







Sustainable Food Systems:

Cluster approaches in the bio-based economy

15 November 2023

08:30-09:45 CET

Online

#SingleMarket30

Agenda

- News from the European Cluster Collaboration Platform
 Nina Hoppmann, Team Member, European Cluster Collaboration Platform
- Common agricultural policy (CAP) and bioeconomy
 Tsjerk Terpstra, Policy Officer, DG AGRI, European Commission
- Circular Bio-based Europe Joint Undertaking
 Nicoló Giacomuzzi-Moore, Acting Executive Director, CBE JU
- 4. Panel debate

 Stephen Barry-Hannon, Senior Researcher & Project Manager, Circular Bioeconomy

 Cluster South-West
 - **Susana Caio**, Project Manager, InovCluster **Yuan Chai**, International Affairs Officer, Wagralim
- 5. Funding opportunities

 Nina Hoppmann, Team Member, European Cluster Collaboration Platform





Housekeeping rules

Zivile Kropaite, presenter

- We will use slido to launch polls. Please scan the QR code to answer.
- Please use the Zoom Q&A function to ask questions, and the chat function to comment or share links
- If you want to speak: Please raise your hand and we will give you the floor.
- Please note that the session is being recorded and that the recording will be published on the European Cluster Collaboration Platform.





NEWS FROM THE EUROPEAN CLUSTER COLLABORATION PLATFORM





Save the Date: European Cluster Conference

The next European Cluster Conference is around the corner!

When? **7-8 May 2024**

Where? Brussels - Square

What? Panel discussions, parallel sessions, workshops, matchmaking, site visits, exhibition

Submit your topic and speaker ideas for the programme by 24 November!

https://ec.europa.eu/eusurvey/runner/ECCCallforideas2023



Follow the livestream of the SME Assembly on 13-15 November

The Assembly will feature high-level panels and interviews, expert round tables, interactive workshops, informative masterclasses and numerous networking opportunities. These will help stimulate Europe's enterprises and equip them with the right tools for the transition towards sustainability and digitalisation.

You can follow the event via the **livestream**.

Download and install the Promoting Enterprise app.





Take part in the Cluster Booster Academy

The Cluster Booster Academy is an annual event designed for 35 to 50 **cluster managers**. This third iteration will maintain a hybrid format, this time spanning five days:

- 3 days of online training sessions: 23-25 January 2024. In the mornings from 10 AM to 2 PM CET. This virtual component comprises 1 full day and 2 half days with smaller, more interactive sessions.
- 2 days of in-person training sessions: 11-12 March 2024, hosted at the Automotive Cluster in Sofia, Bulgaria, allowing participants to personally get to know each other, strengthen networking, and enhance collaboration.

If you are a cluster manager looking to enhance your skills, apply now.



Join Clusters meet Regions!

The objective of the 'Clusters meet Regions' events is to facilitate the implementation of good practices where clusters play an active role in regional economies and are **drivers for economic transition**, and to create and promote **collaborations between clusters and regional stakeholders** for the industrial development of the regions.

All event will also have **matchmaking sessions**!

- Iași, Romania 21-23 November 2023; registration open
- Kraków, Poland 11-12 December 2023; registration open

The next **call** to host a 'Cluster meet Regions' event is published! It is open to institutions such as clusters, regional agencies for economic development, and business network groups.













Feedback survey for ECCP users

Please share your opinion!

We are constantly looking for ways to improve our ECCP activities to best suit the needs of our community. As such, we kindly ask for your **feedback** on some key features and its utility.

https://ec.europa.eu/eusurvey/runner/ECCP_users

The European online hub for industry clusters

Strengthening the European economy through collaboration



Map industrial clusters and find partners

per country, region, sector or industrial ecosystem

Explore

Our services

The services of the European Cluster Collaboration Platform to support your work



EUCLUSTERS TALKS *











Clusters meet Regions

Join clusters and policymakers in the local, regional, and national level and work on strengthening the industrial ecosystem of regions.

