

# Circular Bio-Based Europe JU: supporting innovation of sustainable bio-based materials and products

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Project Officer

Brussels, 24/04/2024



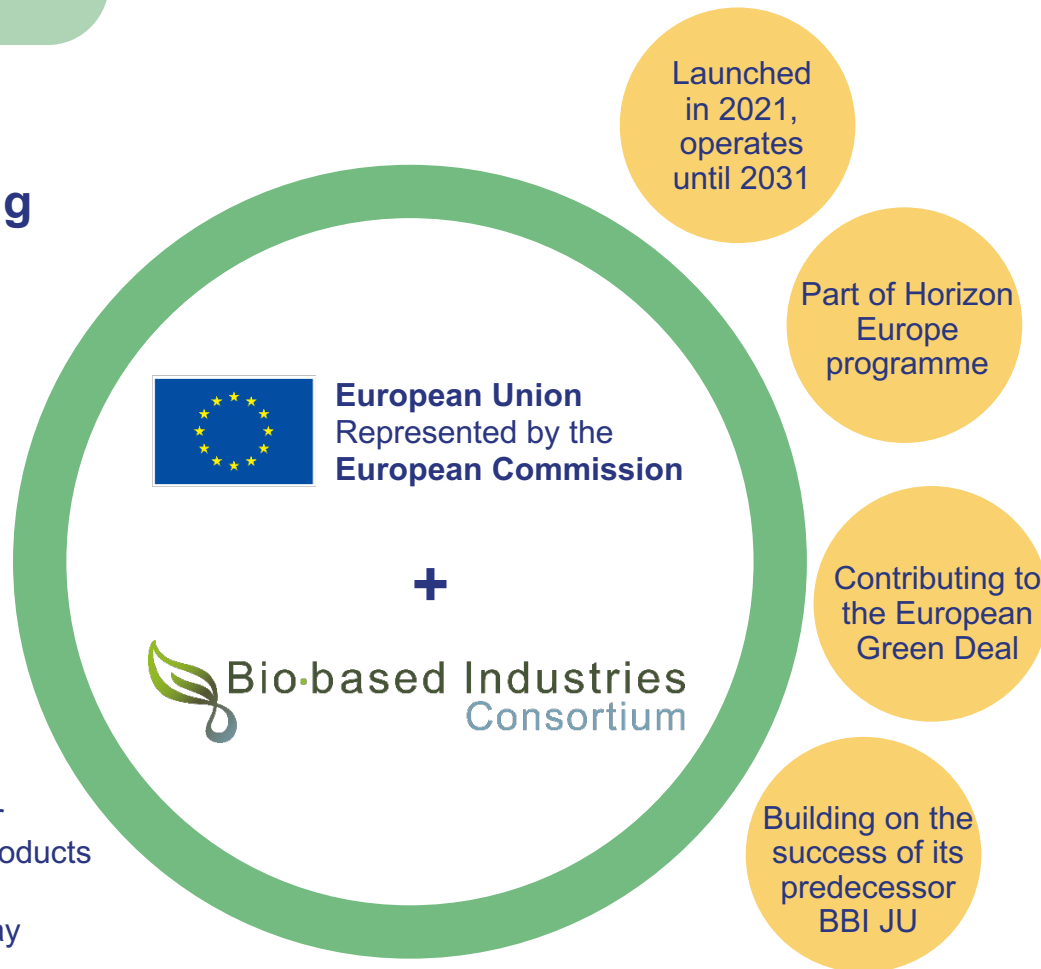
# Introduction to CBE JU

01

# Circular Bio-based Europe Joint Undertaking

€2 billion public-private initiative

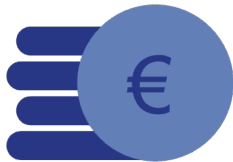
CBE JU is funding projects that deliver bio-based solutions – materials and products made from waste and biomass – in an innovative, sustainable and circular way



## CBE JU general objectives



Accelerate the **innovation** process and development of bio-based innovative solutions

