



**Circular
Bio-based
Europe**
Joint Undertaking

CBE JU specific Call 2023 requirements

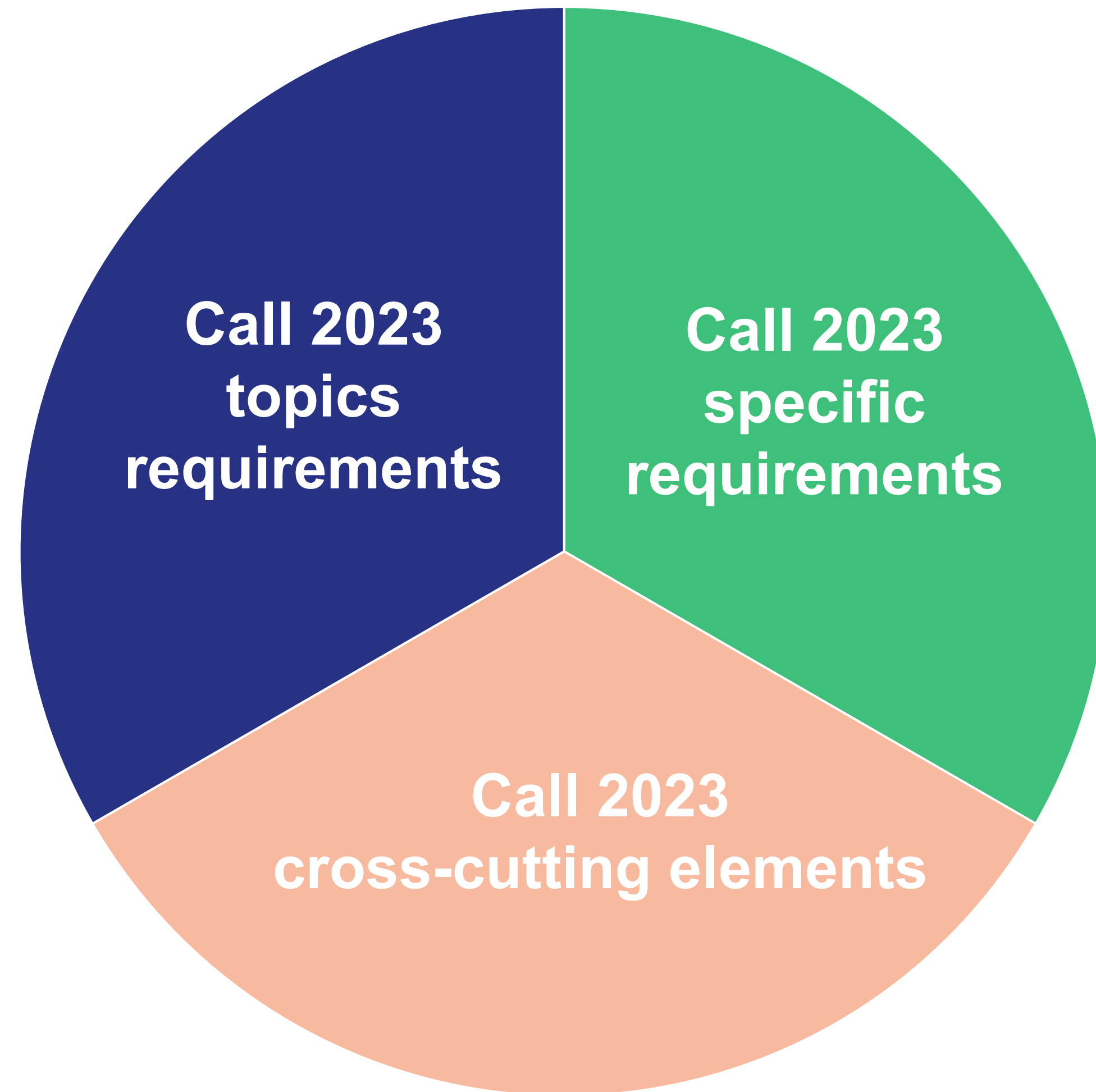
Pilar LLORENTE RUIZ DE AZUA

Programme Officer

20 April 2023



An ideal CBE JU proposal should encompass...