EU Clusters Talks

Your weekly opportunity to exchange knowledge and discuss topics significant to the EU business community

EU Clusters Matchmaking Events

Team up with other cluster organisations from Europe and third countries and find new collaboration opportunities at dedicated matchmaking events.

C2Lab

Interactive workshops for cluster organisations, companies, and other interested entities to meet up, establish new collaborations and develop project

Cluster Booster Academy

Join our Cluster Booster Academy, meet other cluster managers and learn how to further develop your cluster and overcome challenges in your daily work!

Green Transition Support

Connect with other businesses in the green transition, and get practical knowledge, tools and information you need for your

Trend Universe

A strategic foresight instrument which allows you to get a deeper understanding of future trends and their impact on your cluster organisation.



Common agricultural policy (CAP) and bioeconomy

Tsjerk Terpstra

Policy Officer, DG AGRI, European Commission







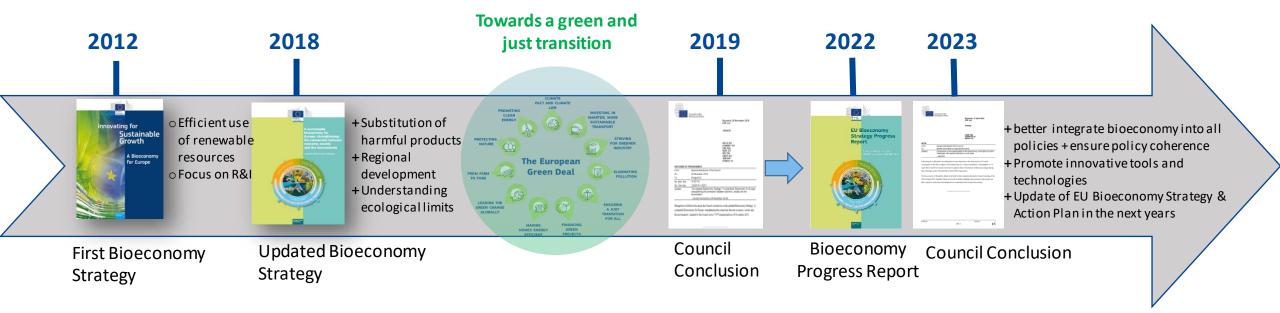
Bioeconomy & the Common Agricultural Policy (CAP)

EU Clusters Talks: Sustainable food systems - Cluster approaches in the bio-based economy

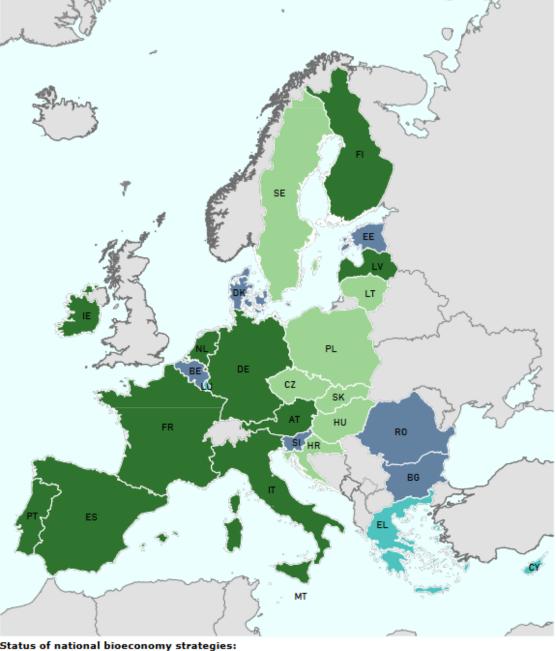
Tsjerk TERPSTRA, European Commission, Directorate General for Agriculture and Rural Development