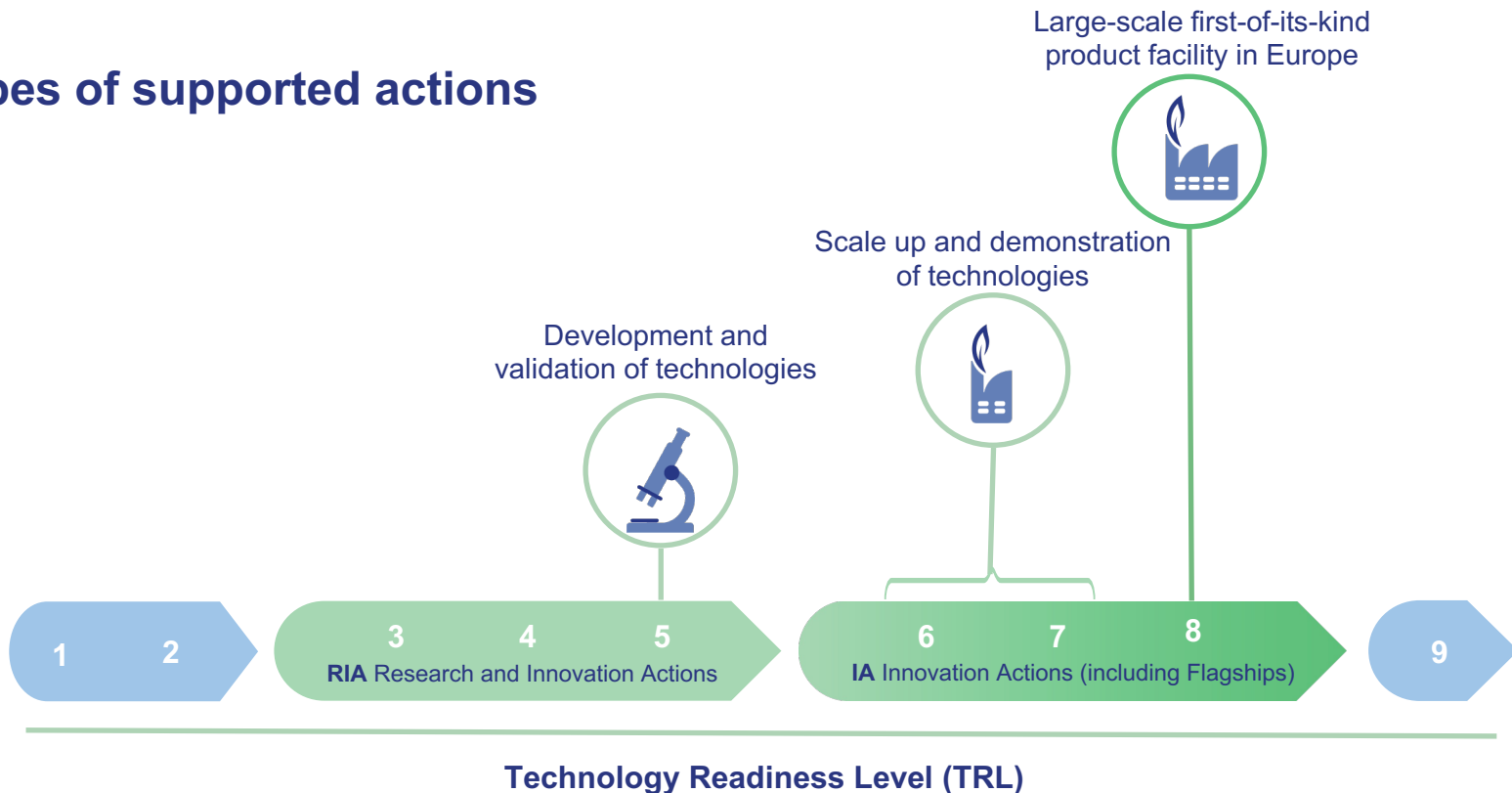


Accelerate **market deployment** of the existing mature bio-based innovative solutions