Call 2023:
Specific requirements

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Call 2023 specific requirements

- aim at ensuring that all funded projects will:
 - use **sustainably sourced feedstock**, which is within SRIA scope
 - achieve **high standards of environmental sustainability and protection**
 - ensure **technoeconomic feasibility** and **good business opportunities**
 - **Include the participation of all relevant actors**
- are included in a **specific section of the AWP2023**, and are common to all topics
- **should be addressed by ALL proposals** (as specified per type of action), in addition to the topic-specific requirements

Call 2023 specific requirements: summary table

Specific requirement of the CBE JU Call 2023	Type of action	Where to include it in Part B
Feedstock sourcing	RIA and IA, incl. FLAGs	Structured question (Y/N) in the introduction
Feedstock sustainability requirements (a, b, c, d)	RIA and IA, incl. FLAGs	Structured question (Y/N) in the introduction
Description of feedstock	RIA and IA, incl. FLAGs	1.2 Methodology
Environmental performance - Ex-ante assessment <ul style="list-style-type: none"> • identification of environmental issues • estimation of environmental sustainability performance, • estimation of carbon removal 	RIA and IA, incl. FLAGs	1.2 Methodology
Ex-post assessment of environmental sustainability and circularity <ul style="list-style-type: none"> • Dedicated task • Dedicated WP or task (LCA) • Dedicated WP or task (LCSA) 	RIAs IAs FLAGs	3.1 Workplan and resources
Economic viability Business case and business model Business plan	RIAs IAs, incl. FLAGs FLAGs	2.2 Measures to maximise impact Annex (business plan)
Recommendations to stakeholders	IAs, incl. FLAGs	3.1 Workplan and resources
Multi-actor approach	IAs, incl. FLAGs. RIAs and CSAs, when specified	1.2 Methodology

Call 2023 specific requirements: feedstock (1/3)

Feedstock sourcing (eligibility condition)

All RIAs and IAs, including Flagships

Proposals shall confirm in that:

- if the bio-based feedstock is processed in EU/EEA/EFTA countries, the bio-based feedstock comes from such countries;
- if the feedstock is processed in an Associated Country, the bio-based feedstock comes from the same country or from neighbouring EU/EEA/EFTA countries.

EFTA: European Free Trade Association: Iceland, Liechtenstein, Norway, and Switzerland

EEA: 27 EU countries, plus Iceland, Liechtenstein, Norway

Associated countries to Horizon Europe: see https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/list-3rd-country-participation_horizon-euratom_en.pdf

Bio-based feedstock may include bio-waste from imported products. A non-exhaustive list of bio-based feedstock in the scope of CBE is included in Annex V of SRIA.

Call 2023 specific requirements: feedstock (2/3)

Feedstock sustainability requirements

All RIAs and IAs, including Flagships

Proposals should describe the feedstock to be used under Part B section 1.2. Methodology, and ensure that it:

- is **under the scope** of the feedstocks foreseen in CBE JU SRIA (including Annex V);
- under the condition of respecting the “**food first**” and “**cascading use**” principles, surplus streams from agricultural biomass processing such as carbohydrates, or oils, can be used as feedstock for CBE JU projects.

Proposals should also demonstrate that the feedstock is produced **respecting local ecological limits, and ensuring protection, enhancement and restoration of biodiversity and ecosystems services**. As much as possible, the feedstock should come from **short supply chains**.

