

Annual Activity Report 2023



**Circular
Bio-based
Europe**

Joint Undertaking

**CONSOLIDATED
ANNUAL ACTIVITY REPORT 2023**

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FACTSHEET

Name of the JU	Circular Bio-based Europe Joint Undertaking (CBE JU). The CBE JU is the legal and universal successor to the Bio-based Industries Joint Undertaking (BBI JU), which it shall replace and succeed.
Objectives	<p>The CBE JU works to implement the Horizon Europe Framework Programme. In this latest framework, its main general objectives are to:</p> <ul style="list-style-type: none"> — accelerate innovation and develop bio-based innovative solutions; — accelerate market deployment of existing mature and innovative bio-based solutions; — ensure a high level of environmental performance of bio-based industrial systems. <p>A wider set of objectives has been set out in Articles 4, 5 and 46 of the Council Regulation establishing CBE JU, hereafter referred to as the Single Basic Act (SBA).</p>
Legal basis	Article 187 of the Treaty on the Functioning of the European Union and Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe and repealing Regulations (EC) No 219/2007, (EU) No 557/2014, (EU) No 558/2014, (EU) No 559/2014, (EU) No 560/2014, (EU) No 561/2014 and (EU) No 642/2014.
Executive Director	Nicoló Giacomuzzi-Moore, Executive Director ad interim since September 2022
Governing Board	Chair: John Bell, Vice-chair: Rob Beekers Full list of Governing Board members provided in section 4.2
Other bodies	States' representatives group Scientific Committee Deployment Groups
Number of staff	28
Total available budget 2023¹	kEUR 226 583 in commitment appropriations (CAs) and kEUR 136 232 in payment appropriations (PAs) ²
Budget implementation/execution	98% in commitment appropriations and 90% in payment appropriations
Grants/Tenders/Prizes	21 ongoing grants under Horizon Europe 34 ongoing grants under Horizon 2020 (out of 143 in total)
Strategic Research & Innovation Agenda	Strategic Research and Innovation Agenda (SRIA)
Implementation of calls for proposals	Number of calls launched in 2023: 2 Number of proposals submitted: 165 Number of eligible proposals: 157 Number of proposals granted: 31 proposals selected for funding, grant agreements to be signed in 2024

¹ Total budget includes the operational (used for funding selected projects) & administrative (used for funding Programme Office activities) budgets.

² These amounts are including the prior year's unused reactivated appropriations and PAs amount is at the net of EUR 356,493 relating to a change in EFTA rate for the CBE operational commitment appropriations.

Participation, including SMEs

For CBE JU: total number of participations in funded projects 294, of which:

- 33 % are SME beneficiaries receiving 39 % of the funding budgeted in grant agreements;
- 56 % are private, for-profit companies.

For BBI JU: total number of participations in funded projects: 1 958, of which:

- 34 % are SME beneficiaries receiving 32 % of the funding budgeted in grant agreements;
- 62 % are private, for-profit companies.

FOREWORD

It is with great pleasure that I present to you the Annual Activity Report of the Circular Bio-based Europe Joint Undertaking. 2023 has been a key year in strengthening the bond between the partnership and its stakeholders' community through a series of activities involving the JU's founding partners and advisory bodies, our applicants and beneficiaries, policymakers and potential investors.

CBE JU – jointly with the European Commission and the Bio-based Industries Consortium – stepped up the promotion of funding opportunities via events and campaigns, and with a particular focus on countries underrepresented in our programme, in the context of the CBE JU widening participation strategy. The CBE JU 2024 call programming saw a strong involvement of the scientific committee and the states representatives' group, and a very good alignment between the JU's founding partners in defining the call topics and the overall multiannual strategy. A lot of work has been done to prepare the ground for the launch of two deployment groups: one on finance and investment, with a strong involvement of the European Investment Bank, and one on primary producers.

The promotional campaigns run by the programme office increased the visibility of CBE JU and – most importantly – of the success stories stemming from our partnership and being implemented all over Europe. The CBE JU project exhibition showcased innovative bio-based solutions at several European Commission services and the Council of the EU, culminating at the first CBE JU Stakeholder Forum. This event was certainly the highlight of the year and provided the space for the CBE JU community to meet for the first time since 2019, discuss the challenges and opportunities of the sector, and deliver key messages to policymakers on how to make the circular bioeconomy the enabler of the European Green Deal. On the margins of the forum a strategic meeting took place between high level representatives of the European Commission and companies representing the Bio-based Industries Consortium. The discussion focussed on the success of the partnership, obstacles for a full development of bioeconomy in Europe, and on the upcoming priorities.

These messages fed very timely the initiative of the European Commission resulting in the communication “Building the future with nature: Boosting biotechnology and biomanufacturing in the EU” that marks a change of speed for the policies in support of the bioeconomy and the circular economy. The challenges identified by the European Commission are fully aligned with the conclusions of the CBE JU Stakeholder Forum, while an ambitious action plan sets the ground for the future Commission programme.

2023 was a very intense year also for the programme management, with the launch and promotion of two CBE JU calls for proposals bringing the portfolio to 192 funded projects. A special call was launched to celebrate the European year of skills, in collaboration with the New European Bauhaus initiative. It supports the establishment of an EU-wide training network to offer new sustainability skills and education across all levels of the construction sector. At the same time the first Horizon Europe grants were signed, while a larger share of project funded under the BBI JU, the predecessor of CBE JU, mandate have been completed.

In this report, you will discover the KPIs of the BBI JU, now reaching the last year of its expected implementation. In 2024, we will celebrate the closure of this programme and we can already draw some very positive conclusions: most of the KPIs related to project outcomes have been exceeded, the leverage effect is reaching its initial target and the level of investments is excellent, the environmental impact shows positive results, and the balance of participants in the programme, in

particular that of SMEs, is very good. CBE JU beneficiaries certainly went beyond expectations despite the difficulties encountered in this economically and geopolitically challenging period.

The CBE JU programme office ran several recruitment procedures for key functions in the organisation. Anticipation and planning were fundamental to allow good functioning of the office and to reinforce the team in view of future challenges. CBE JU continues to play a key role in coordinating activities with other joint undertaking and European agencies thanks to the competence and the commitment of its staff.

From my personal point of view, among the most important achievements of 2023 I would like to mention the strong collaboration and alignment among the different European Commission departments, the Bio-based Industries Consortium and the CBE JU programme office. The excellent results achieved stem from a joint effort, a constructive teamwork and the shared vision for this partnership going forward.

Lastly, I would like to thank CBE JU colleagues for their commitment, their drive for excellence and for the support they gave me as ad interim Executive Director. I am glad that we will continue this journey together to make a 'green, safer and better Europe.'

Nicoló Giacomuzzi-Moore,
CBE JU Executive Director

EXECUTIVE SUMMARY

Introduction

As we reflect on the accomplishments of 2023, the Circular Bio-based Europe Joint Undertaking (CBE JU) continues to make impressive strides towards achieving its mission and strategic objectives.

2023 saw the launch of two calls for project proposals for a combined total indicative budget of EUR 216.5 million, 21 new grants under Horizon Europe were signed from call 2022, while 22 BBI JU legacy projects successfully concluded, reaching significant milestones confirming the overachievement of the BBI JU KPIs established in 2017 and a strong contribution from the Bio-based Industries Consortium in terms of in-kind contributions, resulting in a leverage effect higher than expected.

CBE JU also launched its Widening Participation Strategy and progressed in the preparation of the Back Office Arrangement (BOA) in Human Resources (HR). What can only but be deemed as a very successful year was rounded off by CBE JU's first Stakeholder Forum and high-level strategic meeting that provided key messages from the CBE JU stakeholder community on how to fully unleash the potential of the bioeconomy in Europe.

2023 call and the continued evolution of the project portfolio

The 2023 main call continued the success of previous years with some notable highlights including an increased mobilisation in the *widening participation countries* with a record number of applicants, 162 project proposals requesting more than EUR 962 million in funding, a continued high participation rate by SMEs (one in three applicants is an SME) and 71 % of our applicants being newcomers to the programme, underlining the openness of CBE JU calls.

The CBE JU funding programme continues to be attractive for its community, with higher education establishments and research centres accounting for 44 % of applicants and nearly every second applicant being a private company (47 %), two-thirds of these being SMEs. The interest from SMEs in the CBE funding programme remains very strong, illustrating that the JU is responding to the needs of its stakeholders in the bio-based sector by providing opportunities for SME innovators while growing its stakeholder base.

By the end of 2023, the project portfolio had grown to a total of 161 projects, of which 57 were still ongoing. While agri-based feedstock remains the predominant feedstock source, there is a clear transition underway towards increased use of other types of feedstocks such as aquatic residues, CO₂ and biowaste.

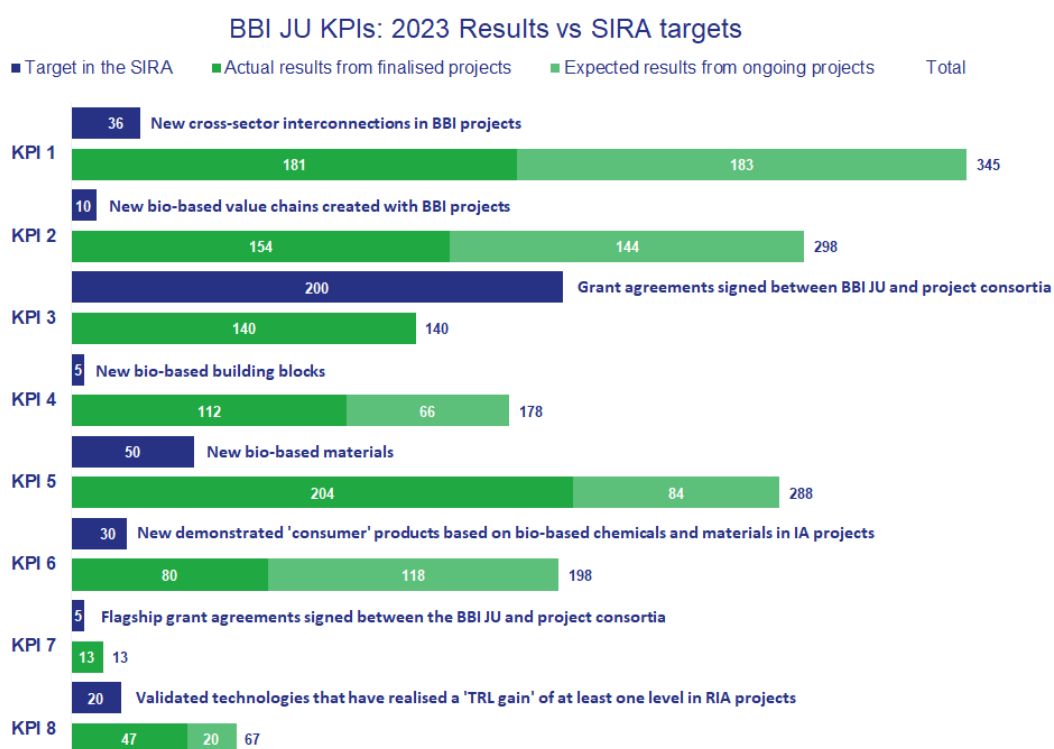
CBE JU-funded projects reached a significant number of milestones this year. Take, for example, the flagship project FARMŸNG in Amiens, France, that completed the construction of Ÿnfarm – the world's largest insect farm at 36 metres in height and with an area of 45 000 square metres. The project also brought its first commercial product – an organic bio-based fertiliser – to market.

The CBE JU demonstration project, DEEP PURPLE, officially inaugurated its photobiorefinery at the Linares Wastewater Treatment Plant (WWTP) in Spain. This is the first purple phototropic bacteria biorefinery in the EU and uses purple bacteria to purify wastewater in a cost-effective way. Treating up to 350 cubic metres of urban wastewater per day, the plant yields up to 440 tons of bioproducts annually for commercial uses including in cosmetics, packaging and fertilisers.

2023 was also the year that the CBE JU developed its Widening Participation Strategy and marked the first year of its Widening Action Plan 2023-2024. The Strategy and the Action Plan have a two-fold objective of stepping up participation of less represented countries and regions in the CBE JU funding programme and stimulating research and innovation in countries and regions with less mature bio-based systems. The Strategy was developed from feedback from the widening countries themselves who identified specific barriers to their participation in the annual calls and identified opportunities for action.

BBI JU legacy

We continue to monitor the Bio-Based Industries Joint Undertaking (BBI JU)'s specific Key Performance Indicators (KPIs) both for ongoing and completed BBI JU-funded projects. We gathered data from 138 BBU JU projects, of which 46 are ongoing and 96 have been completed. The results reported by the completed projects, in particular, already confirm we have met the targets for all the KPIs linked to project outputs, and even significantly surpassed them, as the graph below shows.



The impressive results as regards 'new cross-sector interconnections in BBI projects' (KPI 1) underscores that collaboration between diverse actors from various sectors results in the creation of innovative bio-based value chains. Consequently, different new bio-based building blocks and materials are being introduced with varying levels of innovation intensity.

We see significant increases in Technology Readiness Level (TRL) on RIA topics, closing technological gaps in value chains by testing and approving innovative processing technologies. These earlier stage research projects set the basis for further upscaling, demonstration and integration in larger scale (industrial) facilities.

Decreasing the environmental impacts of industrial processes and products is one of the core objectives of BBI JU projects. A significant number of projects report positive contributions in line with this ambition. 68 % of projects report a reduction in greenhouse gas (GHG) emissions, 67 %

are targeting waste reduction, reuse, recycling or valorisation, 53 % report reduced energy consumption and 36 % highlight increased water efficiency. Through annual monitoring, funded projects are continuing to contribute to the Sustainable Development Goals (SDG), in particular SDG 9, 12, 13, 14 and 15.

Dissemination and communication activities

This year's communication highlight was undoubtedly the first CBE JU Stakeholder Forum, which took place on 6-7 December in Brussels. The in-person event provided a platform to the 400+ participants to engage in thought-provoking discussions on the future of the European bio-based sector, showcasing cutting edge technologies and inspiring actionable solutions. Key takeaways from the event included the recognition of CBE JU as a success story in advancing the European bio-based sector and its role in de-risking investments, the importance of the regional dimension in the bioeconomy, the need for a strong common narrative, consistency in the regulatory framework to facilitate market access and the full integration of the primary sector in the value chain.

A strategic Governing Board meeting was held on the margins of the CBE JU Stakeholder Forum involving senior representatives of the European Commission and leading European bio-based industries. The open and frank discussion looked at the role of research and innovation, industrial policy and involving primary producers in value chains to unleash the full potential of Europe's bioeconomy. The public-private partnership model of CBE JU was deemed a unique instrument in overcoming the critical problems for the sector.

In addition, CBE JU held its first in-person Info Day since 2019 dedicated to the CBE JU 2023 call. The event brought together over 300 applicants in Brussels, of which 65 % were newcomers. The CBE JU networking platform hosted 680 meetings to discuss potential applications to the call for project proposals. An additional 1000+ people followed the event online, with Poland in the top 5 of viewers and top 6 of in-person participants.

Other notable communication highlights included the 'CBE JU exhibition of innovation bio-based based solutions' at three European Commission buildings as well as at the AGRI-FISH Council of 25 April in Luxembourg to coincide with the adoption of Council Conclusions on the opportunities of the bioeconomy. The success of this exhibition led to the launch of a larger exhibition for the Stakeholder Forum in collaboration with 30 CBE JU-funded projects.

Operational highlights

In line with previous years, the CBE JU Programme Office continued to maintain a high level of operational excellence.

In terms of budgetary and financial management, the Key Performance Indicators (KPIs) showed a strong performance in 2023: all interim and final cost claims validated were paid on time with an average Time to Pay (TTP) of 61 days for interim and 63 for final claims and no late payments over the 90-day limit. All 21 grant agreements from call 2022 were signed on time reaching an average Time to grant (TTG) of 235 days. 95 % of administrative payments were on time, with the average TTP being 15 days (late payments included), well within the 30-day time limit.

Another key highlight at the end of 2023 was the leverage effect climbing to EUR 3.23, i.e., for every euro of public funding the programme attracts EUR 3.23 in private investment. The expected leverage value is already above the BBI JU target for 2024. This is an important achievement given the increased demands on public funding and the rising uncertainty among private investors due to the volatile geopolitical context we are currently witnessing.

In terms of Human Resources, the selection procedure for the position of CBE JU Executive Director was successfully concluded at the end of the year. As per previous years, the annual staff survey saw an impressive participation rate of 96 % and very high satisfaction rate.

Furthermore, in terms of efficiency gains and synergies, CBE JU took the lead with the Innovative Health Initiative Joint Undertaking (IHI JU), to establish the Back-Office Arrangement for HR. Its objectives are to maximise synergies among the Joint Undertaking's (JU's), harmonise procedures by capitalising on best practice, ensure coherent HR support services, achieve efficiencies and economies of scale and increase the negotiation power of JU's operating under the Single Basic Act (SBA) against contractors and service providers.

Work also progressed on setting up the Deployment Group on Investments and Finance with the launch of a study commissioned by the European Investment Bank (EIB). The first results are expected in 2024. We also set up a taskforce to work on the concept note to define the scope, objectives, tasks and composition of the Deployment Group on Primary Producers. 2023 also saw work to prepare and publish a Coordination and Support Action (CSA) topic in the 2024 Annual Work Programme (AWP) to provide a support service to this Deployment Group.

Conclusion

To conclude, 2023 was a strong year for the CBE JU confirming its role as enabler of the bioeconomy and the circular economy, strengthening its stakeholder's community, providing key feedback from projects to policymakers and highlighting concrete projects achievements. The funding programme remains attractive and relevant for its community and continues to welcome a high percentage of newcomers, underscoring the openness of the funding programme itself.

Despite the impressive results reported by funded projects, it is important, nevertheless, to point out the continued long-term impacts of Covid-19 and Russia's illegal invasion of Ukraine. CBE JU projects still report implementation delays, mainly due to the disruption of feedstock supply and increases in energy prices and inflationary costs.

Whilst we bear witness to increasingly volatile geopolitical circumstances, the bio-based sector and its industries are making major contributions in terms of reducing the EU's dependency on strategic imports, supporting the transition away from fossil-based resources while at the same time increasing Europe's competitiveness and economic resilience on the global stage, maintaining its technological leadership. In addition, the bio-based sector is making important socio-economic impacts, such as by creating new high-skill jobs in predominantly rural and coastal areas, diversifying the income streams of primary producers such as farmers and foresters, bringing technological innovation to the regions and revitalising rural communities. It is a sector which is undoubtedly a key enabler of the European Green Deal.

As we approach the European elections and the transition to a new European legislative term in 2024, the bio-based sector will play a key role in providing solutions to many of the challenges – be those climate, environmental or socio-economic – we face today. Bio-based industries are proof that a successful business case exists in the transition to a more sustainable way of producing and consuming while at the same time respecting the planet's boundaries.

1. IMPLEMENTING THE CBE JU 2023 WORK PROGRAMME

This chapter reports the most relevant activities and major achievements of the CBE JU (and the BBI JU's legacy) in 2023, including leveraging private funding, scientific and technological advancements, progress towards target KPIs, the expected impacts in terms of competitiveness, growth and job creation and our contribution to overcoming societal challenges.

1.1. KEY 2023 CBE JU OBJECTIVES, ASSOCIATED RISKS AND CORRECTIVE MEASURES

This section maps out the progress towards achieving the CBE JU's general and specific objectives and the strategic priorities set in the [CBE JU Strategic Research and Innovation Agenda \(SRIA\)](#). It also explains the associated operational risks, mitigation, preventive and corrective measures taken to meet the operational and management objectives we set for 2023.

1.1.1. Objectives, scientific priorities and challenges

The CBE JU operates under the Horizon Europe programme and aims to accelerate innovation and market deployment of innovative bio-based solutions while at the same time increasing the sustainability of the bio-based systems in areas such as end-of-life, zero-pollution ambition, contribution to climate change mitigation and resource efficiency. By bringing together many different participants from across the value chain, from primary producers to consumers along with technology developers, researchers and companies that want to develop new cross-sector collaborations and business models, it has huge potential to support regional development as well.

The CBE JU is expected to contribute to the European Green Deal and the 'Fit for 55' Package in achieving the ambitious EU targets of reducing net greenhouse gas emissions by at least 55 % (compared to 1990) by 2030 and by becoming the first climate-neutral continent by 2050. The CBE JU will also play its part in the transition from a fossil to a sustainable bio-based economy, in line with the objectives set out in the updated [EU Bioeconomy Strategy and its Action Plan](#), and will support the commitments set under the [United Nation Sustainable Development Goals \(SDGs\)](#) and the COP 21 Paris Climate Agreement.

The transition from a fossil- to a bio-based economy requires sustainable bio-based products that reach high technical levels of performance and fully meet market requirements, so that they can successfully replace their current, fossil-based counterparts. In addition, the sustainable and local sourcing of the biomass, making the most of all types of bio-based side streams and the reuse, recycling and upcycling of resources all play a key role in ensuring that bio-based systems are a sustainable and efficient use of natural resources.

The general and specific objectives of the CBE JU have been set out in the [Council Regulation establishing all Joint Undertakings under the Horizon Europe programme](#), while the related strategic priorities have been detailed in the CBE JU SRIA.

Figure 1 gives the logical link among the three CBE JU objectives and the SRIA strategic priorities using three different colours (light blue, dark yellow and light green).



Figure 1 CBE JU general (GOs) and specific objectives (SOs) and related SRIA strategic priorities (SPs).

Figure 2 charts the links between the topics in the [CBE JU Annual Work Programme 2023](#) and the CBE JU generic and specific objectives while Figure 3 sets out their links with the strategic priorities identified in the SRIA along the three main blocks (feedstock, processing and products) and the specific cross-cutting priorities.

CBE JU Specific Objectives		CBE JU TOPICS AWP2023																		
		2023-IA-Flag01	2023-IA-Flag02	2023-IA-Flag03	2023-IA-Flag04	2023-IA-01	2023-IA-02	2023-IA-03	2023-IA-04	2023-IA-05	2023-IA-06	2023-IA-07	2023-R-01	2023-R-02	2023-R-03	2023-R-04	2023-R-05	2023-S-01	2023-S-02	
1. Accelerate the innovation process and development of bio-based innovative solutions	1.1.-Increase cross-disciplinary research and innovation activities, reaping its benefits for the development and demonstration of sustainable bio-based solutions.					X								X	X	X	X			X
	1.2 - Increase and integrate the research and innovation capacity of stakeholders across the EU to unlock bioeconomy potential even in regions with underdeveloped capacity.																		X	X
	1.3-Increase the research and innovation capacity and development sustainable bio-based innovations, by ensuring that sustainability issues and environmental performance are integrated throughout the whole innovation chain.													X	X	X				X
2. Accelerate market deployment of the existing mature and innovative biobased solutions	2.1- 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.	X	X	X	X	X	X	X	X	X	X	X	X						X	
	2.2- Reduce the risk for research and innovation investment in bio-based companies and projects.																		X	
3. Ensure a high level of environmental performance of bio-based industrial systems	3.1- 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.	X	X	X	X				X	X	X	X						X		X

Figure 2 Contribution of AWP 2023 topics to the CBE JU specific objectives.

SRIA Strategic priorities		CBE JU TOPICS AWP2023																					
		2023-IA-Flag01	2023-IA-Flag02	2023-IA-Flag03	2023-IA-Flag04	2023-IA-01	2023-IA-02	2023-IA-03	2023-IA-04	2023-IA-05	2023-IA-06	2023-IA-07	2023-R-01	2023-R-02	2023-R-03	2023-R-04	2023-R-05	2023-S-01	2023-S-02				
FEEDSTOCK	1.1.1 - Ensure the availability and quality of sustainable bio-based feedstock					X								X	X					X			
	1.3.1 - Protect and enhance biodiversity and ecosystem services in bio-based feedstock supply systems													X	X					X			
	2.1.1 - Demonstrate the sustainable supply of bio-based feedstock				X	X	X		X	X	X			X									
PROCESSING	1.1.2 - Develop innovative production systems in the bio-based industry					X										X	X						
	1.3.2 - Improve environmental performances of bio-based processes														X								
	2.1.2 - Deploy innovative production technologies	X	X	X	X	X	X	X	X	X	X	X											
PRODUCTS	1.1.3 - Develop innovative bio-based products																X	X					
	2.1.3 – Scale-up production and market uptake of innovative bio-based products	X	X	X	X		X			X	X	X								X			
CROSS-CUTTING	Communication	1.2.1 - Stimulate research activities in countries and regions with underdeveloped R&I capacity for bio-based systems																		X	X		
		1.2.2 - Increase the awareness and capacity of national and regional research support agencies for industrial bio-based systems																				X	
		1.2.3 - Facilitate the development of expertise in bio-based fields by improving higher education and skills development in the private sector																					
		2.1.4 - Build policy makers' awareness and acceptance of bio-based solutions																					
	Finance	3.1.3 – Facilitate social acceptance of bio-based applications	X	X	X	X													X				
		2.2.1 – Improve the risk profile of bio-based projects																					
Environmental sustainability framework	2.2.2 - Develop investment tools and approaches that mitigate the investment risk in bio-based systems																				X		
	3.1.1 - Set effective and robust environmental sustainability and circularity criteria for bio-based systems																						
	3.1.2 - Incorporate the environmental sustainability and circularity criteria in bio-based systems	X	X	X	X				X	X	X	X										X	

Figure 3 Contribution of AWP 2023 topics to SRIA Strategic priorities.

1.1.2. The CBE JU's operational and management objectives in 2023

During the CBE JU Governing Board meeting of October 2022, the acting Executive Director presented the following priorities for 2023 focussing on four areas:

1. Governance

- Establish the Investment Deployment Group and continue working on the definition of the scope of the Bio-based Feedstock deployment group (primary production).
- Consolidate the role of the SRG and the SC under the CBE JU mandate.
- Organise the CBE strategic Governing Board meeting and ensure follow-up of the conclusions.
- Approve the monitoring method for the financial contributions to CBE JU.
- Ensure the transition to a new Executive Director, maintaining efficiency in CBE JU daily operations.

2. Programme implementation

- Prepare the grant agreements and kick-off first CBE JU project stemming from the 2022 call.
- Promote the CBE JU 2023 call and its evaluation.
- Launch the new web-based KPIs reporting tool and first reporting from legacy projects.
- Coordinate the AWP 2024 preparation according to the established CBE JU programming procedure.

3. Communication and stakeholders' management

- Organise the CBE JU Stakeholder Forum.
- Reinforce the communication on CBE/BBI JU projects and their impact.
- Update the CBE JU Communication strategy in line with the new mission.
- Launch targeted communication actions in underrepresented areas and sectors in close collaboration with EC, BIC and the SRG.

4. Administration and finance

- Lead the implementation of the back-office arrangement - HR support.
- Contribute to the back-office arrangement in other key areas (IT, logistics, procurement), in particular by finalising the accounting closure.
- Finalise the office set-up in line with the new ways of working and conclude the procedure for the building in collaboration with the other JUs.

1.1.3. Associated risks

In line with the CBE JU procedures for identifying risks and designing preventive measures, the 2022 risk assessment performed on the 2023 objectives and priorities identified seven risks with varying degrees of importance, convergence and inter-dependency. Other emerging threats were identified and monitored across the year for the likelihood and impact of them occurring.

These risks were described in the CBE JU Risk Register together with risk responses, responsibilities, and deadlines for implementation by the JU Programme Office or by external stakeholders. As a result of these planned actions, in the course of 2023, the JU Programme Office was able to monitor and mitigate both the likelihood and impact of the identified threats, maintaining them at acceptable levels. Some risks did materialise in the course of the year and a high and significant level of concern is maintained for 2024 and beyond³. This is particularly the case for the following most significant risks.

Objective(s)	Risk(s)	Result(s)
Consolidate the effective delivery of the projects portfolio while supporting effective and ambitious strategic planning for the governance model of the JU.	The lasting impacts of the Covid-19 pandemic and the emerging challenges posed by the current geopolitical and economic scenarios in Europe were posing threats to meeting these objectives as the CBE JU is an industry-driven initiative.	Following what was already observed in 2022, the CBE JU project portfolio continued to report implementation delays in 2023, mainly due to disruptions in feedstock supply, increases in energy prices and inflation. The CBE JU governance management bodies are fully committed to monitoring these risks, maintaining good channels of communication with project consortia and preserving the quality of and ultimately meeting the multi annual strategic objectives of the initiative in a timely manner.
Keep CBE JU operational standards high and ensure efficiency to absorb the workload in 2023. Ensure the necessary and competent Human Resources are available when needed and working in safe conditions.	Insufficient Human Resources and threats to staff safety and wellbeing.	In 2023, the JU managed to achieve the target overall efficiency ratios on operations and took action to safeguard staff and promote their wellbeing. However, some sudden staff departures and prolonged absences, together with the ongoing recruitment for a top management role significantly impacted the internal re-distribution of workloads and eventually created some bottlenecks in some key processes, notably for the Financial and Administration Unit.

Table 1: Most significant risks managed in 2023.

The above-mentioned results are detailed in the relevant sections of this document.

³ As disclosed in the [CBE JU Annual Work Programme 2024](#) (pages 18-19), additional mitigating actions are planned for 2024 and the residual threats to achieving yearly objectives were not assessed as critical at the point the work programme was drafted.

1.2. RESEARCH & INNOVATION ACTIVITIES AND ACHIEVEMENTS

This section provides an overview of the CBE JU project portfolio, which encompasses a wide range of technologies, processes and types of biomass to develop products for various uses, ranging from feed and food ingredients to packaging, construction, personal and home care, automotive, among many others. The CBE JU project portfolio currently comprises completed and ongoing BBI JU projects plus 21 CBE JU projects from the Call 2022. For the sake of simplicity, we will refer only to CBE JU projects/portfolio, including both BBI and CBE JU projects.

1.2.1. Overview of the CBE JU portfolio and its evolution

Types of actions and TRLs

As presented in Figure 4, the CBE JU implements its research and innovation programme founding four types of actions which aim at different **Technology Readiness Level**. While **Research and Innovation Actions** (RIAs) focus on filling the gaps in technological innovation, **Innovation Actions** (IAs) prioritise the integration, deployment and upscaling of technologies and ultimately bringing the technology closer to a commercial scale, as in the case of **Flagships first-of-their-kind biorefineries** (IAs-Flagships). **Coordination and Support Actions** (CSAs) work to create value chains by addressing cross-cutting challenges.

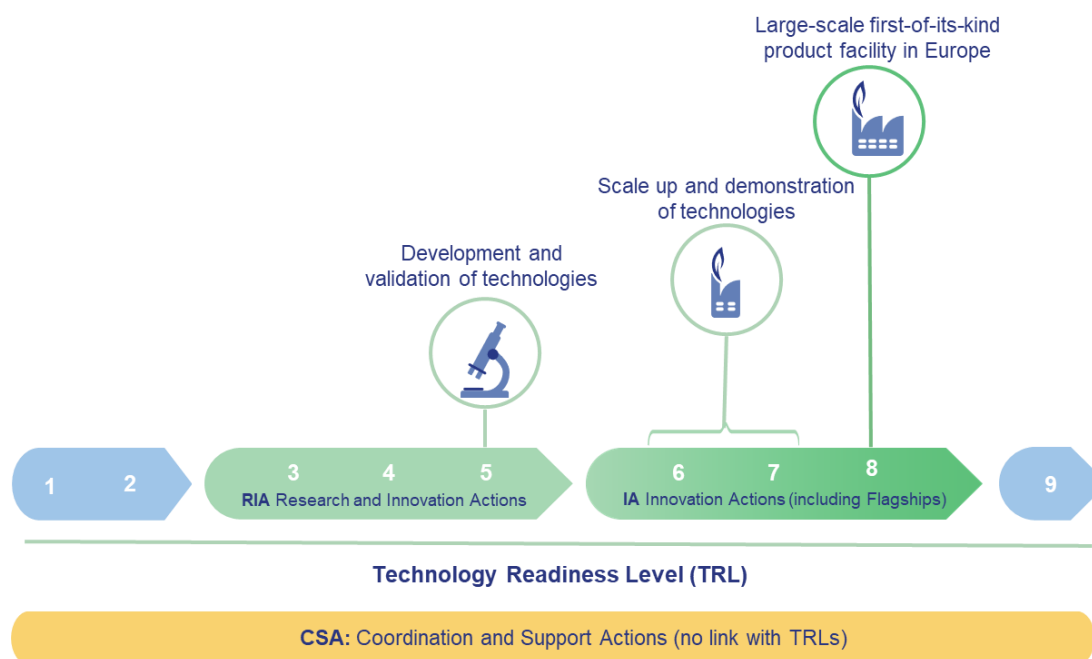
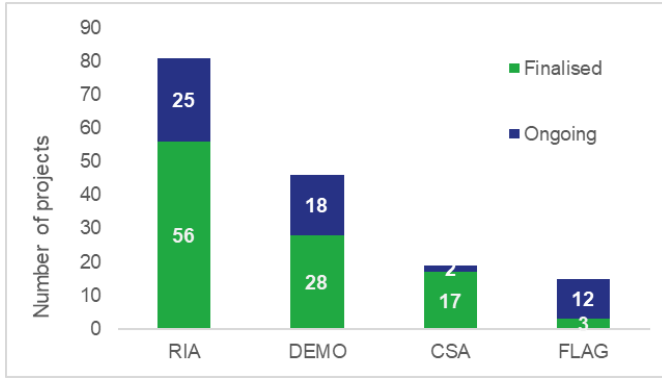


Figure 4 Types of action in relation to their respective TRLs.



The CBE JU project portfolio is currently composed of CBE JU ongoing projects and BBI JU completed and ongoing projects. A total of 161 projects, of which 57 were still ongoing and 104 completed at the end of 2023, is presented in Figure 5. The two BBI JU projects that were terminated have not been included.

Figure 5 Number of CBE JU projects per type of action completed and ongoing at the end of 2023.

Main source of feedstock

The main types of feedstocks used in CBE JU projects, excluding CSAs, with their percentages are:

- **Agri-based feedstock**, including residues and by-products from the agro-food industry (35 %).
- **Forest-based feedstock**, including lignocellulosic side streams and wood residues (23 %).
- **Aquatic feedstock**, including aquatic organisms, fisheries, aquaculture sectors and their residues (9 %).
- **Sidestreams from industry**, including black liquor from the pulp and paper industry and dairy process sidestreams (5 %).
- **Biowaste**, including Organic Fraction of Municipal Solid Waste (OFMSW) and wastewater (5%).
- **Biogenic Gas** and, in particular, CO₂ (2 %).
- **Other feedstock**, including a small number of RIA projects (RECOVER, BIZENTE, ENZYCLE) developing technologies to transform non-biomass feedstock (designated as 'other feedstock') using biotechnological processes (4 %).

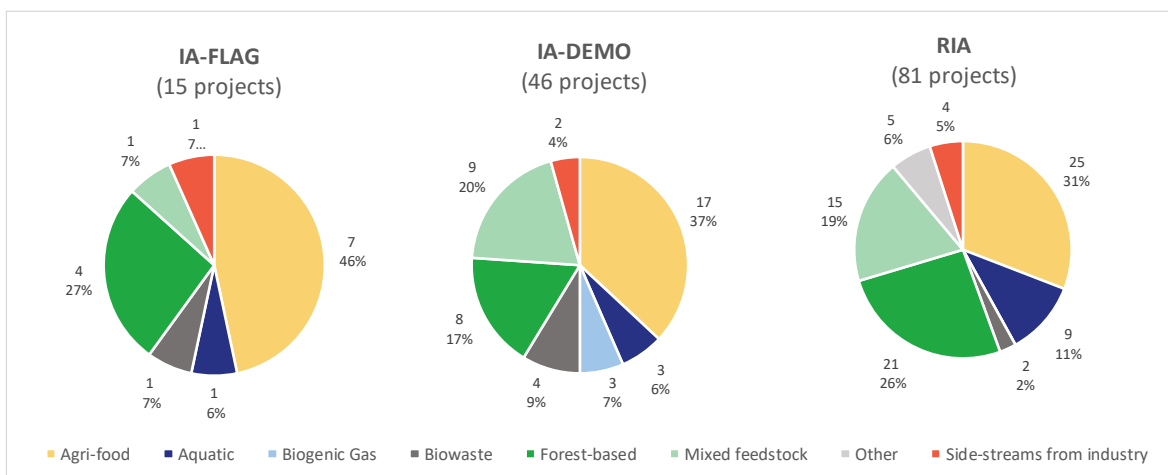


Figure 6 Numbers of CBU JU projects in relation to their main feedstock divided per type of action (excluding CSAs).

As shown in Figure 6, the agri-based sector represents the main source of feedstock for CBE JU projects across all types of action, followed by forest-based. Mixed feedstock (18 %) is used by projects using two different feedstocks, which in most cases is a mixture between agri-food based and forest-based feedstocks. However, the use of other types of feedstocks, such as aquatic feedstock, biogenic gas, and biowaste, in the CBE JU portfolio is increasing. All the main feedstock sources are covered by at least one of the three types of action (RIA, IA-DEMO and/or IA-FLAG).

The table below gives some examples of CBE JU projects, mainly from the 2022 call, and their main source of feedstock.

Feedstock	CBE JU project
Agri-based	SUSTAINEXT (IA-FLAG) is a first of its kind Flagship plant aiming to produce plant extracts and functional ingredients from medicinal and aromatic crops – rosemary, camomile and lemon verbena – on disused tobacco fields. It also uses solar panels to enhance soil use and provide clean energy as well as agricultural side streams – olives, cardoons and pomegranates – to showcase how underexploited biological raw materials can be upcycled.
Forest-based	SuperBark (RIA) uses the natural components of softwood bark, typically burned for fuel, to develop new bio-based adhesives and coatings for a range of industrial uses, such as formulations for plywood, particleboards and packaging paper products.
Aquatic	PROMISEANG (RIA) aims to explore the potential of non-conventional marine biomass, including marine invertebrate and macroalgae discards. The project will form this underexploited feedstock to produce microbial protein biomass and create nutritious, high-value, sustainable food, feed and non-food products for pharmaceuticals and cosmetics.
Sidestreams from industry	The IRODDI (RIA) project seeks to develop mild and greener processes for obtaining bio-based products such as surfactants, base-oils, and polyols with specific properties. These will be derived from the Free Fatty Acids (FFAs) contained in deodorisation distillates, the sidestreams of deodorisation processes.
Biowaste	CIRCULAR BIOCARBON (IA-FLAG) is a first-of-its-kind Flagship plant where urban waste streams generated in cities are turned into several high added-value products: coatings, biodegradable and compostable bags, green graphene-based devices and products, biodegradable soil mulch films, biofertilisers and biostimulants.
Biogenic gaseous carbon gas	Synoprotein (IA-DEMO) is trying to demonstrate a novel process to capitalise on pilot scale sawmill by-products through carbon capture and use (CCU). The goal is to convert the biomass into single-cell proteins for fish feed ingredients as an alternative to the traditional soybean and wild fish protein.

Main application areas

The main areas of application covered by the CBE JU portfolio are:

- **Bio-based chemicals**, including surfactants, solvents and platform chemicals.
- **Biopolymers and bio-based plastics**, including coatings, polyurethanes, polyesters, resins and adhesives.
- **Construction**, fibres and board for furniture, binders, composites and insulation materials.
- **Crop protection and fertilisation**, including biopesticides, fertilisers and pheromones.
- **Food & feed**, including proteins, sugars, additives and bioactive compounds.
- **Packaging**, mainly the production of bio-based materials with tailored properties for packaging applications (including food packaging).
- **Textile**, including textile fibres and textile coatings.
- **Others**, focusing on producing sustainable biofuel for the transport sector (LIGNOFLAG), demonstrating more efficient enzyme production to increase biogas yields (DEMETER), developing technologies to improve knowledge in forest management (EFFORTE and TECH4EFFECT) and developing digital tools to optimise agri-food value chains and the supply of quality biomass for processing (BBTWINS).

As shown in Figure 7, the main application areas covered by IA-FLAG, IA-DEMO and RIA types of actions are: food & feed (35 projects), biopolymers and bio-based plastics (28 projects), bio-based chemicals (24 projects), packaging (23 projects) and the construction sector (11 projects). The portfolio also includes RIA and IA-DEMO projects in both crop protection & fertilisation (8 projects) and textile (6 projects).

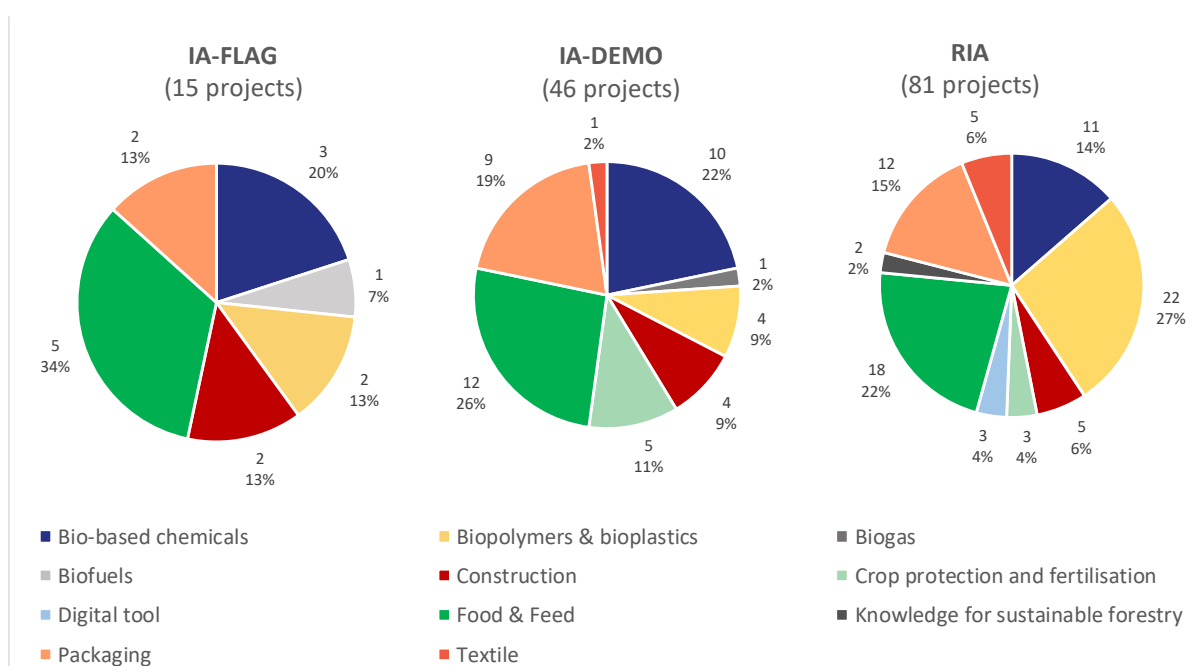


Figure 7 Number of CBE JU projects by main area of application and type of action (excluding CSA).