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

## Types of supported actions



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

## 2014-2022 (excl. 30 Call 2023 projects)



**163**  
projects



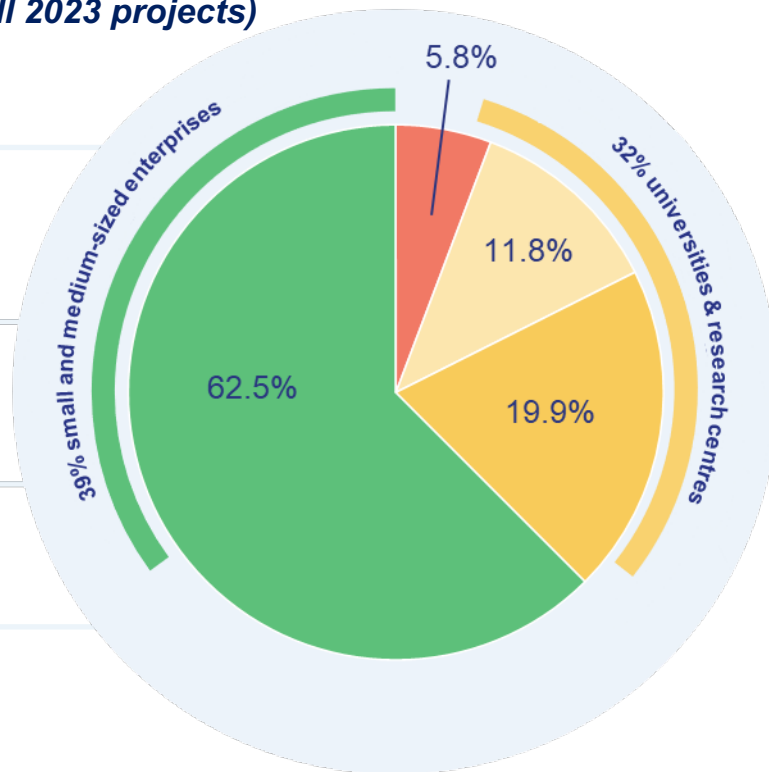
**1,198**  
beneficiaries



**€937 million**  
CBE JU  
funding



**39**  
countries



### CBE JU funding per type of beneficiary (unique)

- Private companies
- Research organizations
- Higher education establishments
- Other

*Data: CORDA, May 2023*

# CBE JU flagship projects



**PLENITUDE,**  
the Netherlands



**EXILVA,**  
Norway



**SWEETWOODS,** Estonia



**FARMYNG,** France



**AFTERBIOCHEM,** France



**LIGNOFLAG,** Romania



**CIRCULAR-BIOCARBON,** Spain & Italy



**FIRST2RUN,**  
Italy



CBE JU supporting  
innovation of new bio-  
based materials and  
products

02



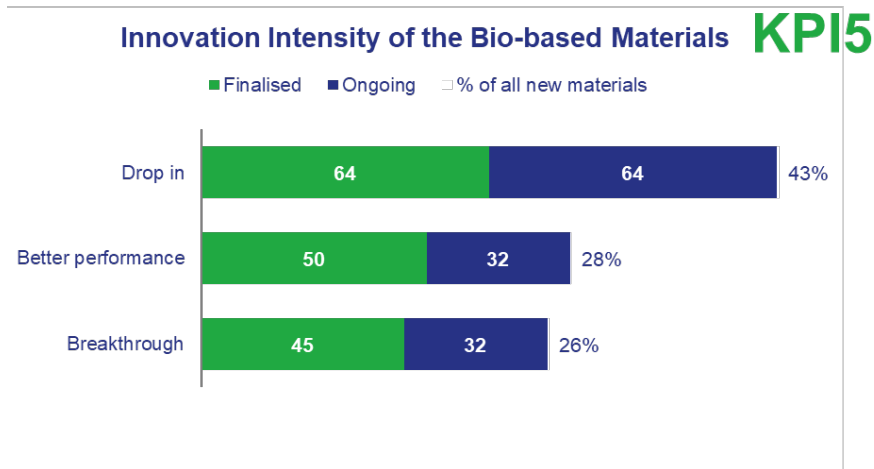
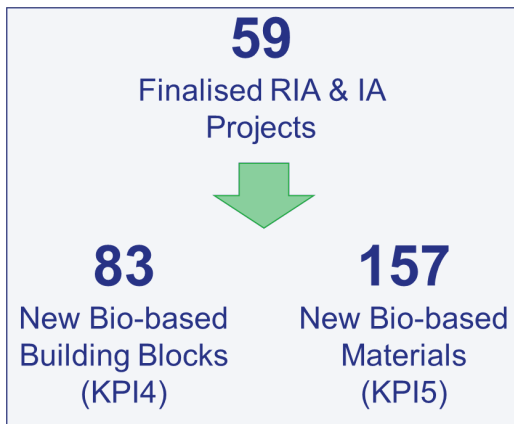
## CBE JU specific KPIs