15 November 2023

EU Bioeconomy Strategy







Status of the national bioeconomy policies in the EU-27

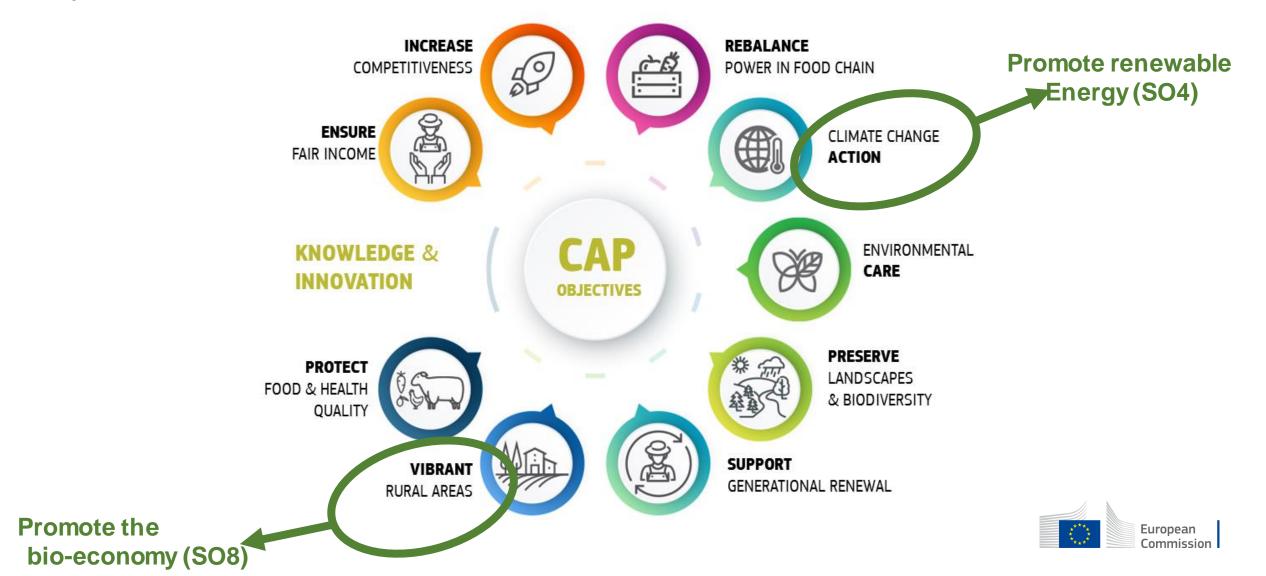
(as of Dec 2022)

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



Other related strategies at national level

CAP Objectives & Bioeconomy



CAP Strategic Plans – shared management

- Single CAP plan for all interventions with a common monitoring system
- Strategic approach based on needs assessment
- Structured dialogue with Member States
- MS draws up and submits the CAP Plan

INFO

- CAP Plan is approved by the Commission
- Implementation of the CAP Plans started in 2023

https://agriculture.ec.europa.eu/cap-my-country/capstrategic-plans_en



EU SPECIFIC OBJECTIVES

Contribute to climate change mitigation and adaptation, [...] as well as to promote sustainable energy

Promote employment, growth, gender equality, including the participation of women in farming, social inclusion and local development in rural areas, including circular bioeconomy and sustainable forestry

IMPACT INDICATORS

- ...
- I.12 Increasing sustainable energy in agriculture: Sustainable production of renewable energy from agriculture and forestry

RESULT INDICATORS

- ...
- R.15 Renewable energy from agriculture, forestry and from other renewable sources: Supported investments in renewable energy production capacity, including bio-based (in MW)
- **R.16 Investments related to climate:** Share of farms benefitting from CAP investment support contributing to climate change mitigation and adaptation, and to the production of **renewable energy** or **biomaterials**
- ------
- **R.39 Developing the rural economy**: number of rural businesses, including bio-economy businesses, developed with CAP support



Bioeconomy in CSPs

- Most CSPs identified a specific need to develop the bioeconomy.
- Investments, cooperation, knowledge exchange and environment and climate measures are used to support the bioeconomy in CSPs.