Below are some examples of CBE JU projects, mainly from the 2022 call, and their main applications.

Feedstock	CBE JU project
Bio-based chemicals	COUNTLESS (IA-DEMO) aims to have a continuous, industrially relevant process for the conversion of lignin into platform chemicals. The project wants to show that these building blocks are adaptable and cost-effective in a variety of industrial applications such as additives and personal care products, binders and adhesives as well as thermosets and insulation foams.
Biopolymers and bio-based plastics	FURIOUS (RIA) is developing novel versatile polymers based on furan dicarboxylic acid. The new materials will have versatile properties for further applications in different sectors such as biomedical and electronic packaging, the automotive sector and underwater devices.
Construction	BIORING (RIA) is producing novel, high-performance coatings with enhanced thermomechanical performance. The materials will be used in the automotive (high-gloss coating) and construction (exterior wall coatings, worktop blacks and compact laminate custom worktops) sectors.
Crop protection and fertilisation	PHERA (IA-DEMO) uses new yeast fermentation technology at industrial scale to demonstrate cost-effective insect pheromone production for pest control in row crops. This creates an alternative to the extensive use of toxic, chemical insecticides that negatively impact the environment and human health.
Food & feed	SYLPLANT (IA-FLAG) is building a first-of-its-kind commercial plant, capable of producing a protein rich ingredient. Under-utilised agricultural and forestry residues (e.g., molasses, beet pulp, wheat straw, wood chips, etc.) and side streams will be treated and fermented into protein ingredients that will be used to formulate nutritious and sustainable food, feed and aquafeed products that meet market demand.
Packaging	HICCUPS (IA-DEMO) is demonstrating how we can convert biogenic CO2 emissions from wastewater treatment plants into bio-based plastics. These polymers will be used to produce biodegradable packaging solutions with excellent water & gas barrier properties, such as cups, take-out boxes and sealed plastic trays for perishable food from the supermarket.
Textile	FISBUN (RIA) uses degraded soils and marginal land to cultivate biomass feedstocks (thistle, aquatic grasses, cattail and the common reed) and produce bio-based fibres for the construction, automotive and textile sectors. The fibres will be used to produce insulation rolls and boards, composites for cars, concrete and yarn.

CBE JU Coordination and Support Actions

To complete the CBE JU portfolio presentation, the 19 CSAs are set out in brief below.

Project acronym	Project title	Project focus
BIOWAYS	Increase public awareness of bio-based products and applications supporting the growth of the European bioeconomy	Public awareness and engagement
STAR4BBI	Standards and regulations for the bio-based industry	Mapping regulatory frameworks
BioCannDo	Bioeconomy awareness and discourse project	Public awareness and engagement
RoadToBio	Roadmap for the Chemical Industry in Europe towards a Bioeconomy	Network and strategy development
PILOTS4U	A network of bioeconomy open-access pilot and multipurpose demo facilities	Network and strategy development
BiOPEN	The open innovation platform to stimulate the business and innovation potential of the bio-based sector in Europe	Network and strategy development
ICT-BIOCHAIN	ICT tools in efficient biomass supply chains for sustainable chemical production	Increasing bioprocess efficiency
BIOBRIDGES	Bridging consumers, brands and the bio-based industry to improve the market of sustainable bio-based products	Public awareness and engagement & network and strategy development
UrBIOfuture	Boosting future careers, education and research in the European bio-based industry	Education, skills and career development
LIFT	Unleash the potential of CSA results to contribute to sustainable and competitive Bio-based Industries in Europe	Network and strategy development
CELEBio	Central European leaders of bioeconomy network	Network and strategy development
BIOSWITCH	Encouraging brand owners to switch to bio-based in highly innovative ecosystems	Network and strategy development
MPowerBIO	eM-POWERing SME Clusters to help SMEs to overcome the valley of death	Network and strategy development
Allthings.bioPRO	Game changer for the bio-based economy	Public awareness and engagement
Tech4Biowaste	A dynamic database of relevant technologies of bio-waste utilisation	Increasing bioprocess efficiency
BIOCIRCULAR CITIES	Exploring the circular bioeconomy potential in cities. Proactive instruments for policymakers and stakeholders	Increasing bioprocess efficiency & mapping regulatory frameworks
BioeconomyVenture	Raising disruptive bioeconomy ventures, startups and spin-offs to the top	Network and strategy development
BIObec	Preparing the creation of Bio-based Education Centres to meet industry needs and boost the contribution of the bioeconomy to societal challenges	Education, skills and career development
BIORADAR	Monitoring system of the environmental and social sustainability and circularity of industrial bio-based systems	Mapping and definition of regulatory frameworks

1.2.2. Main Research & Innovation achievements

Significant CBE JU project milestones were met in 2023, including the successful completion of 22 projects. Several ongoing projects also celebrated major achievements. In this section, we will present some examples from this subset of CBE JU projects; in particular, projects where results have significant (potential) impact, illustrating how sustainable bio-based solutions can help in addressing some of the most pressing challenges society faces. These include extracting economic growth from the depletion of natural resources, introducing circular approaches in production and consumption, using resource-efficient technologies and processes, reducing GHG emissions and microplastic pollutants and preserving biodiversity.

Figure 8 gives the locations of flagship, industrial-scale projects across Europe. BBI JU funded flagship numbers 1-13.



Figure 8 15 BBI and CBE JU Flagships under construction or in operation.

BIOCIRCULARCITIES (BBI JU CSA completed in September 2023)

This project studied biowaste management in three pilot locations, representing urban (Barcelona, Spain, and Naples, Italy) and rural (Pazardzhik, Bulgaria) areas⁴. The consortium identified potential improvements to existing models by analysing circular bioeconomy best practices. The project has delivered policy recommendations and guidelines in the form of a [freely accessible webtool](#) with the purpose of supporting local waste experts and decision-makers in identifying relevant routes to capitalising on technology for specific biowaste and bioresidues.

⁴ See [website](#) and [CORDIS](#) for further information.

FARMYNG (BBI JU ongoing IA-Flagship)

In 2023, this flagship project built its Ynfarm, the world's largest insect farm at 36 metres in height and with an area of 45,000 square meters⁵. The plant, which is located at Poulainville near Amiens, France, has started to sustainably produce mealworms, delivering high-quality ingredients for both animal and plant nutrition in 2024. In fact, the first commercial product – an organic bio-based fertiliser – was already being delivered in Q4 2023. The project is a demonstration of a large-scale, first-of-its-kind bio-based value chain producing sustainable, safe and premium feed products from mealworms. This includes sustainable proteins and lipids for fish feed and pet food end markets⁶.



Figure 9 FARMYNG flagship plant (Poulainville, France).

DEEP PURPLE (BBI JU ongoing IA-DEMO)

On 2 October 2023, the photobiorefinery of the DEEP PURPLE project was officially inaugurated at the Linares Wastewater Treatment Plant (WWTP) in Spain⁷. This first Purple Phototropic Bacteria biorefinery in the EU purifies wastewater in a cost-effective way through the use of purple bacteria. Treating up to 350 m³ of urban wastewater per day, the plant yields up to 440 tons of bioproducts annually for commercial applications including cosmetics (Ectoine), packaging and fertilisers.



Figure 10 DEEP PURPLE team at the inauguration of the Wastewater Treatment Plant at Linares, Spain.

⁵ See [project newsletter 2 January 2024](#).

⁶ See [project website](#) and [CORDIS](#).

⁷ See [project news 2 October 2023](#), [project website](#) and [CORDIS](#).

PHERA (BBI JU IA-DEMO completed in August 2023)

The PHERA project has been able to scale up the production of mating disruption pheromones using yeast fermentation – which previously could only produce small quantities – to full industrial production⁸. This breakthrough gives a cost competitive route to three pheromones for crop protection (using integrated pest management approaches), offering a sustainable alternative to insecticides. Field trial results in Bangladesh and India have been positive, resulting in a 25 % yield increase and a reduction in insecticide consumption. The project has paved the way to enabling more widespread application of the pheromones by developing formulations suitable for use in biodegradable dispensers and drones.



Figure 11 One of the fermented pheromones produced in the PHERA project in field trials.

VEHICLE (BBI JU IA-DEMO completed in April 2023)

The VEHICLE project has successfully demonstrated novel technologies for optimising and adding value to low-value sugar streams from pulp mills. In concrete terms, the project built a demo scale production unit at Domsjö mill to make use of hemicellulose-containing prehydrolysate waste streams. New value chains have been established across Europe that use the resulting plant-



Figure 12 Ecohelix demo unit at the Domsjö mill in Sweden.

based chemicals for various industrial applications and consumer products, including bio-PET for plastic bottles, biopolyesters for films in packaging materials, antifreeze fluids for aircraft and heat transfer fluids for engine protection and solar panels⁹.

⁸ See article in [Open Access Government magazine](#), [project website](#) and [CORDIS](#) for further information.

⁹ See [project website](#) and [CORDIS](#) for further information.

EFFECTIVE (BBI JU IA-DEMO completed in February 2023)

The EFFECTIVE project developed new methods to create sustainable, bio-based fibres and plastics using renewable feedstocks and innovative technologies¹⁰. Using sugars and vegetable oil from sustainable sources, the project successfully produced bio-based polyamides (different types of 100 % bio-based nylons) and bio-polyesters at pre-industrial scale. Several different prototypes were approved for use in packaging and fabrics. For example, yarns made from 100 % bio-based Nylon 6 were used to produce consumer products such as swimsuits, cycle shorts and carpets. These products have been specifically designed for recyclability. The proven circularity and reduced carbon footprint (compared to benchmark fossil-based solutions) of these products paves the way for the future scale-up of these technologies.



Figure 13 Bio-based nylon carpet prototype from EFFECTIVE project.

EXCornsEED (BBI JU RIA completed in February 2023)

The EXCornsEED project has demonstrated the high potential and quality of the separation, fractionation and isolation of biologically active natural substances from corn oil and other (biofuel) biorefinery side streams¹¹. During the project, an integrated process for the extraction and

purification of two major proteins found in rapeseed meal was optimised and scaled-up from laboratory to an intermediate scale (up to 350 L). The high-value proteins and bioactive molecules recovered have been applied as ingredients in innovative and sustainable food and cosmetic formulations such as Young Children Formula (Danone), texture-modified (TM) products for elderly people (Biozoon GmbH) and cosmetic products (Dr Lauranne). Bioactive molecules extracted from corn and rapeseed have found uses in topical solutions for skin regeneration and protecting skin against Blue Light radiation.



Figure 14 Tailor-made Olikos topical solutions (B. Easy).

¹⁰ See [project website](#) and [CORDIS](#) for further information.

¹¹ See [February 2023 project newsletter](#), [project website](#) and [CORDIS](#) for further information.

1.3. CALLS FOR PROPOSALS, GRANT INFORMATION AND OTHER FUNDED ACTIONS

In 2023, the CBE JU held two calls for project proposals. The level of participation by SMEs remains as high as ever (32 % of all applicants), as does participation by members of BIC (48 % of all applicants). There was also a higher level of participation from the widening countries, especially in the main call, with significant numbers of applicants from underrepresented countries.

1.3.1. Call for proposals

In 2023, CBE JU organised 2 calls for proposals:

- HORIZON-JU-CBE-2023, which will be referred to as the ‘main call’. More information is provided in section 3.3.1.1
- HORIZON-JU-CBE-2023-2, which will be referred to as the ‘NEBA call’. More information is provided in section 3.3.1.2

1.1.1.1. HORIZON-JU-CBE-2023: CBE JU main call

In its main call for project proposals, the CBE JU assigned EUR 215.5 million of funding to 18 topics, grouped into the 4 types of actions: 4 Innovation actions – Flagships (IA-Flags), 7 Innovation actions (IAs), 5 Research & innovation actions (RIAs), and 2 Coordination & support actions (CSA).

The table below provides an overview of the main call’s topics (including the budget assigned per topic), as well as the amount of submitted and evaluated proposals per topic.

Type of Action	Topic	Indicative topic budget	Estimated number of grants	Total requested EU contribution (eligible proposals)	Number of evaluated proposals	Actual budget / Total requested
IAFlag	HORIZON-JU-CBE-2023-IAFlag-01	€17,000,000	1	€16,979,073	1	100%
	HORIZON-JU-CBE-2023-IAFlag-02	€17,000,000	1	€99,552,724	6	17%
	HORIZON-JU-CBE-2023-IAFlag-03	€17,000,000	1	€46,924,177	3	36%
	HORIZON-JU-CBE-2023-IAFlag-04	€10,000,000	1	€37,891,731	4	26%
IA	HORIZON-JU-CBE-2023-IA-01	€15,000,000	2	€57,295,838	8	26%
	HORIZON-JU-CBE-2023-IA-02	€15,000,000	2	€74,836,281	12	20%
	HORIZON-JU-CBE-2023-IA-03	€15,000,000	2	€26,665,473	4	56%
	HORIZON-JU-CBE-2023-IA-04	€15,000,000	2	€61,699,960	9	24%
	HORIZON-JU-CBE-2023-IA-05	€15,000,000	2	€14,846,982	2	101%
	HORIZON-JU-CBE-2023-IA-06	€15,000,000	2	€28,217,929	4	53%
	HORIZON-JU-CBE-2023-IA-07	€15,000,000	2	€71,572,713	10	21%
RIA	HORIZON-JU-CBE-2023-R-01	€10,000,000	2	€57,766,730	12	17%
	HORIZON-JU-CBE-2023-R-02	€10,000,000	2	€20,493,029	4	49%
	HORIZON-JU-CBE-2023-R-03	€10,000,000	2	€143,651,229	29	7%
	HORIZON-JU-CBE-2023-R-04	€10,000,000	2	€166,457,343	35	6%
	HORIZON-JU-CBE-2023-R-05	€5,000,000	1	€14,775,566	3	34%
CSA	HORIZON-JU-CBE-2023-S-01	€1,500,000	1	€4,498,814	3	33%
	HORIZON-JU-CBE-2023-S-02	€3,000,000	1	€17,991,216	6	17%
Total	HORIZON-JU-CBE-2023	€215,500,000	29	€962,116,809	155	22%

Table 2 Overview of the CBE JU 2023 call topics and submitted proposals per type of action (eligible and admissible proposals).

Between call opening (26 April 2023) and call closure (20 September 2023), 162 proposals were submitted. One submitted proposal was withdrawn by the applicants, and – under the rules

stipulated in sections A and B of the [Horizon Europe General Annexes](#) – six proposals were found to be ineligible and/or inadmissible. In total, 155 proposals were evaluated, requesting more than EUR 962 million in funding. These proposals were submitted by consortia that vary in size from 4 entities for the smallest to 27 entities for the largest, with an average size of 14.

Geographical distribution of applicants

In terms of country participation, consortia were composed of entities from 3-16 different countries. The average number of different countries in a consortium was 7. Overall, most applicants are from one of the 27 Member States, jointly amounting to 90 % of all applicants (1899 of 2104 total participations). The share of applicants from Associated Countries, including the UK, was nearly 8 % of the total (163 total participations), while applicants from Third Countries accounted for the remaining 2 % (42 total participations).

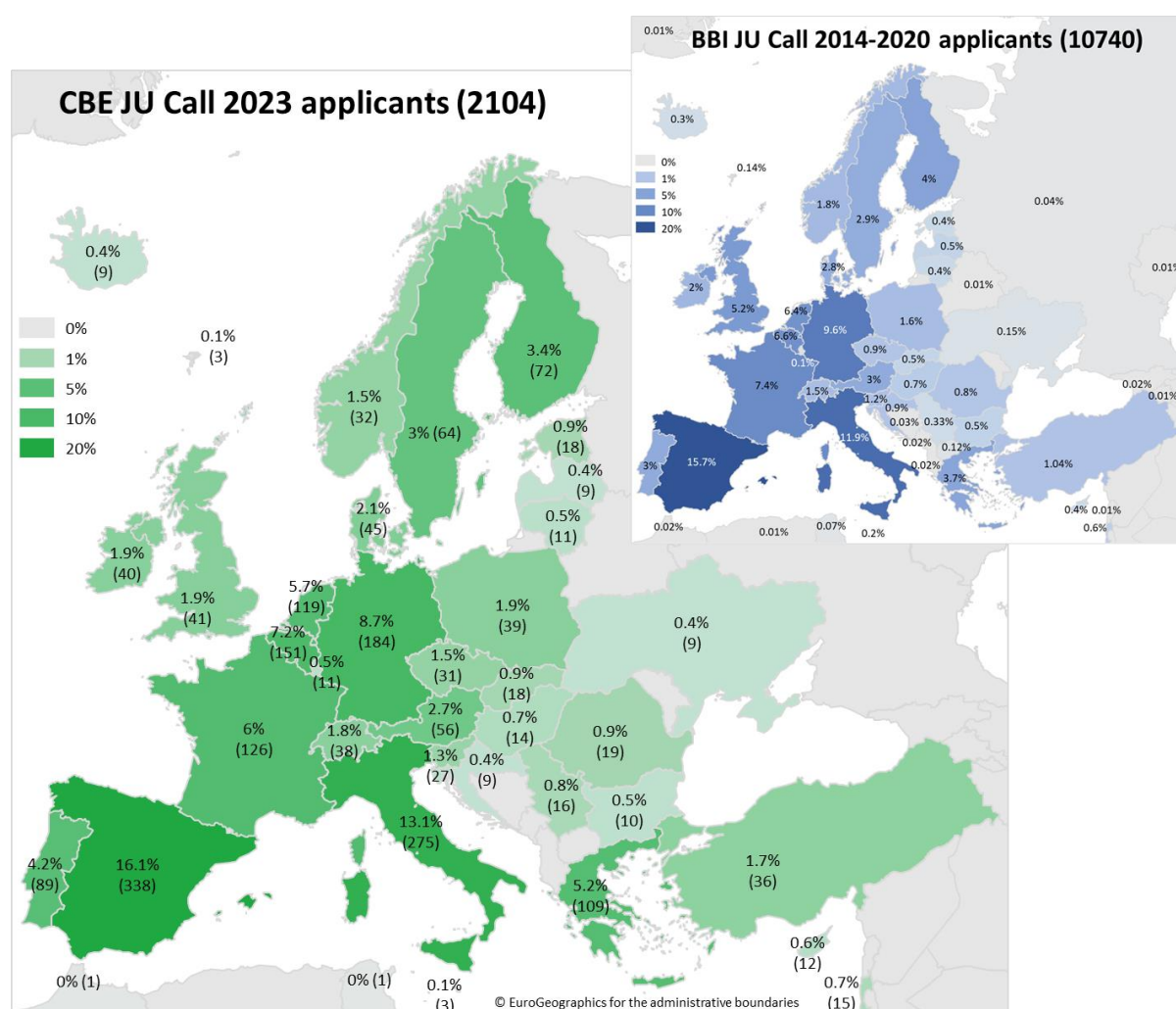


Figure 15 CBE JU 2023 Call. Percentage of applicants per country calculated from the total number of applicants (2104 total, eligible participations, i.e., including multiple counts of participation in more than one proposal) and number of applicants per country, with comparison to BBI JU calls' total applicants (2014-2020), also as percentage of applicants per country calculated from the total number of applicants (10740 non-unique total eligible participations). The number of applicants from Third Countries (not unique) and the related percentage calculated from the total that are not shown on the map: Egypt 1 (0.05 %), Japan 1 (0.05 %), South Korea 1 (0.05 %) and Uzbekistan 1 (0.05 %).

All Member States were represented among applicants. The geographical distribution, however, was not even. The top third of most highly represented countries jointly account for 77 % of all applicants (1463 total participations from Spain, Italy, Germany, Belgium, France, The

Netherlands, Greece, Portugal and Finland). The distribution pattern is overall very similar to the distribution of BBI JU applicants to calls from 2014 to 2020.

However, as visible in the figure below, when comparing CBE JU 2022 and 2023 call applicants, the gap between the Member States has slightly narrowed in the 2023 call. Even though absolute numbers are still significantly lower, many underrepresented countries of Eastern Europe increased their share of applications in 2023 compared to the 2022 call.

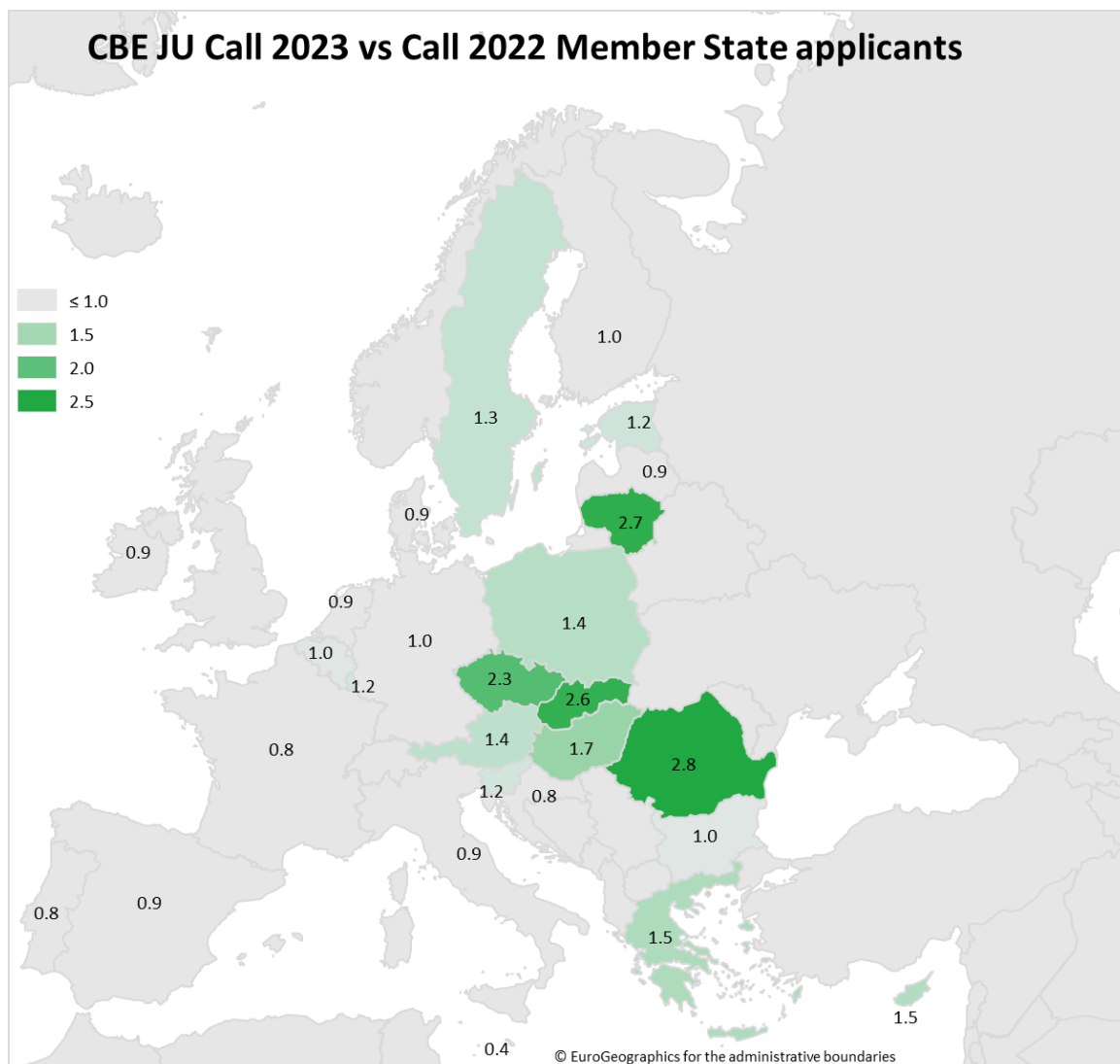


Figure 16 CBE JU 2023 vs 2022 calls ratio of Member States' (MSs) (total eligible) participation share of the total MS applicant number (1 899 for 2023 call; 1 386 for 2022 call). Each value represents the increase of that country's applicants share in the 2023 call compared to the 2022 call. A value above 1 represents an increase, for example 2 represents a two-fold increase. A value below 1 represents a decrease, for example 0.5 represents a two-fold decrease.

Types of applicants, including SMEs

The 2023 CBE JU call for proposals attracted interest from diverse types of entities. Higher education and research centres together account for around 44 % of all applicants. Nearly every second applicant (47 %) was a private company, illustrating strong interest from industry in the CBE JU programme.

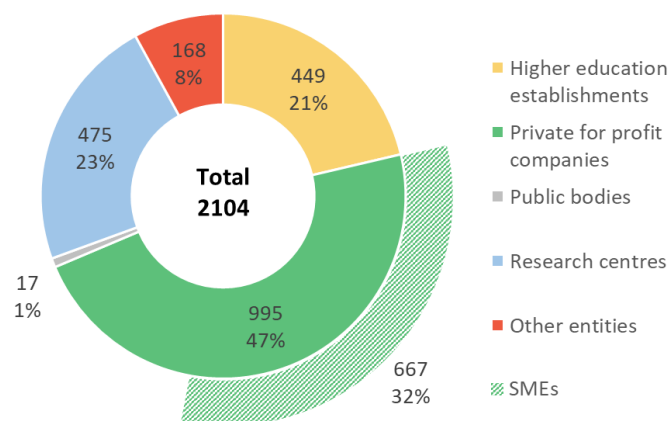


Figure 17 2023 CBE JU call (not unique) applicants per type of applicant and related percentage calculated from the total number of applicants.

Particularly significant, however, is the interest from private SMEs, as two thirds of all private company applicants were SMEs, and overall, one in three applicants was an SME. This level of SME participation is further proof that CBE JU creates major opportunities for SME innovators and is also effective in attracting them to the programme.

Newcomers

Among 1 351 unique 2023 call applicants, 71 % had never received funding from the programme in the past, either under CBE JU or its BBI JU predecessor. This shows that CBE JU's 2023 call for proposals successfully attracted many newcomers, continuing to grow its stakeholder base. The 2023 call attracted newcomers from all types of organisations, with more than half of the applicants in each individual organisation category being newcomers. The number of newcomers is highest among Private for Profit Companies, both in relative and absolute terms, confirming that the CBE JU programme is highly accessible and attractive for Private-for-Profit organisations.

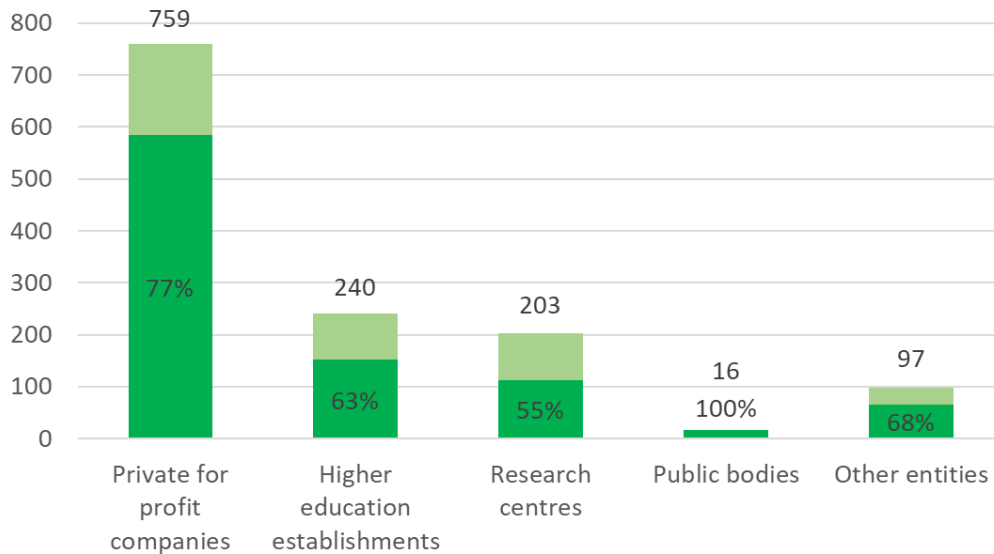


Figure 18 CBE JU 2023 call applicants (1351 unique applicants) by applicant type (light green), and percentage share of (unique) newcomers (dark green).

As shown in Figure 19, the 2023 call was effective at mobilising SMEs, attracting a total of 296 Private-for-Profit SME newcomers. Nearly a quarter of all newcomers were SMEs (23%). This illustrates that the opportunities the CBE JU programme offers continue to match the needs of SMEs in the bio-based sector.

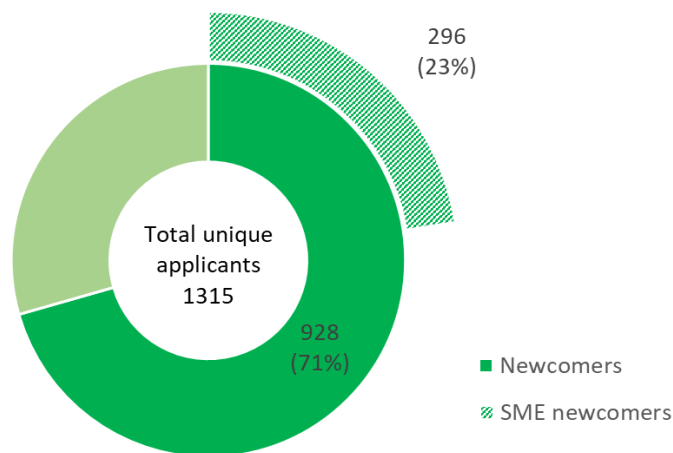


Figure 19 CBE JU 2023 call newcomer applicants (unique) and SME newcomers, and related percentage of total (unique) applicants.

BIC members

CBE JU’s twin public-private nature also appears to resonate at applicant level, with nearly half of all applicants being ‘members’ of the Bio-based Industries Consortium (BIC).

However, among BIC applicants, a significant share of 38% (18% of all applicants) was composed of entities that had newly joined BIC when they made their 2023 call proposal submission and which are identified in Figure 20 as ‘BIC new’ members. This large share of new members

illustrates how CBE JU is effective in attracting new actors from the bio-based industries sector and how accessible its calls for project proposals are.

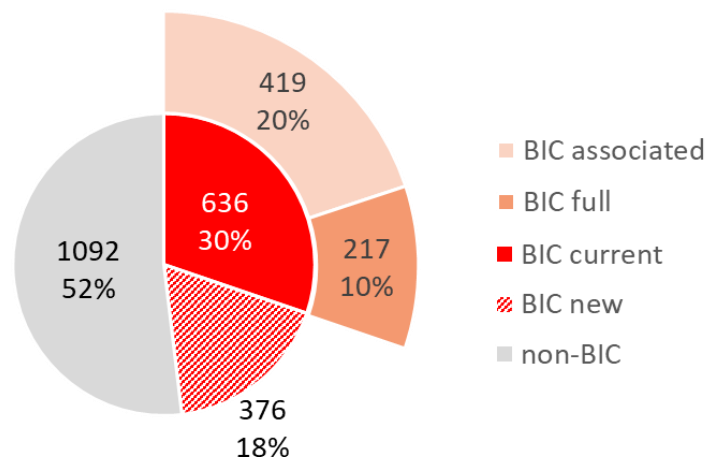


Figure 20: CBE JU 2023 call (not unique) applicants by type of BIC membership (full member, associated member, new [project] member, or non-BIC), as absolute values and related % of total.

As visible in Figure 21 below, BIC members have applied for all areas of action, with numbers of BIC member applicants largely similar for RIA and IA actions. However, considering the very different number of proposals submitted in each (49 IA versus 83 RIA proposals), BIC member participation is disproportionately high in IA proposals. This is not entirely surprising, given the IA requirement that BIC members contribute a minimum level of In-Kind Contributions to Operational Activities (IKOP) to the proposal budget. For IA Flagships and CSA proposals, BIC member participation is proportionate to the number of proposals submitted (14 IA Flagship and nine CSA proposals). BIC members are even better represented in terms of budget (62 % of total requested EU contribution compared to 48 % of total number of applicants). This is mainly due to the high budgets on IA Flagship proposals. The IKOP requirement for this type of action plays a role, but it also testifies to the central role that industry organisations play in applying and deploying innovations at industrial and commercial scale.

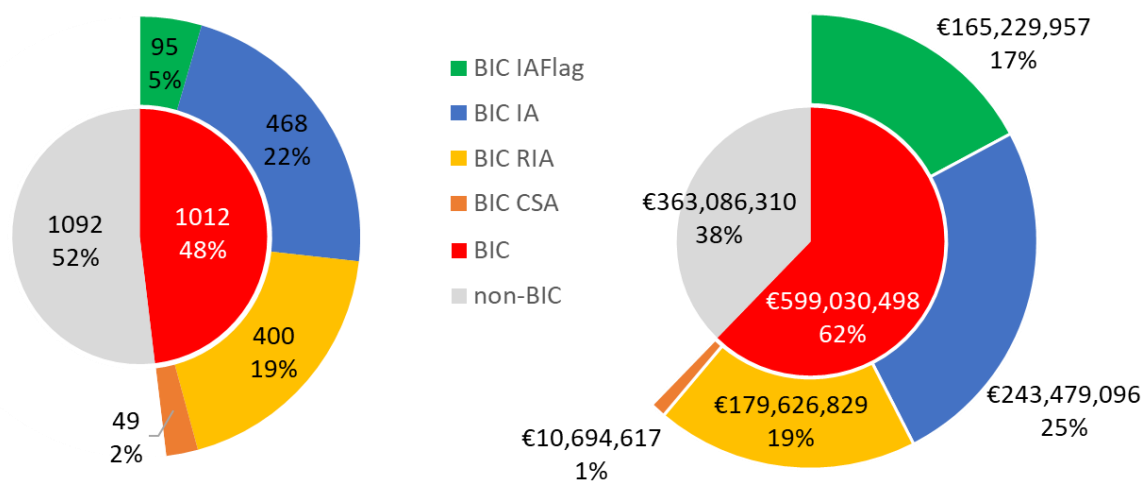


Figure 21 CBE JU 2023 call (not unique) BIC applicants by type of action, as absolute values and related percentage of total, and 2023 call EU contributions requested by BIC applicants by type of action, as absolute values and related percentage of total.

1.1.1.2. NEBA Call: HORIZON-JU-CBE-2023-2

The CBE JU organised a second call for proposals in 2023, which included one Coordination & Support Action topic with a call budget of EUR 1 million, entitled 'CBE JU supporting activities for the New European Bauhaus Academy (NEBA), a network for re-skilling and upskilling towards a sustainable construction ecosystem'.

Between call opening (6 July 2023) and call closure (4 October 2023), three proposals were submitted. Under the rules stipulated in sections A and B of the Horizon Europe General Annexes, one proposal was found to be ineligible. Following the evaluation, one proposal did not meet all scoring thresholds, and one proposal was invited to the next step: the Grant Agreement Preparation (GAP; see section 1.3.2).

1.3.2. Proposals selected for funding (grants)

1.3.2.1 CBE JU 2022 call for proposals funded projects

21 proposals were selected for funding from the 2022 call, covering all 12 topics identified in the Annual Work Programme 2022, as reported in the table below. The Grant Agreement Preparation (GAP) of these proposals started on 26 January 2023 and was successfully concluded with all Grants being signed before the Time To Grant (TTG) deadline of 25 May 2023.

Topics	Number	Acronym	Title	Total Cost	EU contribution	Duration	Number of Participants
IAFlag-01	101112434	SUSTAINEXT	Next Generation, Zero-Waste, Dynamic, MultivalORIZATION Route Biorefinery for Sustainable Botanical Ingredients: Showcasing a Replicable and Versatile Model From Extremadura To Bio-based Industry In EU	€22 406 559	€13 996 379	54	21
IAFlag-02	101112555	SYLPLANT	Alternative sources for high added value food and/or feed ingredients	€22 736 733	€13 909 015	36	17
IA-01	101112455	HICCUPS	Highly-Innovative technology demonstration for bio-based CO2 Capture and Utilization for production of Bulk Plastic Applications	€7 138 172	€4 999 971	48	14
IA-01	101112345	SynoProtein	Carbon capture from syngas to Single Cell Protein (SCP) and use as fish feed ingredient	€6 025 738	€4 995 505	54	11
IA-02	101112436	BRILIAN	Cooperative business models for bio-based chains in rural areas	€6 167 721	€4 886 350	48	13
IA-02	101112407	ROBOCOOP-EU	circulaR bioecOnomy Business mOdels owned by agroCOOPeratives	€5 930 148	€4 751 936	36	21
IA-03	101112453	COUNTLESS	Cost-effective prOdUction of ligNin plaTform chemicalS Extending the biobaSed chemicalS portfolio	€6 903 903	€5 400 014	48	13
IA-03	101112452	LUCRA	SustainabLe sUCCinic acid production using an integRAted electrochemical bioreactor and renewable feedstock	€5 709 511	€4 682 743	48	10
IA-04	101112581	ELLIPSE	Efficient and Novel waste streams co-processing to obtain bio-based solutions for packaging and agricultural sectors	€7 113 498	€5 509 656	48	14

IA-04	101112409	MixMatters	Smart and flexible Separation and Valorisation of mixed bio-waste from along the agri-food value chain.	€6 598 413	€5 651 164	48	18
R-01	101112541	FURIOUS	Versatile FURan-based polymers for strict and high value applications in packaging, automotive and underwater environments	€4 498 018	€4 498 018	48	15
R-01	101112370	THERMOFIRE	Bio-based fire-retardant thermoplastic composites reinforced with natural fibres	€4 473 778	€4 473 777	48	12
R-02	101112379	BIORING	Engineering high performance biocoatings from renewable reactive building blocks	€4 085 471	€4 083 971	36	14
R-02	101112447	SuperBark	Safe, sustainable and high-performance adhesives and coatings from industrial softwood bark	€4 687 072	€4 468 891	48	12
R-03	101111996	CUBIC	Improving the circularity of complex plastic multi-material composites using novel bio-based materials in B2B semi-finished products	€4 683 365	€4 683 365	42	13
R-03	101112521	REDYSIGN	Resource-efficient processes for the production and circularization of innovative RECYclable-by-DeSIGN fresh meat smart packaging from wood	€5 237 059	€4 431 810	48	13
R-04	101112072	InnoProtein	New sustainable proteins for food, feed and non-food bio-based applications	€5 043 848	€4 592 392	48	15
R-04	101112378	PROMISEANG	Alternative PROteins from Microbial fermentation of non-conventional SEA sources for Next-Generation food, feed and non-food bio-based applications	€4 535 098	€4 535 098	48	11
R-05	101112476	Bio-LUSH	Biomass valorisation for sustainable and high quality fiber materials	€4 479 506	€4 479 506	48	12
R-05	101112318	FIBSUN	Novel fibre value chains and ecosystem services from sustainable feedstocks	€4 521 790	€4 354 417	48	17
S-01	101112457	BIORADAR	Monitoring system of the environmental and social sustainability and circularity of industrial bio-based systems	€2 873 165	€2 873 165	36	7
Total				€145 848 564	€116 257 141		293

Table 3 Overview of projects funded via the 2022 call.

Geographical distribution of participants

A total of 294 beneficiaries were awarded grants in CBE JU's first call for proposals, including multiple participations. These entities were from 23 Member States, 5 associated countries (Norway, Serbia, Turkey, Israel, and the provisionally associated UK) and 1 third country (Switzerland). The geographical distribution of beneficiaries demonstrates an overrepresentation of Western and Central European countries, with Spain leading the way. This distribution is similar to the distribution of BBI JU beneficiaries funded in calls from 2014 to 2020.

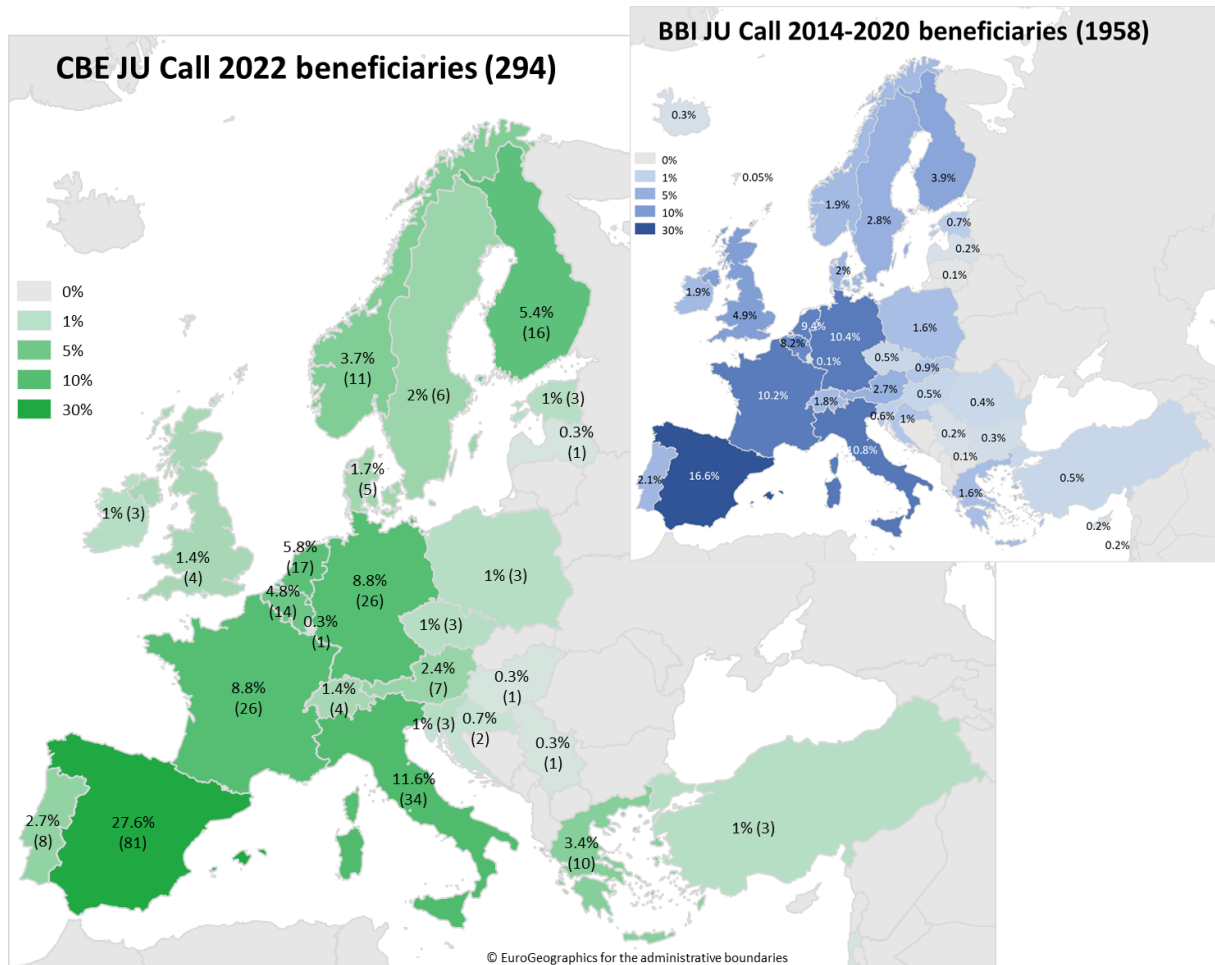


Figure 22 CBE JU 2022 call beneficiary percentage per country, calculated from the total number of beneficiaries (294 beneficiaries, i.e. including multiple counts of entities participating in more than one project) and related number of beneficiaries per country, and comparison with BBI JU calls' total beneficiaries (2014-2020), also as beneficiary percentage per country calculated from the total number of beneficiaries (1958 eligible beneficiaries).