- 1 Strategic participation and integration of feedstock producers and suppliers towards large-scale valorisation of sustainable biomass
- 2 Unlock sustainable and circular bio-based feedstock for the industry
- 3 Ensure environmental sustainability of feedstock
- 4 Improve environmental sustainability of bio-based production processes and value chains
- 5 Expand circularity in bio-based value chains
- 6 Increase innovative bio-based outputs and products
- 7 Improve the market uptake of bio-based products
- 8 Attract investment on the bio-based sector
- 9 Increase resilience and capacity in the bio-based sector
- 10 Improve participation of regions and countries with high unexploited potential and strategic interest to develop it

## CBE JU specific KPIs

<p><b>5</b> Expand circularity in bio-based value chains</p>	<p>5.1 - N of innovative products that are biodegradable, compostable, recyclable, reused or upcycled (circular by design) <b>100</b> 5.2 - N projects developing circular production practices (incl. industrial &amp; industrial-urban symbiosis) <b>40</b></p>
<p><b>6</b> Increase innovative bio-based outputs and products</p>	<p>6.1 - N of innovative bio-based dedicated outputs, with novel or significantly improved properties vs relevant alternatives <b>100</b> 6.2 - N of innovative bio-based drop-in outputs meeting applications requirements <b>30</b></p>
<p><b>7</b> Improve the market uptake of bio-based products</p>	<p>7 - N of brand owners involved as project partners and/or engaged with other mechanisms <b>50</b></p>
<p><b>8</b> Attract investment on the bio-based sector</p>	<p>8 - N of actions implemented at project level to attract investment and/or to create awareness in the investment/funding community <b>30</b></p>
<p><b>9</b> Increase resilience and capacity in the bio-based sector</p>	<p>9 - N of projects contributing to develop the skills and capacity needed by the EU bio-based sector <b>50</b></p>
<p><b>10</b> Improve participation of regions and countries with high unexploited potential and strategic interest to develop it</p>	<p>10.1 - N of participants from the underrepresented EU countries and region <b>150</b> 10.2 - N of regional hubs established and operated to process bio-based feedstocks and other cooperation aspects <b>15</b> 10.3 - N of projects with synergies with other funding programmes at EU, national or regional level <b>60</b></p>

## Contribution to bio-based innovation\*



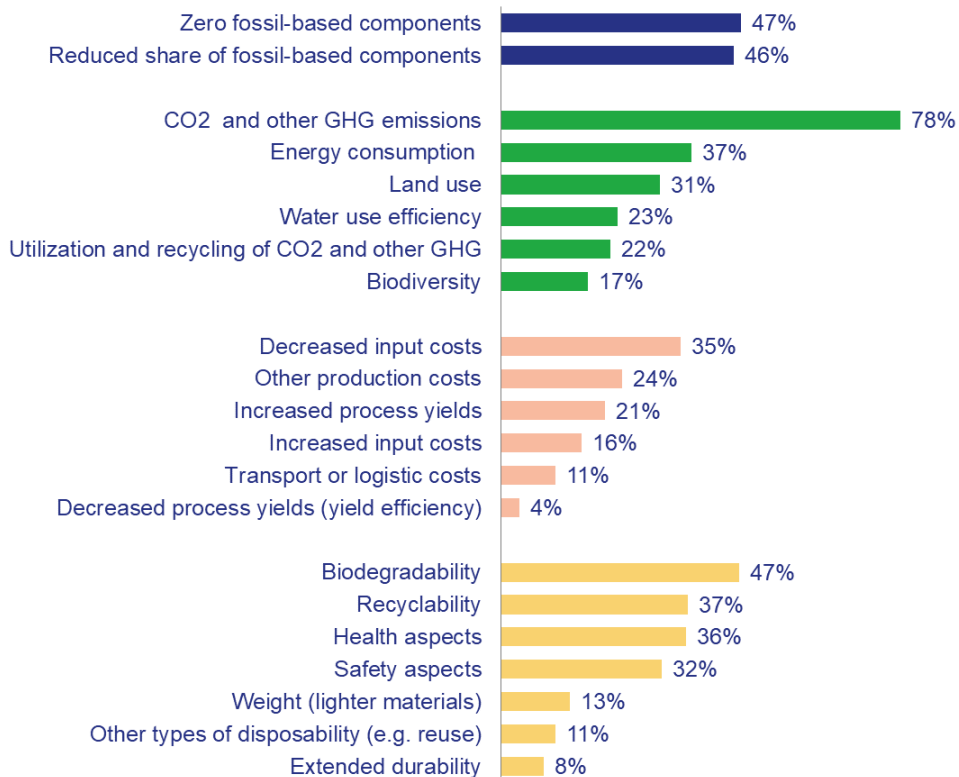
BBI KPI 4 # of new bio-based building blocks