Investments

- Investments in the production of renewable energy (onfarm/off-farm).
- Investments in improving energy efficiency
- Investments in infrastructures and equipment that enhance the recovery of sludge, manure, and by-products
- Investments in small-scale infrastructure in rural areas
- Collective investments in e.g. biogas installations

Cooperation

- Cooperation costs to promote new forms of cooperation between different actors
- LEADER projects based on local development strategies
- European Innovation Partnership (EIP-AGRI)

Area-based Environment and Climate interventions

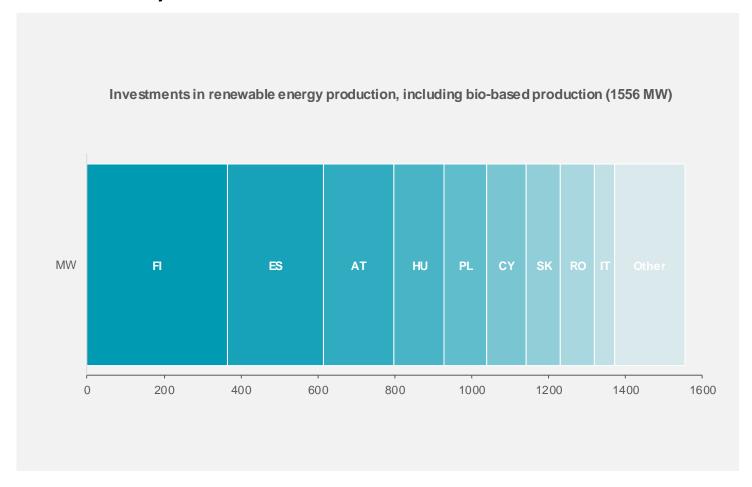
- Ecoschemes
- Environment and climate commitments

Knowledge exchange and dissemination of information

- Trainings
- Advice
- Awareness



Renewable energy (including bio-based production) in CSPs





Thank you



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Circular Bio-based Europe Joint Undertaking

Nicoló Giacomuzzi-Moore

Acting Executive Director, CBE JU







Circular Biobased Europe JU: boosting competitiveness in regions

Nicoló Giacomuzzi-Moore Acting Executive Director Bruxelles, 14/11/2023





Circular Bio-based Europe Joint Undertaking

€2 billion public-private initiative

Launched in 2021, operates until 2031



Part of Horizon
Europe
programme



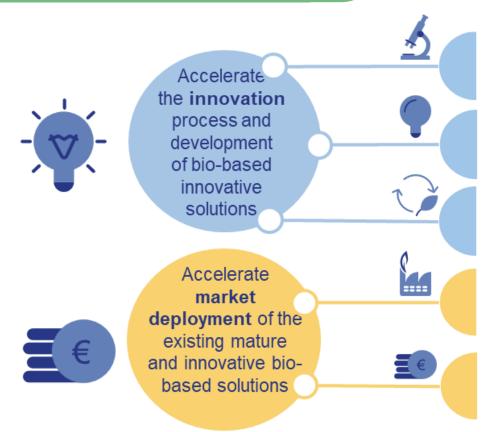
Contributing to the European Green Deal

Building on the success of its predecessor BBI JU



CBE JU and its Objectives

General and Specific CBE JU Objectives



Increase cross-disciplinary **research and innovation** activities, reaping its benefits for the development and demonstration of **sustainable bio-based solutions**.

Increase and integrate the research and innovation capacity of stakeholders across the EU to unlock bioeconomy potential even in regions with underdeveloped capacity.

Increase the **research and innovation** capacity and development of sustainable bio-based innovations, by ensuring that sustainability issues and environmental performance are integrated throughout the whole **innovation chain.**

Reinforce the integration of **bio-based research** and innovation in EU bio-based industries and increase the involvement of R&I actors, including feedstock providers, in the **bio-based value chains**.

Reduce the risk for research and innovation investment in bio-based companies and projects.



Ensure
a high level of
environmental
performance
of bio-based
industrial
systems



Ensure that **circularity** and environmental considerations, including contributions to **climate neutrality** and **zero pollution** objectives, are considered in the development and implementation of R&I bio-based projects and facilitate **societal acceptance**.