Bio-based feedstock may include bio-waste from imported products. A non-exhaustive list of bio-based feedstock in the scope of CBE is included in Annex V of SRIA

Feedstock sustainability requirements

All RIAs and IAs, including Flagships

a) Climate change mitigation:

- i. will not impact 'Land with high carbon stock'
- ii. will have low/zero ILUC risk and promote carbon sequestration, when applicable
- iii. will aim at reducing GHG emissions from the extraction and/or cultivation

b) Biodiversity protection:

- i. will implement Integrated Pest Management (IPM) for a reduced use of plant protection products and not apply those identified as "candidate for substitution"
- ii. will contribute to biodiversity-friendly sustainable forest management practices, when applicable
- iii. will not have an impact on protected species and habitats
- iv. will not introduce invasive species and/or risky plants
- v. will not impact protected areas (terrestrial or marine) with high biodiversity value, including highly biodiverse grasslands

c) Zero pollution ambition (air/water/soil):

- i. will avoid open air burning of stubble/crop residues
- ii. will contribute to the reduction of chemical pesticide and more hazardous pesticides use, when applicable
- iii. will contribute to the reduction of nutrient losses by at least 50% and of the overall use of fertilisers, when applicable

d) Water resources protection:

- i. will not deplete surface or groundwater resources beyond replenishment capacities

Call 2023 specific requirements: environmental performance (1/2)

Assessment of environmental performance ex-ante

All RIAs and IAs, including Flagships

Proposals should include as part of the proposal in Part B:

- An **identification of the environmental critical issues** early on and the explanation on how the projects will steer the development process in the right direction.
- An **ex-ante estimation of the environmental sustainability performance (including climate neutrality and zero pollution) and circularity of the proposed processes/products, compared to benchmark(s) selected** by the consortium and described in the proposal. The benchmark(s) should be based on the best performing processes/products and should be duly justified in the proposal. The proposal should demonstrate improvements of environmental performances compared to the selected benchmark(s) and if available provide relevant references and calculations.
- A **preliminary assessment of the carbon removal**(i.e., CCU* and/or CCS*) potential, if applicable.

Call 2023 specific requirements: environmental performance (2/2)

Assessment of environmental performance ex-post

All RIAs and IAs, including Flagships

Proposals should include as part of the project an **ex-post assessment of the environmental sustainability and circularity** of all the products and processes developed and of their improvements **compared with benchmark(s)**.

- **RIAs:** dedicated task to use the early-stage data to assess the potential improvements of the environmental performances of processes/products developed in the project.
- **IAs:** dedicated WP or task to assess ex-post the environmental impacts and circularity of the products or processes developed, using LCA methodologies, as part of the project.
- **Flagships:** dedicated WP or task for full assessment of the environmental impacts and circularity of the developed products or processes, using life-cycle-sustainability assessment (LCSA) methodologies, as part of the project.

The life-cycle assessment (LCA) and life-cycle-sustainability assessment (LCSA) methodologies should be based on widely used standards and certifications, and they should make use of accepted and validated approaches⁸⁵. They should use Commission recommendations and the European norms, technical reports and technical specifications. In particular, LCAs should use the standards developed by CEN/TC 411 for bio-based products