Types of participants, including SMEs

The entities funded in the 2022 call represent the full spectrum of organisational types: higher education establishments, research centres, public bodies, private, for-profit companies and others. As shown in Figure 23, private for-profit companies together account for more than half of all beneficiaries. They are also well represented at a budgetary level, receiving more than half of the total EU contribution. What stands out particularly is the high level of SME participation. As much as 39 % of the 2022 call's total EU contribution went to supporting private-for-profit SMEs. This testifies to the programme's significant impact on SMEs, as they receive support to develop and scale up their knowledge, expertise and business.

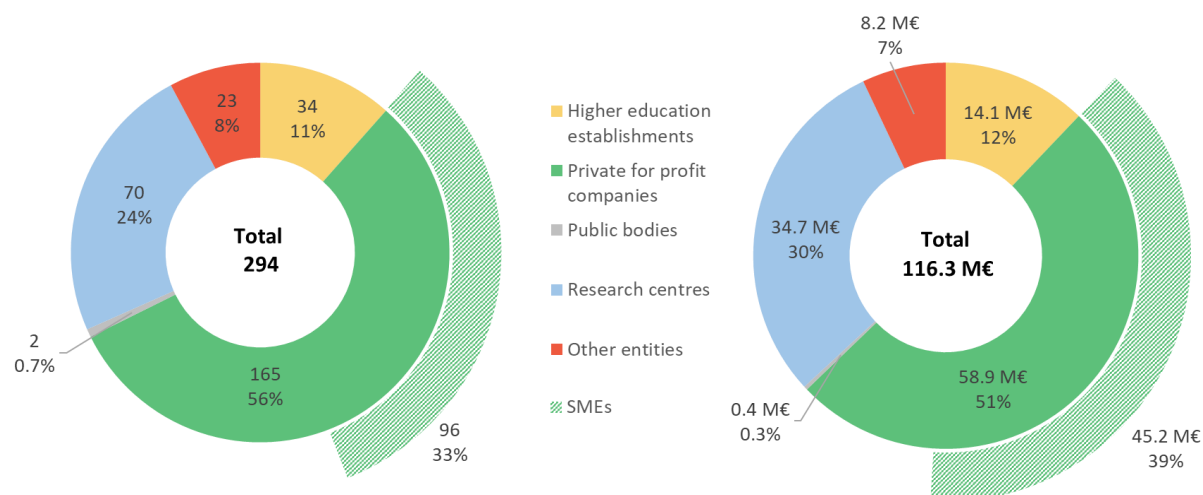


Figure 23 CBE JU 2022 call beneficiaries (left), including multiple participations, and requested EU contribution (right) by type of participant and related percentage calculated from the total.

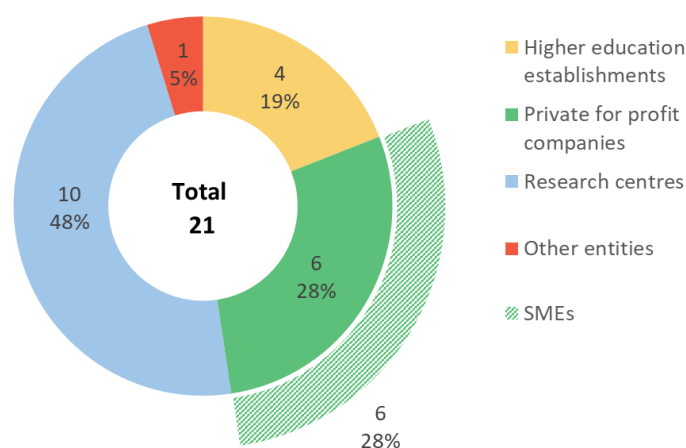


Figure 24 CBE JU 2022 call coordinators by type of participant and the related percentage calculated from the total.

In addition, as visible in Figure 24, 6 of the 21 project coordinators are private for-profit companies and it is worth noting that each of these are SMEs. SMEs are therefore not only engaging in projects, but also committing to take the lead and drive the collaboration towards success.

Newcomers

Newcomers, defined as entities not having received funding from BBI/CBE JU in any of the past calls, are strongly represented among the 2022 call beneficiaries. Private for-profit companies are especially numerous among newcomers, both in absolute and relative terms. This proves that CBE JU is an attractive instrument for the private sector and confirms its impact on growing the bio-based stakeholder base across the EU.

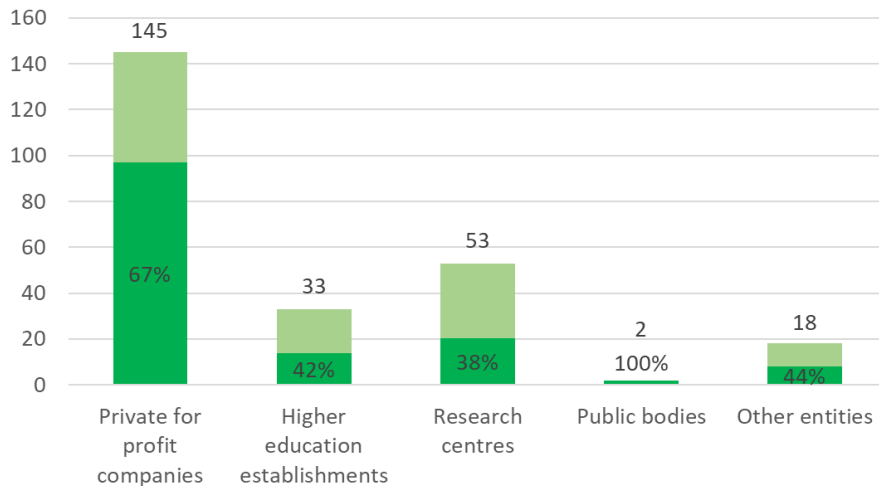


Figure 25 CBE JU 2022 call beneficiaries (including multiple participations) per applicant type, and percentage share of newcomers.

Similar to the 2023 call applicants, the 2022 call beneficiaries included many SME private for-profit companies. More than a third of all newcomers were from this category, reinforcing the notion that CBE JU offers an attractive environment for entrepreneurs to grow and scale-up their businesses.

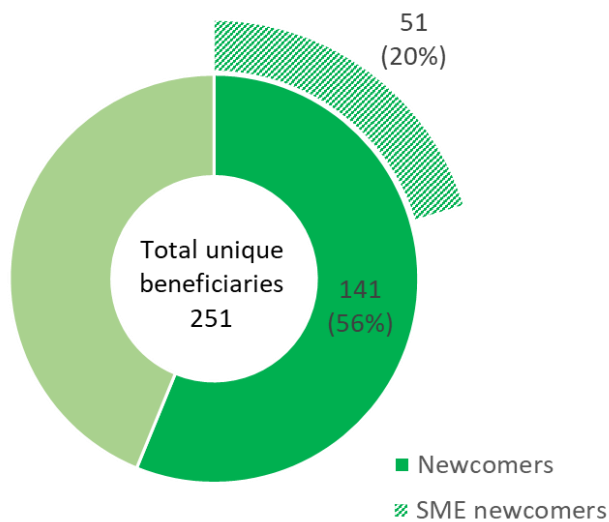


Figure 25 CBE JU newcomer beneficiaries (unique) and SME newcomers, and related percentage of total (unique) applicants.

The geographical distribution of newcomers is very similar to the overall distribution of beneficiaries as visible in Figure 25. The degree of effective outreach to new stakeholders and innovators is, therefore, largely similar across the different countries. Narrowing the overall participation gap between countries, however, will require underrepresented countries to step up their newcomer outreach. The 2023 call applicant figures show initial promising signs of this, as the share of

applicants has grown for several underrepresented Eastern Europe countries compared to the 2022 call.

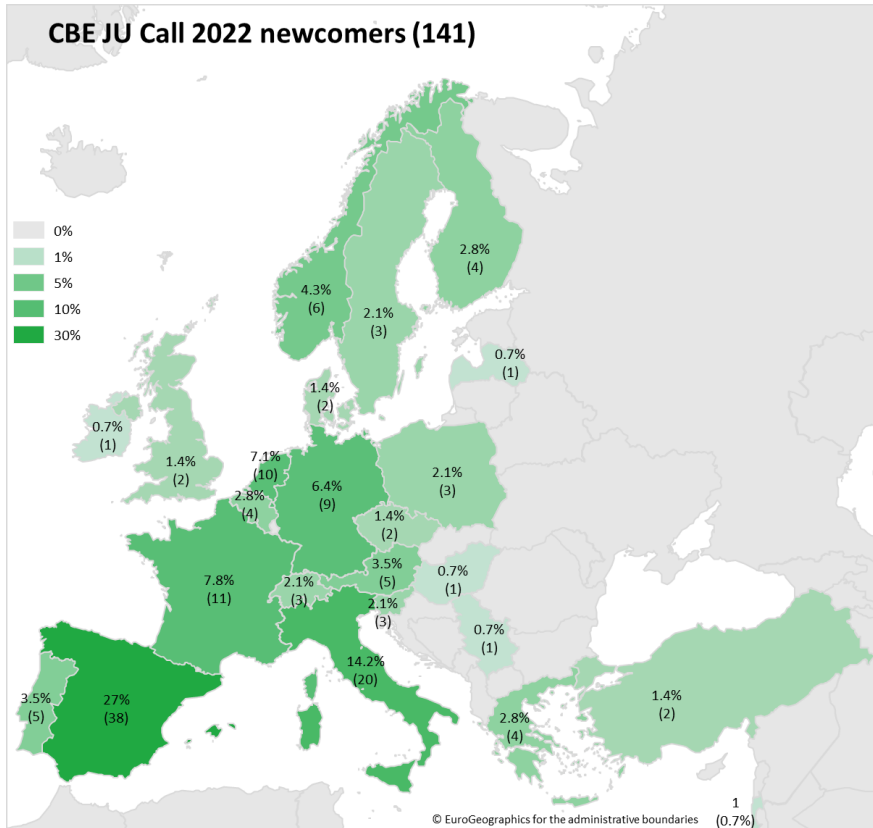


Figure 26 CBE JU 2022 call percentage of (unique) newcomer beneficiaries calculated from total (unique) beneficiaries (= 251), and related number of newcomers.

BIC members

Nearly half of all 2022 call beneficiaries were BIC members. They were most commonly found on the mid-TRL IA types of action (26 %), followed by the lower-TRL RIA (16 %) and higher-TRL IA Flagship projects (4 %). Looking instead to the requested EU contributions, the share requested by BIC members increases to 67 % overall and is particularly high on IA Flagship projects.

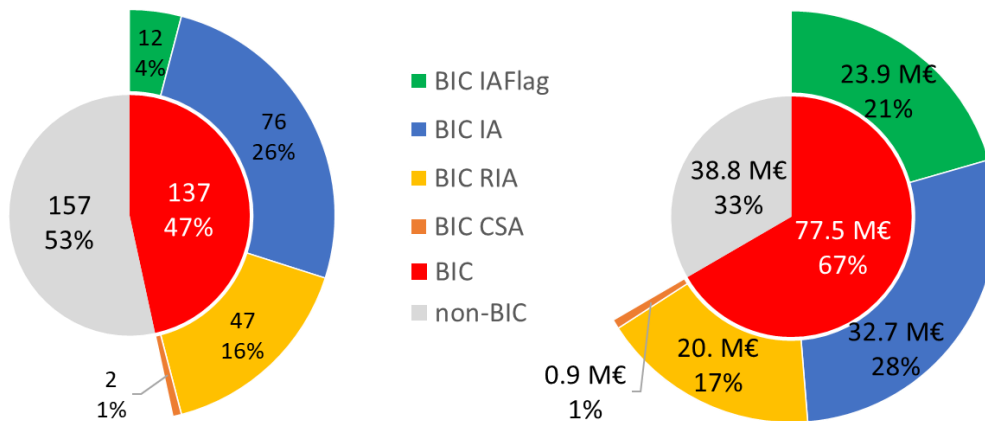


Figure 27 CBE JU 2022 call BIC beneficiaries (left; including multiple participations) and EU contributions requested by BIC beneficiaries (right) by type of action, as absolute values and related percentage of the total.

1.3.2.2 2023 calls for proposals

NEBA Call: Based on the evaluation results and on the available budget, the ‘NEBA Alliance’ proposal was invited to the Grant Agreement Preparation (GAP). However, as the GAP only started on 18 December 2023, more information about this proposal will be provided in the next Annual Activity Report.

Main call: 30 proposals were selected for funding, covering 17 of the 18 topics identified in the AWP 2023. However, as the GAP only started on 24 January 2024, at the same time as all applicants were informed of the call results, it is only the list with the acronyms and titles of the selected proposals by topic that is included in this year’s report.

Topic	Proposal Acronym	Proposal Title
IAFlag-01	WOODCELL	Wood residues derived microcrystalline cellulose for sustainable materials
IAFlag-02	CIRCLE	Circular Initiative for Recycling and waste Conversion into Lactate Extracts
IAFlag-03	TERRIFIC	Next generation circular biobased flagship packaging: a catalyst for the green transition
IAFlag-04	PROTEUS	keLP side stReam valOrisaTion to dEvelop new biobased valUe chainS
IA-01	MANUREFINERY	Smart modular mobile biorefining of manure to zero-waste maximising resource and nutrient recovery for feed and fertiliser bioingredients in rural areas
IA-01	Rural BioReFarmeries	Green BioReFarmeries - Small-scale Circular Green Biorefineries for increasing farmer sustainability and competitiveness and building resilient rural areas
IA-02	LANDFEED	Unlocking efficient bio-based fertilisers for soil sustainability from underutilised side streams
IA-02	ReLeaf	Recycling Locally Produced Bio-Wastes to Ensure Affordability and Availability of Innovative Bio-Based Fertilisers
IA-03	PROMOFER	Boosting upstream and downstream processes to maximize yield of PHB production and 2,3-butanediol.
IA-03	Zest	Valorization of Agro-Industrial Waste through Fungi Fermentation supported by Digital Modeling
IA-04	MoeBIOS	Improving waste management of biobased plastics and the upcycling in packaging, textile and agriculture sectors
IA-04	PROSPER	Promoting innovation for sustainable sorting and recycling of dedicated bio-based plastics
IA-04	ReBioCycle	A new European blueprint for circular bioplastics upcycling solutions
IA-05	SURFs UP	Safe and sustainable by design microbial and lignin-based biosurfactants sourced from sustainable feedstock for home, personal care and agrochemical application
IA-05	SurfToGreen	Bio-based sustainable SURFactants TO foster GREEN industry
IA-06	BIONEER	Scaled-up production of next-generation carbohydrate-derived building blocks to enhance the competitiveness of a sustainable european chemicals industry
IA-06	NEXT-STEP	Next-gen of sustainable biobased chemical platforms and polymers: enhancing sustainability in european industry
IA-07	BIOntier	Breaking FrOntiers in sustainable and circular biocomposites with high performance for multi-sector applications
IA-07	SSUCHY-Next	Developing the supply chains for industrial hemp fibre and bio-based resins towards high performance circular bio-based composites
R-01	IASIS	Curing contaminated and saline land with Industrial crops and producing biomass for high-value applications
R-01	pHYBi	PHYtomanagement as a sustainable feedstock source of lignocellulosic-based high-value Bio-based products for textile applications
R-02	OptiForValue	Optimising forest operations for sustainable forest management and high-value applications
R-02	SingleTree	Optimizing multifunctional forest-based value chains with single tree information and application of digital technologies
R-03	FLEXIZYME	Construction of a FLEXible and adaptable ENZYmatic biotechnological platform for sustainablE industrial production of bio-based Fatty amines from side stream materials
R-03	GoodByO	Multi-commodities microbial-driven BiOrefinery based on food-processing industry wastes, biogenic CO2 and bioprocess wastewaters
R-04	BIOPYRANIA	Biobased pyrazine monomers from second generation biomass for high performance polymers, copolymers and blends
R-04	POLYMEER	Brewers spent grain as main by-product for development of novel, high-performance bio-based polymers, polymer blends, and co-polymers
R-04	Polymers-5B	Synthesis of Bio-based and Biodegradable polymers from monomers from renewable Biowastes via Biocatalysis and Green Chemistry to contribute to European Circular Bioeconomy
S-01	COPILOT	CO-creating the next generation platform of PILOT and demo infrastructures, unlocking faster innovation and EU bioeconomy growth
S-02	BioINSouth	Supporting regional environmental sustainability assessment for the BIO-based sectors to improve INnovation, INDUSTries and INclusivity in SOUTH Europe

1.4. CALL EVALUATION PROCEDURES AND OUTCOMES

In 2023, CBE JU ran two calls for proposals: the 'main call' (18 topics spread out over for types of action), and the NEBA call (one CSA topic). Below is an overview of the main call publication, proposal submission and evaluation processes together with key statistics.

1.4.1. CBE JU overall call process

In 2023, CBE JU ran two calls for proposals using [Horizon Europe's grant lifecycle processes](#) and IT tools. Within this framework, both the main call and the NEBA call followed a structured approach, consisting of the following steps.

- **Call publication** on the EC's [F&T Portal](#). This allowed potential applicants to find CBE JU call topics, proposal templates and guidelines.
- **Submission of proposals**. Before the call closure deadline, applicants needed to select topic(s) to apply to, register all organisations that were part of their consortium and to submit their proposal(s) via the F&T Portal.
- **Evaluation of proposals**. All proposals that passed the admissibility and eligibility checks were evaluated by external experts. Within five months of call closure, all applicants received an evaluation results letter via the F&T Portal with the outcome of the evaluation. Unsuccessful applicants were allowed to submit a complaint (and launch the so-called 'redress procedure') within 30 days of receiving their evaluation results letter.
- **Grant Agreement Preparation (GAP)**. The highest-scoring proposals were invited to start the GAP. Grant Agreements should be signed within eight months of call closure.

By 31 December 2023, call publication, submission and proposal evaluation of both 2023 calls for proposals had been concluded. The NEBA proposals received their Evaluation Result Letters (ERLs) on 18 December 2023, whereas the main call proposals received theirs on 24 January 2024.

1.4.2. 2023 calls: publication and proposal submission

The CBE JU published its Annual Work Programme for 2023 on the CBE JU website on 19 December 2022, including information about the 2023 main call topics and EUR 215.5 million total budget. The CBE JU 2023 main call was officially opened on 26 April 2023 on the F&T Portal. Prior and subsequent to publication, the CBE JU promoted the call for proposals via the 20 April 2023 CBE JU Info & Networking Day in Brussels, and at numerous locally organised CBE JU info days. Applicants were invited to submit proposals by 20 September 2023, 17:00 Brussels time and CBE JU received 162 project proposals by that deadline. The amount of proposals submitted (and funding requested) per topic was published on the CBE JU website on 21 September 2023, and ranged between 1 and 35 proposals per topic.

On 06 July 2023, the CBE JU announced a second call for proposals via an updated AWP 2023, with a call closure date of 04 October 2023, 17:00 Brussels time. This call contained one Coordination & Support Action (CSA) topic with a budget of EUR 1 million, and invited project

proposals to support the establishment of the New European Bauhaus Academy (NEBA) network including designing its structure and procedures; developing training programmes; creating an online collaborative space; mapping synergies with relevant networks and initiatives and fostering networking and collaborations.

1.4.3. 2023 calls: evaluations

The evaluation of both the main and the NEBA calls was run using the award criteria and evaluation rules set out in the (amended) CBE JU Annual Work Programme 2023. In line with the Horizon Europe principles, all proposals were evaluated as they were submitted.

Expert types & selection process

After the call was published, the CBE JU invited different types of experts to express their interest in participating in the 2023 call evaluations. Candidates were requested to complete an online expert profile via the [relevant section on the F&T Portal](#). All the experts were selected in a way to ensure a high level of skill, experience and knowledge in the call topic areas, including project management, business management, innovation, exploitation, dissemination and communication. Special attention was paid to achieving an appropriate balance (of skills, experience, knowledge, geographical diversity, gender and private/public sector representation) and rotation.

There were five types of external experts involved in the evaluation process:

- **Evaluators:** depending on the type of action, each proposal was assessed by 3-5 experts (3 for RIA/CSA, four for IAs and five for IA-Flags), using the award criteria and evaluation rules set out in the CBE JU AWP 2023's call conditions.
- **Rapporteurs:** experts in charge of drafting the 'Consensus Reports' to reflect the discussions during the consensus meetings (see next section for more information).
- **Quality controllers:** experts tasked with reading the consensus reports from the consensus meetings and providing feedback to ensure final Evaluation Summary Reports are high quality and that the evaluation of each criterion is consistent within and across topics.
- **Ethics experts:** checked that the proposals complied with the Horizon Europe ethical rules and standards.
- **Independent observer:** oversaw the whole evaluation process and had access to all training and meetings. This expert provided an independent assessment on the conduct and fairness of the evaluation sessions and how the evaluation criteria was applied, giving ways to improve the processes. The Independent Observer was only involved for the Main Call, not for the NEBA Call due to its very small size.

Evaluation process

Main call

- a) **Admissibility & eligibility:** After call closure, the admissibility & eligibility of all proposals was checked, taking into account the CBE JU call conditions and sections A and B of the [Horizon Europe General Annexes 2023-2024](#). Only proposals that were deemed eligible and admissible passed to the next phases of the evaluation.
- b) **Proposals assigned to experts:** Each proposal was assigned to a panel of three to five (depending on the type of action, as described above) expert-evaluators with a rapporteur. Contracts were signed, and before starting their evaluation, experts were asked to confirm no conflicts of interest with organisations participating in the proposals assigned to them on the Commission's evaluation tool (SEP). Multiple topic *subpanels* were created for those topics where a higher number of proposals were submitted (more than could be evaluated by a single panel of experts).
- c) **Individual evaluation:** This phase lasted from 12 October until 12 November 2023. The purpose of this phase was twofold: evaluators were asked to submit – via the IT tool SEP – an Individual Evaluation Report (IER) for each proposal assigned to them, with comments and scores per evaluation criterion; rapporteurs were then asked to prepare a draft of the Consensus Report based on these IERs. The evaluators were briefed via a webinar on 12 October 2023 about the applicable rules, process, procedures, evaluation criteria, scope and objectives of the call. On 25 October 2023, we ran another separate webinar for the rapporteurs and quality checkers to prepare them for the consensus evaluations. All briefings emphasised the confidentiality requirements and the Horizon Europe rules on conflicts of interest. In addition to these webinars, experts were provided with all necessary guidelines via SEP.
- d) **Consensus phase:** This phase took place between 13 November and 01 December 2023. Work in each of these three weeks consisted of consensus meetings, cross-reading and ranking panels plus, for the Flagship topics, hearings.
 - **Briefings:** the following briefings took place in each of the three consensus weeks.
 - On Monday mornings: a general briefing for all experts; topic-specific briefings for the evaluators and rapporteurs; and a briefing for all rapporteurs and quality checkers to ensure alignment.
 - Tuesday to Thursday: daily morning briefings for all experts to ensure the evaluation approach was aligned across the different topics and subpanels.
 - Monday to Thursday: a briefing around noon for the quality checkers to ensure feedback across panels was consistent.
 - For each topic with multiple (sub)panels there was a briefing for panel representatives (evaluators and rapporteurs) to inform the experts about the purpose and outcome of the Evaluation Summary Report, cross-reading and the ranking panel (see below).
 - **Consensus meetings:** In each consensus meeting, the expert-evaluators discussed the proposals assigned to them in order to reach a common view and agree on comments and scores. CBE JU Project Officers moderated these discussions. The Consensus Report drafted by the rapporteurs during the individual evaluation phase was then finalised based on the outcome of the consensus discussions before being double-checked by the quality controllers.

- **Cross-reading, ranking panels and closing meetings:**
 - For all topics where multiple expert panels were evaluating proposals there was a ranking panel to draw up a ranking list, checking, *inter alia*, the consistency of scores and comments in the draft Evaluation Summary Reports of the top ranked proposals and – where scores were equal – agreeing on a priority order. In preparation for these ranking panels, expert-evaluators were shown the highest-scoring proposals of the other subpanels and asked to read the draft ESRs to assess whether a consistent evaluation approach was being used across subpanels.
 - For all other topics, since only one expert panel was needed to evaluate all proposals submitted for those topics, each consensus evaluation week was closed with a meeting where CBE JU staff presented the topic evaluation outcome to the experts.
 - **Hearings:** Hearings were organised for all Flagship proposals. During these meetings, applicants were invited to clarify their business plans. The expert-evaluators used this extra input to complete the Consensus Reports.
- e) **Proposal ranking & priority:** The Annual Work Programme 2023 included separate budget lines per topic. For the 4 Flagship, 2 CSA and R-05 topics, there was a budget to fund 1 proposal per topic. For the other 11 topics, the budget allowed funding for 2 proposals per topic. The proposals for each topic were ranked based on the Evaluation Summary Reports, taking into account the applicable conditions from the Annual Work Programme 2023. Where scores were equal, tiebreakers, as explained in section F of the [Horizon Europe General Annexes 2023-2024](#), were used to establish a priority order. The CBE JU Programme Office then drew up the 'EU call ranked lists' per topic based on the priority order and the available budget, and sent them to the CBE JU Governing Board for approval.
- These EU ranked lists contained 'main list' of proposals (to be invited to GAP), a 'reserve list' of proposals (if any), and a list of proposals that could not be funded because they did not reach the necessary scoring thresholds and/or the available budget for that topic did not allow their funding. They were put to the CBE JU Governing board for adoption. To maximise the number of proposals receiving funding, and within the 20 % leeway given on the Horizon Europe budget, surplus budget was used to fund the highest-scoring proposals on the reserve lists of topics R-04 and IA-04.
- f) **The ethics evaluation** ran between 29 November and 1 December 2023. This evaluation phase started with a short webinar aligning the Horizon Europe / CBE JU ethics (pre)screening approach, after which all proposals on the main and reserve lists were screened by two ethics experts. Ethics requirements and recommendations (if any) arising from this ethics screening will now be considered during GAP.

NEBA call

The NEBA call used a similar yet simplified evaluation process, as it was on a smaller scale than the main call (only 1 CSA topic and 3 proposals vs. 18 topics and 162 proposals). Specifically, the NEBA individual evaluation took place between 6 and 22 October 2023, and the consensus discussions were held on 23 and 24 October 2023. Fewer briefings and alignment operations were required, and no cross-reading was needed. For efficiency reasons, the ethics evaluation of the NEBA proposals was incorporated into the ethics screening exercise of the main call proposals.

Statistics (Number of evaluators, gender, area, etc.)

In total, 115 evaluators assisted on the 2023 call (excluding the NEBA call). There were 32 different nationalities (not counting second nationalities): 25 EU Member States (all but Luxembourg and Malta), Norway, United Kingdom, North Macedonia, Serbia, Turkey, Brazil and Australia. The gender ratio among experts was 58 women to 57 men.

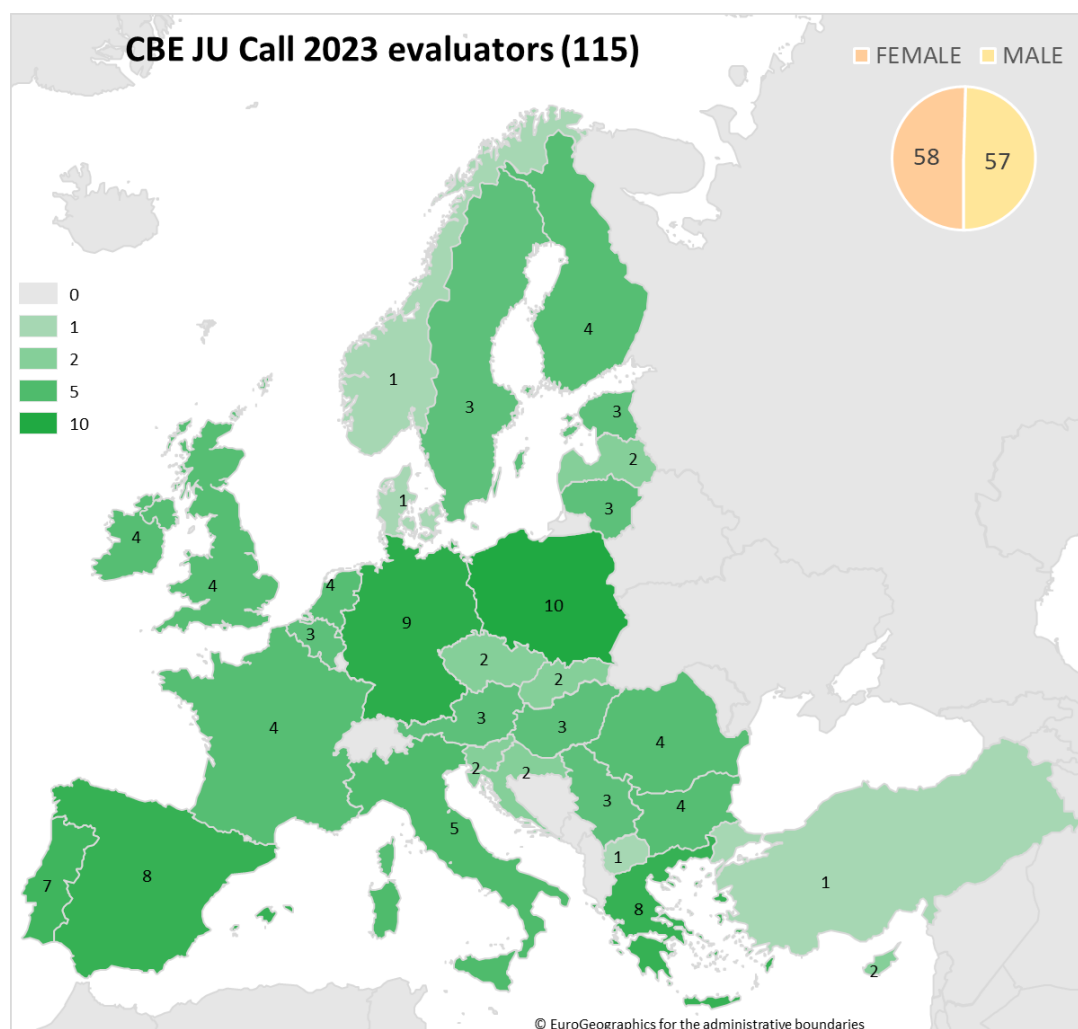


Figure 28 CBE JU Call 2023 expert evaluator nationalities per country, and gender. Not shown on the map are Australia (1) and Brazil (1).

Redress

There were two redress cases submitted in 2023 from the 2022 call. These cases were analysed following the appropriate Horizon Europe procedures and processes and the results were sent to the relevant applicants in 2023. Neither appeal found grounds to support the complaints and the redress analysis confirmed that the evaluation procedure had been carried out in accordance with the rules, that the initial evaluation result stands and that there would be no new evaluation.

For both 2023 Calls for proposals, the deadline to submit a redress request was in 2024. Therefore, the outcome of any further redress cases for the two calls for proposals run in 2023 will be included in the next AAR.

1.5. FOLLOW-UP ACTIVITIES LINKED TO PAST CALLS

This chapter summarises the main follow-up activities on the 2022 calls and the main lessons learnt following the 2023 calls and, in particular, work related to the new CBE JU strategy for widening participation.

1.5.1. Lessons learnt from the 2023 call

Throughout the evaluation of the 2023 call, the CBE JU offered the external experts 3 ways to provide their feedback on and suggestions for how to improve the evaluation process.

- At the end of their consensus week, where the experts could provide feedback as a group during their panel's closing or ranking panel meeting.
- Online via an e-questionnaire, where experts could provide feedback (anonymously, if they so wished).
- Via the Independent Observer, who not only participated in the consensus meetings of his choosing (giving the experts the opportunity to share their insights in this setting), but also invited experts to contact him/her individually via e-mail to share any additional input.

The received feedback confirmed that, overall, the CBE JU evaluation process is of high quality, reliable and consistent, ensuring fairness and impartiality. Notwithstanding this positive appreciation, the following areas of improvement were identified:

- The topic texts contained a lot of requirements in addition to the core technological ones. The experts suggested trying to limit the requirements to a minimum, avoiding optional requirements, to keep the focus on the most important parts of the evaluation and avoid unnecessary complexity related to consortium building, proposal writing and evaluation.
- The topic texts could be made clearer by including a more comprehensive and central glossary of non-standard terms, limiting the use of footnotes, and better clarifying the differences between a business case, business model and business plan.

These and other lessons learnt will be considered when preparing future Annual Work Programmes and related calls, and have already partially been taken into account in AWP 2024.

1.5.2. Widening participation strategy

Based on the submission results of the 2022 call, a new [CBE JU widening participation strategy](#) was developed in 2023, which also marked the first year of the [widening action plan 2023-2024](#). The strategy and the action plan were both endorsed by the CBE JU Governing Board and are available on the CBE JU website. They have a two-fold objective:

- Stepping up participation from less represented countries and regions in the CBE JU programme and ensuring their meaningful involvement in the JU-funded actions.
- Stimulating research and innovation in countries and regions with less mature bio-based systems, as also stated in CBE JU KPI n.10 (*'improve the participation of regions and countries with high unexploited potential and strategic interest to develop it'*).

To develop the strategy, the CBE JU **collected direct feedback from widening participation countries on specific barriers to them submitting applications at CBE JU calls and identifying opportunities for action**. The Programme Office ran a **survey** targeting National Contact Points (NCPs) and state representatives from widening countries. The results of the survey were then discussed at an **ad hoc workshop** run back-to-back with the CBE JU info day 2023. These two initiatives provided key input that was fed into the Action Plan 2023-2024.

Several actions were undertaken in the course of 2023, such as:

1) **Fostering stakeholder engagement and collaboration**

- The CBE JU programme office encouraged the widening countries to hold National Info Days combined with on-site visits of local industries active in the bioeconomy sector. With the collaboration of State Representative Group (SRG) members, the CBE JU set up and attended **national info days in the Czech Republic, Croatia, Estonia, Hungary, Poland and Portugal**, either online or onsite. **Poland and Portugal** were notable examples of successful **onsite info days, combined with side meetings and visits to national industries** active in the biobased/ bioeconomy sector.
- **SRG representatives from Southern European countries** hosted an **inception meeting at the CBE JU's office** with the support of the SRG vice-chair. The meeting offered a chance to exchange best practices and discuss possible coordination work to improve Southern-European Widening states' take up of CBE JU activities.
- The CBE JU programme office initiated **bilateral dialogues with representatives of widening countries' Permanent Representations to the EU** to discuss strategies to increase national stakeholders and SRG representatives' involvement in the CBE JU programme. In 2023, meetings were held with **Slovenia** and **Romania**, with positive outcomes in terms of exchange of information, new contacts and a stated interest to strengthen collaboration with the CBE JU.

2) **Building new stakeholder capacity and raising awareness**

The CBE JU programme office held a series of meetings with Horizon Europe Cluster 6 NCPs ([Care4Bio](#)), to establish direct links and envisage working jointly to raise awareness about the CBE JU programme and its specific features. As a result, Care4Bio decided to have a focal point for CBE JU and to pass on CBE-related news to the wider NCP network and community.

Training for all Cluster 6 NCPs was also held in spring. The training session raised a lot of interest and it was decided to replicate it the following year.

3) **Creating mechanisms to help implement the widening strategy**

The CBE JU's work also extended to programming with a CSA topic included in the CBE JU Annual Work Programme 2024 to extend reach at a regional level by involving the relevant national and regional Research and Innovation clusters and industrial associations.

4) **Strengthening synergy with the different networks in widening countries**

The CBE JU programme office is now working more closely in step with different networks in widening countries, including [BIOEAST](#) and the [CCRI](#). New collaborations were set up with (a) [COST](#) (a programme funded under the Widening pillar of Horizon Europe, with 50 % of the budget aimed at widening countries), with which it was agreed to organise a joint event in 2024, where half of COST participants will come from widening countries; and (b) [CEE2ACT](#), which invited the CBE JU to make presentations at their national workshops.

1.6. OPENNESS, COOPERATION, SYNERGIES AND CROSS-CUTTING THEMES AND ACTIVITIES

1.6.1. Openness

Since its establishment and throughout 2023, the CBE JU has operated according to the principles of openness and transparency, in compliance with Council Regulations. CBE JU demonstrated openness towards all relevant stakeholders at the different levels of its operations. There was no exception to the open call principle, nor any restriction in terms of budget allocation or number of beneficiaries.

When designing the Annual Work Programme (AWP) 2023, feedbacks on the content of the AWP were gathered via two consultations with the CBE JU Advisory Bodies: the states' representatives group and the Scientific Committee. Their input helped to identify programme priorities and ensured that a good portfolio of actions was included in the final version of the AWP.

The AWP 2023 was advertised widely and via different means to reach a large and diverse audience of stakeholders and potential applicants. The main channels included the CBE JU website, CBE JU social media (LinkedIn and Twitter) and newsletters. Moreover, the **CBE JU Info Day** was held in April 2023 and attracted 310 participants in Brussels and about 1000 online from 45 different countries. The event combined an in-depth information session in the morning with extensive matchmaking and networking opportunities in the afternoon. In addition, there were **15 national Info Days fully dedicated to CBE JU** in 2023, with several onsite events combining side visits to local industrial facilities.

CBE JU also developed a detailed set of **FAQs for applicants**, explaining specific terminology, rules around consortium building and cost eligibility issues, among other issues. The document is continuously being updated to reflect incoming questions from applicants and proposal writers and includes a section on topic interpretation, clarifying content-related questions.

An online **CBE JU networking platform** was set up to provide additional opportunities to applicants which remained open until the call submission deadline. The platform's services included facilitating networking with potential consortium partners, providing a forum to pitch project ideas, creating a space to express interest in a topic or schedule B2B meetings.

For transparency purposes, details about submissions and evaluation results of the 2023 call were published on the CBE JU website, along with other general information.

The above-mentioned measures greatly helped to attract a diverse audience of applicants, as the preliminary monitoring of participation in the 2023 main call illustrates:

- A slowly closing gap in more than half of the widening countries compared to Call 2022, as Romania, Lithuania, Slovakia, the Czech Republic, Hungary, Greece, Cyprus and Poland had the highest percentage increase in terms of applications.
- Strong interest from SMEs in the CBE JU programme, as they represented a major share of private applicants.

1.6.2. Cooperation and synergies

As requested in the Council Regulation establishing the Joint Undertaking, the CBE JU is committed to seeking and maximising synergies and closer collaboration with other relevant initiatives at European, regional and national levels to achieve maximum scientific, socioeconomic and environmental impact. As such, the CBE JU is expected to foster closer ties:

- **at a European level** with:
 - other parts of Horizon Europe (HE) programme, including Cluster 6 activities, the HE Missions, relevant co-programmed/cofounded and institutionalised partnerships, etc.
 - other Union programmes and funding instruments, especially those supporting the deployment of innovative solutions, education and regional development.
- **at a National and Regional level** with relevant programmes such as Cohesion Policy Funds, and the National Recovery and Resilience Plans.

In 2023, the CBE JU started building a comprehensive map of its links to highlight all relevant initiatives where cooperation should be sought besides those already established during the previous year. The figure below depicts the synergies landscape in which the CBE JU is operating.

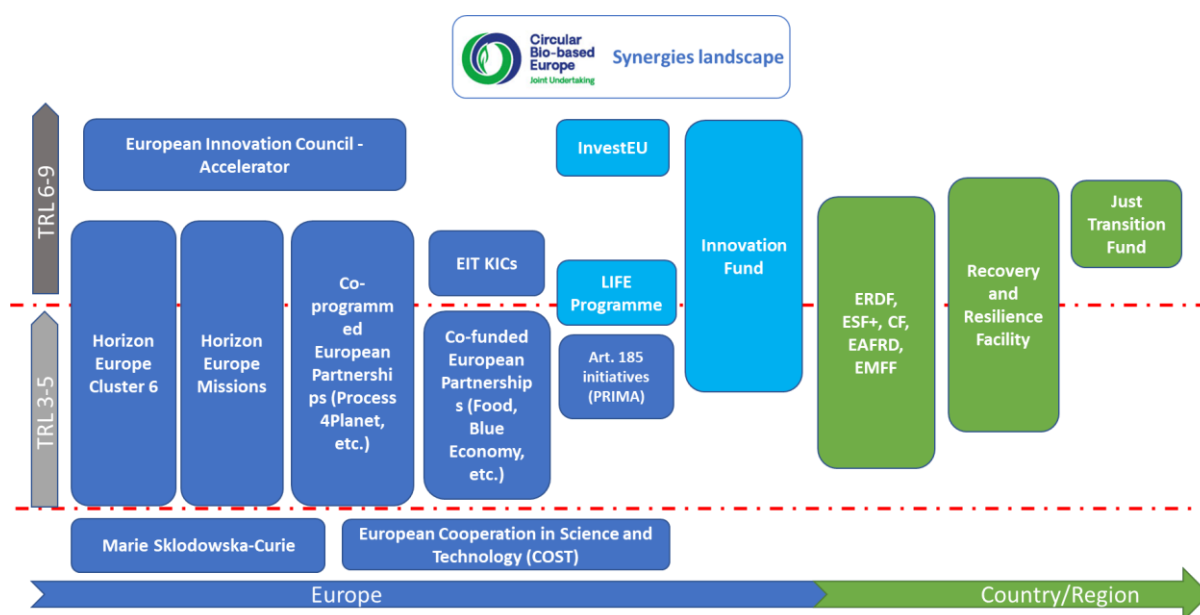


Figure 29 CBE JU synergies landscape.