CBE JU and its Objectives

product facility in Europe Types of supported actions Scale up and demonstration of technologies Development and validation of technologies

Large-scale first-of-its-kind

IA Innovation Actions (including Flagships)

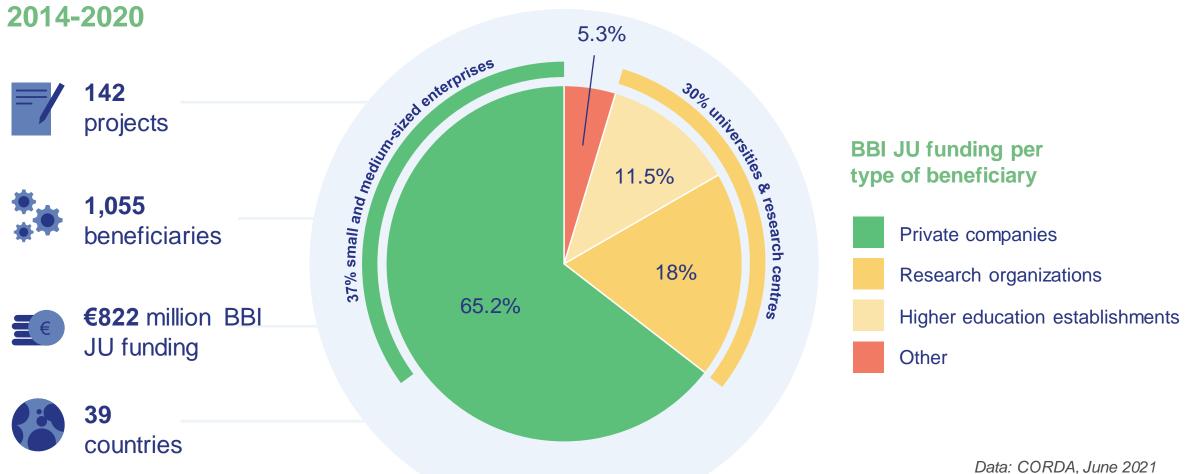
Technology Readiness Level (TRL)

RIA Research and Innovation Actions

CSA: Coordination and Support Actions (no link with TRLs)



Building on the success of BBI JU





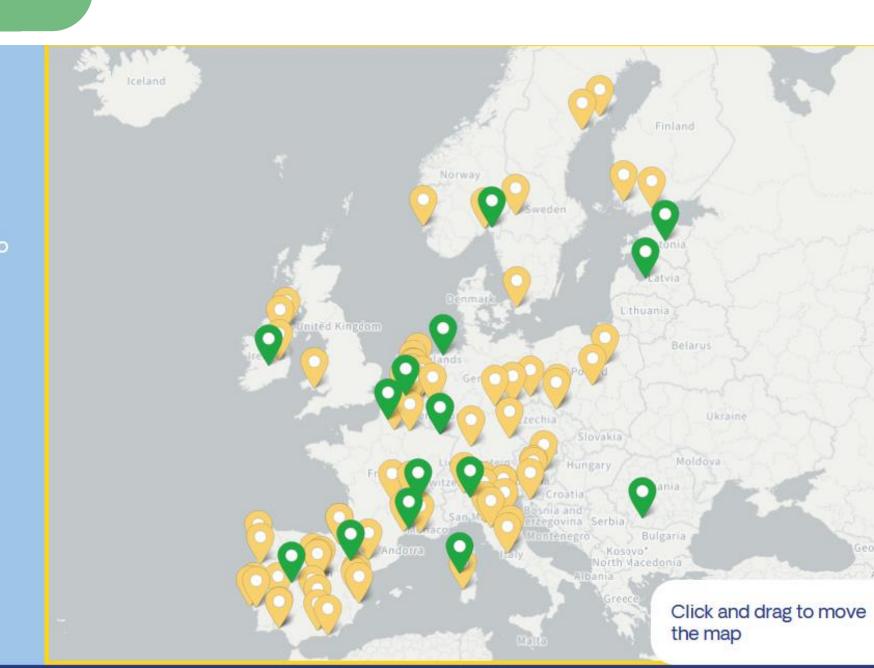
On the map

CBE JU is funding first-of-their-kind biorefineries and demonstration plants to help expand the European circular biobased economy.