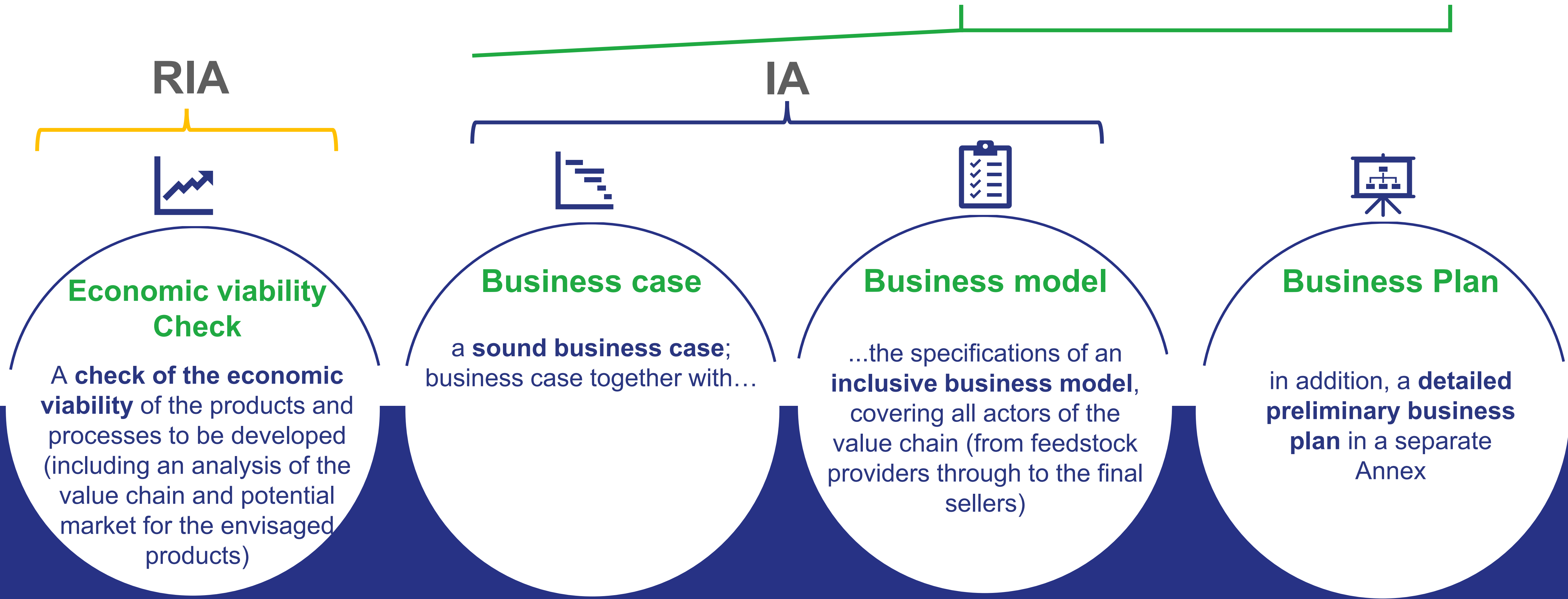
IAs, including Flagships

Proposals should include **an action in the work plan on opportunities/challenges to be addressed for targeted stakeholders**, including, where possible, national/regional stakeholders, investors and brand owners.

Applicants should include **recommendations on how to improve the implementation and/or overcome hurdles and gaps** of current policies in the concerned fields

Economic viability check / Business Case, Model and Plan

IA – Flagship



All definitions are included in the AWP2023 glossary

How 'economic viability check' can be demonstrated in your proposal?



A check of the economic viability of the products and processes to be developed

(including an analysis of the value chain and potential market for the envisaged products)

- ✓ Dedicated section on 'economic viability'
- ✓ Considerations on the potential market of the products and/or processes to be developed and some quantitative information, for example, on the market size and trends
- ✓ Include an analysis of the value chain
- ✓ Include projections and estimates of costs of production/revenues of products or technologies when possible

Elements to be included in Business Case, Business Model, Business Plan in your proposal

Business Case

- A **justification for investing in a project to generate a profitable business**. It is typically related to pursuing an opportunity or solving a problem.
- It **may include technical, economic, market, social, environmental and regulatory aspects**, even if only at a qualitative level.
- A business case includes an **evaluation of risks, costs and benefits** of the proposed project versus alternatives.
- It may involve a relatively high level of uncertainty.

Business Model

- A **description of the way** in which a commercial activity for conducting a **business, generates revenues and value** for its customers/ involved stakeholders.
- It describes the **costs and revenues**, the **actors involved** and the **relationships** among them.
- It **includes a quantification of the cost and revenue streams** but no time dimensions or specific actions.

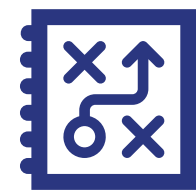
Business Plan

- A **detailed description** of how the business will be developed.
- It includes a **quantification of the cost structure, financing thereof, and foreseen revenues, a description of the actions** to be performed, their **timing** and the **actors involved**.
- It includes **technical, economic, market, social, environmental and regulatory aspects** and is **based on data**, as much as possible, **and/or assumptions** (to cover areas where data are not available).
- The level of uncertainty is lower than in the Business case. **Risks** are described and **contingencies** are foreseen.

