Enhance knowledge on biodiversity and ecosystems



Monitor progress towards a sustainable bioeconomy



Promote good practices to operate the bioeconomy within safe ecological limits



Enhance the benefits of biodiversity in primary production

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Regional Innovation Valleys for Bioeconomy and Food Systems

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STRENGTHEN AND SCALE-UP THE BIO-BASED SECTORS. **UNLOCK INVESTMENTS AND MARKETS**



Mobilise stakeholders in development and deployment of sustainable bio-based solutions



Launch the EUR 100 million Circular Bioeconomy Thematic Investment Platform



Analyse enablers and bottlenecks for the deployment of bio-based innovations



Promote and develop standards, labels and market uptake of bio-based products



Facilitate the development of new sustainable biorefineries



Develop new biodegradable products, including bio-based plastic substitutes



DEPLOY LOCAL BIOECONOMIES RAPIDLY ACROSS EUROPE



Launch a Strategic Deployment Agenda for sustainable food and farming systems, forestry and bio-based products



Launch pilot actions for the development of bioeconomies in rural, coastal and urban areas



Support regions and Member States to develop Bioeconomy Strategies



Promote education, training and skills across the bioeconomy



UNDERSTAND THE ECOLOGICAL BOUNDARIES OF THE BIOECONOMY



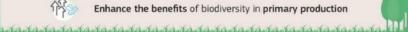
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Enhance the benefits of biodiversity in primary production

Horizon Europe: Structure

Support the creation and diffusion of high-quality knowledge

Strengthen the impact of R&I in supporting EU policies

Foster all forms of innovation and strengthen market deployment



EUR 8,952 billion under Horizon Europe for Cluster 6 "Food, Bioeconomy, Natural Resources, Agriculture and Environment"



AgriChemWhey



Lactic acid, sidestreams for food and

AFTERBIOCHEM

Sidestreams

hygiene products, & polymers

FARMŸNG



& agri-food ⇒

Proteins for animal feed & organic

CIRCULAR BIOCARBON

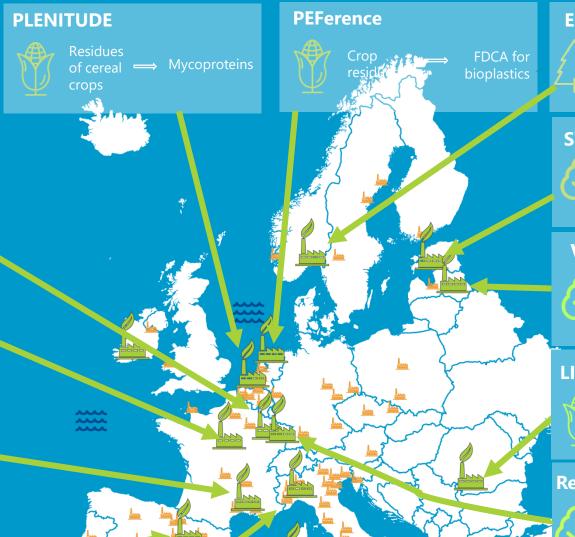


High-value fertilisers to 5G

SCALE



ingredients for food, feed and



Flagship biorefinery

EXILVA



MFC Cellulose → MicroFibrillated Cellulose

SWEETWOODS



→ C5/C6 sugars hardwood & dried lignin

VIOBOND



Forest-

Bio-based

LIGNOFLAG



2G bioethanol building block

ReSolute



harmless & bio-based solvent: Cyrene industry

FIRST2RUN



Building blocks for polyester production & vegetable oils



2014-2020

Bio-based Industries Joint Undertaking:

- € 1 billion funding
- € 2..8 billion private contribution



2021-2031

CBE Joint Undertaking: €2 billion partnership

- European Union

- Bio-based **Industries Consortium (BIC)**



Demonstration plant



- Provide a forum for dialogue and knowledge exchange among MS to support the strategic joint advancement of the bioeconomy in Europe
 - Support networking and interaction at MS level
 - Enhance cooperation and best practice exchange
 - Shape a concrete agenda of joint actions
 - Increase the visibility and potential of the bioeconomy at EU and MS level
 - Enable policy feedback and analysis in MS and the EU

High-level group

to address topics at a strategic/political level

Expert-level group

to address topics at an operational level

Recent **Expert-level meeting 23/11/2023** discussing <u>Bioeconomy Monitoring</u> and the proposal for creating <u>dedicated NACE codes for biobased products</u>



Status of national bioeconomy strategies:

Status of the national bioeconomy policies in the EU-27

(as of Dec 2022)

- 11 Member states with dedicated bioeconomy strategies at national level (AT, DE, ES, FI, FR, IE, IT, LV, NL, PT)
- 6 MS in the process of developing their respective dedicated national strategies (CZ, HR, HU, LT, PL, SE, SK)
- 6 MS are involved in other macroregional (BG, DK, EE, RO, SI) or subnational (BE) policy initiatives dedicated to the bioeconomy