Select what you want to see:

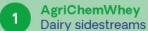
Demonstration plant

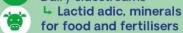
Flagship biorefinery

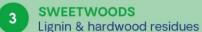


CBE JU flagship projects

Feedstock & final product







→ High-quality C5/C6 sugars & dried lignin

5 PLENITUDE

Residues of cereal crops

Mycoproteins

FARMŸNG

Mealworms & agri-food sidestreams

Proteins for animal feed
& organic fertiliser

ReSolute

Sidestreams from pulp

& paper industry

Biodegradable, harmless
bio-based solvent: Cyrene

CIRCULAR BIOCARBON

Municipal solid waste

LIGNOFLAG

Crop residues

♣ 2G bioethanol biofuel building block

SYLPLANT

Agri-based & wood based

Alternative protein sources for food & feed ingredients

2 EXILVA

Cellulose

MFC - MicroFibrillated

Cellulose

4 VIOBOND

Forest-based

Bio-based resins

6 PEFerence

Crop residues

FDCA for bioplastics

AFTERBIOCHEM

Sidestreams from sugar beet
Flavourings, fragranges, hygiene
products, pharmaceuticals,
antimicrobials & polymers

SCALE Microalgae

Nutritional ingredients for food, feed and cosmetics

FIRST2RUN

Underutilised oil crops

► Building blocks for polyester production & vegetable oils

SUSTAINEXT

Crops & agro-industrial side-streams

Ingredients for food, feed, cosmetics & fertilisers







13 Flagship projects:

Expected socio-economic impacts

biorefinery





4,700 direct jobs





€5.2 private investment for

€1
CBE JU grant-leverage effect





800+ KT CO₂ emission savings





* Based on aggregated confidential data provided by the projects and subject to change until the Flagship plants are implemented





PLENITUDE Sas van Gent, the Netherlands



CBE JU contribution: €16.94 million

Duration: October 2019 – March 2025





Objective: to create the first-of-its-kind, large-scale, lowestcost, zero-waste biorefinery for the production of (Mycoprotein) from low cost sustainable feedstocks.

Feedstock: Agri-based (grains such as wheat)

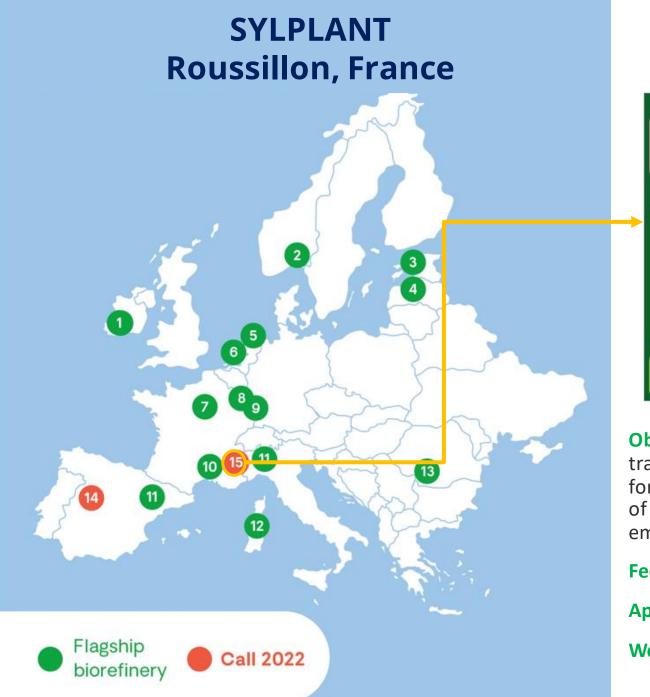
Applications: Food (alternative

proteins)