Synergies at European level

Cooperation with European programmes and/or other EU instruments can take different forms and can range from simple information exchange to strategic programming. The main types of possible areas of cooperation identified are: high level strategic planning, coordinated programming, developing synergy at project portfolio level and conducting joint outreach and dissemination work.

In 2023, in relation to the actions under the Horizon Europe programme, the following actions have been implemented:

- **Pillar I – Marie Skłodowska-Curie Actions Staff Exchange (MSCA SE)**

The CBE JU and REA MSCA SE Unit held several coordination meetings to promote the MSCA SE initiative within the CBE JU community through tailored outreach and dissemination activities, such as promoting staff-exchange calls, featuring MSCA stands at CBE JU's annual info day, etc.

- **Pillar II – Cluster 6 on Food, Bioeconomy, Natural Resources, Agriculture and the Environment**

Continuous coordinated programming with Cluster 6, managed by the EC RTD B1, to ensure the CBE JU Annual Work Programmes cover complementary themes and do not overlap on the funding of Cluster 6 Work Programmes and vice-versa. During 2023, the CBE JU programme office also encouraged exchanges of information with relevant executive agencies on projects in similar areas of interventions, i.e. the ECOSYSTEEX Community of Practice in the textile sector promoted by the REA and supported by HaDEA and CBE JU gathering projects funded by the different Clusters and CBE JU working on different aspects of the textile sector.

- **Pillar III – European Innovation Council**

The CBE JU and EISMEA-EIC held coordination meetings with the aim of providing an overview of the two organisations' project portfolios, focusing on key clusters of common interest (such as packaging, bioplastics, bio-based chemicals and construction) and to further explore common interest/synergy between the two programmes.

- **Horizon Europe Missions**

The CBE JU and the DG RTD unit responsible for EU Mission *Restore our Ocean and Waters by 2030* held coordination meetings to foster synergies between the programmes by collaborating on programming. These have established a process to share information on respective project portfolios relevant for the mission as well as any events relevant to that mission. CBE JU project beneficiaries have also been informed that they can endorse the mission charter as well as endorsing the CBE JU as an organisation. Another example of project portfolio coordination is with the EU Mission *Soil Deal for Europe* on 2022-funded CBE JU and mission projects. Latterly, the CBE JU has signed up to both the Mission Charter of EU Mission *Restore our Ocean and Waters by 2030* and EU Mission *Soil Deal for Europe*.

- **Horizon Europe Partnerships**

Various work has been carried out with different partnerships such as the Sustainable Blue Economy Partnership, Sustainable Food Systems Partnership, Process4Planet Partnership and will continue with upcoming partnerships like the Forests and Forestry for a Sustainable Future or Innovative Materials for EU partnerships. The initial work particularly focused on sharing information and mutual learning and networking to ensure multistakeholder engagement. In some cases, like the Sustainable Food Systems Partnership and Process4Planet Partnership, discussions have also focused the programmes to ensure SRIAs complement each other and to identify any themes in future Work Programmes where we could work together.

- **European Cooperation in Science and Technology – COST**

The CBE JU and COST held coordination meetings and set out a detailed action plan focused on the outreach for the respective programmes via media channels and mutual attending each other's Info Days and other relevant events. The main aim is to promote both programmes and create networking opportunities. There is also an ongoing analysis of COST work that could be relevant to the CBE JU, with a specific focus on participants from widening countries and business organisations.

Furthermore, exploratory meetings have been conducted also with organisations responsible of other European initiatives, such as the Innovation Fund and PRIMA programme. We ran a CBE JU Info day with the European Enterprise Network to get regional SMEs involved and increase awareness about the CBE JU programme.

Synergies at national and regional level

Research and Innovation is a major priority of the European Structural and Investment Funds, and the bioeconomy is a key area for Smart Specialisation Strategy in most of the European regions. Increasingly, instruments that are part of the NextGenerationEU programme like the Recovery and Resilience Facility and the Just Transition Fund are financing research and innovation into the green and digital transition.

In 2023, we only held preliminary discussions with a variety of stakeholders about stepping up coordination with national and regional initiatives and funding instruments. This is despite the Horizon Europe (HE) rules making it easier to pool ERDF and HE funds in co-funded actions, thereby creating opportunities for the regions to team up with other EU countries and regions to address smart specialisation priorities. A number of criticisms have been highlighted both at strategic level (i.e. the governance and funding of the biobased sector at national/regional level is very different across Europe leading to the use of different instruments that have different rules, objectives and timeframe) as well as at instrument level (i.e. the difficulty of implementing synergy label mechanisms for complementary funding with ERDF funding). Therefore, a careful assessment of the overall scenario is needed and could be implemented with the support of the CBE JU States Representatives Group (SRG) which has a key role to play in supporting our close alignment with national & regional financing instruments and programmes.

1.7. PROGRESS AGAINST KEY IMPACT PATHWAYS AND JU'S KEY PERFORMANCE INDICATORS

The progress and performance of the CBE JU programme is monitored, in line with the Horizon Europe setting, through a framework of Key Impact Pathways (KIPs) and Key Performance Indicators (KPIs) defined at the following three levels:

- General Horizon Europe KIPs.
- Horizon Europe Common JU KPIs.
- CBE JU specific KPIs, as defined in the SRIA.

In addition, BBI JU funded projects will continue to contribute to the specific KPIs set out in the Specific Programme implementing Horizon 2020 and to BBI JU specific KPIs. This section includes the progress on these KPIs at these different levels, both for the CBE JU programme and for the BBI JU.

1.7.1. CBE JU's progress against General HE Key Impact Pathways (KIPs)

There is a common set of indicators for all programmes operating under Horizon Europe, including the CBE JU. The indicators are structured around three Key Impact Pathways:

- **Scientific Impact Pathway indicators:** The HE programme is expected to have scientific impact by creating high-quality new knowledge, strengthening human capital in R&I and fostering the diffusion of knowledge and Open source.
- **Societal Impact Pathway indicators:** The HE programme is expected to have an impact on society by addressing the Union's policy priorities and global challenges, including SDGs, following the principles of the 2030 Agenda and the goals of the Paris Agreement, through R&I. Ultimately, by delivering benefits and making an impact through R&I missions and European Partnerships and by strengthening the uptake of innovation in society, HE contributes to people's well-being.
- **Technological and Economic Impact Pathway indicators:** The HE programme is expected to have technological and economic impact, especially within the Union, by influencing the creation and growth of companies, especially SMEs, including start-ups, creating direct and indirect jobs within the Union, and by leveraging investments for R&I.

The KIPs are defined for the short, medium and long term. The medium and long-term results will only start to materialize at a later stage, towards the end of the project lifetime and beyond (e.g. number innovations addressing EU priorities, as well as the long-term effects of their exploitation). Regarding the short-term indicators, very few of them can be available from an early stage of projects (e.g. number of researchers), whereas others will only be available at more advanced stages (e.g. number of innovative products, products and processes). Taking into account these considerations and the fact that the first CBE JU projects started only in the second half of 2023, there is no available data to be reported in this Annual Activity Report for most of the indicators.

The list of specific indicators and their results for 2023 are reported in Annex 5.6 Scoreboard of HE Common Key Impact Pathway indicators. This data was collected through a centrally managed dashboard for all parts of the Programme developed by the European Commission.

1.7.2. CBE JU's progress against the HE Common JUs' Key Performance Indicators

A common framework to monitor the progress of all European Partnerships, including JUs, has been established. It includes the definition of the Partnership Specific Impact Pathway, the main contributions to the UN SDG and a set of specific partnership indicators related to different criteria.

Horizon Europe Partnership common indicators

There is a set of common indicators identified for all Horizon Europe partnerships, including CBE JU, around the following criteria: directionality and additionality, coherence and synergies, transparency and openness and international visibility and positioning. Annex 5.7 provides all the indicators linked to these criteria and below a short description of the most important aspects per criteria is reported.

In terms of **directionality and additionality**, CBE JU funding and project investments contribute fully to the EU priorities of Green Deal and Resilience.

- a) The overarching objectives of the **European Green Deal** (climate neutrality and inclusive economic growth decoupled from use of resources) are deeply ingrained in the CBE JU mission and objectives, and in its SRIA strategic priorities. The development and deployment of innovative, sustainable and competitive biobased industries contributes to an inclusive economic growth (creation of skilled jobs, revitalization of rural areas, reindustrialization), while the integration of environmental, circular and climate considerations ensure that the bio-based solutions developed contribute to mitigate climate change, substitute fossil-based by biobased products, make a better use of natural resources, ensure a better end-of-life of products, reduce pollution of air, soil and water and contribute to protect biodiversity.
- b) CBE JU fully contributes to the **resilience objectives** both in terms of strengthening EU economic and social resilience but even more in developing strategic capacities in the supply chains. CBE JU activities actively build resilience of the EU bioeconomy against external shocks in several ways, such as: strengthening the EU autonomy and independence in terms of natural resources and key enabling technologies; supporting the development of local value chains based on locally and sustainably sourced feedstock and short supply chains; engaging all actors of the value chain, from primary producers to technology providers, industries and end users; facilitating growth and diversification of income of primary producers; and promoting the creation of jobs and capacity building. CBE JU also strongly contributes to the creation of "inclusive growth and new job opportunities", In particular, approximately 80 % of the partnership budget goes to innovation actions, among them Flagships projects which directly contribute to these objectives in the short-term. By funding first of their kind biorefineries in Europe (Flagships projects), CBE JU is helping the bio-based industries sectors to become more sustainable and resilient, while creating new direct and indirect green jobs opportunities especially in rural and coastal areas. In addition, IAs, RIAs and CSAs projects also contribute to develop the skills, technologies and capacities needed to lay the basis for the inclusive growth and job opportunities linked to the deployment of future sustainable bio-based industries and solutions.

CBE JU is seeking **coherence and synergies** with other EU partnership, programmes and funding by undertaking a number of activities such as:

- Coordination activities with Partnerships with common strategic or programmatic aspects, such as: Process4Planet, Sustainable Blue Economy Partnership, Sustainable Food Systems Partnership, Innovative materials for EU.
- Collaboration with EU Missions on Oceans and Soil, by endorsing their Charters and including requirements in the Annual Work Programmes to contribute to its objectives.
- Contributing to the 2023 NEBA call.
- Exploring collaboration with European Innovation Council, Innovation Fund, MSCA-SE, COST, EEN, among others.

The **transparency and openness** of the CBE JU programme is evidenced by the participation so far of 1930 unique applicants from 54 different countries, with 143 unique newcomer beneficiaries from 24 different countries from the 2022 call.

A significant number of events have been organised in order to increase the CBE JU programme outreach and **international visibility** at different levels:

- *Global*: participation in the FAO International Sustainable Bioeconomy Working Group, World BioMarkets.
- *EU*: organisation and participation in several events, such as CBE JU Info Day, CBE JU Stakeholder Forum, ECOMONDO, EFIB, ECCP, EuropaBio Biomanufacturing platform, AGRI-FISH Council exhibition, European Biostimulants Industry Council Summit, among many others.
- *National*: organisation of several CBE JU info days across Europe. The activities carried out to support the participation of countries and regions which are so far less active are explained in section 1.5.2 Widening participation strategy.

Please see sections [1.6. Openness, cooperation, synergies and cross-cutting themes and activities](#) and [2.1. Communication activities](#) for more detailed information.

Partnership Specific Impact Pathway (PSIP)

The PSIP map shown in Figure 30 illustrates in a multi-level, cascading structure the links between the EU and global political objectives and the most relevant EU policy initiatives for the CBE JU, the CBE JU impacts, outcomes and resources and the work needed.

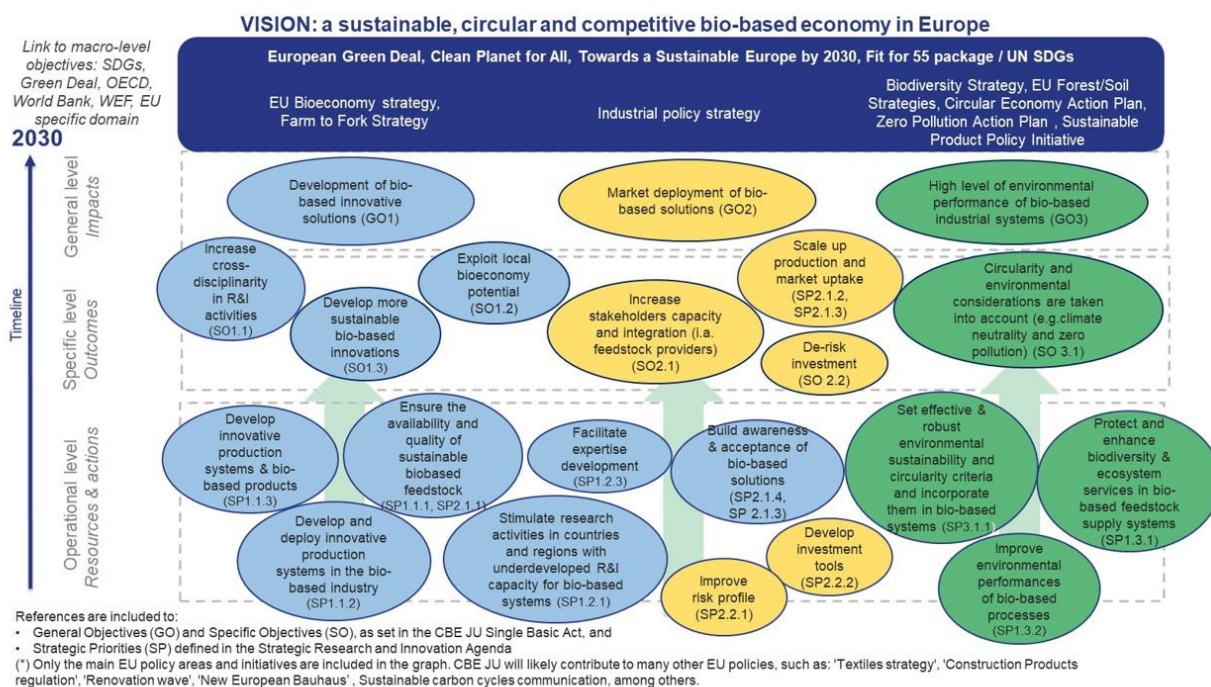


Figure 30 Partnership Specific Impacts Pathway strategic map.

This strategic map highlights the relationship of these different levels with the CBE JU's general and specific objectives and the SRIA strategic priorities. As such, we can distinguish the following levels under the umbrella of the CBE JU vision: a sustainable, circular and competitive bio-based economy in Europe:

- **Macro-level objectives included in global and EU-wide policy initiatives and policy packages**, such as the European Green Deal, Clean Planet for All, Fit for 55 package, etc.
- **EU level policies most relevant to the CBE JU**, such as the EU Bioeconomy, Farm to Fork, Industrial policy and Biodiversity strategies or the Circular Economy Action Plan.
- **General: Impacts, related to CBE JU General Objectives (GOs)**, which target the development of bio-based solutions, their market deployment and high levels of environmental performance.
- **Specific: Outcomes**, linked to the CBE JU Strategic Objectives and the CBE JU General Objectives.
- **Operational: Resources and activities**. These are defined to address the SRIA Strategic Priorities, which are also linked to the CBE JU's specific objectives shown above.

Contribution to Sustainable Development Goals (SDGs)

The contribution of the CBE JU/BBI JU project portfolio to **SDGs** annually (see section 1.7.4 for more details). The CBE JU programme is expected to contribute to the following SDGs:

- SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
- SDG 12: Ensure sustainable consumption and production patterns
- SDG 13: Take urgent action to combat climate change and its impacts
- SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt the reverse land degradation and biodiversity loss



Figure 31 Main SDGs to which the CBE JU contributes.

1.7.3. Progress against CBE JU-specific KPIs

As requested in the Council regulation establishing the Joint Undertaking, a set of CBE JU Key Performance Indicators (KPIs) have been defined to monitor the progress towards achieving the CBE JU general and specific objectives. These KPIs and their respective targets have been set out in the CBE JU SRIA and are closely linked to the strategic priorities therein. Table 4 outlines how the 10 KPIs (overarching objective to be measured) are divided into sub-KPIs (units of measurement) each with specific targets by 2031. To make reporting easier, there is also a [handbook](#) to provide definitions of the KPIs and relevant examples of potential contributions.

CBE KPIs: objectives and units of measurement			2031 targets
1	Strategic participation and integration of feedstock producers and suppliers towards large-scale valorisation of sustainable biomass	1.1 No of primary producers, involved as project beneficiaries and/or engaged in value chains at project level	100
		1.2 No of waste management actors, involved as project beneficiaries and/or engaged in value chains at project level	20
2	Unlock sustainable and circular bio-based feedstock for the industry	2 No of innovative bio-based value chains created or enabled based on sustainably-sourced biomass	120
3	Ensure environmental sustainability of feedstock	3.1 No of projects using feedstock generated with practices that contribute to enhance biodiversity	30
		3.2 No of projects using feedstock generated with practices aiming at zero-pollution (soil, water, air) and/or at reducing water consumption	40
		3.3 No of projects using feedstock generated with practices contributing to climate change mitigation and/or adaptation	60
4	Improve environmental sustainability of production processes and value chains	4.1 No of projects with innovative & sustainable processes that contribute to GHG emission reduction	60
		4.2 No of projects developing innovative & sustainable processes that improve resource efficiency and zero-waste	60
		4.3 No of projects developing innovative & sustainable processes enabling zero pollution	60
		4.4 No of projects with innovative & sustainable processes with improved energy efficiency	60
		4.5 No of products with improved life cycle environmental performance	50
5	Expand circularity in bio-based value chains	5.1 No of innovative products that are biodegradable, compostable, recyclable, reused or upcycled (circular by design)	100
		5.2 No projects developing circular production processes (incl. industrial urban symbiosis)	40
6	Increase innovative bio-based outputs and products	6.1 No of innovative bio-based dedicated outputs, with novel or significantly improved properties vs relevant alternatives	90
		6.2 No of innovative bio-based drop-in outputs meeting applications requirements	30
7	Improve the market uptake of bio-based products	7 No of brand owners involved as project partners and/or engaged with other mechanisms	50
8	Attract investment on the bio-based sector	8 No of actions implemented at project level to attract investment and/or to create awareness in the investment/funding community	30
9	Increase resilience and capacity in the bio-based sector	9 No of projects contributing to develop the skills and capacity needed by the EU bio-based sector	50
10	Improve participation of regions and countries with high unexploited potential and strategic interest to develop it	10 No of participants from the underrepresented EU countries and region	150
		10 No of regional hubs established and operated to process bio-based feedstocks and other aspects	15
		10 No of projects with synergies with other funding programmes at EU, national or regional level	60

Table 4 CBE JU specific Key Performance Indicators as set out in the CBE JU SRIA.

CBE JU-specific KPIs reporting

In this section, the results from 2023 are presented according to each specific CBE JU KPI.

The first report from the 21 CBE JU projects signed up from Call 2022 was made to gather the project's contributions to the CBE JU specific KPIs and other expected impacts of the programme by 2023. This type of monitoring will be carried out on an annual basis via a dedicated reporting webtool.

An important distinction must be made between KPIs monitoring strategic and inclusive involvement by specific parties (KPIs 1.1, 1.2, 7 and 10) and those related to project outcomes (all remaining KPIs). The former can be considered as results achieved since their participation is already determined at the time the Grant Agreements are signed. However, as CBE JU funded projects are still in an early phase (the first projects started in 2023), whether KPIs related to project outcomes have been met will be assessed by additional analysis and independent expert review later in the programme. Therefore, for these KPIs, the data in the following section represents the **expected contributions** reported by the project consortia. To visualise these differences, the KPI contributions actually reached are presented in dark green whereas the targets appear in light green.

An overview of the KPIs reported for year 2023:

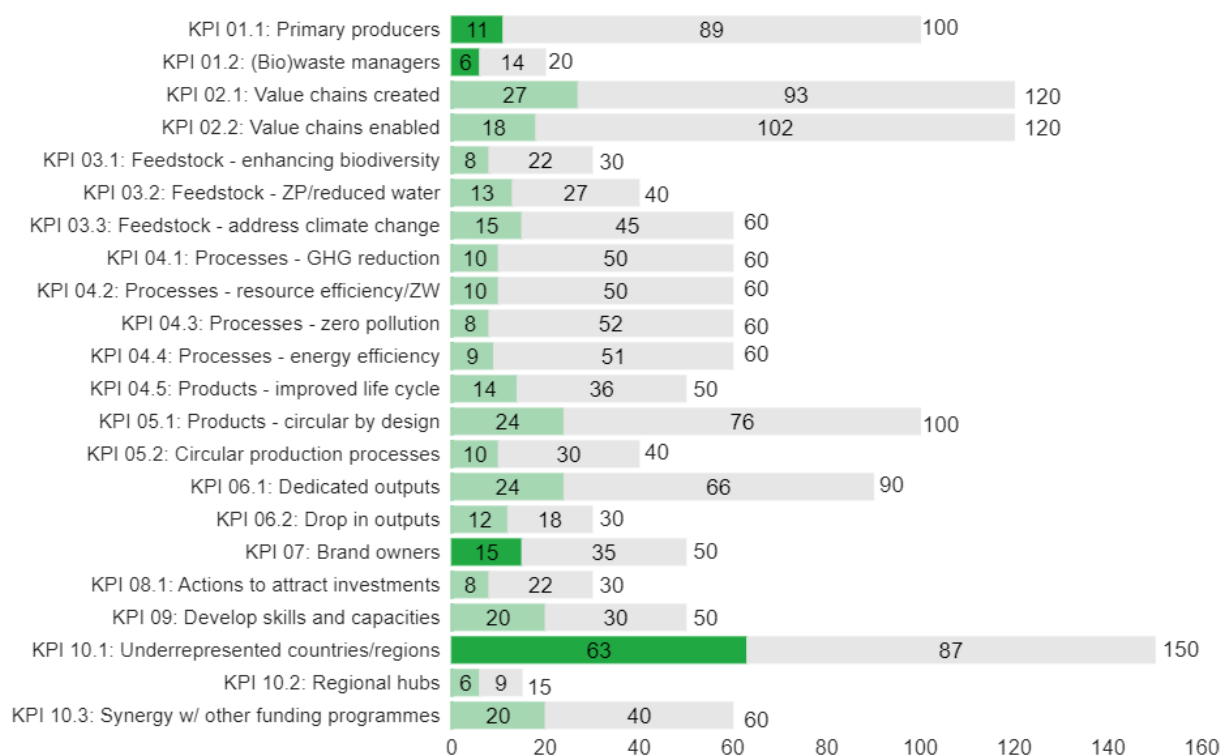


Figure 32 Overview of projected (light green) and achieved (dark green) contributions to CBE JU KPIs reported by projects vs. the targets in the SRIA (grey).

KPI 1: Strategic participation and integration of feedstock producers and suppliers towards large-scale valorisation of sustainable biomass

To achieve maximum impact, and take into consideration the entire value chain, the CBE JU encourages primary producers to get involved in its funded projects either as project beneficiaries or in the project's value chains (**KPI 1.1**). In this context, primary producers are identified as legal entities operating in one of the primary sectors (agriculture, forestry, fisheries or aquaculture/marine), in work related to the production, harvest, handling, and storage of biological resources before these are moved to either processing or distribution. To be considered a primary producer, producing biological resources should be a key part of its business.

Solely focusing on those primary producers as beneficiaries¹², there are currently 11 (Figure 33). When primary producers involved in project value chains are also included (i.e., third-party involvement as e.g., member of advisory board or via long-term agreements), the total comes to 17. Further analysis of the main activities of these primary producers shows that more than two-thirds operate in the agricultural sector, whereas the forestry and aquatic sectors represent 12% and 18% of the primary producers, respectively.

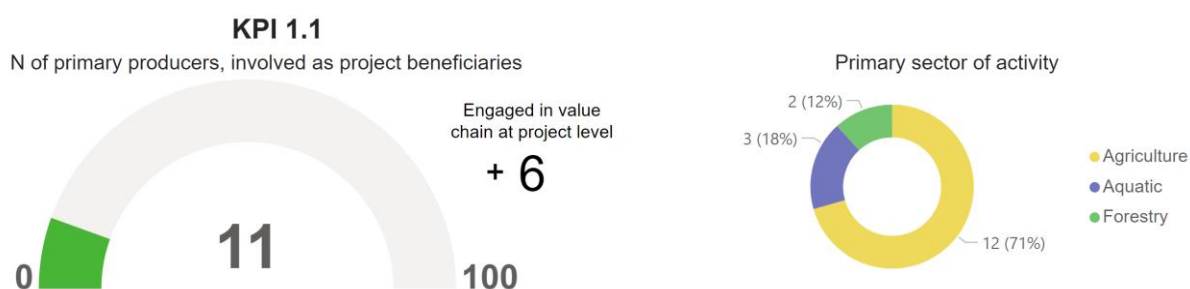


Figure 33. KPI 1.1 Overall progress towards KPI achievement (left) and the main sectors of activity of the primary producers for all 26 primary producers (right).

Similarly, (bio)waste managers to become project beneficiaries and/or involved in project value chains (**KPI 1.2**) where this is relevant to the scope of the project is encouraged. For consistency in reports, (bio)waste managers are described as private companies or municipalities involved in the collecting, sorting, processing and/or recycling municipal or industrial waste.

As showcased in Figure 34, there are currently six (bio)waste managers involved as project beneficiaries. With the addition of those involved in project value chains, there are a total of 8 (bio)waste managers on CBE JU-funded projects. Involvement of (bio)waste managers could be in an advisory role, as a biomass supplier and/or pre-treatment and processing partner.

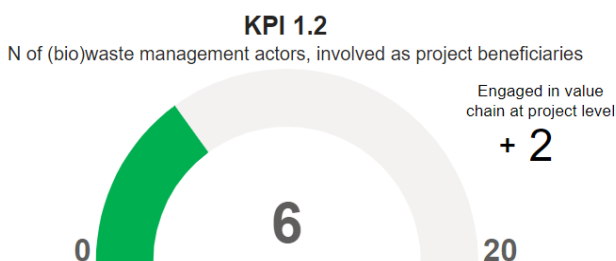


Figure 34. KPI 1.2 Strategic participation and integration of feedstock producers and suppliers towards large-scale valorisation of sustainable biomass.

¹² Beneficiaries according to article 7 of the Model Grant Agreement (MGA) and Affiliated Entities according to article 8.

KPI 2: Unlock sustainable and circular bio-based feedstocks for the industry

While IAs, and especially Flagships, look at the entire bio-based value chain, RIAs can be instrumental in bringing about new value chains by filling gaps in technological innovation. Therefore, a differentiation is made in the reporting of this KPI between projects that create (IAs including Flagships) and those that enable (RIAs) new bio-based value chains based on sustainably sourced biomass. To be considered a new bio-based value chain, there needs to be at least one new/innovative element introduced across the value chain. This may be a novel feedstock, new markets targeted by the bio-based solutions and/or innovative technologies for converting sustainable feedstock into bio-based products.

Figure 35 outlines how, in its first year, CBE JU projects aimed to create 27 and enable 18 innovative bio-based value chains.

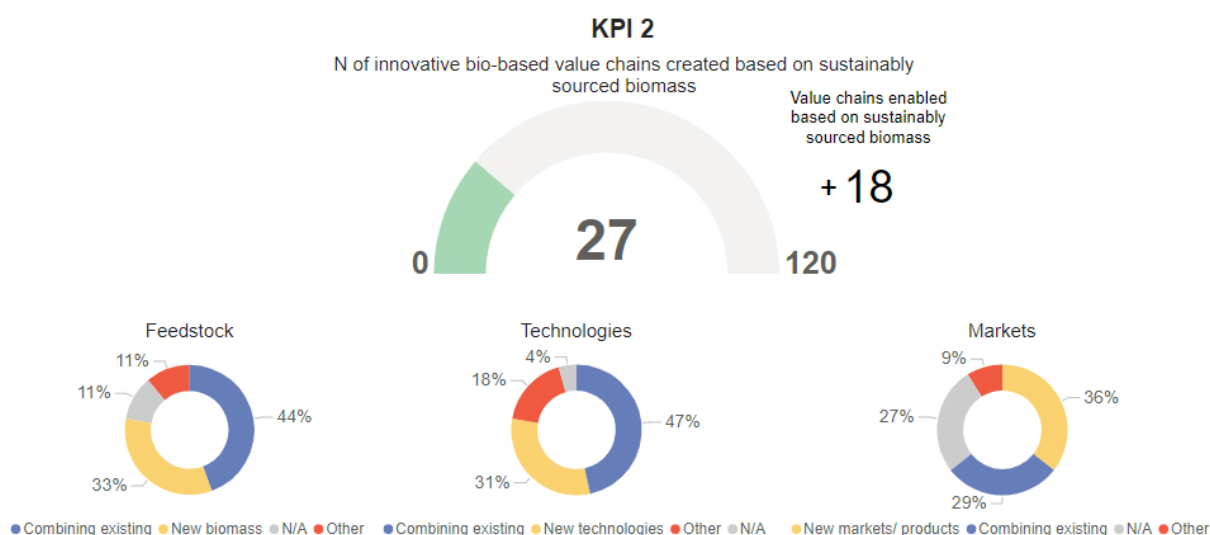


Figure 35. KPI 2 Unlock sustainable and circular bio-based feedstocks. Pie charts representing the aspects of innovation across all types of actions (created and enabled value chains), for feedstocks, markets and technologies.

Projects primarily report innovation through the combination of existing feedstock such as agri-food wastes, but also highlight the use of new types of biomass, such as underutilised crops like hemp, nettle and seagrass. In the markets, innovation is visible through, for example, the emergence of novel food and bioactive ingredients but also the amalgamation of different sectors, such as automotive, aerospace and textile. For new technologies, a combination of novel technologies and reconfiguration of existing technologies is clearly to see.

KPI 3: Ensure environmental sustainability of feedstock

The CBE JU has enshrined in its general objectives the aim to ensure bio-based industrial systems perform well for the environment. Fundamental to achieving this goal is to ensure there are sufficient amounts of sustainable feedstock. KPI 3 monitors progress towards these objectives. Figure 36 gives an overview of CBE JU projects project contributions towards improved feedstock production and supply practices with a focus on various aspects of sustainability. These ambitions will be further analysed and verified through methods such as life cycle assessments.

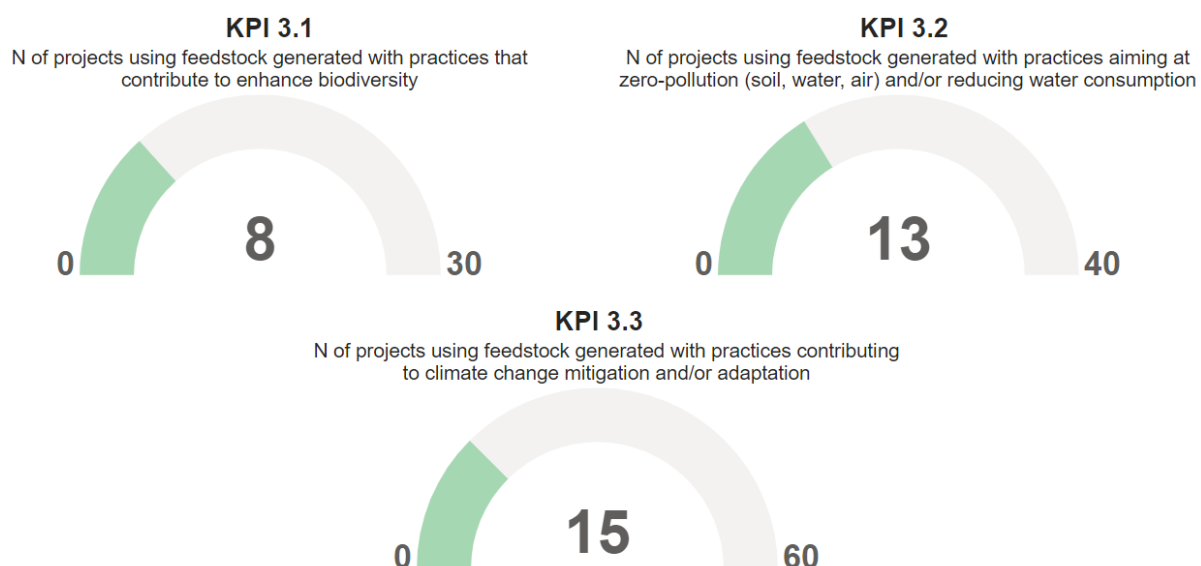


Figure 36. KPI 3 Ensure environmental sustainability of feedstock. Number of projects reporting contributions to all three KPIs: 8.

KPI 3.1 monitors the number of CBE JU funded projects that contribute to enhancing biodiversity. Projects can deliver on this KPI by developing or improving (integrated) practices and/or methodologies and/or tools to enhance biodiversity within the provision of feedstock to bio-based systems. These contributions are on top of the requirements for responsible land use that are integral to all CBE JU funded projects. In the first year, eight CBE JU funded projects anticipate that they will be using feedstock generated with biodiversity-enhancing. Examples include biomass produced on degraded soils that could potentially create new habitats for pollinators and birds, as well as the implementation of more sustainable agriculture practices such as multi-cropping and rotation with other cultivars.

KPI 3.2 monitors the number of CBE JU funded projects that reduce pollution (soil, water, air) and/or water consumption by improving feedstock production and supply practices. In CBE JU funded projects this contribution is illustrated through, for example, the use of nitrophilous plants or other cultivars that help remediate and/or filter soils of pollutants. Alternatively, low water-input plants might be used. In total, 13 projects foresee a positive contribution under this aim.

KPI 3.3 monitors the number of CBE JU funded projects that contribute to improved climate-related impacts, encompassing ILUC impacts, by improving feedstock production and supply practices (including any feedstock pre-processing prior to storage and transportation). On this sub-KPI, 15 CBE JU funded projects expect to make a positive contribution.

All together, these three sub-KPIs underline our strong commitment to ensure environmental sustainability of the feedstock used in CBE JU funded projects.

KPI 4: Improve environmental sustainability of bio-based production processes and value chains

The SRIA lays down the improvement of the environmental performances of bio-based processes as a priority for further research and innovation (SP 1.3.2). For this reason, KPI 4 has been established to monitor contributions from CBE JU-funded projects towards more energy-, carbon- and resource-efficient processes that minimise pollution and waste.

KPI 4 includes five KPIs to monitor these environmental aspects separately. To reflect the practical impacts of these projects, we only looked at Innovation Actions. The first four KPIs take a holistic view on the projects' processes, whereas KPI 4.5 assesses the environmental performance of the entire value chain up to the final bio-based product.

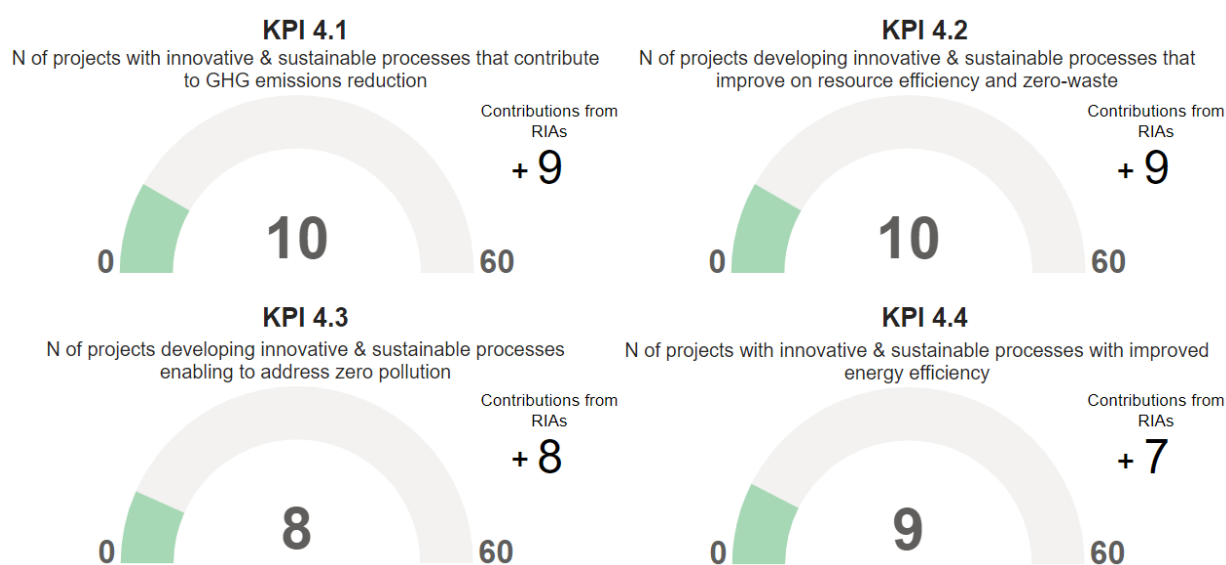


Figure 37. KPIs 4.1, 4.2, 4.3, 4.4 Improve environmental sustainability of bio-based production processes and value chains.

KPI 4.1 monitors the number of CBE JU funded projects that develop, demonstrate or scale-up bio-based processes with a reduced carbon footprint compared to the current benchmark(s). Ten IA projects report that they expect to make a positive contribution with a reduced carbon footprint from innovations in more carbon efficient feedstock and reduced CO₂ emissions and/or capture and use of biogenic CO₂. Also accounting for RIAs that contribute to GHG emissions reductions, the total comes to 19.

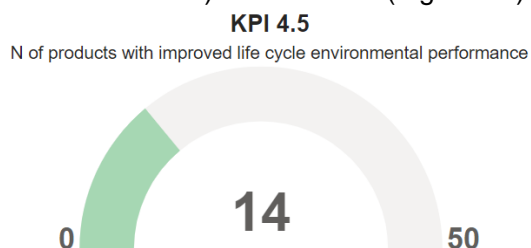
Similarly, **KPI 4.2** monitors the number of CBE JU funded projects that develop, demonstrate or scale-up more resource-efficient bio-based processes and produce less waste than the current benchmark(s). Ten IAs report that they will develop innovative processes which, for example, enable the cascading use of waste streams.

Focusing on the topic of zero pollution, **KPI 4.3** monitors the number of CBE JU funded projects that develop, demonstrate or scale-up bio-based processes that contribute to zero pollution aims. Eight IAs report that they make a positive contribution e.g., by reducing or eliminating the use of hazardous materials and chemicals. Another eight RIAs report to be contributing to this KPI, bringing the total number to 16.

Then, **KPI 4.4** tracks the number of CBE JU funded projects that develop, demonstrate or scale-up bio-based processes that are more energy efficient than current processes (the benchmark(s) may be addressing fossil- or bio-based feedstock). Nine IAs anticipate they will make a positive

contribution to this KPI. This could be, for example, through innovative membrane technologies, reducing the amount of pressure (and consequently energy) required. Seven further RIA projects also report that their projects contribute to improved energy efficiency, bringing the total number of projects to 16.

KPI 4.5 monitors the number of bio-based products developed, demonstrated or scaled-up within CBE JU funded projects that improve environmental performance compared to the current (fossil-and/or bio-based) benchmarks (Figure 38). Several different outputs (bio-based building blocks, materials and products) might be reported by projects but only those that are considered bio-based products are included under this sub-KPI. Altogether, the IA projects report a total of 14 products that will have an improved life cycle performance, which will be further verified by LCA and other analysis.



materials and products) might be reported by projects but only those that are considered bio-based products are included under this sub-KPI. Altogether, the IA projects report a total of 14 products that will have an improved life cycle performance, which will be further verified by LCA and other analysis.

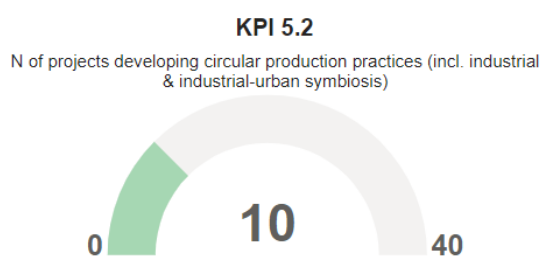
Figure 38. KPI 4.5 Improve environmental sustainability of bio-based production processes and value chains.

KPI 5: Expand circularity in bio-based value chains

To achieve maximum positive impact of the products developed in CBE JU funded projects, it is crucial to monitor the options for end-of-life compared to current fossil and/or bio-based benchmarks. Projects can have different outputs; bio-based materials, bio-based products and building blocks. **KPI 5.1**, only looks at bio-based products to incorporate circularity and end-of-life considerations. According to this criteria, CBE JU funded projects overall intend to develop 24 innovative products that are at least one of the following things: biodegradable, compostable, recyclable, reused or upcycled, as shown in Figure 39. Considering all outputs (not exclusively bio-based products), we have also shown a split of the various characteristics in relation to characteristics such as biodegradability, upcyclability, recyclability and compostability.



Figure 39. KPI 5.1 Expand circularity in bio-based value chains and the split by product characteristics.



KPI 5.2 focuses on the number of CBE JU funded projects that are developing bio-based value chains that close the circle from the feedstock inputs to the end-of-life of the bio-based products (cradle-to-cradle). Across all the IAs, a total of 10 projects report to be working on developing such circular production processes (Figure 40).

Figure 40 KPI 5.2 Expand circularity in bio-based value chains.

KPI 6: Increase innovative bio-based outputs and products

KPI 6 has been developed in line with CBE JU SP 1.1.3 (Develop innovative bio-based products) and SP 2.1.3 (Scale up production and market uptake of innovative bio-based products). This KPI monitors two main areas for innovation in demonstration or upscaling: bio-based outputs with novel or significantly improved properties vs. relevant alternatives (KPI 6.1) and bio-based drop-in outputs meeting application requirements (KPI 6.2).

As shown in Figure 41, for **KPI 6.1** there are 24 anticipated outputs (including bio-based materials and building blocks) developed by CBE JU IAs with novel or significantly improved properties whereas, for **KPI 6.2**, 12 are targeted as drop-in outputs meeting application requirements. When including the outputs from RIAs as well, there are 25 and 2 additional outputs respectively.