BBI KPI 6 # of new bio-based products

BBI KPI 5 # of new bio-based materials

\*Data reported by BBI JU projects finalised by 30 September 2022

## Aspects of novelty of the bio-based materials\*

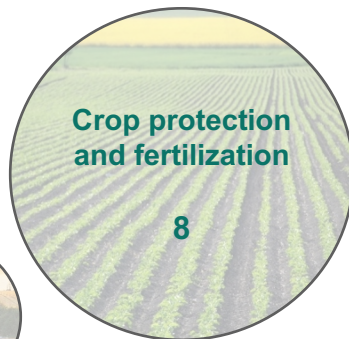
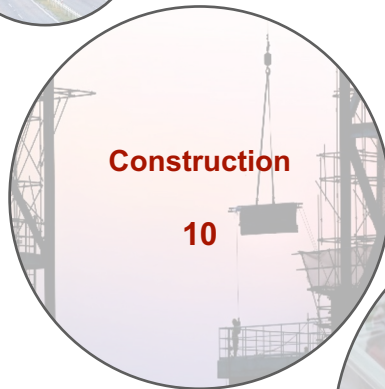
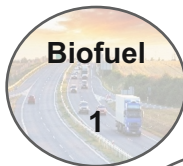
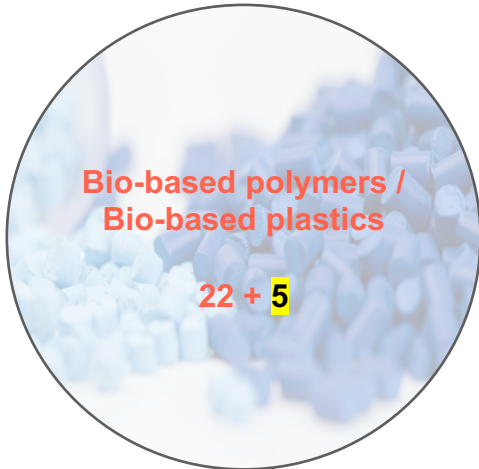
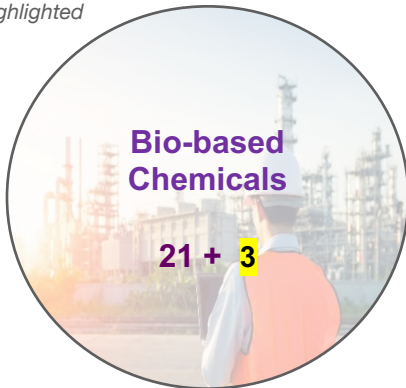


New bio-based building blocks, materials and products delivering:

- ✓ Reduced dependency on fossil-based resources
- ✓ Improved environmental performance
- ✓ Novel/improved functionalities

## Application Clusters - number of projects

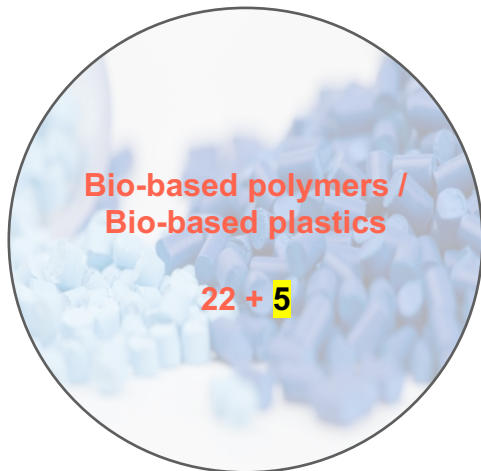
\*CBE JU projects highlighted



### Application Clusters - number of projects

\*CBE JU projects highlighted

- ✓ coatings
- ✓ adhesives & binders
- ✓ Resins
- ✓ functional/high-performance polymers



# EXILVA

## Sarpsborg, Norway



**CBE JU contribution:** €27.43 million

**Duration:** May 2016 – April 2020



**Objective:** to establish the flagship plant to produce **more than 1000 tons Microfibrillated cellulose (MFC)** and scale it up to commercial levels

**Feedstock:** Forest-based (cellulose)

**Applications:** Cosmetics, personal and home care, pharmaceutical, adhesives and sealants, composites and resins, agricultural chemicals, oil field, fish, bait, concrete,..