Webpage:

https://www.plenitude-bbi.com/

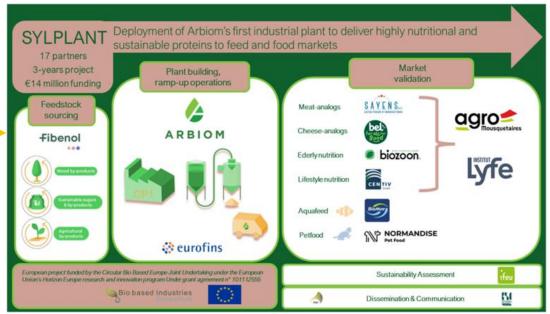






CBE JU contribution: €13,9 million

Duration: June 2023 – May 2026



Objective: to deploy at industrial scale a technology which transforms underexploited feedstock, such as agricultural or forestry residues with yeast, in order to produce 10 000 tonnes of protein ingredients per year while minimising CO2 emissions.

Feedstock: Agri-food and Forest-based

Applications: Food & feed

Webpage: in progress



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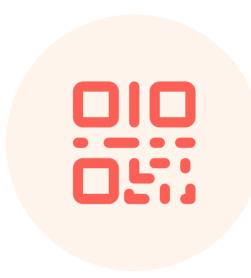


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Bio·based Industries Consortium





Join at slido.com #Bioeconomy



Are you or your members working with biobased materials?



In one word, what is in your view the value of the bio-based economy?



What is the biggest challenge to use biobased materials?



Which aspects of sustainable food systems interest you the most?

Panel debate

Stephen Barry-Hannon, Senior Researcher & Project Manager, Circular Bioeconomy Cluster South-West

Susana Caio, Project Manager, InovCluster

Yuan Chai, International Affairs Officer, Wagralim





FUNDING OPPORTUNITIES





From silos to diversity – small-scale bio-based demonstration pilots

- Projects should, among others:
 - Develop **new business models** for the economic-viable valorisation of local underutilised feedstock, such as by-products, residues, and waste, from land and livestock.
 - Demonstrate **suitable processes and technologies** to produce high-value bio-based materials and products in rural conditions with an active role of primary producers (farmers and foresters) in the value chains.
 - Build-upon existing food, feed, or bioenergy value chains to further strengthen their economic and environmental sustainability through synergistic **interlinkages** and in line with the cascading principle.
 - Improve the knowledge on the quantitative and qualitative requirements, harvesting, logistics, pretreatment (e.g. mechanical, thermal) and conversion of the feedstock.
- Deadlines: 22 February 2024; 17 September 2024
- HORIZON-IA HORIZON Innovation Actions
 Topic ID: HORIZON-CL6-2024-CircBio-02-6-two-stage
- Published on <u>Funding & Tenders Portal</u>



Circular bioeconomy start-up villages

- Projects are expected to contribute to:
 - **Development and transfer** of the concept of sustainable circular bioeconomy solutions in start-up villages;
 - Showcased **novel governance and business models** for circular systemic bioeconomy solutions in start-up villages or their groupings;
 - Strengthened **position of bioeconomy start-ups** in rural innovation ecosystems for the development of new value-added products, technologies and approaches;
 - Enhanced **training** opportunities and knowledge exchange and cooperation among rural innovators;
 - Improved rural **innovation** ecosystems to build a sustainable bioeconomy within ecological boundaries based on local resources, in particular contributing to climate and biodiversity policies and targets.
- Deadline: 22 February 2024
- HORIZON-CSA HORIZON Coordination and Support Actions
 Topic ID: HORIZON-CL6-2024-CircBio-01-9
- Published on <u>Funding & Tenders Portal</u>