To better understand the anticipated final applications of these outputs, we have also highlighted their respective application areas. Interestingly, we see a broad range of applications with a majority of outputs focusing on polymers, food/feed ingredients and nutrients and fibres.

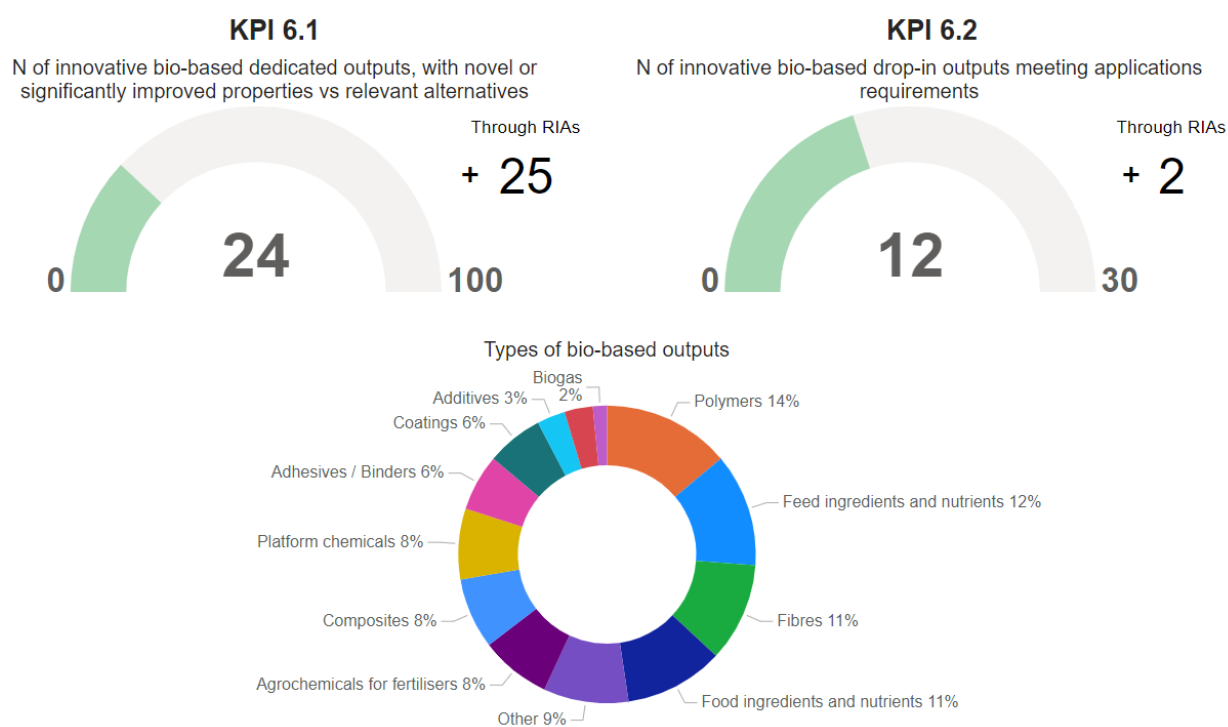
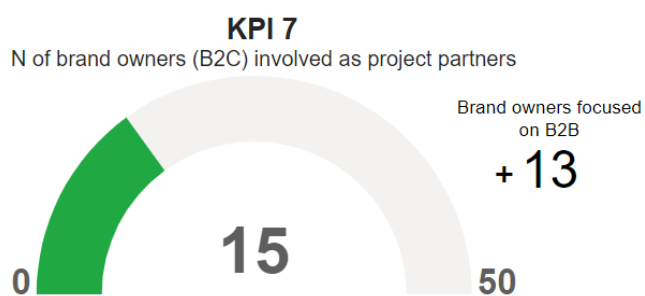


Figure 41. KPI 6 Increase innovative bio-based outputs and products. The doughnut chart gives the different types of bio-based outputs from all different types of action.

KPI 7: Improve the market uptake of bio-based products

In order to stimulate market uptake of bio-based solutions and in line with the multi-party approach, the CBE JU encourages the strategic involvement of brand owners¹³ in its funded projects. Their genuine involvement – either as project participants, or through other mechanisms (e.g., via another form of contract or as a member of the advisory board) – is expected to increase consumer awareness and the overall uptake of bio-based products.

Figure 42 shows the progress towards engaging consumer-facing brand owners as project

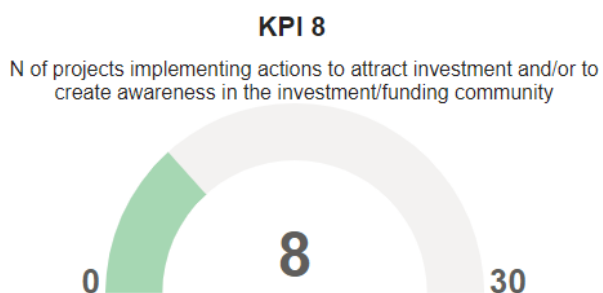


beneficiaries against the target by 2031. This includes companies that sell furniture, food and feed, or construction products. 28 brand owners are currently beneficiaries and therefore are directly participating in the project activities¹⁴. This group represents entities selling either Business-to-Business (B2B) or Business-to-Consumer (B2C) products.

Figure 42. KPI 7 Improve the market uptake of bio-based products

KPI 8: Attract investment in the bio-based sector

In line with SRIA priority 2.2.2, which seeks to improve the interaction between those involved in circular bio-based systems and the investment sector, this KPI monitors activities within CBE JU funded projects that are contributing to increased awareness of opportunities in the bio-based sector and/or increased investment into the bio-based sector.



In Figure 43, the number of projects which plan to implement actions in this direction are reported. Planned action includes taking part in pitch events and running workshops and webinars aimed at increasing the investment/funding community's awareness of the opportunities for applications of innovative bio-based solutions.

Figure 43. KPI 8 Attract investment to the bio-based sector.

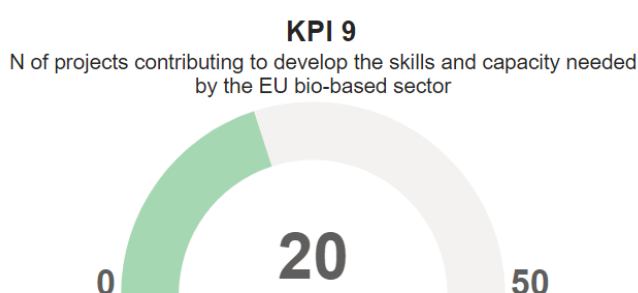
¹³ Refers to industrial stakeholders selling commodities under a registered brand. They may be existing or new stakeholders of bio-based value chains, contributing to the market uptake of bio-based products.

¹⁴ Including Beneficiaries (article 7 of the MGA) and Affiliated Entities (article 8 of the MGA).

KPI 9: Increase resilience and capacity in the bio-based sector

A specific objective of the CBE JU initiative is to increase and integrate the research and innovation capacity of stakeholders across the Union (CBE JU SO 1.2). As such, the SRIA outlines actions under Strategic priority 1.2.3 – ‘Facilitate the development of expertise in bio-based fields by improving higher education and skills development’ and includes a KPI to monitor the number of projects contributing to this ambition.

The number of projects that plan to increase skills and capacity in the bio-based sector are reported in Figure 44. Some concrete actions include training programmes for different target groups, including industrial stakeholders and PhD students.



A notable example is the ROBOCOOP-EU, which aims to develop three Living Labs (LLs) (located in Extremadura, Spain; Apulia, Italy; and West Macedonia, Greece) as knowledge-sharing spaces in which primary producers and other stakeholders from along the bio-based value chain co-create business models.

Figure 44. KPI 9 Increase resilience and capacity in the bio-based sector

KPI 10: Improve participation of regions and countries with high unexploited potential and strategic interest to develop it.

In line with the objectives of CBE JU, and in particular objective 1.2 aimed at increasing and integrating the research and innovation capacity of stakeholders across the Union and SRIA priority 1.2.1 – *Stimulate research activities in countries and regions with underdeveloped R&I capacity for bio-based systems*, KPI 10 has been conceived to monitor the impact of the programme for countries and regions that have high-but-underutilised bioeconomy potential.

KPI 10.1 is an indicator of how take up of CBE JU projects is more inclusive compared to the BBI JU programme as a benchmark. Figure 45 gives the number of distinct participants from underrepresented countries and/or regions as defined in the CBE JU KPI Handbook, also showing the distribution between country and region newcomers. In addition, **Error! Reference source not found.** and Table 6 compare how the participation by underrepresented countries and regions is evolving compared to the BBI JU programme as a benchmark.

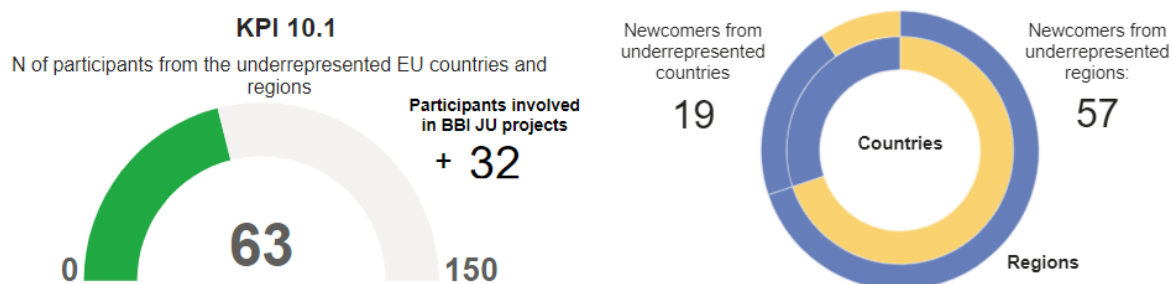


Figure 45 Overall progress towards KPI 10.1 (left). Number of newcomers from underrepresented countries or regions (right; share of the underrepresented in blue).

In the Figure below, **KPI 10.2** focuses on the aim to contribute to capacity building in regions. To this end, it monitors the establishment of regional hubs as platforms for cooperation, information and collaboration, and for bringing together stakeholders. **KPI 10.3** monitors the number of CBE JU funded projects that benefit from complementary funding from the EU, national or regional funds, such as funding for regional infrastructure/facilities.

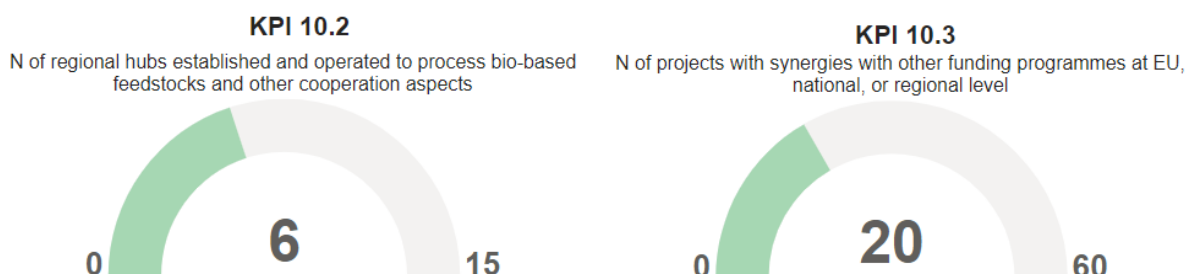


Figure 46 KPI 10.1 and 10.2 Improve participation of regions and countries with high unexploited potential and strategic interest to develop it.

Country	Number of participations in BBI JU projects	Number of participations in CBE JU projects	Number of newcomers to CBE JU projects
PT	42	8	5
EL	31	10	4
PL	29	3	3
HR	19	2	0
EE	14	3	0
SI	12	3	3
SK	12	0	0
HU	10	1	1
CZ	9	3	2
RO	8	0	0
BG	6	0	0
CY	4	0	0
LV	4	1	1
LT	1	0	0
MT	0	0	0

Table 5 Participation of underrepresented countries in CBE JU projects compared to BBI benchmark. Number of newcomers refers to distinct participants who had never participated in any BBI JU programme.

NUTS 2 code	Region	Number of participations in BBI JU projects	Number of participations in CBE JU projects	Number of newcomers to CBE JU projects
ES52	Comunidad Valenciana	48	7	3
ES61	Andalucía	28	4	2
ES41	Castilla y León	15	4	3
EE00	Eesti	14	3	-
ES11	Galicia	14	2	1
EL30	Attiki	13	4	2
HR03	Jadranska Hrvatska	13	2	-
FRJ1	Languedoc-Roussillon	12	2	-
PT16	Centro	12	3	1
EL52	Kentriki Makedonia	11	3	1
FRE2	Picardie	11	1	
PT11	Norte	11	3	3
ES23	La Rioja	10	6	4
FI1C	Etelä-Suomi	9	3	2
FRH0	Bretagne	9	3	3
ITF3	Campania	9	3	-
ES62	Región de Murcia	8	3	2
IE04	Northern and Western	8	1	-
FRG0	Pays de la Loire	7	1	-
FI19	Länsi-Suomi	6	2	2
FRF1	Alsace	6	2	-
BE32	Hainaut	5	1	1
ES42	Castilla-La Mancha	5	1	1
CZ06	Jihovýchod	4	2	1
EL53	Dytiki Makedonia	4	3	1
FRD1	Basse-Normandie	4	2	1
LV00	Latvija	4	1	1
PL42	Zachodniopomorskie	4	1	1
DE80	Mecklenburg-Vorpommern	3	1	-
DE93	Lüneburg	3	2	1
ES43	Extremadura	3	13	10
ITF4	Puglia	2	1	1
ITI3	Marche	2	4	4
FRC1	Bourgogne	1	1	1
FRI1	Aquitaine	1	2	2
ITI2	Umbria	1	1	-
PL81	Lubelskie	1	1	1
SI03	Vzhodna Slovenija	1	1	1

Table 6 Participation of underrepresented regions in CBE JU projects compared to BBI JU benchmark. Number of newcomers refers to distinct participants who had never participated in any BBI JU programme.

1.7.4. BBI JU legacy: progress on BBI JU-specific KPIs

The BBI JU specific KPIs – as set out in the BBI JU SIRA 2017 – continue to be monitored through an annual survey submitted by the project coordinators of ongoing and completed BBI JU funded projects. For this reporting year, the survey was launched in September 2023 and gathered data from 138 BBI JU projects, of which 39 are ongoing and 99 have been recently completed¹⁵. The questionnaire took in both quantitative and qualitative information on KPI results and expected project impact.

Figure 61 summarises the cumulative results compared to the targets in the BBI JU SIRA. For ongoing projects, the figure refers to **expected** contributions, while for completed projects, data is from **actual** results. KPIs 3 and 7 refer to signed Grant Agreements and the results have been determined from the BBI JU call statistics. Notably, the results reported by completed projects already **confirm that targets for all the KPIs linked to project outputs (KPIs 1, 2, 4, 5, 6, and 8) have been met and even surpassed**.

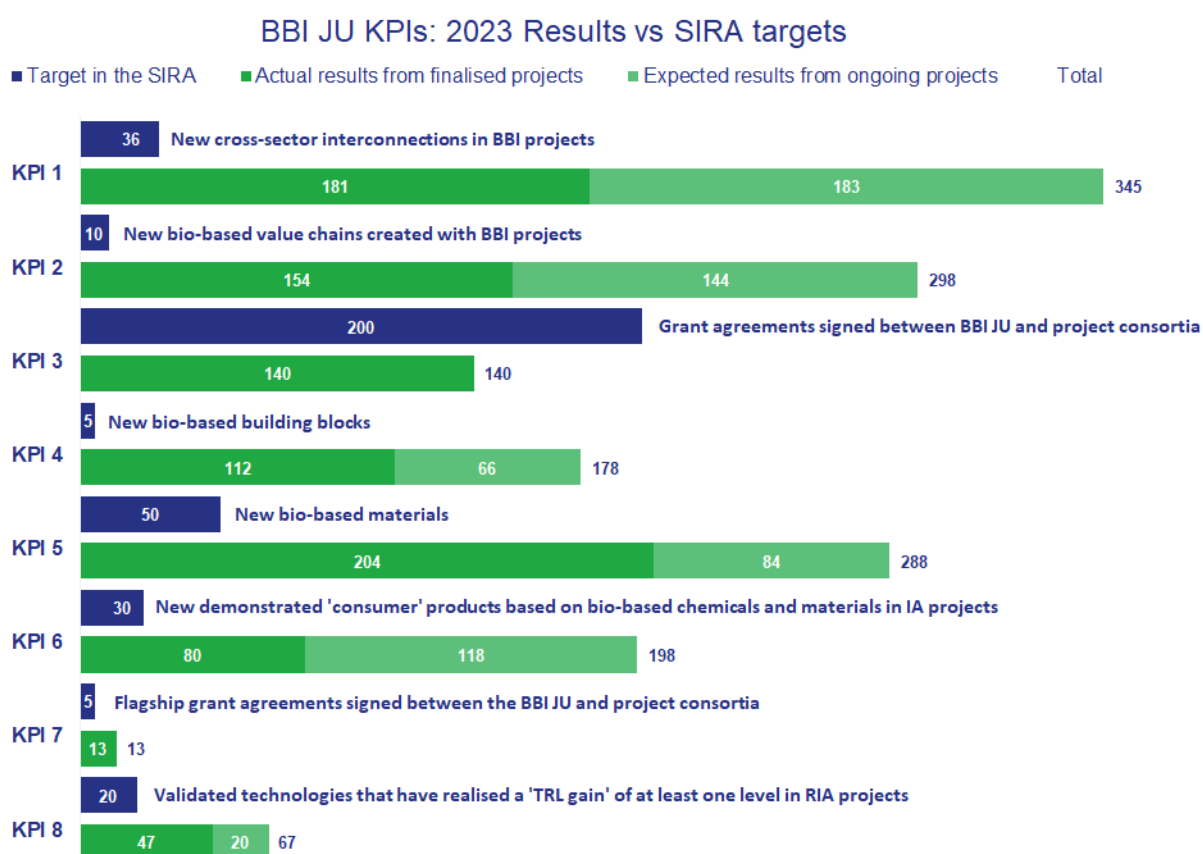


Figure 47 2023 BBI JU KPIs: results vs. SIRA targets.

¹⁵ In the context of the survey 2023, finalised projects are those that finished on or before 30 September 2023. Finalised projects: 4 FLAGS, 26 DEMOs, 54 RIAs and 15 CSAs; Ongoing projects: 8 FLAGS, 12 DEMOs, 17 RIAs and 2 CSAs.

KPIs 1, 2, 4, and 5 are further elaborated in Figure 48, highlighting which sectors BBI JU RIA and IA projects involve to create new cross-sector interconnections. This collaboration between diverse participants from various sectors results in the innovative bio-based value chains. Consequently, it introduces new and different bio-based building blocks and materials at varying levels of innovation.

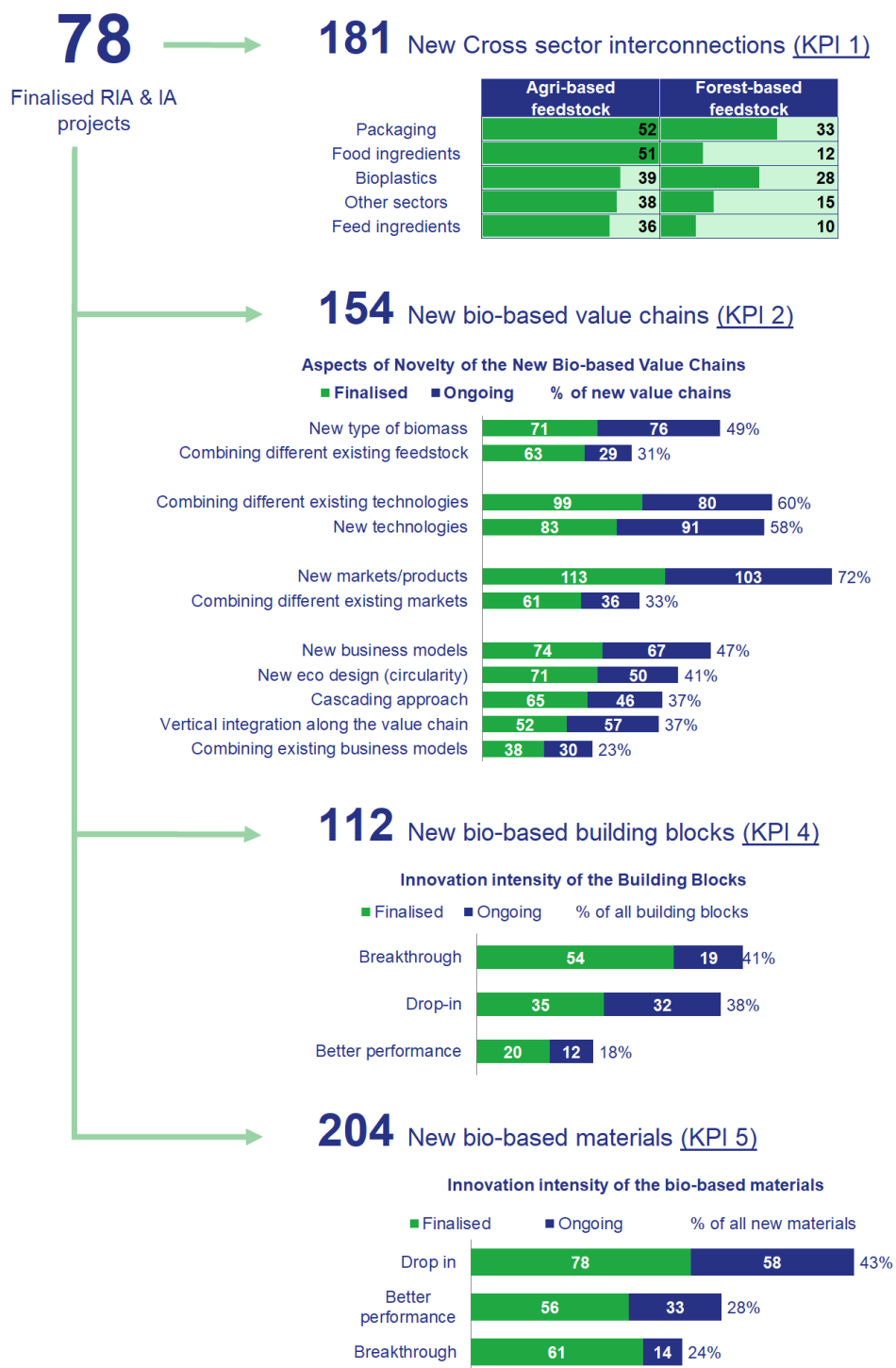


Figure 48 KPI 1: Top cross-sector interconnections (shaded in green) in BBI JU projects reported by completed and ongoing projects. KPI 2: Aspects of novelty in value chains reported by completed and ongoing projects. KPI 4: Innovation intensity of new bio-based building blocks reported by completed and ongoing projects. KPI 5: Innovation intensity of new bio-based materials reported by both completed and ongoing projects.

The newly developed bio-based products in BBI JU IA projects have different aspects of novelty, most notably showcasing that bio-based feedstock and processes can deliver in terms of environmental, economic and functional performance (Figure 49).

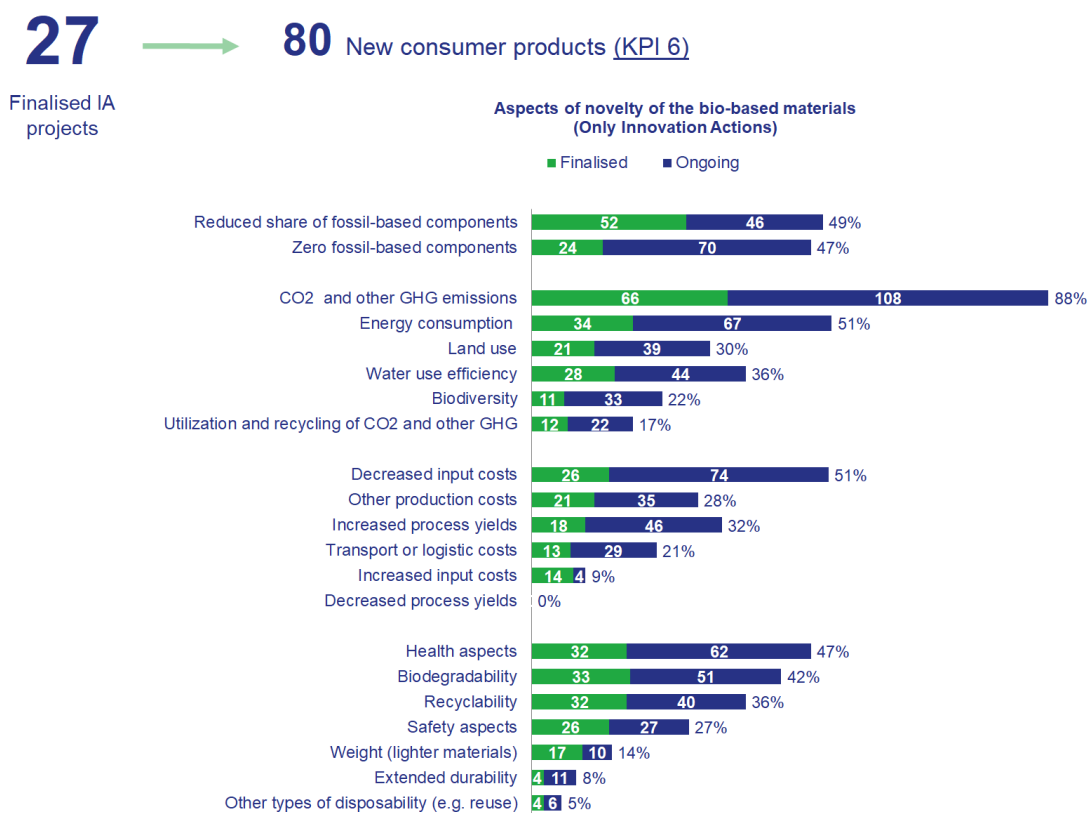


Figure 49 KPI 6: Main aspects of novelty in new bio-based products reported by both completed and ongoing BBI JU Innovation Action projects. KPI 8: Number of main technologies with reported increases in TRL of 1, 2, 3 or more levels in BBI JU RIA projects.

For RIA topics, significant increases in TRL can be observed, a sign that they are contributing towards closing technological gaps in value chains by testing and validating the innovative processing technologies. These earlier stage research projects set the basis for further upscaling, demonstration and integration to larger scale (industrial) facilities.

BBI JU projects' expected environmental and socio-economic impact

BBI JU projects report their expected environmental and socio-economic impact through the annual KPIs & Impacts survey described in the previous section. While there are no specific KPIs and targets for socio-economic and environmental impact, the questionnaire gathers quantitative and qualitative information on the various social, economic, and environmental impacts set out in the SIRA 2017, as well as the projects' contribution to the UN SDGs.

Figure 5151 highlights the positive contribution of many BBI JU projects to 1) including and supporting primary producers, 2) working in step with regions to sustainably source biomass, 3) creating jobs, and 4) investing in the developing and rolling out innovative technologies for the bio-based industries resulting in increased competitiveness for European companies and new markets.

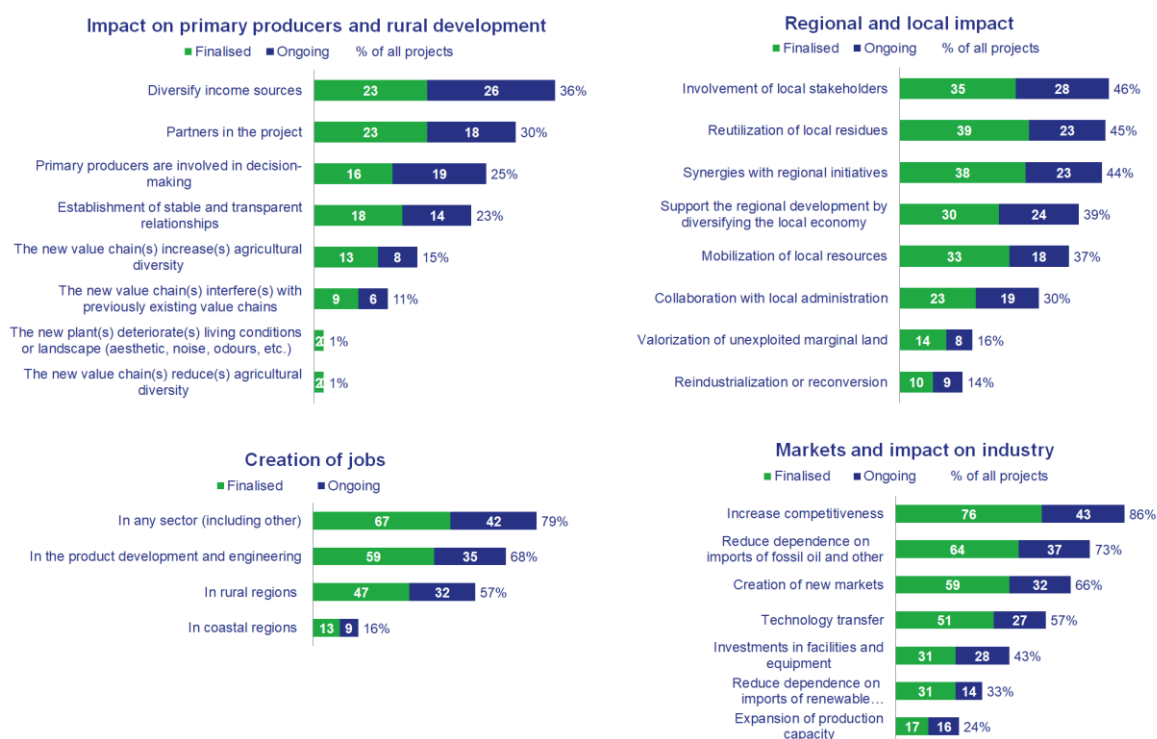


Figure 50 Socio-economic impacts of BBI JU projects (all actions) from their own reports of impact related to primary producers and rural development, regional and local impact, job creation, and markets and industry.

Decreasing the environmental impact of industrial processes and products is one of the core objectives of the BBI JU projects. In line with this ambition, a significant number of projects report positive contributions:

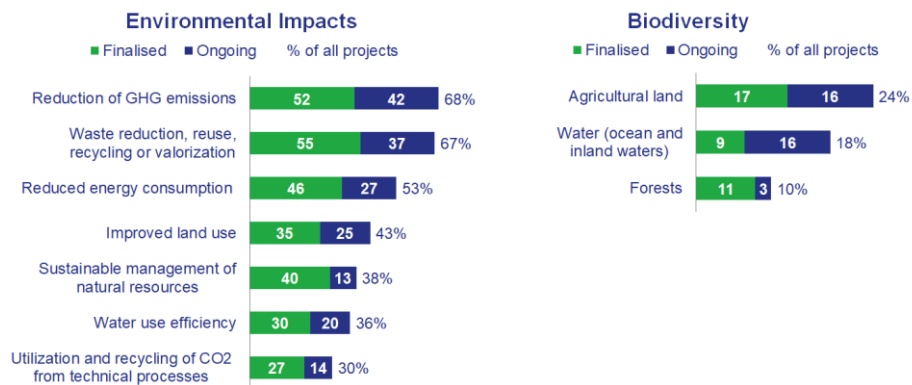


Figure 51 Environmental impacts of BBI JU projects (all actions) from their own reports on environmental impact and biodiversity.

In addition to environmental and socio-economic impact, BBI JU projects report that they are making a positive contribution to creating and transferring knowledge, raising awareness and understanding of the bio-based economy, increasing standardisation and improving regulation as well as developing safer processes and final products:

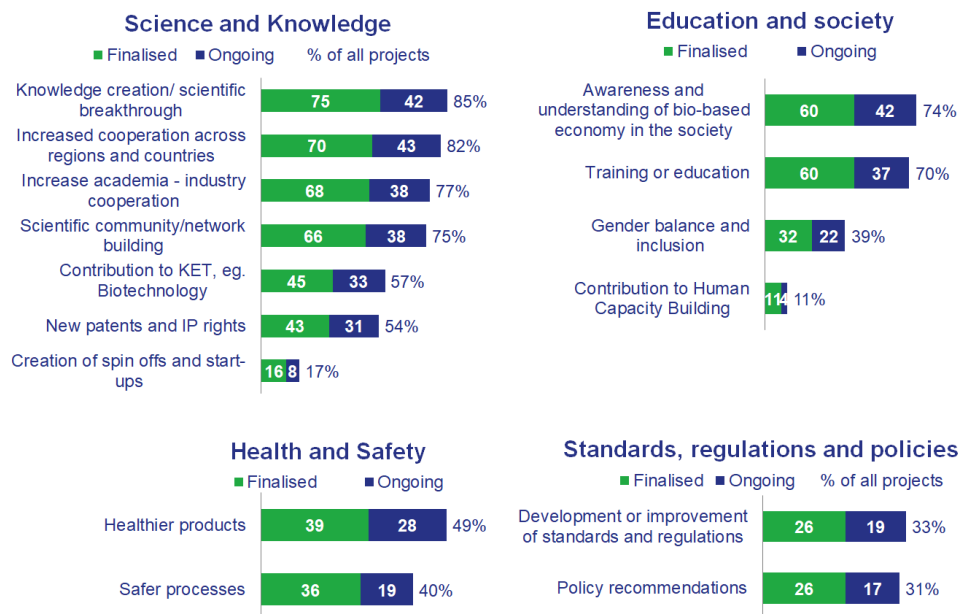


Figure 52 Additional impact in society from BBI JU projects (all actions) reporting on their own contribution to science and knowledge, education and society, health and safety, and standards, regulations and policies.

BBI JU project contributions to the United Nations Sustainable Development Goals

The objectives of the BBI JU projects are well aligned with global goals on sustainability. A significant number of projects report contributions to the United Nations Sustainable Development Goals, most notably SDG 12, SDG 13 and SDG 9:

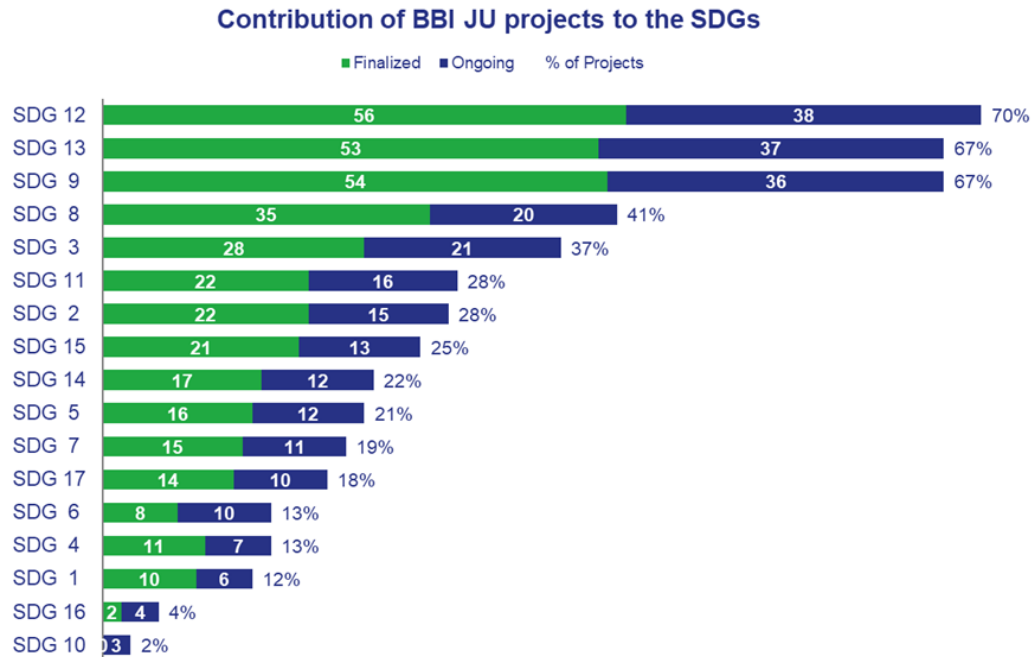


Figure 53 Contribution of BBI JU projects towards the different UN SDGs.

1.8. DISSEMINATION AND INFORMATION ABOUT PROJECT RESULTS

Based on the information reported by the project beneficiaries via the 'continuous reporting' IT module of the Funding & tender opportunities Portal, 73 new publications were reported in 2023.

By the end of 2023, BBI JU projects (Calls 2014-2020) had obtained or registered 43 patents, 1 registered design and 6 trademarks during the period 2015-2023.

A detailed overview of these publications as well as of the different forms of intellectual property reported is provided in Annex 5.3 and Annex 5.4. The two tables below provide a summary of the dissemination and communication activities of BBI JU projects (Calls in 2014-2020), and their cumulative increase in the past five years (since 2019).

Types of dissemination & communication activities	2019	2020	2021	2022	2023
Organisation of a conference	41	120	200	234	292
Organisation of a workshop	49	196	311	415	550
Press releases	1 209	407	635	686	790
Non-scientific, non-peer-reviewed publications	592	1 314	2 225	2 351	2 946
Exhibitions	119	258	306	361	419
Flyers	5 574	24 762	37 816	40 178	44 316
Training	82	171	276	336	419
Social media	59 566	15 187	23 172	27 872	34 597
Website	314	31 984	55 035	102 143	218 699
Communication campaigns (e.g., radio or TV)	51	181	296	360	557
Attending a conference	686	1 653	2 146	2 562	3 011
Attending a workshop	178	424	619	715	921
Taking part in events other than conferences or workshops	222	487	674	776	968
Video films	70	244	444	590	791
Pitch events	14	108	150	165	230
Trade fairs	80	189	254	271	340
Taking part in activities organised jointly with other H2020 projects	80	189	254	305	362
Other	189	554	59 782	1 979	4 057

Table 7 Number of examples of dissemination and communication activities reported by all CBE JU projects via the Funding & tender opportunities Portal (2019-2023; total/cumulative amounts). These figures are based solely on raw data reported by projects and outliers with later corrections, resulting from e.g., misinterpretations on how to fill in certain fields, were kept in the table.

	2019	2020	2021	2022	2023
Scientific community (higher education, research)	989 124	3 185 837	19 985 654	20 779 521	27 878 435
Industry	2 975 462	4 273 681	6 059 571	4 936 636	17 431 024
Civil society	4 548 619	10 015 569	38 598 871	34 102 215	34 220 046
General public	18 749 257	5 2201 77	225 888 130	193 009 146	216 132 249
Policymakers	108 457	557 980	309 671	289 518	388 381
Media	1 797 584	2. 037 192	2 388 378	1 997 842	2 142 036
Investors	51 425	371 216	107 710	107 693	185 781
Customers	5 757 952	787 993	528 179	564 753	656 218

Table 8 Estimated number of people reached, reported by all CBE JU projects via the Funding & tender opportunities Portal (2019-2023; total/cumulative amounts). These figures are based solely on raw data reported by projects and outliers with later corrections, resulting from e.g., misinterpretations on how to fill in certain fields, were kept in the table.

2. SUPPORT TO OPERATIONS

2.1. COMMUNICATION ACTIVITIES

The year's communication highlight was the **first CBE JU Stakeholder Forum (CBESF23)** on 6 and 7 December in Brussels. The event lived up to its promise of providing a platform to 400+ participants for thought-provoking discussions on the future of the European bio-based sector, showcasing cutting-edge technologies and inspiring actionable solutions. The event's report highlights the main conclusions and recommendations for the sector to develop successfully in the coming years.

The CBE JU's communication and stakeholder engagement strategy was also updated and endorsed by the Governing Board.

In addition, CBE JU's communication activities focussed on four main objectives:

- Promoting CBE JU funding opportunities.
- Promoting the achievements and impacts of CBE JU-funded projects, including the BBI JU legacy.
- Raising awareness about the CBE JU.
- Engaging with stakeholders.

2.1.1. Promoting CBE JU funding opportunities

In 2023, CBE JU promoted its two calls for project proposals, the [annual CBE JU call](#), and a call dedicated to promoting bio-based solutions and improved circularity in the European construction sector, in support of the New European Bauhaus Academy. The target was to reach the widest possible stakeholder community and recruit new applicants to the programme, especially from countries addressed in the CBE JU's widening participation strategy.

The **first in-person info day since 2019** dedicated to the CBE JU 2023 calls brought together over 300 potential applicants in Brussels, of which 65 % were newcomers to such events. 680 meetings took place on the CBE JU networking platform to discuss potential applications to the call for project proposals, 460 of them during the info day. The average participant satisfaction rate with various aspects of the event was 89 %, and 100 % of the survey respondents said they had received answers to their questions about the call during the event. An additional 1 000+ people followed the event online, with Poland in the top 5 of viewers and top 6 of in-person participants.

The CBE JU promoted the national info days in 13 countries in collaboration with local organisers, with the aim of attracting new applicants.

The CBE JU issued a total of nine missives about the launch, submission data, results and project details, covering different stages of the 2022, 2023 and 2024 calls.

2.1.2. Promoting the achievements and impacts of CBE JU-funded projects

With a strong portfolio of 160+ CBE JU-funded projects advancing the European circular bio-based economy, the CBE JU focussed in 2023 on showcasing their achievements and impact it has made via video clips, publications, campaigns and events:

- The CBE JU brought a **travelling exhibition of innovative bio-based solutions** stemming from CBE JU-funded projects to three European Commission buildings and the AGRI-FISH Council in Luxembourg. The exhibition attracted high interest from policymakers in both institutions and built greater awareness about actual bio-based solutions people can already use in their daily lives. The success of this exhibition led to a larger exhibition for the CBESF23, in collaboration with 30 CBE JU-funded projects.
- **A publication on CBE JU-funded projects**, with a focus on 14 flagship first-of-their-kind biorefineries built across Europe accompanied the exhibition.
- The CBE JU produced **factsheets about the partnership's investments in 35 European countries** to highlight the project achievements and impact at a national or regional level.
- The partnership also published and promoted **20 project achievement stories**:

Year	Stories published	Website views	LinkedIn views	Twitter views
2023	20	3 800	71 000	6 400
2022	13	3 600	42 000	8 900
<i>change</i>	+54 %	+6 %	+69 %	-28 %

Table 9 Statistics on the project achievement stories published in 2023.