**Webpage:** [EXILVA | Circular Bio-based Europe Joint Undertaking \(CBE JU\)](#)

**Video:** <https://youtu.be/AmIjdiR5qs>



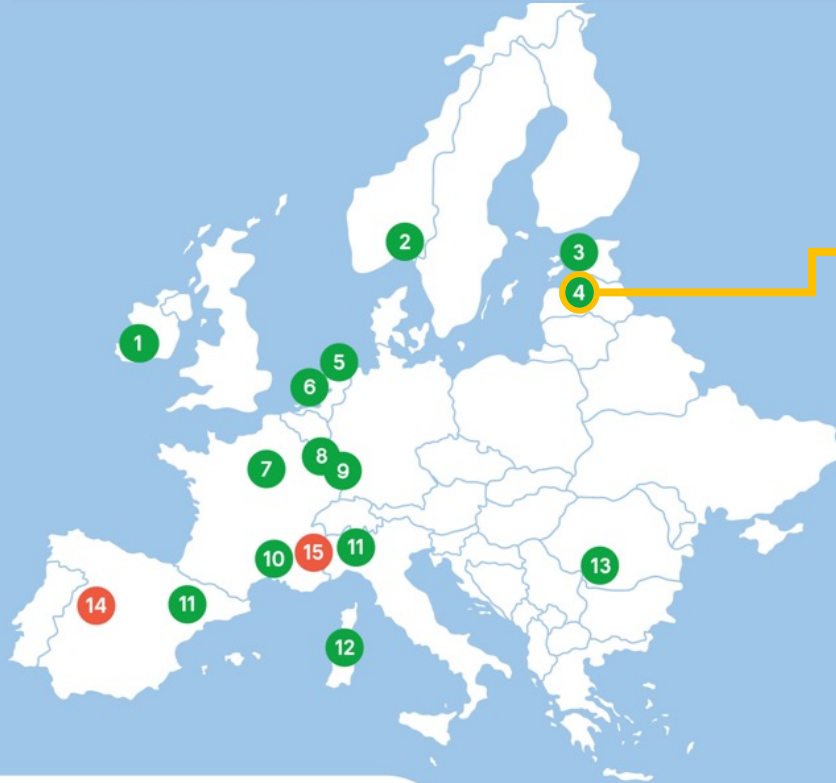
● Flagship biorefinery ● Call 2022

# VIOBOND Riga, Latvia



**CBE JU contribution:** €15.89 million

**Duration:** September 2021 – August 2027



**Objective:** to construct a novel commercially viable, first-of-its-kind **lignin phenol-formaldehyde (LPF) resin plant** on a large scale and operate it successfully

**Feedstock:** Forest-based

**Applications:** Construction and furniture

**Webpage:** <https://viobond.eu/>

**Video:** <https://youtu.be/GZfuSS696bE>

● Flagship biorefinery ● Call 2022





Call 2024

03

Type of action	Topics HORIZON-JU-CBE-2024		Million EUR
<b>IA- Flagship</b>	IAFlag-01	Bio-based value chains for valorisation of sustainable oil crops	20
	IAFlag-02	Bio-based dedicated platform chemicals via cost-effective, sustainable and resource-efficient conversion of biomass	20
	IAFlag-03	Bio-based value chains for valorisation of sustainable natural fibre feedstock	20
<b>IA</b>	IA-01	Bio-based materials and products for biodegradable in soil applications	15
	IA-02	Sustainable microalgae as feedstock for innovative, added-value applications	15
	IA-03	Enlarging the portfolio of commercially produced “Safe and Sustainable by design” (SSbD) solvents	15
	IA-04	Circular and SSbD bio-based construction & building materials with functional properties	15
	IA-05	Selective and sustainable (co)-production of lignin-derived aromatics	15
	IA-06	Innovative bio-based adhesives and binders for circular products meeting market requirements	15
	IA-07	Innovative conversion of biogenic gaseous carbon into bio-based chemicals, ingredients, materials	15
<b>RIA</b>	R-01	Valorisation of polluted/contaminated wood from industrial and post-consumer waste streams	7
	R-02	Biotech routes to obtain bio-based chemicals/materials replacing animal-derived ones	7
	R-03	Sustainable, bio-based alternatives for crop protection	10
	R-04	SSbD bio-based coating materials for applications under demanding and/or extreme conditions	7
	R-05	Innovative bio-based food/feed ingredients	7
<b>CSA</b>	S-01	New forms of cooperation in agriculture and the forest-based sector	4
	S-02	Mobilise inclusive participation in bio-based systems and supporting the CBE JU widening strategy and its action plan	3
	S-03	Supporting the CBE JU Deployment Group on Primary Producers	3