Multi-actor approach: who and why



Ensures adequate involvement of all **key actors in the value chains** relevant for the topic and the objective of the proposed project.



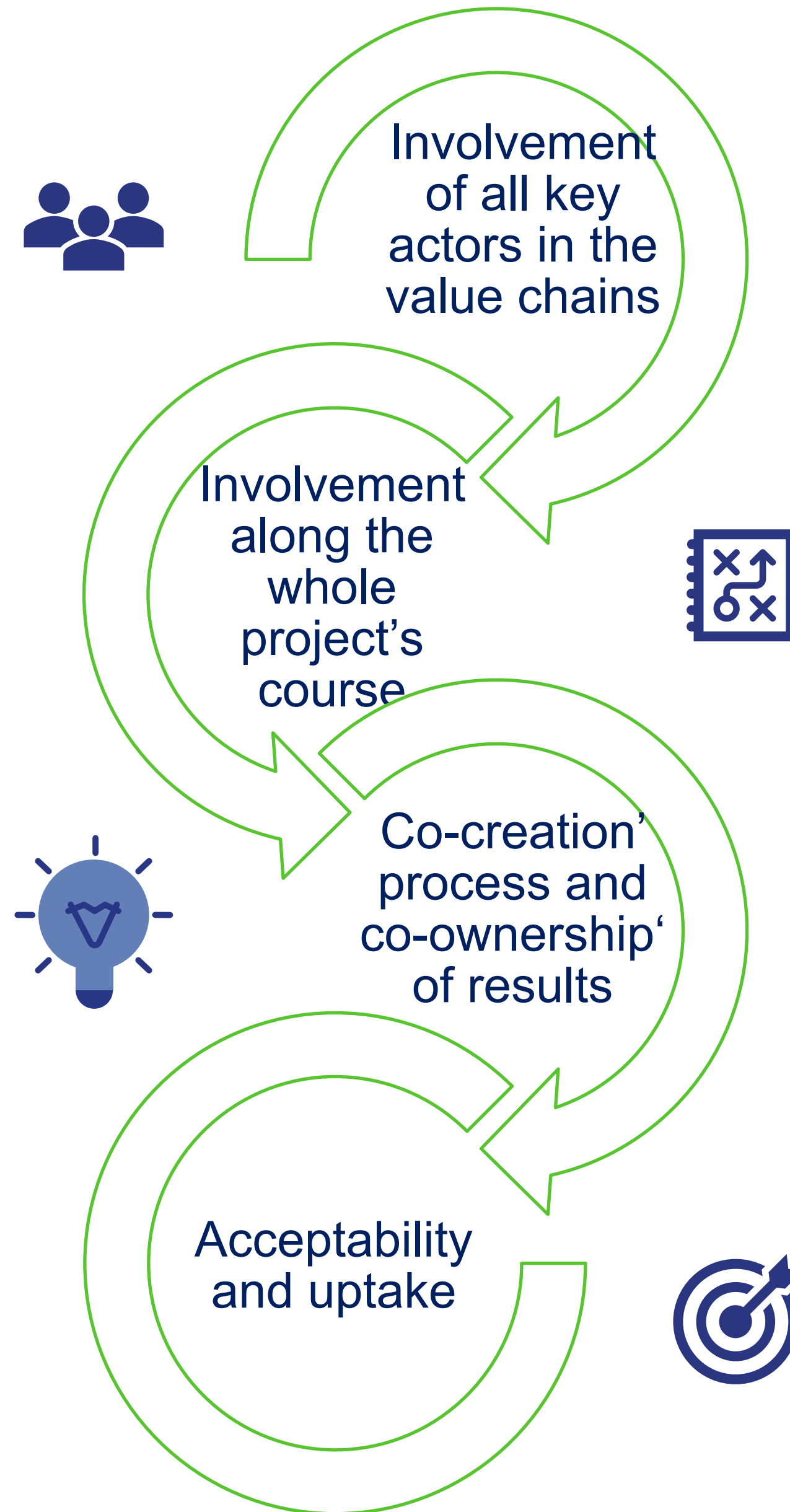
Involvement along **the whole project's course**: from project idea, planning to implementation, communication and dissemination of results and to demonstration