- **A video** prepared for CBESF23 highlighted the contribution of the CBE JU-funded flagship projects to the EU's sustainable growth.
- The **CBE JU Photo competition** called upon CBE JU-funded projects to showcase their achievements as photos and promote them via their channels.
- Throughout 2023, the CBE JU closely followed EU policy developments and showcased the **partnership's contribution to the EU's sustainable growth**, e.g., in the context of the [State of the Union address](#).
- We ran **six digital campaigns** promoting the CBE JU results and achievements, with the launch of bio-based household cleaning products by the WASTE2FUNC's project attracting the highest visibility. A separate campaign introduced the new projects selected in 2022 call.
- The CBE JU presented its achievements and the impact it makes at **key bioeconomy events** such as the Swedish Presidency 's [conference on the circular bioeconomy](#), [EUBCE](#), [EFIB](#), [IFIB](#), [World Bio Markets](#) and [Ecomondo](#).
- Although **CBESF23** focused more on the future, the event's rich discussions were grounded in the successful examples of CBE JU-funded projects and their positive socio-economic and environmental impact. 92 % of the respondents to the event's satisfaction survey said they had learnt more about the CBE JU-funded projects at the forum.

2.1.3. Raising awareness about the CBE JU

In 2023, the CBE JU reported important administrative and governance updates:

- CBE JU Governing Board elects new Chair.
- CBE JU state representatives group elects new Chair.
- Launch of the CBE JU widening participation strategy.

To support the first two communication objectives, the CBE JU worked on raising awareness about the partnership among specific stakeholder groups, such as potential applicants, policy makers and important multipliers. The CBE JU attended over 50 events and played an active role in 45 of them. It also engaged with specialised media resulting in several publications about the partnership (e.g. the special report entitled 'The bioeconomy. What next for Europe?' in Euractiv).

As part of the CBE JU's support for the EU Contest for Young Scientists (EUCYS), we arranged for the [Bioeconomy prize winners to visit Brussels](#) where they met and discussed their research project with policy-makers from across the EU institutions (MEPs, members of the Commissioners' personal offices and EU officials) and representatives of the Member States. This was also a good opportunity for the CBE JU to speak to those at the meeting about the partnership's latest work.

The CBE JU's new presence on Facebook increased the partnership's visibility in some of the target countries for the widening participation strategy. Social media collaborations allowed the CBE JU to raise awareness in a pilot set of countries, which will serve as a steppingstone for 2024 communication work.

2.1.4. Engaging with stakeholders

CBESF23, the first CBE JU Stakeholder Forum on 6-7 December 2023 in Brussels, was the main stakeholder engagement event in 2023 and the biggest event the CBE JU has organised so far. 400+ participants and over 50 renowned speakers took part in discussions across 9 parallel and 2 plenary sessions, and 2 workshops. The forum's exhibition showcased 30 highly innovative bio-based solutions brought by CBE JU-funded projects.

The forum attracted participants from across a wide stakeholder community, and the CBE JU received very positive feedback about the event, its content and the networking opportunities. 99 % of respondents to the event's satisfaction survey found the event was well organised; 91 % thought the sessions were informative; 61 % contributed to the discussion on the European bio-based sector during the forum and 84 % found good networking opportunities. The CBE JU was also engaging with stakeholders from sectors and countries beyond the partnership's community at **50+ events** throughout the year and communicated around our CBE JU colleagues' participation on each occasion.

The CBE JU continued a successful **collaboration with its best ambassadors** – members of the Governing Board and advisory bodies, representatives of the founding partners, national contact points, project beneficiaries, specialised media and bioeconomy initiatives – on amplifying the partnership's communication efforts. All relevant stakeholders received ready-made communication material to distribute via their channels.

We also launched a **network of project communicators** with the aim of sharing best practice, boosting each other's communication efforts and collectively raising awareness of the important role the bio-based sector plays in a sustainable future for Europe.

Overview of digital campaigns in 2023

Campaign	LinkedIn: views per message	LinkedIn: engagement per message	Twitter: views per message	Newsletter: total opens	Website: article views
2022 call results	4 700	150	6 000	4 300	2 100
CBE JU Info Day 2023 registration	1 900	110	4 500	7 800	2 100
CBEbiorefineries	3 000	510	800	4 600	900
2023 call opening	8 000	430	14 000	8 100	2 500
Info Day 2023 coverage	2 700	290	600	n.a.	n.a.
WASTE2FUNC's ECOVER launch	19 200	660	500	n.a.	n.a.
New 2022 call projects (announcement)	6 900	400	4 300	3 900	1 100
#CBEimpact photo competition 2023	2 400	380	600	3 700	500
AAR 2022	5 000	120	5 600	3 400	400
NEBA call launch	2 000	100	800	n.a.	1 100
Country infographics launch	4 400	940	2 100	n.a.	300
New 2022 call projects (one by one)	1 900	130	400	n.a.	n.a.
Country infographics	2 900	350	500	n.a.	n.a.
2023 call submission results	4 200	210	500	6 600	1 600
CBESF23 registration launch	2 100	120	3 400	5 800	200
CBESF23 pre-event promotion	4 600	1 020	2 000	4 200	500
<i>CBESF23 sponsored content</i>	4 200	n.a.	n.a.	n.a.	n.a.
CBESF23 during event	2 700	1 160	500	n.a.	n.a.
CBESF23 post-event	1 500	100	200	n.a.	100
2024 call announcement	6 100	460	2 400	6 600	4 400
2023 campaign average	4 700	420	2 700	5 400	n.a.
2022 campaign average	2 900	300	800	4 600	n.a.
<i>Change</i>	+62 %	+40 %	+238 %	+17 %	n.a.

Table 10 Digital campaigns in 2023: statistics.

#CBEresearch: it is the hashtag the CBE JU uses on social media to publish the CBE JU-funded projects' scientific articles. Many of these articles are also included in the CBE JU newsletter.

Year	Messages	LinkedIn views	Twitter views
2023	29	66 000	8 500
2022	33	54 000	12 400
change	-12 %	+22 %	-31 %

Table 11 #CBEresearch statistics.

2.1.5. Boosting the communication channels and tools

Website

In 2023, the CBE JU improved its website with:

- An interactive [biorefinery map](#), showing CBE JU-funded demonstration and flagship biorefineries.
- Improved [project pages](#) now showing biorefinery locations on a map so that users can search a project by biorefinery location.
- New [media gallery](#) to improve the user experience.
- Improved user experience with a [listing page for achievement stories](#).
- New parts of the website: [documents](#), [publications](#) and [contact form](#).

	Visits	Page views	Actions per visit	Average session (in mins)	Bounce rate	New users	Downloaded documents
2023	124 900	261 800	2.57	02:37	64 %	56 %	19 188
2022 (CBE JU + BBI JU)	94 600	193 900	2.49	02:27	63 %	63 %	7 575
change	+32 %	+35 %	+3 %	+7 %	+2 %	-11 %	+153 %

Table 12 Website statistics in 2023.

CBE JU website traffic increased notably during 2023, reaching 124 900 visits and 261 000 page views. The main indicators about the user experience remain stable with a positive evolution, proving a solid interest in the content. The marked increase in document downloads is linked to the rising interest in consulting the call-related documents. April was the month with the highest traffic following the CBE JU Info Day 2023 and the 2023 call opening.

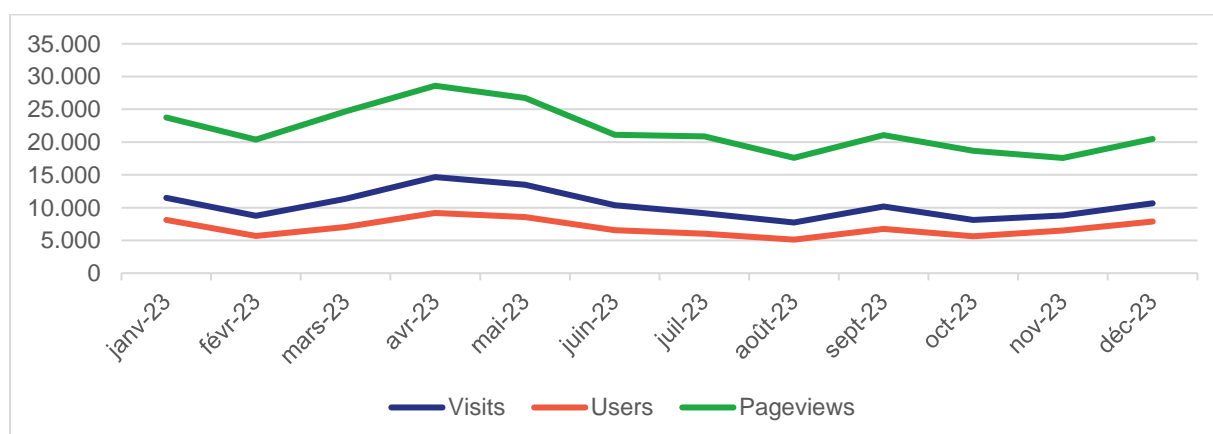


Figure 54 Website statistics in 2023.

80% of the visitors to the CBE JU website came from Europe. Belgium (1%), Spain (10 %), Italy 9%), the US (8%), Germany (7 %), France (6 %), the Netherlands (4%), Ireland (4%), the UK (3%) and Portugal (3%) were the top 10 sources of users. Finland, Poland, Greece, Sweden, Turkey, Austria and Norway rounded off the list of countries as the origin of more than 1 000 visitors (1.5%).

The most visited pages of the CBE JU website were:

- [Open call for proposals](#), with 30 000 views.
- [Vacancies](#), with 14 000 views.
- [CBE JU Info Day 2023](#), with 12 000 views.
- [Projects](#), with 11 000 views.
- [News article on the 2023 call topics](#), with 6 000 views.

Social media

LinkedIn

In 2023, CBE JU consolidated its presence on this professional-oriented channel where its followership increased by 35 %, reaching 16,700 followers.

	Views	Profile visits	Followers	Clicks	Reactions	Comments	Reposts	Engagement rate
2023	767 901	16 252	16 758	46 762	13 111	315	1 084	7.6 %
2022	439 755	12 389	12 392	20 420	8 472	132	745	6.2 %
change	+75 %	+31 %	+35 %	+129 %	+55 %	+139 %	+46 %	+23 %

Table 13 LinkedIn statistics

The general engagement indicators performed broke all-time CBE JU records on LinkedIn. Both output indicators (like views) and engagement indicators significantly grew compared to 2022. CBE JU carried out a sponsored promotion of the CBESF23 which accounts for 92,000 of the views.

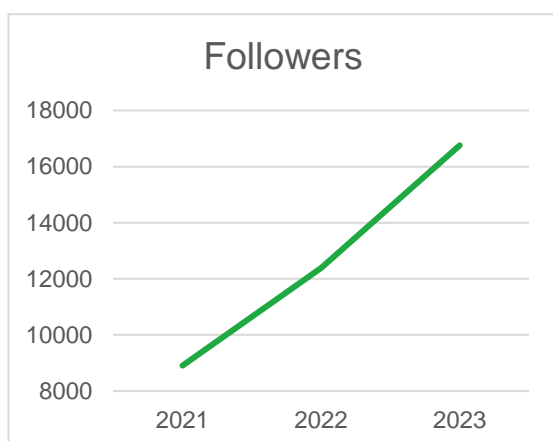


Figure 55 Number of LinkedIn followers.

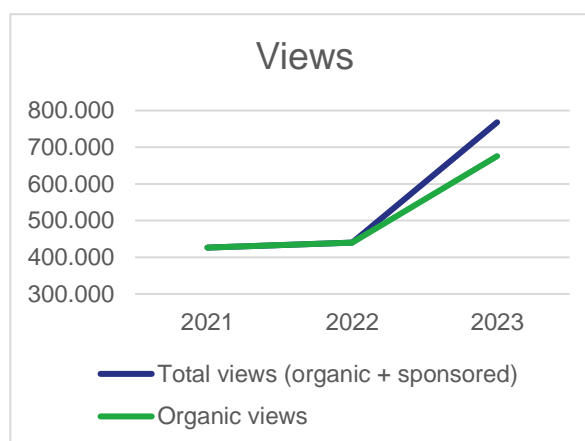


Figure 56 Number of views on LinkedIn.

5 % of the CBE JU's website visits originated from LinkedIn, establishing the platform as the main source of traffic after Google. The three most-viewed messages were [the promotion of the CBESF23 registration](#) (32 000 views), [CBESF23 topics](#) (26 000 views) and [SWEETWOODS flagship project video on sustainable asphalt](#) (21 000 views). Four messages registered more than 10 000 views, and 17 obtained more than 5 000 views.

X

Recent changes on the platform combined with technical issues and a steep user decrease have made it difficult to exploit X for corporate accounts like CBE JU's. Hence, X's reduced weight in CBE JU digital communications plan.

	Tweets	Views	Profile visits	Followers	Retweets	Likes	Clicks
2023	317	230 837	32 612	9 404	1 104	2 504	1 083
2022	470	427 524	116 410	8 883	1 899	4 140	1 226
change	-33 %	-46 %	-72 %	6 %	-42 %	-40 %	-12 %

Table 14 X statistics.

The most viewed message was the [opening of the CBE JU Call for proposals 2023](#) with 14 000 views.

Facebook

The CBE JU opened a [Facebook page](#) in November with the aim of reaching audiences in widening countries. A campaign to promote registrations for the CBESF23 generated 256 000 views and 2 000 clicks.

Newsletter

The CBE JU sent 15 newsletters to its community in 2023. The number of subscribers grew to 5 809 (+19.6 % on 2022). All engagement indicators remained high, with well-performing outreach indicators linked to the audience growth.

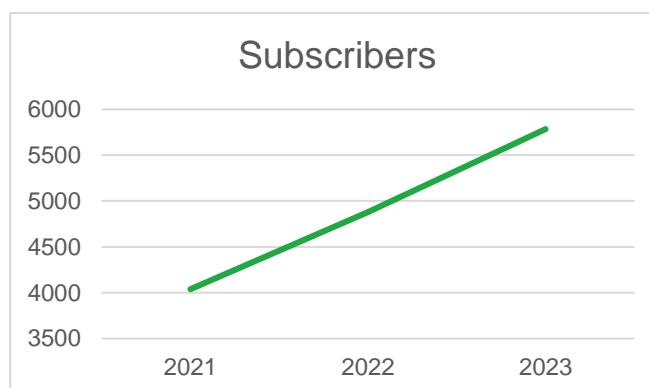


Figure 57 Newsletter subscribers.

The most successful issue was the [opening of the CBE JU 2023 call for proposals](#), reaching 8 100 total opens. The second most read issue was the [registration opening of the CBE JU Info Day 2023](#), reaching 7 800 total opens. These numbers show that recipients shared the information they received from CBE JU within their community.

	Open	Open rate %	Total opens	Clicks	Click rate %
2023 average	1,898	36.5 %	4,729	539	10.3 %
2022 average	1,709	38.2 %	4,808	467	10.6 %
change	+11 %	-4 %	-2 %	+15 %	-3 %

Table 15 Newsletter statistics.

Videos

Thumbnail	Title and views
	<p>WASTE2FUNC project's ECOVER bio-based cleaning products unboxing 13 600 views</p>
	<p>SUSBIND project's IKEA cupboard unboxing 4 200 views</p>
	<p>#CBEbiorefineries: advancing a competitive bioeconomy 4 000 views</p>
	<p>#CBESF23: What next for the European bio-based sector? 3 100 views</p>
	<p>#CBESF23 topics 12 500 views</p>
	<p>CBE JU: what we achieved in the bio-based sector Shown during the CBE JU Stakeholder Forum 2023</p>
	<p>CBE JU Stakeholder Forum 2023 recordings 1 000 views</p>
	<p>Circular greetings 960 views</p>

2.2. LEGAL AND FINANCIAL FRAMEWORK

No new procedures were adopted in 2023, and no amendments affecting CBE JU were made to the existing legal framework. The CBE JU continued to implement the Council Regulation establishing the joint undertaking (Council Regulation (EU) 2021/2085), while continuing to manage projects started by BBI JU under the H2020 programmes (Council Regulations (EU) 560/2014).

2.3. BUDGETARY AND FINANCIAL MANAGEMENT

2.3.1. Overview

2023 was the second year for which there was a combined budget for both the CBE JU and the BBI JU legacy. This will continue until the end of 2024 for the administrative part, and up to at least the end of 2027 for the operational part (final payments of the last ongoing BBI projects).

The Governing Board adopted the 2023 budget on 8 December 2022, the overall amount being kEUR 224 959 in commitment appropriations (CAs) and kEUR 136 226 in payment appropriations (PAs) (including the prior year's unused reactivated appropriations). The budget was amended in early 2023 to include an extra kEUR 1 624 in CAs, giving total CAs of kEUR 226 683 (of which kEUR 5 501 was for BBI and kEUR 221 182 for CBE projects) and total PAs of kEUR 136 232¹⁶ (of which kEUR 46 610 was for BBI and kEUR 89 622 for CBE projects).

The total amended C1 (fresh budget) without prior year (C2) reactivations, was kEUR 156 800 in CAs and kEUR 103 643 in PAs¹⁷.

The BBI JU budget included a relatively large surplus of unused budget from previous years (2020, 2021 and 2022): on the administrative side, kEUR 1 201 in CAs and kEUR 1 589 in PAs, and on the operational side kEUR 30 000 in PAs. These reactivated appropriations were consumed wherever possible in priority in line with the CBE's Financial Rules, Article 6(5). Consumption for admin funds was 88 % for CAs and 83 % for PAs, and 100 % of the operational PA funds used by year end. Any unused BBI C2 appropriations will be reactivated in the 2024 budget (via a budgetary amendment in early 2024). At the end of 2023, there was a total remaining surplus of BBI JU unused appropriations of kEUR 395 in administrative CAs and kEUR 1 046 in administrative PAs, with kEUR 769 in operational CAs and kEUR 4 867 in operational PAs.

On the CBE side there were also reactivated appropriations in 2023. This included kEUR 1 000 in administrative CAs and kEUR 1 000 in administrative PAs (of which hardly any were executed), with, kEUR 67 300 – 100 % execution – in operational CAs.

¹⁶ This amount is net of EUR 356,493 (relating to a change in EFTA rate for the CBE operational commitment appropriations) which should have been removed following a late amendment voted on December 2023. The correction was overlooked and will be rectified in 2024. It is immaterial and does not change the overall CA execution.

¹⁷ This amount is net of EUR 356,493 (relating to a change in EFTA rate for the CBE operational commitment appropriations) which should have been removed following a late amendment voted on December 2023. The correction was overlooked and will be rectified in 2024. It is immaterial and does not change the overall CA execution.

As, on the **administrative** side, the execution of the BBI JU legacy budget will be prioritised until the end of 2024, only a relatively small amount of the CBE JU admin budget was used in 2023. The total C1 administrative budget for the CBE JU was kEUR 1 646 in CAs and PAs. Of this amount, kEUR 595 – 36 % – was spent on CAs and kEUR 106 – 6 % – on PAs.

On the **operational** side, for CBE JU, the operational commitment appropriations available for the CBE 2023 call, including kEUR 66 300 (unused) from 2021, totalled kEUR 217 162 (this excludes kEUR 1 668 in the operational budget for the call's expert-evaluators). The amount committed for the call was kEUR 215 429 (99 %). There was therefore a remainder of kEUR 1 734 in unused CAs at the end of the year, which is expected to be reactivated in the calls of future years, in line with the CBE JU Financial Rules. EUR 1 million is already earmarked for the commitment, in early 2024, of the 2nd call of 2023 for the "NEBA" (see section on operational expenditure below).

The Governing Board took the decision at the end of 2023 to reactivate the following sums for the 2024 budget:

Administrative:

- CAs: kEUR 2 187 (BBI JU – kEUR 808 from 2021 and 2022, CBE JU – kEUR 979 from 2020 and also kEUR 400 from 2023)
- PA: kEUR 2 200 (BBI JU – kEUR 1 418 from 2021 and 2022, CBE JU – kEUR 382 from 2022 and also kEUR 400 from 2023)

Operational:

CAs: kEUR 68 683 in CAs (BBI JU – kEUR 23 147 from 2021, 2022 and 2023, CBE JU – kEUR 45 563 from 2022 and 2023)

PAs: kEUR 26 590 from BBU JU 2021 and 2022, and kEUR 529 from CBE 2022

In addition, an amendment was drawn up in early 2024 to add additional unused administrative reactivations from 2023. For the BBI JU, this was kEUR 640 in CAs (includes 2023 C8 RAL decommitted) and kEUR 1 046 in PAs, with a view to executing a maximum by the end of 2024.

2.3.2. Administrative expenditure

Total consumption of the administrative budget was 74 % in CAs and 56 % in PAs. For the BBI JU, for which the budget implementation continued to have priority over that of the CBE JU, the rates were 82 % in CAs and 88 % in PAs.

Title 1: Overall CA implementation of staff-related costs was 64 %. This was because only 3 % of the CBE's salaries budget of kEUR 1 531 was executed. For the BBI JU, total T1 execution was 95 %. On the BBI JU only side, salary costs (total budget EUR 2.7 million) showed a strong execution at 98 % and other staff costs somewhat less (kEUR 465) at 60 %. There were no installation/resettlement costs (budgeted at kEUR 60) and only 55 % of the training budget (kEUR 113) was used, probably because of continued use of on-line training courses. The overall PA execution in Title 1 was 57 %, of which 91 % was for BBI JU. The CBE JU total T1 budget of kEUR 1 919 was executed at only 1 %. Several of the SLA contractors (staff-related costs for 2023, such as training) will not be submitting their invoices until 2024.

Title 2: The 2023 infrastructure budget achieved overall CA implementation of 88 % in 2023. For BBI JU, the total was 90%, with very high implementation of between 94 % and 100 % of allocations used in all chapters apart from studies/consultancy (total kEUR 114 – 59 % execution), and external staff (total kEUR 387 – 63 % execution). The overall PA consumption in Title 2 was 54 %. For BBI JU this was 67 %. For CBE, execution was low for rental costs (total kEUR 320 –

0 % execution) and IT equipment costs (total kEUR 417 – 25 % execution). In addition, some very large contracts signed under Title 2 in 2023 (and with funds allocated from both BBI and CBE budget lines), notably for the Stakeholder Forum (December 2023) and the new IT KPI tool, still have to be paid in 2024.

2.3.3. Operational expenditure

Title 3: Following the first CBU JU call launched in mid-2022 for EUR 120 million, the first grant agreements were then signed in 2023. The 2023 call, for EUR 215.5 million, was launched in April 2023 and, following the evaluations of the proposals in November 2023, GAP should be completed by the end of May 2024. A separate call for the New European Bauhaus Academy (for EUR 1 million), opened towards the end of 2023 and will be committed (from 2023 reactivated operational CA) in early 2024.

In respect of the PA relating to BBI JU projects, the Programme Office achieved an overall 95% implementation of the 2023 budget, with payments of interim and final periodic reports for grants from the previous BBI JU calls (total kEUR 39 013 out of total Title 3 budget kEUR 41 115). This represented a large improvement compared to 2022 (71% execution).

The prefinancing payments for CBE Call 2022 reached 95% (plus a lower execution of 39% for the kEUR 1 668 expert-evaluators' budget managed by the REA on CBEs' behalf – due to an over-estimation by CBE JU).

Regarding the payment of the BBI projects' periodic and final reports, the CBE JU Programme Office dealt with 45 claims for a total contribution of over EUR 119 million which led to 45 net payments (including those with 100% prefinancing clearing) in 2023 for a total of EUR 39 million. All payments were executed on time.

2.3.4. KPI performance

The financial KPIs showed a strong performance in 2023: all interim and final cost claims validated in 2023 (45) were paid on time with an average Time To Pay of 61 days for interim and 63 for final. The average TTP in 2023 was 68,2 days. The Time To Pay of administrative payments showed that out of a total of 571 payments only 27 (5%) were late. The average TTP was 15 days (same as for 2022), late payments included.

STATEMENT OF REVENUE

Statement of revenue: Heading	Voted budget 2023		Amended budget 2023	
	Commitment appropriations (EUR)	Payment appropriations (EUR)	Commitment appropriations (EUR)	Payment appropriations (in EUR)
EU contribution excl. EFTA	149,712,288	98,477,488	149,712,288	98,131,007
of which administrative BBI	1,912,288	1,912,288	1,912,288	1,912,288
of which administrative CBE	800,000	800,000	800,000	800,000
of which operational BBI	0	10,885,723	0	10,885,723
of which operational CBE (no EFTA)	0	0	0	0
of which operational CBE	147,000,000	84,879,477	147,000,000	84,532,996
Third countries contribution including EFTA	3,691,009	2,386,322	4,311,769	2,736,162
of which administrative (BBI)	40,349	40,349	40,349	40,349
of which administrative (CBE)	19,760	19,760	23,120	23,120
of which operational (BBI)	0	229,689	0	229,689

of which operational (CBE)	3,630,900	2,096,524	4,248,300	2,443,004
Industry financial contribution	2,772,397	2,772,397	2,775,757	2,775,757
of which administrative (BBI)	1,952,637	1,952,637	1,952,637	1,952,637
of which administrative (CBE)	819,760	819,760	823,120	823,120
of which operational	0	0	0	0
Other revenue (BBI)	0	0	782,911	782,911
Of which administrative	0	0	18,189	18,189
Of which operational (BBI)	0	0	764,722	764,722
SUB-TOTAL REVENUES	156,175,694	103,636,207	157,582,725	103,642,926
Reactivation of unused appropriations from administrative expenditure	2,201,480	2,589,376	2,201,480	2,589,376
Of which from 2019 (BBI)	0	0	0	0
Of which from 2020 (BBI)	38,010	450,998	38,010	446,848
Of which from 2021 (BBI)	1,013,470	1,083,463	1,013,470	813,694
Of which from 2022 (BBI)	150,000	54,915	150,000	328,834
Of which from 2022 (CBE)	1,000,000	1,000,000	1,000,000	1,000,000
Reactivation of unused appropriations from operational expenditure	66,581,955	30,000,000	67,581,955	30,000,000
Of which from 2018 (voted)	0	0	0	0

Of which from 2019 (voted)	0	0	0	0
Of which from 2020 (voted) (BBI)	281,955	0	281,955	0
Of which from 2021 (voted) (CBE)	66,300,000	0	66,300,000	0
Of which from 2021 (voted) (BBI)	0	30,000,000	0	30,000,000
Of which from 2022 (voted) (CBE)	0	0	1,000,000	0
SUB-TOTAL reactivations	68,783,435	32,589,376	69,783,435	32,589,376
TOTAL	224,959,129	136,225,583	227,366,161	137,371,707

STATEMENT OF EXPENDITURE

The expenditure budget is complicated by the fact that there is a split between 1) BBI JU and CBE JU budgets and 2) C1 (fresh budget), C2 (prior years' unused budget) with a small amount of C4 (ad-hoc revenue arising during the year). The appropriations are prioritised as follows: i) BBI JU reactivated prior years' administrative appropriations, which must be fully executed by the end of 2024, ii) BBI C1 appropriations, iii) CBE prior years' reactivated appropriations and then iv) C1 fresh CBE JU budget. C4 credits should also be executed within the same year, if possible. For the administrative budget, the actual budget needs, which were voted on by budget chapter, are in the first column, and the reactivated appropriations (C2) are shown separately. The second column reflects the fact that most of the uploaded budget will actually be composed largely of BBI JU C2 reactivations, so the C1 budget shown is largely composed of the CBE JU budget which was only partially executed. The third column shows the total combined C1 and C2 (and C4) budget for both entities, and the execution of this total. Please refer to the additional table under the expenditure statements to see the split of execution between BBI JU and CBE JU.

Title	Statement of Expenditure (Commitment appropriations)	Amended budget 2023 (voted)	Amended voted budget 2023 per budget accounts	Amended budget 2023 after transfers	Total C1+C2+C4 budget at chapter level	Executed budget 2023 CA (in €)	%	Carry over to 2024	Available for future use (N+3 rule)
1	STAFF EXPENDITURE	3,231,044	3,231,044	3,131,044	4,630,311	2,978,293	64%	1,652,018	90,675
11	Staff in active employment	2,791,144	3,182,555	3,076,055	4,165,722	2,676,520	64%	1,489,202	30,810
12	Staff recruitment / Miscellaneous expenditure	76,000	33,443	33,443	76,000	16,000	21%	60,000	15,406
13	Mission and duty travels	60,000	2,497	8,997	66,400	50,073	75%	16,327	5,000
14	Other staff costs (socio-medical structure)	293,900	12,549	12,549	312,189	225,700	72%	86,489	35,875
15	Entertainment and representation expenses	10,000	0	0	10,000	10,000	100%	0	3,584
2	OTHER ADMINISTRATIVE EXPENDITURE	2,320,470	2,320,470	2,320,470	3,040,872	2,669,358	88%	371,514	1,509,693
20	Rental of buildings and associated costs	408,628	667,574	141,541	498,037	360,601	72%	137,436	73
21	Administrative information technology	407,719	407,720	725,452	741,998	741,998	100%	0	594,741

22	Movable property and associated costs	4,000	0	0	0	0	0%	29	0
23	Current administrative expenditure	33,000	18,000	9,950	14,950	14,921	100%	0	4,569
24	Telecommunications and postal charges	24,000	0	0	4,000	4,000	100%	0	2,386
25	Expenditure on formal meetings	78,400	78,400	45,000	45,000	45,000	100%	0	18,333
26	External communication, information, publicity	664,000	448,053	721,527	954,928	940,523	98%	14,405	714,963
27	Service contracts	450,723	450,723	427,000	531,959	312,315	59%	219,644	78,250
28	Experts' contracts and evaluations	0	0	0	0	0	0%	0	0
29	Expert reviewers	250,000	250,000	250,000	250,000	250,000	100%	0	96,378
	REACTIVATIONS OF PRIOR YEAR UNUSED ADMINISTRATIVE BUDGET	2,201,480	2,201,480	2,201,480	0	0	0%	0	0
	of which from 2019 (BBI)		0	0	0	0	0%	0	0
	of which from 2020 (BBI)(included at chapter level)	38,010	38,010	38,010	0	0	0%	0	0
	of which from 2021 (BBI)(included at chapter level)	1,013,470	1,013,470	1,013,470	0	0	0%	0	0
	of which from 2022 (BBI)(included at chapter level)	150,000	150,000	150,000	0	0	0%	0	0
	of which from 2022 (CBE)(included at chapter level)	387,896	387,896	387,896	0	0	0%	0	0
	of which from 2022 (CBE)	612,104	612,104	612,104	0	0	0%	0	0

	OTHER REVENUE (BBI)	0	0	18,189	0	0	0%	0	0
3	OPERATIONAL EXPENDITURE	151,248,300	151,248,300	151,248,300	219,594,977	216,168,371	98%	3,526,606	304,099,003
30	Previous years' calls	0	0	0	0	0	0	764,722	12,180,730
31	Current year call BBI	0	0	100,000	100,000	96,000	96%	4,335	39,704,603
31	Current year's call (s) CBE	149,580,517	149,580,117	149,580,517	217,262,472	215,524,370	99%	1,738,101	251,684,495
32	Evaluators' contract CBE	1,667,783	1,667,783	1,667,783	1,667,783	644,000	39%	1,023,783	529,175
	REACTIVATIONS OF PRIOR YEAR UNUSED OPERATIONAL BUDGET	67,581,955	67,581,955	67,581,955	0	0	0%	0	0
	of which from 2019	0	0	0	0	0	0%	0	0
	of which from 2020 (BBI)	281,955	281,955	281,955	0	0	0%	0	0
	of which from 2021 (BBI)		0	0	0	0	0%	0	0
	of which from 2021 (CBE)	66,300,000	66,300,000	66,300,000	0	0	0%	0	0
	of which from 2022 (CBE)	1,000,000	1,000,000	1,000,000	0	0	0%	0	0
	SUB-TOTAL REACTIVATIONS	69,783,435	69,783,435	69,783,435	0	0	0%	0	0
	OTHER REVENUE (BBI)	0	0	764,722	0	0	0%	0	0
	TOTAL EXPENDITURE	226,583,249	226,583,249	227,366,161	227,366,161	221,816,021	98%	5,550,138	305,699,373

Statement of Expenditure (Payment appropriations)		Amended budget 2023 (voted)	Amended voted budget 2023 per budget accounts	Amended budget 2023 after transfers	Total C1+C2+C4 budget at chapter level	Executed budget 2023 CA (in €)	%	Available for future use (N+3 rule)
1	STAFF EXPENDITURE	3,231,044	3,231,044	3,231,044	5,118,208	2,938,469	57%	2,179,739
11	Staff in active employment	2,791,144	3,038,913	3,032,413	4,653,619	2,658,710	57%	1,994,909
12	Staff recruitment / Miscellaneous expenditure	76,000	0	0	76,000	594	1%	75,406
13	Mission and duty travels	60,000	0	6,500	66,400	46,894	71%	19,506
14	Other staff costs (socio-medical structure)	293,900	192,131	192,131	312,189	225,834	72%	86,355
15	Entertainment and representation expenses	10,000	0	0	10,000	6,437	64%	3,563
2	OTHER ADMINISTRATIVE EXPENDITURE	2,320,470	2,320,470	2,320,470	3,040,871	1,642,786	54%	1,398,086
20	Rental of buildings and associated costs	408,628	1,080,756	682,374	681,053	360,528	53%	320,525
21	Administrative information technology)	407,719	282,065	624,566	789,522	371,480	47%	418,042
22	Movable property and associated costs	4,000	0	0	4,000	0	0%	4,000
23	Current administrative expenditure	33,000	18,000	17,805	21,155	18,819	85%	3,336
24	Telecommunications and postal charges	24,000	0	0	2,344	2,010	86%	0
25	Expenditure on formal meetings	78,400	78,400	55,000	55,000	26,667	48%	28,333
26	External communication, information, publicity	664,000	210,937	292,411	721,183	340,117	47%	381,066
27	Service contracts	450,723	400,312	400,312	515,613	291,798	57%	223,815
28	Experts' contracts and evaluations	0	0	0	0	0	0%	0
29	Expert reviewers	250,000	250,000	250,000	250,000	231,367	93%	18,633
	REACTIVATIONS OF PRIOR YEAR UNUSED ADMINISTRATIVE BUDGET	2,589,376	2,589,376	2,589,376	0	0	0%	0
	of which from 2019 (BBI)	0	0	0	0	0	0%	0
	of which from 2020 (BBI) (included at chapter level)	446,848	446,848	446,848	0	0	0%	0

	of which from 2021 (BBI) (included at chapter level)	813,694	813,694	813,694	0	0	0%	0
	of which from 2022 (BBI) (included at chapter level)	328,834	328,834	328,834	0	0	0%	0
	of which from 2022 (CBE) (included at chapter level)	0	0	0	0	0	0%	0
	of which from 2022 (CBE)	1,000,000	1,000,000	1,000,000	0	0	0%	0
	OTHER REVENUE (BBI)	0	0	18,189				
3	OPERATIONAL EXPENDITURE	98,091,413	98,091,413	98,447,906	129,212,628	119,128,830	92%	9,976,030
30	Previous years' calls CBE	85,308,217	85,308,217	0	0	0	0%	0
30	Previous years' calls BBI	11,115,413	11,115,413	7,000,000	24,146,008	20,195,541	84%	3,951,467
31	Current year's call CBE	0	0	83,664,710	83,664,710	79,472,177	95%	4,192,533
31	Current year call BBI	0	0	6,115,413	19,734,127	18,818,112	95%	916,015
32	Evaluators' contract CBE	1,667,783	1,667,783	1,667,783	1,667,783	644,000	39%	1,023,783
	REACTIVATIONS OF PRIOR YEAR UNUSED OPERATIONAL BUDGET	30,000,000	30,000,000	30,000,000	0	0	0%	0
	of which from 2019	0	0	0	0	0	0%	0
	of which from 2020	0	0	0	0	0	0%	0
	of which from 2021 (BBI)	30,000,000	30,000,000	30,000,000	0	0	0%	0
	of which from 2021 (CBE)	0	0	0	0	0	0%	0
	of which from 2022 (CBE)	0	0	0	0	0	0%	0
	SUB-TOTAL REACTIVATIONS	32,589,376	32,589,376	32,589,376	0	0	0%	0
	OTHER REVENUE (BBI)	0	0	764,722	0	0	0%	0
	TOTAL EXPENDITURE	136,232,302	136,232,302	137,015,214	137,015,214	123,710,085	90%	13,661,623

Budget implementation split between BBI JU and CBE JU

Fund source	Commitment appropriations kEUR						
	C1	C2	C4	Transfers	Total	Execution	%
Title 1 BBI	2,279	902	18	-100	3,099	2,936	95%
Title 1 CBE	919	612	0	0	1,531	42	3%
Total	3,198	1,514	18	-100	4,630	2,978	64%
Title 2 BBI	1,720	600	0	27	2,347	2,116	90%
Title 2 CBE	720	0	0	-27	693	553	80%
Total	2,440	600	0	0	3,040	2,669	88%
T1+T2 BBI	3,999	1,502	18	-73	5,446	5,052	93%
T1+T2 CBE	1,639	612	0	-27	2,224	595	27%
Total	5,638	2,114	18	-100	7,670	5,647	74%
Title 3 BBI	0	0	765	100	865	96	11%
Title 3 CBE	151,248	67,582	0	0	218,830	216,073	99%
Total	151,248	67,582	765	100	219,695	216,169	98%
TOTALS	156,886	69,696	783	0	227,365	221,816	98%
BBI	3,999	1,502	783	0	6,311	5,148	82%
CBE	152,887	68,194	0	0	221,054	216,668	98%
C1+C2 only (per voted budget)					226,583	221,816	98%

Fund source	Payment appropriations kEUR							
	C1	AMD CBE to regularise	C2	C4	Transfers	Total	Execution	%
Title 1 BBI	2,328	0	853	18	0	3,199	2,916	91%
Title 1 CBE	919	0	1,000	0	0	1,919	22	1%
Total	3,247	0	1,853	18	0	5,118	2,938	57%
Title 2 BBI	1,584	0	709	0	7	2,300	1,537	67%
Title 2 CBE	721	0	27	0	-7	741	106	14%
Total	2,305	0	736	0	0	3,041	1,643	54%
T1+T2 BBI	3,912	0	1,562	18	7	5,499	4,453	81%
T1+T2 CBE	1,640	0	1,027	0	-7	2,660	128	5%
Total	5,552	0	2,589	18	0	8,159	4,581	56%
Title 3 BBI	13,115	0	30,000	765	0	43,880	39,013	89%
Title 3 CBE	85,333	-357	0	0	0	84,976	80,116	94%
Total	98,448	0	30,000	765	0	128,856	119,129	92%
TOTALS	104,000	-357	32,589	783	0	137,015	123,710	90%
BBI	17,027	0	31,424	783	0	49,234	43,466	88%
CBE	86,973	-357	1,165	0	0	87,781	80,244	91%
C1+C2 only (per voted budget)						136,232	123,710	91%

2.4. FINANCIAL AND IN-KIND CONTRIBUTIONS FROM MEMBERS OTHER THAN THE UNION

The SBA of the Joint Undertakings¹⁸ operating under Horizon Europe – including the CBE JU – entered into force on 30 November 2021, setting new targets on the financial contributions to be provided under the new Horizon Europe programme by the two members of the JU. The members of the JU are the Bio-based Industries Consortium (BIC) and the European Commission, the latter representing the European Union in the partnership.

In this section, the CBE JU reports on the progress of the contributions by the BIC constituent or affiliated entities to the operational expenditure and to the additional activities associated with the CBE initiative, both under the Horizon Europe and the Horizon 2020 framework programmes.

2.4.1. Contributions under Horizon Europe

Under the Horizon Europe framework programme, BIC is expected to arrange for their constituent or affiliated entities (from now on referred as BIC members) to make a total contribution to the CBE JU initiative of at least EUR 1 billion, including up to EUR 23 5 million for administrative costs by 2031 (Art. 50 of the SBA).

The remaining amount of EUR 976.5 million shall be covered by in-kind contributions from the BIC to operational activities (IKOP) or additional activities (IKAA) that are closely related to the implementation of CBE JU projects.

The common background conditions to be considered for both types of contributions under this framework are that:

- the first CBE JU call for proposal (Call 2022) closed in May 2023 and the last call for proposals will open by 31 December 2027 at the latest¹⁹, with the last batch of grant arrangements signed in 2028.

¹⁸ Council regulation 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe.

¹⁹ This deadline might be extended to 31 December 2028 duly justified cases related to availability of remaining budget stemming from the Horizon Europe MFF 2021-2027.

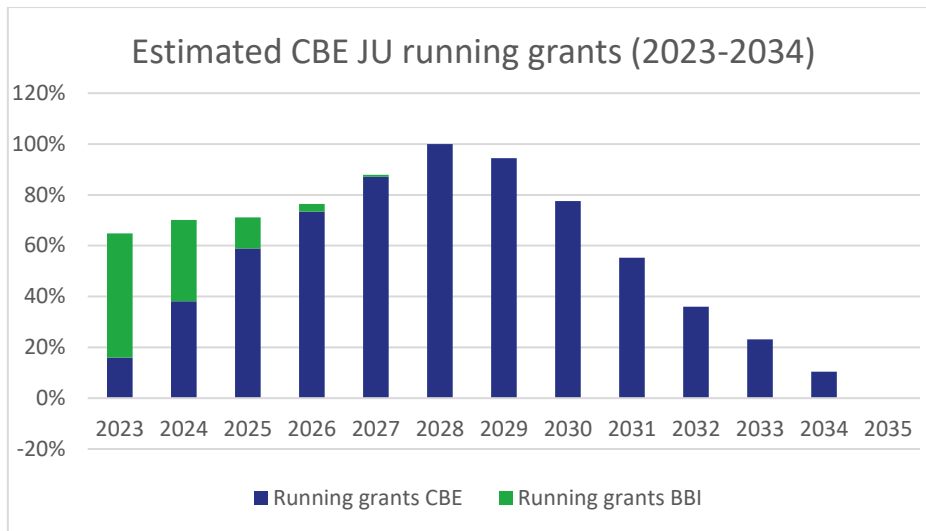


Figure 58 Estimated change to CBE JU running grants (2023-2034).

In-kind contributions to operational activities (IKOP)

In accordance with Article 2.8. of the SBA, the IKOP is defined as the difference between eligible project costs incurred by BIC constituent or affiliated entities, international organisations, or contributing partners in implementing the projects and the contribution from the CBE JU to these costs.

An estimation of the IKOP to be provided by BIC members is made at the closure of each CBE call for proposals. It has to be taken into account that the CBE JU calls conditions, and the BIC members' participation, have a direct impact on the resulting IKOP.

The continuous monitoring and yearly reporting of the CBE IKOP is based on the most up-to-date data available in the corporate e-Grants management tools up to the conclusion of the projects.