## More information



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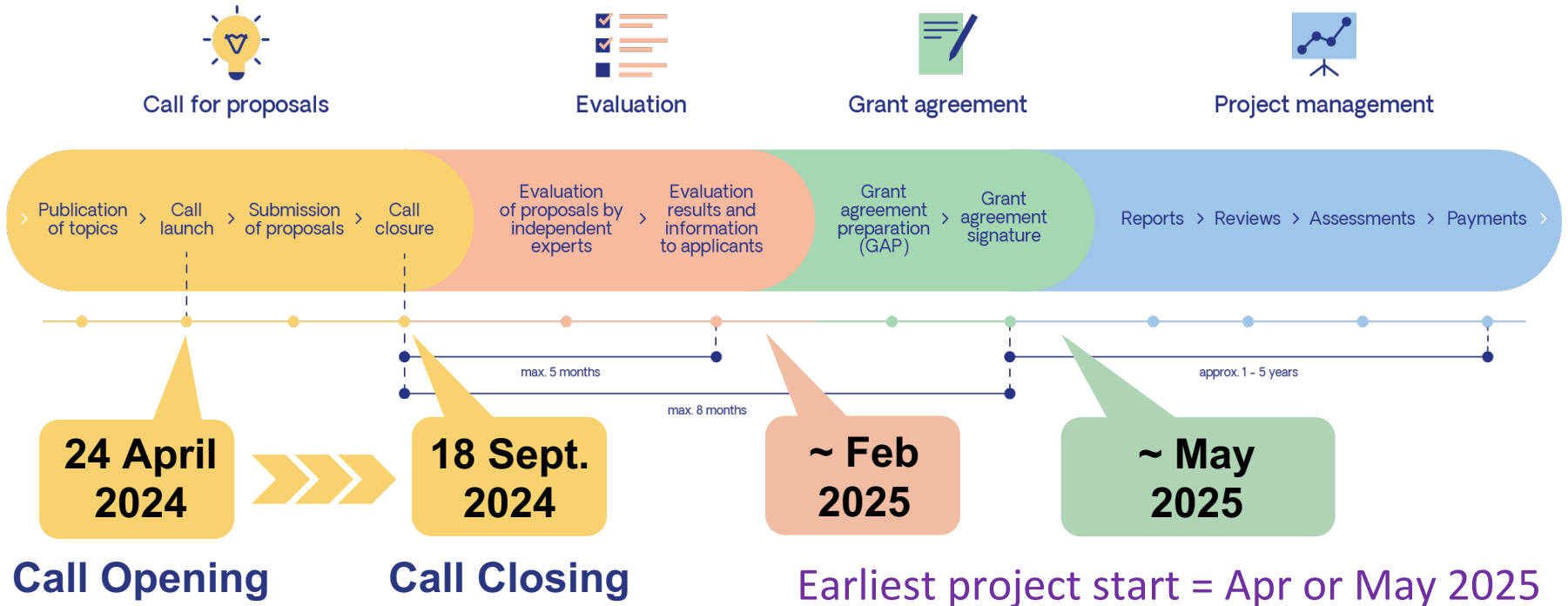


 Bio-based Industries  
Consortium



Co-funded by  
the European Union

# Proposal preparation



# Two main sources of information

F&T Portal Online Manual

- > Participant Register —
- > Grants
  - Procurement
  - Prizes
  - Financial instruments
- > Working as an expert
- Help

My Area — User account and roles

### Grants

#### Applying for funding

Find a call → Find partners → Register an organisation → Submit a proposal

#### Evaluation & Grant signature

Admissibility and eligibility check → Evaluation of proposals → Grant preparation → Grant signature

<https://webgate.ec.europa.eu/funding-tenders-opportunities/display/OM/Online+Manual>

Circular Bio-based Europe Joint Undertaking

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Open calls for proposals

How to apply for funding

Closed calls for proposals

Manage your project

Networking platform

## CBE JU photo competition 2023 for submission #CBEImpact

All projects are invited to submit their photos and videos by 20 April.

Discover rules & criteria ▶

<https://www.cbe.europa.eu/open-calls-proposals>