'Co-creation' process: the practical and local knowledge of key actors are used to develop solutions and create **'co-ownership' of results**



It results in **speeding up the acceptability** and uptake of new products, approaches and solutions developed by project



- ✓ **Relevant actors** are clearly **identified** (e.g. depending on the topic, primary producers, processing industry, end-users, brand owners, etc.).
- ✓ **Sufficient representation of relevant actors** consortium or/and with other forms of engagement.
- ✓ **Needs/ problems/challenges/opportunities** of key actors (from biomass supply to end-users) are considered from concept idea to implementation.
- ✓ **High-quality knowledge exchange activities, tools or/and mechanisms** enable co-creation and co-ownership of results (e.g. participative workshops, advisory bodies, platforms, etc.) are planned.
- ✓ **Dissemination and exploitation channels/ actions** addressing to the targeted actors are used.

Multi-Actor Approach in practice

“Project XXX will develop an **Advisory Board of Farmers** including regional authorities, food manufacturers, farmers, biorefinery owners, investors etc.”

“In order to ensure a good engagement of the key stakeholders, **project partners cover the whole value chain from the field to the table** (farmers, technology providers, manufacturers, environmental assessment experts, end users).”



“**6 interregional workshops** will be held during the project to connect with actors from other regions not directly involved in the project“

“Project XXX consortium will integrate both primary producers and owners / providers of side streams **directly and through biomass suppliers in contact with project partners.**”



Call 2023:

Cross-cutting elements

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Call 2023 cross-cutting elements: summary table

Cross-cutting elements of CBE JU Call 2023	Type of action	Where to include it in Part B
Enabling digital technologies	RIA and IA, incl. FLAGs	1.2 Methodology
Targeted communication and dissemination of outputs and learning outcomes	All types of actions	2.2 Measures to maximise impact - Dissemination, exploitation and communication
Cross-disciplinary aspects and involvement of Social Sciences and Humanities	All types of actions	1.2 Methodology

Enabling digital technologies

When relevant, applicants should consider to apply and/or **adapt existing/mature or novel digital technologies provided that they are instrumental** to achieving the project's outcomes and scope.

RIAs and IAs, including Flagships

Proposals should consider the applications of digital technologies among the following areas:

- i) chemicals, materials, catalysts and process design & modelling (including bioinformatics)
- ii) process monitoring and optimisation
- iii) tracking and tracing, and
- iv) data analytics and data management.

IAs, including Flagships

Proposals should consider also:

- i) (real-time) process monitoring and optimisation (including environmental performance)
- ii) predictive maintenance and plant engineering.

Targeted communication and dissemination of outputs and learning outcomes

All types of actions

- **disseminate the outputs and learning outcomes from the project** in order to increase the public awareness, and awareness of relevant industry actors, of potential benefits of bio-based solutions.
- proposals are strongly encouraged to incorporate publications on data, methodologies, including LCA assessment-related data to peer-reviewed scientific journals and conferences.
- when relevant, applicants should consider to contributing data and results to the European Commission's Knowledge Centre for Bioeconomy hosted by the JRC (KBC). They are also encouraged to add links with any trusted repositories for data, results and methodologies (in addition to KBC/JRC).

Cross-disciplinary aspects and involvement of Social Sciences and Humanities

All types of actions

- **foster cross-disciplinarity and consider the social, economic, behavioural, institutional, historical and/or cultural dimensions**, as appropriate, of the proposed circular biobased innovations.
- ensure that contributions from the SSH are integrated at various stages of their proposed project, and the actions required, participants and disciplines involved.
- whenever relevant, applicants should consider public awareness raising, social engagement and social impact aspects with respect to circular bio-based solutions.

Thank you for your attention!



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info@cbe.europa.eu
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