The IKOP reporting is measured in different moments:

- **An initial cumulative estimation of IKOP** is established at the time of the signature of the grants agreements.
- On the basis of updated data made available in e-Grants, every year, CBE JU calculates **the IKOP already incurred by BIC members in projects but not yet certified** (amounts also disclosed among liabilities in Annex 5.10 CBE JU certified accounts).
- At the end of projects or as a result of ex-post audit controls, CBE JU calculates **the cumulative values of IKOP contributions certified by BIC members** (amounts also disclosed among net assets in Annex 5.10 CBE JU certified accounts).

On the basis of the above information, CBE JU calculates the implementation ratio on these types of contributions. By 2023, with only one call for proposals implemented (21 projects launched in the second half of 2023), the following has been reported:

	Call 2022	Implementation of estimated IKOP
Estimation of IKOP	€25 137 769	
IKOP already incurred, not yet certified	€3 708 592	15 %
IKOP certified	€0	0 %
2023 result	€3 708 592	15 %

Table 16 Actual values of IKOP.

In-kind contributions to additional activities (IKAA)

In accordance with Article 2.10, and in combination with Article 51, of the SBA, the IKAA contributions made by BIC members consist of the costs incurred by them in implementing additional activities as defined in Article 2.9 of the SBA less any contribution to those costs received from the EU.

Additional activities are planned and included in a dedicated annex to the work programmes of CBE JU. They contribute to its objectives and are directly linked to the uptake of results from the project portfolio managed by CBE JU, thus including the projects financed under the BBI JU mandate.

These additional activities are directly linked to projects and activities of the CBE JU, specifically:

- a) Investments in new facilities demonstrating a new value chain, including investments in durable equipment, tools and accompanying infrastructure, in particular related to regional deployment and its sustainability verification.
- b) Investments in a new innovative and sustainable production plant or flagship.
- c) Investments in new research and innovation and justified infrastructure, including facilities, tools, durable equipment or pilot plants (research centres).
- d) Standardisation activities.
- e) Communication, dissemination and awareness-raising activities.

The investments directly linked to projects are in particular:

- a) Non-eligible investments needed for the implementation of a CBE JU project during the duration of that project.
- b) Investment made in parallel with a CBE JU project, complementing the results of the project and bringing it to a higher TRL.
- c) Investments needed for the deployment of a CBE JU project's results following the closure of the project until the winding up of the CBE JU. In justified cases, the investment related to the deployment of results of projects from the preceding initiative (BBI JU) may be taken into account.

As the IKAA is directly linked to the project portfolio of CBE JU, IKAA planning will change as the number of projects changes after each CBE JU call.

BIC members should provide updated information for IKAA reporting by 31 May each year, in line with the requirements of Article 11(2) of the SBA.

The design and implementation of the planning and reporting system will rely on corporate IT tools that the European Commission was still setting up at the end of 2023. The CBE JU autonomously collected preliminary information for the CBE IKAA plan 2023-2031, as estimated by CBE JU BIC

members at the start of the JU's first projects under Horizon Europe and the Governing Board adopted this plan by amending AWP 2023²⁰.

The IKAA reporting is measured at different points:

- **A cumulative estimation of IKAA** is included in the IKAA plans approved by the CBE JU Governing Board in the AWP.
- On the basis of data made available in the corporate IKAA IT tool, the CBE JU calculates the **IKAA already incurred by BIC members but not yet certified**.
- **Cumulative values of IKAA certified by BIC members.**

On the basis of the above information, the CBE JU calculates **the implementation ratio** on these types of contributions. By 2023, with only one cycle of IKAA planning implemented (out of 6) the following result is reported:

	AWP 2023 2023-2031	Implementation of estimated IKAA
IKAA estimation	€388 084 406	
IKAA already incurred, not yet certified	€61 539 083	16 %
IKAA certified	€0	0 %
2023 result	€61 539 083	16 %

Table 17 Actual values of IKAA values.

The IKAA report for 2023 in Annex 9 provides more details on the additional activities CBE BIC members plan to undertake.

Overall industry contribution to the CBE JU initiative

The following table consolidates the actual values of contributions for 2023. As previously stated, these values are linked to a small quota of the expected portfolio of projects, which only started in the second half of 2023.

Consolidated contributions from CBE BIC members in 2023	
Nature	Amount (in €)
Financial contributions (FCs)	€1 655 223
In-Kind to Operational Activities (IKOP) incurred, not yet certified	€3 708 592
In-Kind to Additional Activities (IKAA) incurred, not yet certified	€61 539 083
TOTAL all contributions reported, incurred, not yet certified	€66 902 898

Table 18 Consolidated contributions from CBE JU BIC members in 2023.

²⁰ The detailed multi-annual planning schedule has been annexed to the CBE JU AWP 2023 by GB decision 8-23 because some IKAA was estimated by CBE JU BIC members to start as early as 2023.

2.4.2. Contributions under Horizon 2020

This section will address the financial contributions to the BBI JU by members other than the Union or its constituent entities (from now on referred to in this report as BBI JU BIC members), in line with the requirements of the [Council Regulation establishing the BBI JU](#), since succeeded by the CBE JU.

According to the funding regulations of the BBI JU, by the end of the 2014-2024 JU mandate, the contributions by BBI BIC members shall be:

- At least EUR 182.5 million as financial contributions to operational costs.
- In-kind contribution to operational costs to be made by implementing BBI JU projects (BBI IKOP).
- At least EUR 1.755 billion as in-kind contributions to additional activities (IKAA)²¹.
- At least EUR 2.73 billion (including financial contributions to administrative costs).

Financial contribution to operational activities

In 2018, the European Commission reduced the EU contribution to operational commitments from EUR 975 million to EUR 835 million to compensate a forecasted shortcoming of contributions to operational costs by BBI BIC member of EUR 179 million. The reduction made by the European Commission was grounded on Art. 4(5) of the funding regulation of the JU and ended the expectation for the BBI JU BIC member to fully achieve the target on financial contributions to operational costs.

At the end of 2018, the financial contribution paid by BIC and/or its constituent entities as direct contributions to the BBI JU operational budget amounted to a total of EUR 3 250 000. This amount is not expected to change by 2024 and in its Annual Report for 2019, the European Court of Auditors (ECA) recommended that *'Where a JU founding regulation requests operational financial contributions from the JU's private members, it is very important that it also provides for an appropriate legal framework that ensures that the required financial contribution amount will be achieved by the end of the programme.'*²²

In-kind contribution to operational costs (BBI IKOP)

In accordance with Article 12.3(c) of the BBI funding regulations, the BBI JU IKOP is the difference between the certified project costs and the accepted EU contribution for the BBI JU BIC members that signed grant agreements with BBI JU.

There is no specific target for the BBI IKOP in the BBI JU founding regulations. Indicative targets were formulated in the BBI JU Annual Work Programmes. These targets were indicative because

²¹ Additional activities are outside the BBI JU's work plan for contributing to the objectives of the BBI JU initiative.

²² [Annual report on the EU Joint Undertakings for the financial year 2019](#), page 33.

the BBI JU had been running calls for proposals that were fully open and none of the successful beneficiaries was obliged to join the BIC consortium.

BBI JU IKOP can be categorised at three different levels in terms of the status of the related project costs: (1) expected/committed in signed grant agreements; (2) estimated/reported by BIC members on an annual basis²³; (3) certified, mostly at the end of projects.

1. Estimated IKOP in signed grant agreements

After the last BBI JU call in 2021, the consolidated value of IKOP committed in signed grants was of EUR 263.3 million and was 32 % of the total EU contribution committed in grants (EUR 822.1 million).

The ratio of BBI JU IKOP committed by BIC members in proportion to the indicative targets provided in AWP's decreased significantly in the years where increased numbers of non-BIC members applied for grants at BBI JU calls. The budgetary cuts mentioned above and further reductions in operational commitment appropriations in the grant agreements had an impact in reducing the BBI IKOP to be leveraged by financial contributions that were eventually not committed in indirect actions.

Calls	Committed values (EUR)			Ratios with committed EU contribution	
	Committed EU contribution	IKOP targets in AWP's	IKOP actually committed in grants	Target IKOP	Committed IKOP
2015	49 653 708	23 785 000	26 627 047	48 %	54 %
2016	178 849 526	105 000 000	56 503 116	59 %	32 %
2017	182 873 089	110 000 000	72 538 001	60 %	40 %
2018	85 161 992	40 000 000	38 526 397	47 %	45 %
2019	102 881 595	45 000 000	36 257 845	44 %	35 %
2020	118 186 833	60 000 000	17 472 382	51 %	15 %
2021	104 460 161	49 000 000	15 369 206	47 %	15 %
Totals	822 066 903	432 785 000	263 293 995	53 %	32 %

Table 19 IKOP expected/committed in signed grant agreements at the implementation of BBI JU calls.

2. IKOP incurred by BIC members on an annual basis

Alongside the implementation, reporting and closing of BBI JU projects - thus including possible amendments - estimations on actual realisation of IKOP are done on an annual basis. Corroborative information is collected in line with the accounting methodologies adopted by the JU and accrued values are disclosed in the yearly accounts of the JU under its liabilities²⁴. The reported values remain estimations because the JU maintains the right to make adjustments to both components of the IKOP calculation until final project reporting and audit certification is provided.

²³ These estimations are used to calculate the IKOP accruals reported in the annual accounts of the JU (see Annex 5.10).

²⁴ These estimations are used to calculate the IKOP accruals reported in the annual accounts of the JU, (see Annex 5.10).

At the end of 2023, the estimated, IKOP incurred on BBI JU projects but still to be certified amounts to EUR 58.6 million.

Certified IKOP (mostly at the end of the projects)

Actual IKOP is calculated by the CBE JU mainly on the basis of certificates of financial statements submitted by BIC members at the end of BBI JU projects. Further information might come in the form of ex-post controls on financial statements by the European Commission.²⁵ IKOP contributions are calculated on a yearly basis and cumulative values are disclosed in the annual accounts of the JU under its net assets.

At the end of 2023, the total balance of certified IKOP provided by BIC members by the end of 2023 amounted to EUR 91.9 million. The ratio between certified IKOP and EU funding to BIC members that is consolidated in certified financial statements submitted and validated to the CBE JU (EUR 274 million) is 33 %. This result is in line with the ratio expected at the closure of BBI JU calls (32 %) and that was calculated against the total EU contribution committed in grants, i.e., including EU funding to non-BBI JU BIC members.

	BBI IKOP consolidation	
BBI IKOP estimation	€263 293 995	Implementation
BBI IKOP already incurred but not certified	€58 635 335	22 %
BBI IKOP certified	€91 857 582	35 %
2023 result	€158 241 354	57 %

Table 20 Actual values of BBI IKOP and expected leverage.

In-kind contributions to additional activities (IKAA)

The IKAA constitutes the in-kind contributions incurred by BBI JU BIC members in implementing additional activities outside of the Annual Work Programmes set under the BBI JU mandate but that contribute to the objectives of the BBI JU initiative. BBI JU BIC members have to submit Additional Activities Plans (AAP) for the approval of the Governing Board of the JU on a yearly basis.

The actual realisation of these contributions is certified by independent external auditors in compliance with Article 4.4 of the Council Regulation establishing the BBI JU. The following graph provides an analysis of the change in the BBI IKAA cumulative values expected for the period 2015-2024 (for the achievement of the specific BBI IKAA target by 2024) and of the cumulative BBI JU IKAA values certified by the end of 2023.

²⁵ Detailed information on ex-post controls on operational expenditure are provided in section 4.1.1.

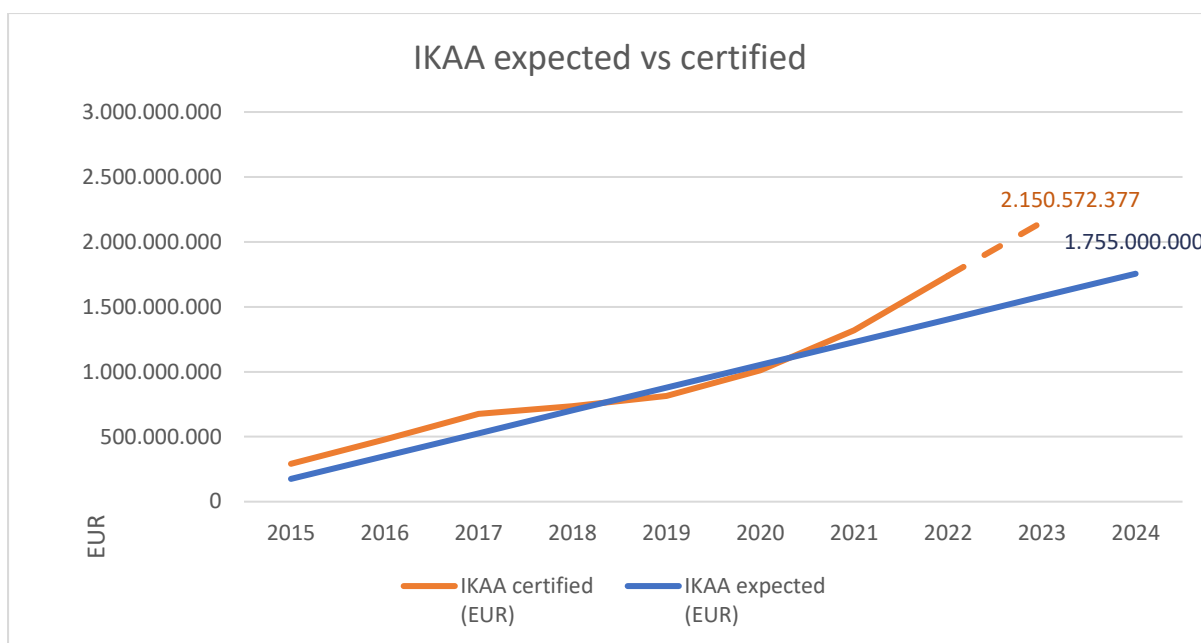


Figure 59 IKAA evolution in the period 2015-2023 for achieving the 2024 target.

In the 2015-2018 period, in parallel to the non-realisation of the specific target for financial contributions to operational activities, the BBI BIC members managed to plan and certify higher IKAA contributions than what to be expected to achieve only for the IKAA specific target.

In the 2019-2021 period, as reported in previous AARs, the IKAA planning and certification processes were both negatively impacted by the Covid-19 pandemic. At the end of 2023, the independent auditor in charge of providing IKAA system certificates reported that some BBI BIC members are still encountering difficulties in producing certificates for some planned IKAA sums.

Since 2022, BBI BIC members have been able to provide additional IKAA contributions. As explained in the following section, it is expected this will mean that they also meet the overall target for BIC member contributions to the BBI JU initiative (EUR 2.73 billion).

The total additional investments by the end of 2023 – taking into account the amount planned for 2023 – was EUR 2.15 billion. That already achieves the initial IKAA target (EUR 1.7 billion) set for this specific contribution in the Council Regulation establishing the BBI JU and reaches 88% of the final expected IKAA value by the end of the BBI JU initiative.

	BBI IKAA consolidation	
BBI IKAA estimation	€2 444 510 517 ²⁶	Implementation
BBI IKAA already incurred, not yet certified	€416 000 000 ²⁷	17 %
BBI IKAA certified	€1 734 572 377	71 %
2023 result	€2 150 572 377	88 %

Table 21 Actual values of BBI IKAA.

²⁶ This amount is calculated as needed to achieve the overall target for CBE JU BIC contributions as shown in the following section on overall contributions.

²⁷ Corresponding to the IKAA planned estimations for 2023.

Overall industry contribution to the BBI JU initiative

The value of financial contributions to operational costs achieved in 2018 will not change and this contribution to the overall target will be minimal and cumulated with financial contributions made to administrative costs of BBI JU.

As concerns the total BBI BIC members' contributions at the end of 2023, the BBI IKOP target was set at the closure of the BBI JU calls, and it will contribute to achieving the overall legal target when all BBI JU projects close (29 % of which are still ongoing, the last expected to end in 2027).

The specific legal target for BBI IKAA was achieved by 2023. As reported above, the IKAA will play a pivotal role also in reaching the EUR 2.73 billion overall target for BIC contributions to the BBI initiative. The IKAA certification process needs to reach EUR 2.44 billion to achieve this. The IKAA plan for 2024 together with additional BBI IKOP expected to be provided to ongoing projects until 2027, provides the expectation that BIC members will meet the overall target by the end of the initiative.

EUR	IKOP	Financial (operational and administrative)	IKAA	Overall legal target
Actual targets	263 293 995	22 195 488	2 444 510 517	2 730 000 000
2023 results	150 492 917	22 195 488	2 150 572 377	2 323 806 495
Target ratio	57 %	100 %	88 %	85 %

Table 22 Actual targets for the types of contributions to be provided by BIC members and 2023 results against the overall target.

Monitoring the leverage effect of the BBI JU initiative

The leverage effect aims to measure the ability of the BBI JU initiative to attract additional financing from beneficiaries – whether members of the JU or not – and to multiply Horizon 2020 budget resources, including through additional activities.

At the end of the last call for proposal by the BBI JU in 2021, the maximum EU contribution estimated in BBI JU grants up to 2024 amounted to EUR 822 066 903.

The leverage calculation considers not only the contributions from BBI BIC members, but also those from other beneficiaries of EU funding that participate in BBI JU projects. The additional financing to be calculated for the leverage effect corresponds to the in-kind contribution provided by all participants in BBI JU projects (APIK – All Participants In-Kind contributions) and corresponds to the costs incurred by all participants in implementing indirect actions less the contribution of the BBI JU and any other Union contribution towards those costs. At the end of the last call for proposals by the BBI JU in 2021, the estimated APIK was EUR 487 928 957.

In order to measure the leverage effect, the European Commission proposed a calculation method that has been applied to all joint undertakings since the mid-term evaluation of all JUs operating under Horizon 2020. This formula excludes contributions to the administrative costs of the Joint Undertaking. Excluding contributions to the administrative costs of the BBI JU, the final target leverage effect amounts to EUR 2.85. The formula was formally adopted by the BBI JU Governing

Board in 2017²⁸. It provides an indication of the total leverage effect of the initiative over a given period. The formula is the following:

$$(Total) leverage = Operational leverage + additional leverage:$$

$$Operational leverage = \frac{\sum APIK^{29} + \sum FC^{30}}{\sum EU contribution^{31}}$$

$$Additional leverage = \frac{\sum IKAA^{32}}{\sum EU contribution}$$

As each element of this calculation has its own reporting and certification process with significant differences over time, it is only at the end of the programme that the result reaches the appropriate level of reliability. Despite this consideration, the BBI JU Governing Board discussed and agreed to monitor the leverage effect on a yearly basis as soon as the different elements of the calculation reach a consistent level of reliability.

For the period up to the end of 2023, the reported operational leverage is unchanged from the 2021 figure. The additional leverage is 'expected' because the certification process of BBI IKAA plan 2023 is still ongoing.

The following table provides the cumulative values of contributions to the BBI initiative in the period 2015-2023.

Year	Cumulative values of contributions to the BBI initiative (EUR)					Leverage evolution
	APIK	BIC financial contributions	IKAA certified	Total	EU funding	
2015	33 107 991		291 482 000	324 589 991	49 653 708	6.54
2016	121 090 840	750 000	478 859 001	358 518 161	228 503 234	2.64
2017	250 427 121	1 250 000	674 844 239	425 667 118	411 376 322	2.26
2018	308 723 689	3 250 000	813 846 895	508 373 206	496 538 314	2.12
2019	378 041 578		1 010 760 042	1 392 051 620	599 419 909	2.00
2020	424 791 217		1 075 920 181	1 503 961 398	717 606 742	2.01
2021	487 928 957		1 318 600 140	1 809 779 097	822 066 903	2.21
2022			1 739 096 172	2 230 275 129		2.72
2023	487 928 957	3 250 000	2 150 572 377	2 641 751 334	822,066,903	3.23

Table 23 Components of the leverage effect calculation over the first years of the initiative.

²⁸ BBI JU Governing Board meeting of 28 June 2017.

²⁹ All Participants In Kind contribution (APIK) is the difference between the total costs and the JU contribution of the grant agreements signed by the cut-off date of the data reported in the AAR.

³⁰ Total amount of financial ("cash") contributions by BIC, delivered at programme level, and/or by BIC constituent entities that are beneficiaries not receiving funding, delivered at project level and committed by the cut-off date of the data reported in the AAR.

³¹ Total amount of EU funding committed in grant agreements signed by the cut-off date of the data reported in the AAR.

³² Total amount of in-kind contribution to additional activities by BIC and/or its constituent entities implemented by the cut-off date of the data reported in the AAR and duly certified later.

The value of the leverage effect of the BBI JU initiative at the end of 2023, is calculated as follows:

$$\text{Operational leverage} = (487\,928\,957 + 3\,250\,00033) / 822\,066\,903 = 0.60$$

$$\text{Expected Additional leverage} = 2\,150\,572\,377 / 822\,066\,903 = 2.63$$

$$\text{(Total) expected leverage by end 2023} = 0.60 + 2.63 = 3.23$$

Therefore, the expected leverage value is already above the target for 2024. The following graph shows the change in the 2015-2023 leverage effect.

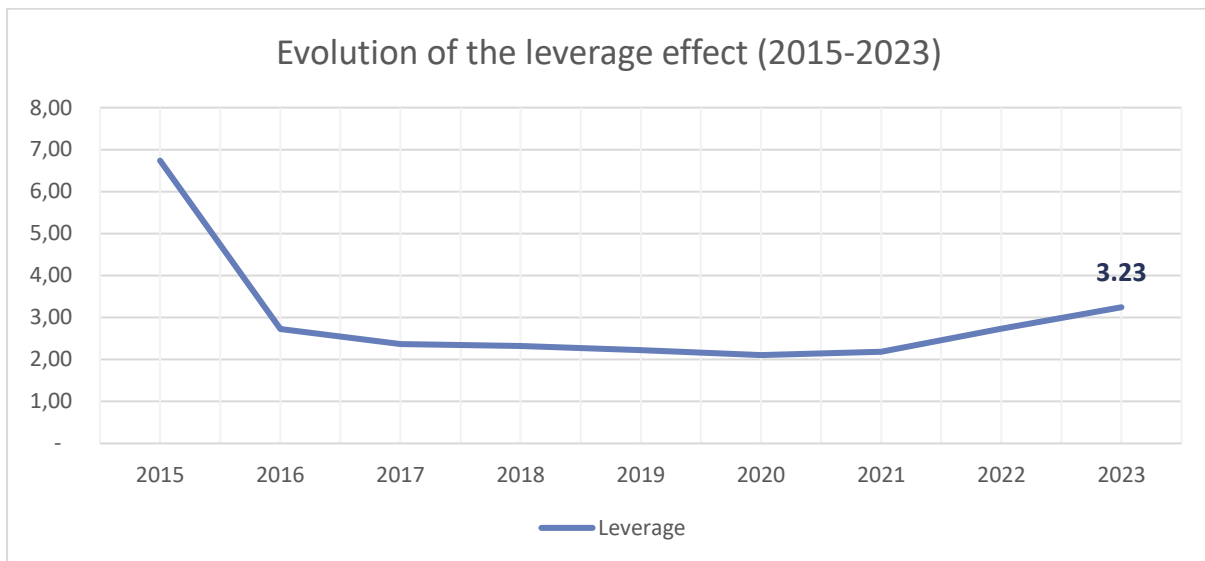


Figure 60 Evolution of the 2015-2023 leverage effect.

³³ This amount includes the financial contribution from the member other than the Union and its constituent entities at programme and project level.

2.5. ADMINISTRATIVE PROCUREMENT AND CONTRACTS

The CBE JU has continued using existing European Commission framework contracts as much as possible.

A new framework contract (FWC) was also signed to cover support for communication of the duration of the JU.

The CBE JU also signed specific contracts under the framework contract jointly managed with the other JUs working in the White Atrium, namely for common IT services. In addition, the CBE JU used Service Level Agreements (SLAs) in force with the European Commission throughout 2023. Several other contracts were signed for less than EUR 15 000 each, while the following table shows the contracts signed in 2023 for single amounts higher than EUR 15 000.

Contractor	Type of contract	Tender procedure	Subject of the contract	Signature date	Amount (in EUR)
Randstad	FWC	Various specific contracts under a framework contract	Interim staff	various	234 097
ADRIA CONGREX SRL	FWC	Various specific contracts under a framework contract	Events organisation	various	368 597
Formato Verde	FWC	Various specific contracts under a framework contract	Communication services: content writing, design and animations	various	83 938
Videlio	FWC SCIC/2021/OP/0002	Specific contract under a framework contract	Audio-visual and other equipment and support for the CBE JU Stakeholder Forum	5/01/2023	252 525
GOPA COM	FWC COMM-2019-OP-0029-Lot1	Specific contract under a framework contract	Communication Services	03/04/2023	32 810
Sopra Steria Benelux	FWC BUDG/22/PO/OO10 – DIMOS VI	Specific contract under a framework contract	Web platform for KPI data collection	09/08/2023	280 018

2.6. IT AND LOGISTICS

In 2023 CBE JU performed the following actions in the IT domain:

- A Cybersecurity assessment of the IT infrastructure with the support of CERT-EU. Cloud infrastructure admins successfully implemented the preventive security measures suggested after the CERT-EU 'Red Team' audit.
- A Phishing exercise to raise IT security awareness during DIGIT and CERT-EU's cybersecurity month.
- After a successful testing phase, INTUNE services for the management of corporate and BYOD mobile devices was put in production to monitor and enforce security compliance checks and segregate corporate data with access to CBE cloud resources on private devices.
- The preparatory works for the implementation of the new cybersecurity regulation started after CBE took part in the ICTAC 42 meeting for IT officers serving in EUIBAs.
- The migration of TESTA network connectivity to DIGIT services. This was required to access EC apps and platforms and improved compliance and coordination with DIGIT.
- The migration to AZURE services for virtual machines hosting and DNS services was accomplished to improve security through consolidation of services and reduction of the attack surface for malicious actors.
- The CBE JU confirmed its interest in joining the Dynamic Purchasing System (DPS) CLOUD III set up by DIGIT to better implement the cloud strategy. This new system will be used once CLOUD II (that CBE uses to purchase the cloud services needed in its IT infrastructure of CBE) expires, allowing continuity of operations.
- After the onboarding of CBE on the AGM Platform for a cleaner and smoother management of meeting invitations more easily, the new platform has been used by meeting coordinators to send the invitations for the upcoming SRG and SC meetings.
- The Web Tool for collecting KPI data from project coordinators was completed at the end of the year. This allowed to collect the first wave of reports via a web interface replacing the Excel files previously used to receive information from project coordinators.
- CBE JU completed the onboarding on the SECABC platform set up by DIGIT as a common repository for address books of all EC Entities and Certificates needed for e-mail encryption. This will improve data security and interoperability between entities.
- Renewed service contract with the IT service provider and updated the SLA.
- Completed work on outlining the IT Common Back Office Arrangement by the end of the year, opening the actual implementation phase.

2.7. HUMAN RESOURCES

2.7.1. HR management

Staff and recruitment

By the end of 2023, the JU Programme Office consisted of 28 statutory staff members which corresponds to a 96.5 % occupation rate.

The CBE JU welcomed 4 new colleagues this year for the following positions: Administrative Assistant (contract agent), Legal Assistant (contract agent) with the replacement of the IT Assistant (temporary agent) and HR Manager (temporary agent) who both left the JU during the year. These TA posts were filled via an external publication.

The selection procedure for the position of Executive Director at the CBE JU was successfully concluded by the end of the year with a starting date of the selected candidate foreseen early 2024.

As in previous years, CBE JU gave young graduates and those who are at the beginning of a new professional career the opportunity of a six-month traineeship in the Joint Undertaking. The aim of this scheme is to provide trainees with a unique, firsthand experience of the workings of an EU body and initial insight into the objectives and activities of the CBE JU. One trainee joined the Programme Unit and the other joined the Communication team.

The 2024 traineeship recruitment was successfully completed in Q4 2023 to ensure the traineeships start at the beginning of 2024.

In 2023, in order to reinforce the team during peak workload periods, the CBE JU also made use of interim agents via the framework contract of the European Commission for interim services to address specific needs of the JU Programme Office.

The graphs below give statistical data on staff, including the gender and geographical balance within the CBE JU as of 31 December 2023.

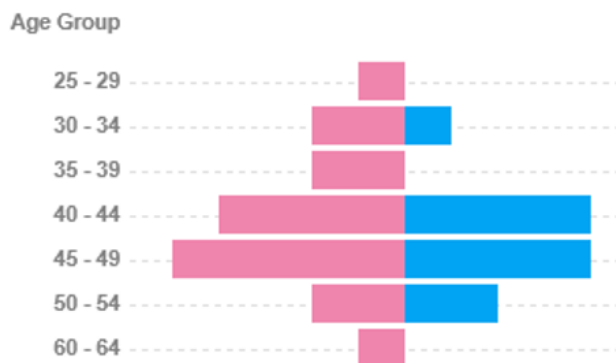
Gender balance



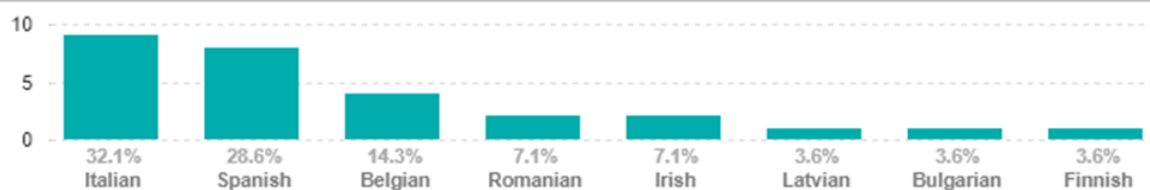
This year, the CBE JU reached a gender balance in management positions, with 50 % of management positions held by women.

Age (Average: 44)

Female Male



Geographical balance



Legal framework

The HR function continued to shore up the CBU JU's legal framework this year, focusing on how implementing rules of the European Commission shall apply to the CBE JU. The JU adopted the deputising rules (to ensure continuity of service) and the model decision on working time and hybrid working.

Specific Implementing Rules (SIRs) brought in in 2023

Title of the SIR	Reference and date of the GB's decision
Model decision on working time and hybrid working	CBE-GB-9/23 of 14/12/2023
Deputising rules	CBE-GB-6/23 of 04/08/2023

As part of annual HR procedures, the CBE JU ran its annual appraisal and reclassification exercises resulting in 3 staff members being reclassified. It also provided information sessions on these topics to staff.

The CBE JU HR function concluded in 2023 the inter-JU new call for confidential counsellors to reinforce the network with additional confidential counsellors. It also worked intensively on the SLA for the Back Office Arrangement (BOA) for HR support where the CBE is the Lead JU. This was to ensure that the BOA can start in early 2024.

Learning and career development

In 2023, the HR function of the CBE JU updated its Learning and Development Framework aligning it with the CBE JU's annual objectives as part of its commitment to promote the continuous growth of its staff. This initiative underscores the importance that the CBE JU places on ensuring that its employees possess the right skills to thrive in their function and are fully equipped to take on new challenges.

Similarly to previous years, the CBE JU made use of the SLA concluded with the European Commission giving access to a wide catalogue of learning courses and ad-hoc learning opportunities.

In addition, HR ran training in collaborative communication, growth mindset and ethics, as well as teambuilding and social events.

A staff survey was conducted at the end of 2023 with a very high participation rate (96 %). It consisted of four different sections: *my organization, my job, management and hybrid working*. The outcome of each section showed an overall high satisfaction rate.

A large majority of staff members enjoy working at the CBE JU (92% of staff) and would recommend it as a place to work (86%). 82% of staff members have a clear understanding of what is expected from them (e.g., job description, yearly objectives), understand the CBE JU's values (86%) and adhere to CBE JU's mission and objectives (96%). The adjectives most often used by staff to describe the CBE JU are *professional, collaborative and caring*, words that align perfectly with the CBE JU's values.

Points for attention were workload and specific points related to the internal organisation. These will be further investigated and addressed with a dedicated action plan.

2.7.2. Efficiency gains and synergies

Article 13 of the Single Basic Act identifies human resources support among the areas for common back-office arrangements. The CBE JU has taken the lead alongside IHI JU in setting up the BOA HR.

The BOA HR will implement actions in three main areas of HR support: recruitment, HR legal framework and HR digitisation. Its objectives are to maximise synergy among the JU's, harmonise procedures by valorising best practices, ensure coherent HR support services, achieve efficiencies and economies of scale and increase the negotiation power of JU's operating under the SBA with contractors and service providers.

Scope of the HR Back Office Arrangements and activities carried out in 2023

In line with the proposal on enhanced coordination of the Network of JUs' HR officers, the conclusion of a Service Level Agreement (SLA) among the JU's was deemed necessary to ensure commitment to the execution of the BOA HR annual work plans.

In 2023, the CBE JU and IHI JU led the discussions on drafting the SLA and held several meetings with the participating JUs to clarify any questions and come to an agreement. The SLA is expected to be signed in Q1 2024 and HR activities under the annual work plan will start in 2024, focusing on the three predefined areas of HR support.

In parallel, the CBE JU launched the HR BOA collaborative platform (Teams) so that inter-JU network HR officers can exchange information and documents such as the templates library, minutes from network meetings, etc.

The CBE JU, along with other JUs, has also optimised efficiency gains and synergies by:

- Sharing reserve lists to shorten time to recruit.
- Providing expertise and resources allowing staff members to be panel members in several selection procedures at other JUs.
- Supporting new joint undertakings during their on-boarding/start-up phase, providing guidance, advice and templates.
- Running training courses of general interest for all JUs (e.g., ethics and integrity, anti-fraud, respect and dignity at the workplace for JU managers).
- Contributing to developing a common JU HR legal framework by sharing ED and GB decisions on diverse HR regulatory topics.
- Supporting the communication campaign on the role of confidential counsellors and introducing the newly appointed CCs to all the JUs' staff members.

The JUs, as interinstitutional partners, also attended meetings held by the European Commission on the HR transformation programme that intends to set up a new IT platform to replace SYSPER.

Two new JUs started to use the e-recruitment tool SYSTAL, meaning that a total of 7 JUs now use the same e-recruitment platform.

3. GOVERNANCE

3.1. MAJOR DEVELOPMENTS

The major development in 2023 has been the appointment of the new Executive Director at the Governing Board meeting of 14 December. This concluded a procedure that started with the vacancy being published in February 2022, and that was managed by the EC until the final interviews of the candidates with the Governing Board.

3.2. PHASING-OUT PLAN MONITORING

In accordance with the Article 19(4)(v) of the Council Regulation, the CBE JU acting Executive Director submitted to the approval of the Governing Board a plan setting out the main lines for the preparation, planning and implementation of the phasing-out of the Joint Undertaking – intended as the winding up of the Programme Office. The plan addresses a number of points that will affect decision making and the timeline, and it highlights the inherent risks, some recommendations and mitigating measures.

The European Commission asked the Joint Undertaking to prepare different scenarios and models for continuing the partnership in the event of a reduction – or absence – of Horizon Europe funding. It has been agreed that this strategic discussion cannot be finalised by the end of 2023 and will be addressed in the future, together with the European Commission and the Bio-based Industries Consortium. It will then be included in the existing document as an amendment.

The CBE JU phasing out plan takes into account several elements that will set the ground for the preparation of the preparations of the potential next framework programme for research and innovation which will follow that of Horizon Europe and the political context in which CBE JU operates. Within the European institutions setting and its legislative procedures and processes, the preparatory work starts well in advance compared to the actual ending of the CBE JU mandate.

Analysis of the workload is also essential to ascertain the tasks to be completed by the CBE JU Programme Office once the decision about the future of the JU has been made. This analysis will help identify the work that still needs to be completed before the end of the mandate – 31 December 2031 – and the effort required to achieve the initiative's objectives and expected impact. It is therefore the first of several elements needed to carry out the phasing-out plan:

- Workload assessment from 2026-2027 estimating the resources needed to successfully wind up the CBE JU programme: the Programme Office will carry out a detailed assessment of the workload involved in closing the CBE JU programme on an annual basis. This will provide accurate information based on actual statistical data from projects, providing key information in terms of resources and timeline to complete the signature of the last grant agreements and the remaining payments prior to the closure of the projects.
- Budget and resources planning for the period 2027-2031: budget planning will have to be analysed to have adequate resources in place to successfully finalise the closure of the CBE JU Programme Office. This specifically refers to the administrative budget devoted to staff costs (Title 1) and support activities such as communication, project monitoring, IT and others (Title 2).

- Accounting, logistics and legal obligations: The Programme Office will continue to draw up the JU's annual accounts, monitoring the financial contributions from partners and the assets of the organisation until 31 December 2031. In terms of the JU's legal obligations, the Programme Office will monitor the duration of contracts, framework contracts and SLAs from 2027 onwards, depending on the date that the JUs are eventually wound up.
- Estimation of in-kind contributions needed from BIC to meet financial contributions: an **annual assessment of financial contributions from BIC members** has to be made to have a clear picture of how much is needed to meet the objectives of the partnership.
- Assessment against agreed KPIs of whether operational objectives have been met: Another important step will be the **monitoring of the initiative's KPIs**. The Programme Office will carry out annual assessments of progress against the KPIs.
- Communication plan: A fundamental part of the CBE JU phasing-out plan will be a well-prepared communication plan. It is critical that information about the reasons for the phasing out of the CBE JU are properly communicated to the stakeholders' community, together with the measures that are to be put in place by the founding partners, the European Commission and BIC, to ensure the Programme Office and the programme close down in an efficient manner, and that there continues to be follow up of initiatives in support of bioeconomy at a European level (e.g. different types of partnership, support from future Horizon programme(s), support from other funding instruments).

On top of this preliminary planning, the phasing-out plan also includes a risk assessment that should guide the Governing Board and the Executive Director in planning, managing and adapting the way in which they phase out the JU.

3.3. GOVERNING BOARD

Four CBE JU Governing Board ordinary meetings were held on 16 March, 14 June, 4 October and 14 December 2023. The last meeting of the year was divided in two sessions, with the final interviews to select the new Executive Director on the morning one.

The members of the Governing Board are:

EC	BIC CONSTITUTIVE ENTITIES
John Bell Director for 'Healthy Planet', DG RTD/B (Chair)	Rob Beekers Strategic Marketing & Innovation, CARGILL BIO INDUSTRIAL (CBI) (Vice- Chair), Frank Van Noord, Vice-President for Innovation at Cosun
Pavel Misiga Head of Unit, DG RTD/B1	Mat Quaedvlieg
Kristin Schreiber Director for 'Ecosystems I: Chemicals, Food, Retail', DG GROW/F	Giulia Gregori Manager Strategic Planning and Corporate Communication, NOVAMONT
Peter Droell Director for 'Industrial Technologies', DG RTD	Alex Michine CEO of METGEN
Diego Canga Fano Director for 'Quality Policy, Research & Innovation, Outreach', DG AGRI/F (from 1 November)	Christophe Luquel Head of Industrialisation & Financing at Bioeconomy For Change (B4C)

The decisions taken by CBE JU Governing Board in 2023 were:

- CBE-GB-1/23: approving the 2023 call ranking list.
- CBE-GB-2/23: approving the 2023 IKAA plan.
- CBE-GB-3/23: appointing the representatives of the private members and of the observer in the pre-selection panel for the position of Executive Director.
- CBE-GB-4/23: first amendment to AWP 2023.
- CBE-GB-5/23: approving AAR 2022.
- CBE-GB-6/23: adopting the deputising rules to ensure business continuity.
- CBE-GB-7/23: approving the ranking list for the NEBA call.
- CBE-GB-8/23: second amendment to AWP 2023.
- CBE-GB-9/23: staff implementing rules on working time and hybrid working.
- CBE-GB-10/22: adopting AWP 2024.
- CBE-GB-11/22: adopting the phasing-out plan.
- CBE-GB-12/22: appointing the CBE JU Executive Director.

Strategic Governing Board meeting

On 6 December 2023, during the CBE JU Stakeholder Forum, a high-level meeting took place between members of the CBE JU Governing Board and high-level representatives of Europe's bio-based industries. The objective of the meeting was to have an open and frank discussion on a number of key aspects relating to unleashing the full potential of the bio-based sector, such as the role of research and innovation, industrial policy and engaging primary producers in the value chains.

Participants included European Commission senior management representing the Directorates-General sitting on the CBE JU Governing Board – DG RTD, DG GROW and DG AGRI – as well as high-level representatives from leading European bio-based industries - Catia Bastioli (CEO, Novamont), Peep Pitk (Chief Development Officer, Fibernol), Mette Kahlin McVeigh (Senior Vice President of Corporate Affairs, Stora Enso) and Rob Beekers as Chair of the CBE JU Governing Board.

Participants discussed the bottlenecks for the sector when it comes to deploying bio-based solutions as well as how the bio-based industries can make tangible contributions to various policy initiatives. One risk facing the sector currently is that companies are beginning to move investments outside of Europe where market access and approval processes are faster, finance is more readily available and the regulatory framework more favourable. The CBE JU's public-private partnership model was deemed a unique instrument in its role in overcoming critical problems for the sector: de-risking investments for industrial scale infrastructure, providing investment to overcome the 'valley of death', leveraging public funding and its structuring effect on a highly fragmented sector.

3.4. EXECUTIVE DIRECTOR

During 2023, Nicolás Giacomuzzi-Moore was interim Executive Director until the 31 August and afterwards he continued as acting Executive Director until the end of the year. The selection process for the appointment of the Executive Director was concluded on 14 December.

3.5. STATES' REPRESENTATIVES GROUP

Introduction on the SRG's role and its work

The SRG is one of the advisory bodies of the CBE JU. In line with the roles, tasks and responsibilities defined in Article 20 of Council Regulation (EU) 2021/2085, the SRG provides the CBE JU Governing Board with advice on the CBE JU's work from EU Member States and associated countries. Specifically, the SRG provides opinions and recommendations on progress in programme implementation, updates on the SRIA, draft work programmes, annual activity reports, and other measures taken to address the programme's specific objectives.

The Council Regulation also stresses the importance of ongoing and structured dialogue between the CBE JU and the Member States and associated countries, with the aim of aligning the CBE JU's activities with the national and regional policies and work and consistency at national, regional and EU levels. Following the obligations set out in the Council Regulation, the SRG also has an important role in providing the CBE JU Governing Board with information on regional and national research and innovation programmes and other initiatives that improve and deploy relevant technologies and innovative solutions, with a view to ensuring complementarities with the actions funded by the CBE JU programme. More concretely, the SRG is required to submit a report at the end of each calendar year describing the national or regional policies within the scope of the Joint Undertaking and identifying specific ways of coordinating these with the actions funded by the Joint Undertaking.