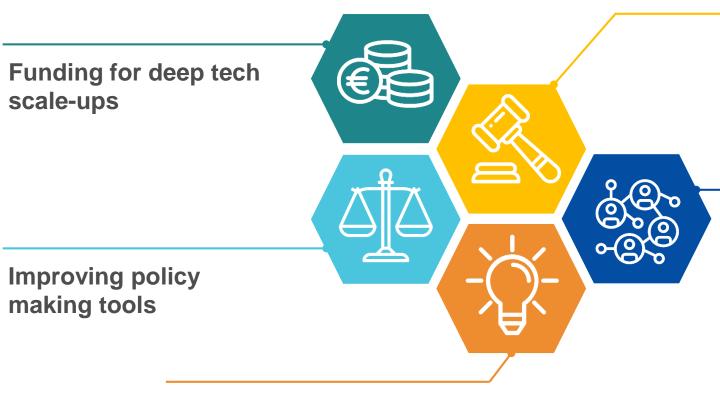


Other policy initiatives dedicated to the bioeconomy

Other related strategies at national level

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New European Innovation Agenda: five flagships



Enabling deep tech innovation through experimentation spaces and public procurement

Accelerating and strengthening innovation in European Innovation Ecosystems across the EU and addressing the innovation divide

Fostering, attracting and retaining deep tech talent



Regional Innovation Valleys

regions at different levels of developme nt

less and more innovative regions

development and deployment of innovation

deep tech innovation

up to **100 regions** across the EU as Regional Innovation Valleys



The first calls for proposals 17 May - 17
October 2023: EUR 60 million European
Innovation Ecosystems (Horizon Europe)
and EUR 62 million Interregional
Innovation Investments (I3) instrument —
Cohesion Funds

Commission

Concept Note on Regional Innovation Valleys for Bioeconomy and Food Systems (RIV4BFS)





Supporting "New European Innovation Agenda" & creating up to 100 Regional Innovation Valleys

- Increase inter-connectedness among European regional innovation ecosystems
- Scale- + speed up sustainable solutions supporting sustainable bioeconomies
- Value webs / 3 sustainability dimensions
- Regional sustainable biological resources, nature-based solutions



Outlook

EU Bioeconomy Strategy



Findings of the EU Bioeconomy Progress Report

- Bioeconomy contributes to the European Green which enables sustainable and just transition pathways
- **Mainstreaming and up-scaling** of sustainable bioeconomy ever more important in view of the current food and energy price crisis
- Possible additional focus identified
 - Biosphere stewardship strategy: Focus on resolving multiple pressures on land and sea
 - Consumption-based framework: Focus on the overall consumption of biological resources

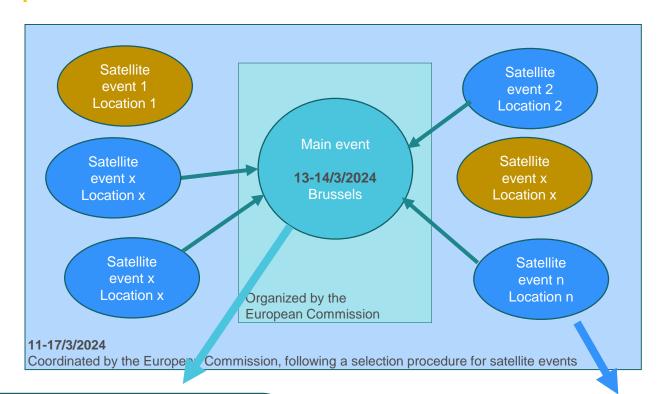
Council Conclusions "On the opportunities of the bioeconomy in the light of current challenges with special emphasis on rural areas"

(AgriFish Council 25/4/2023)

- Importance for sustainable solutions in rural areas
- Importance of innovative tools and technologies
- Need to deploy a sustainable and circular bioeconomy in a holistic and coordinated way
- EC to present before the next strategic period [...] an updated EU Bioeconomy Strategy and Action Plan

COMMISSION I

Bioeconomy Changemakers' Festival 2024 Youth as drivers of the transformative change



- Policy keynotes & discussions
- Changemakers stories
- Youth Action Assembly
- Networking session

IDEAS FOR ACTIVITIES

- Youth assembly
- Policy discussions
- Career opportunities
- Bioeconomy art/entertainment
- Educational activities

1. Bioeconomy Changemakers' Festival

- Enabling/supporting transformational change
- Showcasing opportunities & success stories

2. Reaching out beyond Brussels

- Satellite events link to local changemakers' activities
- Funded/organised own responsibility
- Call for interest & selection procedure
- Interactive link to event in Brussels & contribution to Youth Action Assembly

3. Engaging youth in policy and action

- Youth Assembly in cooperation with and satellites
- → Youth Manifesto



Thank you

2018 EU Bioeconomy Strategy

https://research-and-innovation.ec.europa.eu/research-area/environment/bioeconomy/bioeconomy-strategy_en

EU Bioeconomy Young Ambassadors

https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/meet-our-bioeconomy-youth-ambassadors-2022-08-04 en

EU Bioeconomy Progress Report 2022

https://research-and-innovation.ec.europa.eu/news/all-research-and-innovation-news/adoption-bioeconomy-strategy-progress-report-2022-06-09 en

EU Bioeconomy Conference 6-7/10/2022

https://eu-bioeconomy-conference-2022.b2match.io/



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