Bioeconomy project development assistance

- Projects are expected to contribute to:
 - Increased access to financial, legal and technical support along all Technological Readiness Levels and whole supply chains for bioeconomy projects, leading to a higher number of successful bioeconomy flagship projects.
 - **Alignment of actors** (primary producers, citizens, innovators, educators, SMEs, industry, national authorities and other actors) and their goals in collaborative ventures on bioeconomy related projects.
 - **Promotion** and support of regional and national transitions from existing fossil-based socio-technical systems to bioeconomy-based systems promoting the valorisation of local biological resources and ecosystem services.
- Deadline: 22 February 2024
- HORIZON-CSA HORIZON Coordination and Support Actions
 Topic ID: HORIZON-CL6-2024-CircBio-01-8
- Published on Funding & Tenders Portal





Opportunities for SMEs: Calls from Euroclusters



- AIBC: Open Call for digitalisation services and product development targeted at European SMEs from the manufacturing, mobility, logistics and energy sectors, working on the AI & BC technologies and/or interested in adopting AI & BC solutions; deadline 16 January 2024
- <u>B-Resilient:</u> Acceleration lump sums targets **food processing and producing** SMEs intending to optimise their use of biomass via digital and sustainable tool solutions; deadline 1 February 2024
- <u>CircInWater</u>: Knowledge lump sum is willing to boost SMEs' development or growth by facilitating **access to external training or consultancy services**; meant for an individual SME that is offering **water-smart solutions**, especially for the agrifood & energy-intensive industries; deadline 2 October 2024
- <u>E-Boost:</u> Five calls to identify product innovations to reduce dependency on critical inputs and technologies in the E-BOOST value chains, to introduce new-to-firm products or services, and to engage actors from regions with different levels of economic development; targets are SMEs from the **mobility** ecosystem
- <u>ELBE</u>: Financial support for **training** on "Sustainability & Digitalization", "Sustainable Business, with focus on general ESG issues, UN Sustainability goals and a materiality analysis", "Factlines Platform for ESG reporting"; deadline 31 December 2023
- <u>EPICENTRE</u>: Support via mentoring, coaching and training for SMEs from **Digital and Fintech to Health and Agri-food** sectors; deadline 5 December 2023.
- <u>FRIEND CCI</u>: Call for **providers** offering solutions in **digitalisation**, **greening**, **and internationalisation** to collaborate with **Creative and Cultural** SMEs for the realization of funded projects; deadline 1 August 2025
- GEMSTONE: Financial support for training related to Green Manufacturing; deadline 31 December 2024





Opportunities for SMEs: Calls from Euroclusters



- INGENIOUS: Internationalisation grant for SMEs operating in energy-intensive industries to develop activities related to Africa, Asia, North America and Latin America; deadline 30 September 2024
- <u>INGENIOUS</u>: **Training** grants to help SMEs improve their digital skills, green transition, resilience preparedness and reskilling and upskilling of the workforce; deadline 14 February 2025
- <u>METASTARS</u>; Call for **innovation services** for green technology development, digitalisation, upskilling and reskilling, internationalisation, and information security systems for SMEs from the **aeronautics**, **space**, **defence and ICT sectors**; deadline 31 December 2023
- <u>PIMAP4Sustainability</u>: Support for u**pskilling and reskilling** projects for photonics, advanced materials, advanced manufacturing, aerospace, metalworking and industrial production SMEs; deadline 31 December 2023, 29 February 2024, 30 April 2024
- <u>RESIST</u>; 2nd **Innovation** Open Call for improved technologies and processes in production in the **Automotive Mobility Transport** ecosystem; deadline 12 December 2024
- RESIST: Networking and marketing FSTP for SMEs from the Automotive Mobility Transport ecosystem; deadline 20
 December 2024
- RESIST: Internationalisation FSTP for activities in target markets; deadline 20 December 2024
- RESIST: Coaching and mentoring for assessment and feasibility services; deadline 1 November 2024
- All calls here: https://clustercollaboration.eu/open-calls





Register for the next Talks

22 November

Generative AI: Potential and challenges for business application

29 November

Green Transition Support: Energy and resource efficiency in EU businesses

6 December

STEP: Strategic Technologies for Europe Platform

13 December

ECCP Activities: Wrap-Up and Outlook





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- in European Cluster Collaboration Platform

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