SRG membership in 2023

According to the Council Regulation, each Member State and associated country can nominate up to two representatives and up to two alternates. The Chair and the Vice Chair have a leading role and are responsible for organising and structuring the work of the SRG and ensuring the SRG fulfils its role under the Council Regulation. They are appointed for a term of two years.

Some countries changed their appointed representatives this year. By the end of 2023, the SRG was composed of 34 main members and 31 alternate members 58 % of whom are women and 42 % of whom are men. Ms Agata Foks, the Polish representative, has been the Chair of the CBE JU SRG until August 2023. Ms Sari Tasa, the Finnish Representative, is the new Chair, having been selected by the SRG members to replace Ms Agata Foks in October 2023. Mr Fabio Fava, the Italian representative, is the group's Vice-Chair.

The list of the SRG appointed members, together with the rules of procedure and description of their main tasks, are published on the [CBE JU website](#).

Main activities and achievements in 2023

The CBE JU Governing Board consulted and gained valuable and strategic advice from the SRG on the Multi-annual programming document (MAP) and the Annual Work Programme 2024 (AWP 2024) at different stages. The SRG was also consulted on the final draft of the 2022 Annual Activity Report in June 2023.

The SRG also received timely and relevant information ensuring its members have the information needed to perform their advisory role. Among the information they received was information about

the CBE JU programme's progress on its targets, outcomes of the 2022 call (i.e., the evaluation information package) and submission results of 2023 call for proposals, including the NEBA call. It also received country Infographics with the highlights of the country's participation in BBI and CBE projects and was informed at each meeting about work conducted by BIC and the EC relevant to the CBE JU. More information on the information it received at each meeting is presented in the next section.

SRG members played a pivotal role as CBE JU ambassadors in 2023 through their involvement in specific national or regional measures taken at national or regional level with regard to dissemination events, deployment activities and mobilisation of key stakeholders. There is a list of the different events in the annexes, including the national info days that SRG members held with the support of the CBE JU Programme Officers to provide information about the 2023 CBE JU call for proposals. Some SRG members were also present at the CBE JU Stakeholder Forum that took place in December 2023.

Last but not least, SRG members provide information to the Governing Board each year on national and regional policies and initiatives aimed at highlighting policies and strategies aligned with the CBE and identifying ways of cooperating with these initiatives to support the CBE JU's own work. The information is shared via reports submitted by SRG members at the end of each calendar year (in compliance with Article 20.10 of the Council Regulation). In addition, there is time at each SRG meeting to share information on national and regional research and innovation programmes and any communication and deployment work with a view to better coordinating these with the CBE JU's activities.

In September 2023, an article was published on the [CBE website](#) highlighting some conclusions of the first national reports submitted in 2022. The article stressed that the reports were a very valuable source of information which, beyond being a repository of national and regional actions and initiatives, allowed SRG members to identify good practices and a set of recommendations to improve cooperation with CBE JU and its partners (the EC and BIC) with the ultimate goal of joining forces to meet the CBE JU's national and regional priorities and outcomes. The recommendations are annexed to the aforementioned article.

A task force of SRG members (BE, DK, ES, IE, IT, PL and PT) worked on a new reporting tool, incorporating some lessons learnt from 2022 reports to have a homogeneous and more fit -to-purpose set of information from SRG members. The SRG members all reported this information by December 2023.

CBE JU SRG meetings in 2023

The Programme Office held two SRG meetings, one on 7 June and the other on 19 October. The meetings were held in person and chaired by the SRG Chair and Vice Chair. They were also attended by the Chair of the Governing Board, the Chair of the Scientific Committee, the CBE JU Executive Director, the Bio-based Industries Consortium, the European Commission and CBE JU Programme Office staff. The main items addressed at the two SRG meetings are reported below.

Third SRG meeting held on 7 June 2023

- Discussion and advice on the MAP document. This included discussion about working better and smarter alongside two relevant missions, 'Restore our Oceans and Wasters' and 'Soil deal for Europe'. This discussion followed on from the presentations given by the EC leading services.

- Discussion and advice on the first draft of the AWP2024 (first list of topics).
- Discussion on the CBE JU Widening Participation Strategy and Action Plan for 2023-2024, including an exchange of views on widening countries holding national info days in 2023.
- Discussion on the SRG reporting obligation (article 20.10 of the Council Regulation), including outcomes and lessons learnt from the SRG annual reports submitted in 2022 and further discussion on the improvements to be introduced in the reporting tool created to allow SRG members to submit the annual report by the end of 2023.
- Presentation and discussion on CBE JU programme implementation, including the developments since the last meeting on governance, deployment groups, programme management, administration and finance and communication activities relevant for the SRG, and the 2022 call statistics and results after the conclusion of GAP.
- Other updates from the EC on different activities relevant to the CBE JU, including the highlights of the AGRIFISH Council Conclusions on bioeconomy adopted in April 2023 under the lead of the Swedish presidency.
- Update from BIC on activities relevant to the CBE JU, among them the changes in membership, BIC country reports, the Open Innovation competition, ongoing activities with investors, initiatives to increase public engagement and educational activities.
- Information sharing on the latest national and regional developments and activities linked to the CBE JU.

Fourth SRG meeting held on 19 October 2023

- Election of a new Chair, Ms Sari Tasa, representative of Finland, to replace the former Chair, Ms Agata Foks, representative of Poland.
- Discussion and advice on the pre-final draft of AWP 2024.
- Presentation and discussion on CBE JU programme implementation, including CBE JU 2024 priorities, the 2023 call submission statistics, progress made on the widening participation strategy and deployment groups and the CBE JU Stakeholder forum, among others.
- Adoption of a new reporting tool to collect information on national and regional activities within the scope of the Joint Undertaking and identifying specific ways to coordinate these with the actions funded by the CBE JU (art. 20.10 of the Council Regulation) by the end of 2023.
- SRG members shared the latest updates on national and regional policies and initiatives linked to CBE JU.
- Update from the EC on different activities relevant to CBE JU, including the evolution of the EU bioeconomy since the EU Bioeconomy strategy of 2023, the concept note on regional innovation valleys for bioeconomy and food systems and the objectives of the 'Enhancing stakeholder engagement in EU bioeconomy policy' and 'Integrated bioeconomy land use assessment, land system responses to bioeconomy-related policies' studies.
- Update from BIC on activities relevant to CBE JU, such as the upcoming BIC 2023 trend report as the outcome of the 4 workshops BIC ran during the year, an update on the country reports, the results of the 2023 Bio-based Innovation Student Challenge Europe (BISC-E) and information on the BIC 10th anniversary event.

3.6. SCIENTIFIC ADVISORY BODY

SC role and activities

The Scientific Committee (SC) is one of the advisory bodies of the CBE JU. According to Article 21 and 55 of the Council Regulation (EU) 2021/2085, the SC carries out the following tasks:

- a) Advises on the scientific priorities to be addressed in the work programmes, including on the scope of calls for proposals, in line with the Strategic Research and Innovation Agenda and the Horizon Europe strategic planning.
- b) Advises on the scientific achievements to be described in the annual activity report.
- c) Suggests, in view of the progress of the Strategic Research and Innovation Agenda and individual actions, corrective measures or re-orientations to the Governing Board, where necessary.
- d) Provides independent advice and scientific analysis on specific issues as requested by the Governing Board, in particular as regards developments in adjacent sectors or to support the assessment of applications of potential associated members and contributing partners.

SC composition

The CBE SC comprises 15 independent experts with a balanced representation of worldwide recognised experts from academia, industry, SMEs, non-governmental organisations and regulatory bodies. Collectively, the Scientific Committee members have the necessary scientific skills and expertise covering the technical domain to make science-based recommendations to the CBE JU.

The areas of expertise covered by the Scientific Committee include: biomass feedstock supply (i.e. agricultural, forestry, aquatic, biowaste, etc.); biomass feedstock pre-treatment, transformation/conversion and downstream processing into high-value bio-based chemicals and materials; market uptake of bio-based products; socio-economic sustainability of bio-based systems and related value chains in regional, rural, coastal and urban settings; sustainable management of natural resources including circularity, environmental sustainability, biodiversity preservation and enhancement, climate mitigation and adaptation, zero pollution, socio-economic sustainability of the bio-based systems and related value chains.

Ms Helena Vieira is the SC's Chair, and Mr Piergiuseppe Morone is the SC's Vice-Chair. The list of SC members, including their background and expertise, can be found on the [specific webpage](#). Among the SC members, seven are women (47 %) and eight men (53 %).

Activities and achievements of the SC in 2023

The SC was consulted and provided valuable advice to the CBE JU Governing Board on the Multi-annual programming document (MAP) and the Annual Work Programme 2024 (AWP 2020) at different stages.

In order to foster interaction and facilitate communication between the two advisory bodies, the SC Chair attended both SRG's meetings and presented the main points of discussion and advice provided by SC members on the MAP, the AWP 2024 and other strategic discussions.

SC members were informed about activities conducted by BIC and the EC relevant to CBE JU, and progress in the CBE JU programme and the 2023 call for proposals, including the submission results, and other relevant updates on CBE JU activities throughout the year.

SC members are also active ambassadors of the CBE JU programme, conveying relevant information about the CBE JU programme to the networks (academia, industry, research centres, international organisations and others) and promoting their activities. Some SC members took part in the CBE JU Stakeholder Forum in December 2023 as part of the broader community of CBE JU stakeholders.

CBE JU SC meetings in 2023

The CBE JU Programme Office held two SC meetings in 2023, 1 on 30 May and 1 on 18 October. The meetings were held in person in Brussels and chaired by SC Chair Helena Vieira. They were also attended by the Chair of the GB, the Chair of the SC, the CBE JU Executive Director, the BIC, the European Commission (EC) and CBE JU Programme Office staff. The main items addressed at the two SC meetings are reported below.

Third SC meeting held on 30 May 2023

- Discussion and advice on the MAP.
- Discussion and advice on the first draft of the AWP 2024.
- Presentation and discussion on CBE JU programme implementation, including the developments since the last meeting on governance, deployment groups, programme management, administration and finance and communication activities, and the 2022 call statistics and results after the conclusion of GAP.
- Update from the EC on different activities relevant to CBE JU, including the discussion on working better and smarter with other parts of Horizon Europe and other EC instruments on Circular Bioeconomy.
- Update from BIC on activities relevant to CBE JU, among them the changes in membership, BIC country reports, the Open Innovation competition, ongoing activities with investors, initiatives to increase public engagement and educational activities.

Fourth SC meeting held on 18 October 2023

- Discussion and advice on the pre-final draft of the AWP 2024.
- Presentation and discussion on CBE JU programme implementation, including CBE JU 2024 priorities, the 2023 call submission statistics, progress of the widening participation strategy and the deployment groups and the CBE JU Stakeholder forum, among others.
- Update from the EC on different activities relevant to CBE JU, including the evolution of the EU Bioeconomy since the EU Bioeconomy strategy of 2023, the concept note on Regional innovation valleys for bioeconomy and food systems and the objectives of the studies “Enhancing stakeholder engagement in EU bioeconomy policy” and “Integrated bioeconomy land use assessment, land system responses to bioeconomy-related policies”
- Update from BIC on activities relevant to CBE JU, such as the preparation of the BIC 2023 trend report as the outcome of 4 workshops organised by BIC during the year, an update on the country reports, the results of the 2023 Bio-based innovation student challenge Europe (BISC-E) and the information on the BIC 10th years anniversary event.

3.7. DEPLOYMENT GROUPS

3.7.1. Deployment Group on Investments and Finance

Progress was made towards establishing the Deployment Group on Investments & Finance in 2023. The main activities performed by the working group composed by the EC, BIC and CBE JU Programme Office include the following:

- The draft concept note was further developed to include as first phase a study managed by the European Investment Bank (EIB). The general purpose of this study is to map the specific needs of the bio-based sector in terms of investment and to identify potential participants to the Deployment Group on Investments and Finance (DEG on I&F). The results of the study will also contribute to the DEG's action plan.
- The Terms of Reference (ToR) of the study were written during the summer and signed off in September 2023.
- The EIB launched the procurement procedure for the study in autumn 2023 and with proposals to be submitted by mid-January 2024.

The study will start in Q1 2024 for around 6 months. Final results are expected in Q3 2024. The DEG on I&F itself is taking shape in parallel to the EIB study and it is expected that the study will identify a first core group of relevant stakeholders.

3.7.2. Deployment Group on Primary Producers

The main objectives of this DEG are to address the challenges that primary producers face in rolling out circular bio-based solutions and innovations while ensuring that they benefit from being part of new and innovative circular and bio-based value chains.

Progress was made towards establishing the Deployment Group on Primary Producers, in 2023, including the setting up of a task force comprising the EC, BIC and the CBE JU Programme Office. The task force was created in May and its main work in 2023 was to:

- Draw up a first draft of the concept note, which sets out the scope, objectives, tasks and composition of this Deployment Group including the procedure for and conditions to its functions.
- Prepare a draft CSA topic text "*HORIZON-JU-CBE-2024-CSA-03 Supporting the CBE JU Deployment Group on Primary Producers*" to be included in AWP 2024. This future CSA will support the DEG PP in successfully meeting its objectives and carrying out tasks, once a project is selected. It will also contribute to preparing and updating the DEG's action plan.
- Start work on a participatory workshop to consult with relevant stakeholders on the proposed objectives, areas of intervention and potential future members of the DEG. Feedback collected from the workshop will be used in the final concept note in 2024. In addition, a consultation was launched with the State Representatives Group in December 2023 asking for their support in identifying relevant stakeholders to be involved in the workshop.

4. FINANCIAL MANAGEMENT AND INTERNAL CONTROL

This section reports the control results and other relevant information that support management's assurances on financial management and internal control objectives being met. It includes the information necessary to confirm that the available evidence is full, reliable and comprehensive. It reports on the performance of internal control and management systems covering all activities, programmes and management modes relevant to the JU. The internal control and risk management systems in place are described, together with an assessment of their effectiveness: compliance, efficiency and effectiveness.

Assurance is provided, on the basis of an objective examination of evidence and of the effectiveness of risk management, control and governance processes.

This examination is carried out both by management, which monitors the functioning of the internal control systems on a continuous basis, and by internal and external auditors. The results are explicitly documented in the Internal Control Framework yearly assessment and reported to the Executive Director of the JU. The following reports are used in the assessment:

- The annual Declaration of Assurance reports provided by the Authorising Officer by Sub-Delegation (AOSD) to the delegating Authorising Officer.
- The reports on recorded exceptions, non-compliance events and internal control weaknesses.
- The opinion of the Internal Control and Audit Manager responsible for risk management and internal control.
- The outcome of activities of the ex-post audit function and fraud prevention measures.
- The result of yearly risk assessments performed by the Internal Audit Service and the observations and recommendations reported in the course of the year.
- The observations and recommendations from the European Court of Auditors.
- The observations and recommendations from the Accounting Officer in the context of the validation of the local accounting systems.
- The conclusions of annual risk assessment exercises.
- The registers of security and data breaches.

These reports result from a systematic analysis of the available evidence. This approach provides sufficient guarantees as to the completeness and reliability of the information reported and results in a complete coverage of the budget under the accountability of the Executive Director of the CBE JU. The CBE JU budget is composed of different categories of expenditure, namely staff-related and other administrative costs and grant management costs.

The control environment for grant management in which CBE JU operates is largely a corporate one. The results reported in the following sections are the outcome of controls designed principally by the Common Implementation Centre (CIC) in charge of the control system for the R&I framework programmes. The CBE JU actively participates in the various governance structures put in place by the CIC and contributes to the developing and improving the common legal framework, the business processes and IT tools. For staff expenses and other administrative costs, the CBE JU

exclusively uses the EC accounting system ABAC for financial operations and is using eTendering and eProcurement solutions provided at corporate level for public procurement procedures.

The CBE JU has adopted and regularly updates a manual of financial procedures that describes the financial circuits involved in the implementation of the budget. The financial circuits concern all financial operations, taking into account the lean structure of the CBE JU and any risks associated with the management environment and the nature of the financing operations. They are established in order to standardise the mandatory steps in processing of financial transactions, to clarify the different actors, their main responsibilities and the controls they shall perform.

Certain control activities carried out in the CBE JU cannot be fully captured by quantitative indicators, even though they significantly contribute to the overall benefits of the programme implementation or the centralised support services delivered to the Commission services. These activities include feedback for joint policy making, process improvements, information and communication, dissemination and exploitation of the project results, etc.

In respect of the Accounting Officer, in late 2022, the contract with DG BUDG for the EC Accounting Officer services was terminated. A new Back Office Arrangement (BOA) for these accounting services was established within the Joint Undertakings and the appointment of the new Accounting Officer for CBE JU, within this common structure, was approved by the Governing Board decision of 29 November 2022. Please refer to section 3.7.2 *Efficiency gains and synergies* above for more details about the BOA for accounting. The Accounting Officer is responsible for, *inter alia*, the proper implementation of payments, collection of revenue, recovery of amounts, maintaining the accounts, year-end closure and preparing and signing off on the annual financial statements and the central budgetary framework, in cooperation and in coordination with CBE JU financial staff.

4.1. CONTROL RESULTS

This section reports on and assesses the elements identified by management that support the assurance that the following internal control objectives have been met: (1) effectiveness, efficiency and economy of operations; (2) reliability of reporting; (3) safeguarding of assets and information; (4) prevention, detection, correction and follow-up of fraud and irregularities, and (5) adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the relevant payments.

4.1.1. Effectiveness of controls

Control results regarding the legality and regularity of operations, fraud prevention and the safeguarding of assets are provided below.

4.1.2. Legality and regularity of financial transactions

CBE JU uses internal control processes to ensure the adequate management of the risks relating to the legality and regularity of the underlying transactions it is responsible for, taking into account the multiannual character of programmes and the nature of the payments concerned.

The results of the controls implemented are measured through ex-post audits carried out on transactions made from the CBE JU's operational budget.

Ex-post controls of operational expenditure are implemented in line with the Horizon 2020 Audit Strategy. The Horizon Europe Audit Strategy is risk-based and draws on the achievements of lessons learnt from Horizon 2020. The Common Implementation Centre (CIC) developed these audit strategies in cooperation with all its clients – the services of the European Commission, Executive Agencies and Joint Undertakings.

The main objective of the audit strategies is to provide the individual Authorising Officers with the necessary elements of assurance in a timely manner, thus allowing them to report on the budget expenditure for which they are responsible. Ex-post controls on operational expenditure contribute in particular to:

- Assessing the legality and regularity of expenditure on a multi-annual basis.
- Providing an indication of the effectiveness of the related ex-ante controls.
- Providing the basis for corrective and recovery mechanisms, if necessary.

The Common Audit Service (CAS) is a CIC service serving all Horizon 2020 and Horizon Europe stakeholders in the implementation of the audit strategy. Its mission is to deliver a corporate approach throughout the audit cycle: audit selection, planning, application of rules, relations with beneficiaries and management information on the audit process.

The CBE JU is effectively integrated in this control chain. It participates in the audit process definition and in the monitoring of its implementation in continuous collaboration with the CAS and its clients. The main objectives of the cooperation are to align operations and exploit synergies in the common audit effort. The efficiency gains should reduce the audit costs and the administrative burden on auditees, in line with the specific objectives for ex-post controls explained above.

In 2023, the main results were:

- **The representative detected error rate for the CBE JU was 1.89 %** (2.57 % for the whole Horizon 2020 programme).
- **The cumulative residual error rate for CBE JU was 1.20 %** (1.55 % for the whole Horizon 2020 programme).

No error rates for Horizon Europe are available for 2023 as the ex-post audit campaign for this framework programme is planned for the beginning of 2024 and CBE JU transactions will fall within the scope of such campaigns from 2025.

The methodology applied to calculate the error rates for the CBE JU is described in Annex 5.11 'Materiality criteria'. The calculations of the overall error rates for Horizon 2020 are detailed in the AAR of the European Commission.

The results of these controls shall contribute to achieving the multiannual objectives relating to errors detected in the Horizon 2020 expenditure. The expectations provided to the Legislator in the legislative proposal for the Horizon 2020 Framework Programme are the same as those in the

legislative proposal for BBI JU. These expectations state that, on an annual basis, error rates should range between 2 % and 5 %, with the ultimate aim of achieving a residual error level as close as possible to 2 % at the closure of the multiannual programme³⁴.

In conclusion, the CBE JU does not consider that a reservation is needed for Horizon 2020 expenditure this year.

4.1.3. Fraud prevention, detection and correction

A common anti-fraud strategy in the Research and Innovation family (RAFS) is in place, covering the prevention and detection of potential fraud as well as the conditions for investigating it. This strategy is proportionate to the level of risk and to the nature and magnitude of the fraud identified. The strategy has been developed and implemented in cooperation with the Fraud and Irregularities in Research Committee (FAIR) that regroups the services of the European Commission, Executive Agencies and Joint Undertakings that implement the Horizon 2020 and Horizon Europe Framework Programmes.

The staff of the CBE JU is continuously updated on how to identify fraud risks and given tools to prevent, detect and report suspicious cases. The Learning and Development Framework includes mandatory training on fraud awareness, prevention and detection to be included in the training maps for all staff involved in financial transactions.

The CBE JU Programme Office has designated its correspondent to the European Anti-Fraud Office (OLAF) for all activities related to reporting fraud, supporting OLAF on investigative matters, following up on OLAF's recommendations and cooperating on fraud prevention.

In December 2021 the FAIR agreed on a set of mandatory common indicators to measure and monitor the overall performance of the RAFS:

Indicator	2023 result
Number of new cases sent to OLAF and opened in the year, and cases handled by OLAF relevant to the granting authority in a given year	0
Number of OLAF financial recommendations received in a given year	0
Internal awareness-raising actions (e.g., training)	1
Cooperation with stakeholders, such as participation in the FAIR Committee, etc.	2

In the course of 2023 these control systems operated effectively. No new OLAF investigations have been notified to CBE JU and no new recommendations were received. An internal awareness-raising training has been provided to staff and CBE JU participated in two FAIR meetings and in the adoption of the 2023 update of the RAFS.

³⁴ Legislative financial statement as part of the 2011 Commission proposal for the Regulation on Horizon 2020 (COM/2011/809) of 30 November 2011, pages 98-102, as recalled in the Commission proposal for the regulation on the Bio-based Industries Joint Undertaking (COM/2013/496) of 10 July 2014, pages 34 -36.

In conclusion, there is nothing to report that might influence the Authorising Officer's assurance in section 4.5.2 below.

4.1.4. Assets and information, reliability of reporting

In 2023, the Accounting Officer carried out their annual evaluation of the CBE JU's local financial systems. The evaluation methodology was adapted to take into account the results of previous years' assessments. The evaluation reviewed the available information on follow-up from the 2022 evaluation, analysed a sample of the operations authorised during the 2023 financial year and looked at key performance indicators. On the basis of the available evidence and the scope of the work conducted, the evaluation did not identify any internal control weaknesses that would have a material impact on the accuracy, completeness and timeliness of the information required to draft the annual accounts and produce reliable reports.

Lastly, the management representation letter issued by the Authorising Officer and the Accounting Officer of CBE JU covering the 2023 provisional accounts provided no reservation to the opinion that these present fairly, in all material respects, the financial position of the CBE JU, the results of its operations, its cash flows, and the changes in net assets at 31 December 2023.

In conclusion, nothing needs to be reported which may influence the reasonable assurance to be provided by the Authorising Officer in section 4.5.2.

4.1.5. Efficiency of controls

The efficiency indicators provided by the financial regulation are Time To Pay (TTP), Time To Inform (TTI) and Time to Grant (TTG).

- The TTG for 2022 call was 100 % achieved.
- For operational expenditure, all interim and final cost claims validated in 2023 (45) were paid on time with an average Time To Pay of 61 days for interim and 63 for final payments.
- The Time To Pay of administrative payments showed only 27 (5 %) of a total of 571 payments were late. The average TTP was 15 days (same as for 2022), late payments included.

4.1.6. Economy of controls

For a programme-implementing organisation like the CBE JU, the estimation of the cost-effectiveness and efficiency of controls focuses on yearly activities that are linked to managing the annual budget, including both operational and the financial aspects of operations.

The cost-effectiveness of controls compares the control benefits with their costs. The quantification of the benefits of controls counts the total amount of corrections implemented in cost claims processed by the organisation in the year. There are however other benefits of controls that will not appear in the calculation, for instance ex-ante monitoring and communications activities resulting in lower corrections to be implemented and the deterrent effects of controls on fraud or conflicts of interest risks.

The cost-efficiency of controls compares their costs with the resulting operational performance of the organisation. Knowing that reducing controls might reduce their costs and speed up processes but may also increase the risk of error (and vice-versa), the most relevant KPIs on control results mentioned above are the Time To Pay of the underlying cost claims and the residual error rate detected by ex-post controls on the operational expenditure.

The 2023 results of the CBE JU reported in the table below allows to conclude that control activities applied to financial transactions:

- Were cost-effective, as benefits of controls were more than their costs.
- Were cost-efficient, as the organisation achieved a high operational performance in executing payments with a relatively low cost of controls (0.54% of the yearly expenditure) and maintained the residual error rates on operational expenditure below 2 %.

2023 payments (in EUR)	123,497,968
Estimated costs of controls (in EUR)	666,912
<i>As a % of yearly expenditure</i>	<i>0.54%</i>
Benefits of controls (in EUR)	2,163,146
<i>As a % of yearly expenditure</i>	<i>1.75%</i>
<i>% Administrative payments on time</i>	<i>95%</i>
<i>% Operational payments on time</i>	<i>100%</i>
<i>% Residual error rate on operational expenditure</i>	<i>1.20%</i>

Table 24 2021 results for assessing cost-effectiveness and cost-efficiency of controls.

4.2. AUDIT OBSERVATIONS AND RECOMMENDATIONS

This section sets out the activities, observations, opinions and conclusions reported by the Internal Auditor and by the European Court of Auditors. Summaries of the management measures taken in response to the audit recommendations are also included, together with an assessment of the likely material impact of the findings on meeting internal control objectives, and therefore on management's assurance.

4.2.1. Internal audits

The Internal Audit Service (IAS) of the European Commission performs the internal audit function for the CBE JU.

In 2023, the IAS followed-up on the review of outstanding recommendations from past audits and declared all of them closed. The IAS also completed the update of the risk assessment of CBE JU operations for its 2024 audit plan. The IAS's auditing of the CBE JU follows the Strategic Internal Audit Plan that originates from the in-depth risk assessment performed in 2022, covering the period 2023-25, and its annual updates.

4.2.2. Audit by the European Court of Auditors

On 14 November 2023, the European Court of Auditors (ECA) published its report on CBE JU's annual accounts for the 2022 financial year. The ECA issued an 'unmodified opinion' (with no qualifications) on the reliability of the accounts and on the legality and regularity of revenue and of payments within the accounts.

Official replies from the CBE JU to the most significant observations made by the Court have already been provided in the document and updates for the year 2023 are provided below, with reference to some selected observations that did not call into question the opinion above:

- For the observations at paragraph 3.7.11 referring to suboptimal presentation in the annual accounts of information on members' contributions to the JU: the 2023 accounts provides the target contributions by members, together with the actual members' contributions as of 31 December 2023, in Annex 5.10.
- For the observations from paragraph 3.7.13 to paragraph 3.7.17 referring to the CBE JU's funding members' contributions to the Horizon 2020 Framework Programme, the present report provides at paragraph 2.4.2 further details and updated information on such contributions by the end of 2023.
- For the observations at paragraphs 3.7.18 and 3.7.22 referring to the 2022 budget implementation results, the present report provides an analysis of the 2023 results in section 2.3.

4.2.3. Overall conclusions

All of the Internal Audit Service's conclusions provided assurance to the Executive Director and to the Governing Board on the compliant effectiveness and efficiency of the Internal Control Framework implemented by the JU. The Internal Auditor actually observed some strengths and provided some recommendations for adding value to JU operations and mitigating risks. None of these observations were critical and they were all addressed with action plans that have been designed for timely implementation and agreed by the IAS.

The most significant observations of the ECA report for the 2022 financial year have been considered for follow-up and disclosure in this report.

The work of the auditors and the follow-up implemented by the Programme Office constitute part of the evidence base used to assess the effectiveness of the JU's internal control systems as reported in section 4.3 and management conclusions on the assurance in the section 4.4.

4.3. ASSESSMENT OF THE EFFECTIVENESS OF INTERNAL CONTROL SYSTEMS

The CBE JU Internal Control Framework is based on 17 control principles. It is aligned with the control framework of the European Commission and is in force since 1 January 2020. All the principles of the new control model are embedded throughout the CBE JU's organisational structure and rely on a combination of ex-ante and ex-post controls, segregation of duties, documented processes and procedures, control of deviations, and promotion of ethical behaviour.

Within this context, the Executive Director steers and supervises management of risk and internal control management, assisted by the Internal Control and Audit Manager and by the Management Team members, which looks at the robustness of reporting on operational performance. CBE JU staff at all levels ensure the Internal Control Framework is implemented properly thanks to their well identified roles, accountability and the objectives and performance assessment mechanisms in place.

The results of the 2023 Internal Control Framework assessment confirm that the CBE JU control systems are present and functioning effectively. At the level of principles, the self-assessment of the combined impact of detected strengths and deficiencies provided reasonable assurance as to the presence and effective functioning of all 17 principles. Only a few minor instances have been identified with no detrimental impact on the effectiveness of the internal control systems to work in an integrated manner. Rather, they provided the opportunity to plan work for 2024 to improve their efficiency and the cross reliance of relevant systems.

Consequently, all five internal control components are assessed as in place and functioning reasonably well in an integrated manner.

1. No major weaknesses were identified for the control environment component that provides the basis for carrying out internal controls across the organisation, and all underlying principles are proving to be fully in place and effective.
2. The risk assessment component is a dynamic and iterative process for identifying and assessing risks that could prevent objectives being met, and for determining how such risks should be managed. No weaknesses have been identified for this component and all underlying principles are proving to be fully in place and effective.
3. For the control activities component that ensures the mitigation of risks related to meeting objectives, no critical weaknesses were identified, and all underlying principles are proving to be adequately present and effective. A moderate instance on the updating and testing of business continuity arrangements for the JUs based in the same building will be addressed in the course of 2024.
4. The information and communication component ensures that information that is necessary for internal control and to prove objectives are being met. Delays on the timely deployment of the corporate IT tools for CBE JU IKAA planning and reporting have moderate impacts that CBE JU is addressing in cooperation with EC services and a report on the subject is provided in section 2.4.1 and Annex 5.9 of this report. No other weaknesses have been identified for this component and all underlying principles are proving to be fully in place and effective.
5. The monitoring activities component is in place and functioning well: continuous and specific assessments are used to ascertain whether each of the five components of internal control is present and functioning. Continuous assessments, built into business processes at different levels of the organisation, provide timely information on deficiencies. Findings are assessed and deficiencies are flagged up and corrected in a timely manner, with serious matters reported where appropriate.

4.3.1. Continuous monitoring

Management structures are comprehensive. The design and implementation of management and supervision structures cover all programmes and activities. Specifically on the spending programmes, they cover all expenditure types, delivery mechanisms and budget management and to support the CBU JU in meeting its policy, operational and control objectives.

The CBE JU continuously monitors the performance of the internal control system via a number of indicators. For operational expenditure, this monitoring is built into the e-grants suite of IT tools and reports can be generated at any moment with real-time information on operational performance. The information systems (SyGMa) and workflows (COMPASS) ensure that transactions processes are recorded in the IT accounting system (ABAC) with a high degree of automation, that controls are embedded into each workflow, that assessments, deviations and formal notifications are registered and that documents are preserved (ARES).

Staff performing assessments in regular workflows or in specific assessments have good knowledge about control requirements and objectives. Operational and financial staff have

attended specific corporate training (preparing and signing grants, reporting and payments, project monitoring, amendments, be aware – fraud in the research family, and other relevant topics) and the CBE JU runs internal workshops on financial or operational matters as necessary.

The CBE JU regularly convenes governance bodies, management and staff meetings and agendas include reports on the implementation of action plans previously agreed and discussions of emerging business.

Where there are indications of a specific risk emerging in a process, or the continuous control results show a sudden dip in performance in a specific area, managers may take direct action (specific assessments) to identify the root causes of the risk/underperformance/inefficiency and plan corrective action.

There is a procedure for reporting and assessing exceptions, noncompliance and internal control weaknesses and it is implemented when relevant. The resulting assessments and remedial action plans are put to the Authorising Officer for approval and recorded in a register.

The Internal Control and Audit Manager monitors and reports on the timely implementation of action plans recorded or stemming from audit recommendations.

4.3.2. Risk assessment and management

Risk management adds value to the organisation by efficiently and effectively supporting it in meeting its objectives. Its effectiveness is regularly assessed as an integral component of the internal control system of the organisation (see section 4.3 above). The level of resources devoted to it as well as the level of documentation produced are adequate and proportionate to the criticality of the relevant activities. Management across the JU Programme Office is alerted to emerging risks. In addition, the Governing Board is kept informed in a timely manner about risks and responses that it should discuss and agree.

The way in which risks were managed effectively in the course of 2023 is reported in section 1.1.3.

At the end of 2023, the CBE JU conducted a risk assessment exercise on the achievement of objectives described in this work programme for the year 2024. The assessment evaluated the root causes of each identified risk and its potential consequences, taking into account the existing controls as well as the convergences and interdependencies between risks. This process is documented in the internal risk register, which incorporates a description of the response plans, specifying who is responsible for each action and individual deadlines. Relevant information is disclosed in the [CBE JU Annual Work Programme 2024](#) section 2.2.1.

4.3.3. Preventing conflicts of interest

The JU Programme Office has developed a comprehensive set of rules and procedures that are effectively implemented across its entire governance structure as follows:

- When joining the JU Programme Office team, each staff member agrees to the application of the Staff Regulation and signs a declaration of honour on the management of conflicts of interest.
- All staff members receive a copy of the code of good administrative behaviour. There is also compulsory training on managing conflicts of interest and whistleblowing within the Learning and Development Framework of the CBE JU.
- Conflict of interest procedures for the members of both the Governing Board and the advisory boards of CBE JU are in place. In addition to the general rules in this regard established in each JU's rules of procedure, Governing Board decision 13/17 of 13 December 2017 includes specific rules for preventing and managing conflicts of interest that apply to the bodies of the Bio-based industries Joint Undertaking. Specific measures have been implemented to prevent and manage conflicts of interest of experts in charge of reviewing projects and tenders.

In the course of 2023, these control systems operated effectively, and nothing needs to be reported which may influence the reasonable assurance to be provided by the Authorising Officer in section 4.5.2 below.

4.4. CONCLUSION ON THE ASSURANCE

In conclusion, based on the elements reported above, the management of CBE JU has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented.

The Authorising Officers by Delegation have signed their declarations that cover robustness in reporting on operational performance. The Manager in charge of risk management and internal control has signed the yearly declaration covering the state of internal control in the Programme Office and taking responsibility for the completeness and reliability of management reporting on the subject. Nothing has been reported which may influence the reasonable assurance to be provided by the Authorising Officer in section 4.5.2.

4.5. STATEMENT OF ASSURANCE

4.5.1. Declaration of assurance of the Authorising Officer

I, the undersigned, Nicolás Giacomuzzi-Moore, Executive Director of the Circular Bio-based Europe Joint Undertaking (CBE JU), in my capacity as Authorising Officer:

- Declare that the information contained in this report gives a true and fair view.
- State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex-post controls, the work of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for years prior to the year of this declaration.

- Confirm that I am not aware of anything not reported here which could harm the interests of the institution CBE JU.

Place: Brussels

Signed in ARES for the draft AAR

Ref. Ares(2024)2782466

Nicoló GIACOMUZZI-MOORE

Executive Director

4.5.2. Governing Board's assessment of the Annual Activity Report

Introduction

The Circular Bio-based Europe Joint Undertaking (CBE JU) Programme Office submitted the 2023 Annual Activity Report (AAR) on 15 April 2024 to its Governing Board.

On 12 March 2024, the Governing Board appointed a working group to carry out all the preparatory work required for the assessment of the 2023 AAR. This working group included representatives of the Bio-based Industries Consortium (BIC, the only member other than the Union) and the Commission.

In accordance with Article 16 of the Governing Board's rules of procedure, the working group reported to the Governing Board on 17 June 2024 by providing a draft assessment of the AAR. This forms the basis for the Governing Board's current assessment.

The AAR 2022 discusses the achievements of the CBE JU in the year 2023.

Analysis

The Governing Board adopted the 2023 Annual Work Plan (AWP) on 29 November 2022. It recognises the progress made by the CBE JU towards achieving the objectives set in this work plan. It notes the following points in particular:

- In 2023, the efficient performance of the CBE JU in core operations was confirmed, continuing the positive trends observed in previous years with some notable highlights, including an increased mobilisation in the "widening countries" with a record number of applicants in the 2023 call, with 162 project proposals requesting more than EUR 962 million in funding, a continued high participation rate by SMEs (one in three applicants is an SME) and 71 % of our applicants being newcomers to the programme, underlining the openness of CBE JU calls.
- In terms of types of action, at the end of 2023 the CBE JU portfolio reached a total of 161 projects (83 RIA, 46 DEMO, 15 FLAG and 19 CSA) of which 57 were still ongoing at the end of 2023 and 104 finalised. While agri-based feedstock remains the predominant feedstock source, there is a clear transition underway towards increased use of other types of feedstocks such as aquatic residues, CO₂ and biowaste.
- 2023 was also the year that the CBE JU developed its 'Widening Participation Strategy' and marked the first year of its 'Widening Action Plan 2023-2024'. The Strategy and the Action Plan have a two-fold objective of stepping up participation of less represented countries and regions in the CBE JU funding programme and stimulating research and innovation in countries and regions with less mature bio-based systems. The Strategy was developed from feedback from the widening countries themselves who identified specific barriers to their participation in the annual calls and identified opportunities for action.
- Decreasing the environmental impacts of industrial processes and products is one of the core objectives of BBI JU projects. A significant number of projects report positive contributions in line with this ambition. 68 % of projects report a reduction in greenhouse gas (GHG) emissions, 67 % are targeting waste reduction, reuse, recycling or valorisation, 53 % report reduced

energy consumption and 36 % highlight increased water efficiency. Through annual monitoring, funded projects are continuing to report contributing to the Sustainable Development Goals (SDG), in particular SDG 9, 12, 13, 14 and 15.

- BIC's and the Union's contribution to the CBE Initiative is shown in the amounts of funding provided in the past 8 years³⁵ to fulfil the commitments set out in the Council Regulation:
 - The members paid EUR 5,827,423 each in administration costs to the CBE JU programme office up to 2023 (EUR 4,172,560 relating to BBI JU and EUR 1,651,863 relating to CBE JU), so total EUR 11,648,846. This accounts for 24,78% (compared to 12% for 2022), of the 10-year administrative budget envisaged under Article 49 and 50 of the SBA, which shows that the CBE JU programme office has budgeted carefully when it comes to administration.
 - The total consumption of the administrative budget, including reactivation of BBI JU unused prior year appropriations, was 74% (BBI 82%) in Commitment Appropriations and 56% (BBI 88%) in Payment Appropriations (PA). Staff related costs showed an overall execution of 64% (BBI 95%), This was because only 3 % of the CBE's salaries budget of kEUR 1 531 was executed. For the BBI JU, total T1 execution was 95 %. On the BBI JU only side, salary costs (total budget EUR 2.7 million) showed a strong execution at 98 % and other staff costs somewhat less (kEUR 465) at 60 %. There were no installation/resettlement costs (budgeted at kEUR 60) and only 55 % of the training budget (kEUR 113) was used. The overall PA execution in Title 1 was 57 %, of which 91 % was for BBI JU. The infrastructure budget achieved an overall execution of 88% (BBI 90%) in the CA of the 2023 budget.
 - There was very high implementation of between 94% and 100% of allocations used in all chapters apart from studies/consultancy (total kEUR 114 – 59 % execution), and external staff (total kEUR 387 – 63 % execution). The overall PA consumption in Title 2 was 54 %. For BBI JU this was 67 %. For CBE, execution was low for rental costs (total kEUR 320 – 0 % execution) and IT equipment costs (total kEUR 417 – 25 % execution). In addition, some very large contracts signed under Title 2 in 2023 (and with funds allocated from both BBI and CBE budget lines), notably for the Stakeholder Forum (December 2023) and the new IT KPI tool, still have to be paid in 2024.
 - Regarding in-kind contributions, made by BIC's constituent entities towards operational activities (IKOP), CBE JU calculates the implementation ratio on these types of contributions. By 2023, with only one call for proposals implemented (21 projects launched in the second half of 2023), the following has been reported: 25,137,769 EUR estimation for IKOP in call 2022, of which 3,708,592 EUR for IKOP already incurred and not yet certified, in total of 3,708,592 EUR as the 2023 result.
 - By 2023, as reported for CBE JU, in kind to additional activities (IKAA) has been estimated at 388,084,406 EUR, of which 61,539,083 EUR already incurred but not

³⁵ Out of 7 years for operational budget commitments for calls (2014-2020), and 10 years for the administrative budget (2015-2024).

certified, and of which 0 EUR as certified, giving the 2023 final result of 61,539,083 EUR.

- At end 2023, BIC and its constituent entities have therefore delivered EUR 1,655,223 in total financial contributions, as well as reported In-Kind to Operational Activities (IKOP) incurred and not yet certified in the amount of 3,708,592 EUR, and in Kind to Additional Activities (IKAA) incurred, not yet certified of 61,539,083 EUR, totalling all consolidated contributions reported, incurred and not yet certified at 66,902,898 EUR.
- The CBE JU's efficiency is monitored via key performance indicators (KPIs) that are applied by all joint undertakings under Horizon Europe. The Governing Board notes that the KPIs related to programme monitoring show that the CBE JU is operating efficiently.
- The KPIs related to crosscutting issues, gender equality, private sector participation and the participation of small and medium-sized enterprises (SMEs) are positive. The analysis of SME participation carried out by the Programme Office shows that they enable the generation of new products and processes by providing new knowledge, supplying customised technologies and services for testing, data analysis and validation. With a remarkably high participation rate in CBE JU projects (33% of the beneficiaries receiving 39% of the funding budgeted in grant agreements) compared to other initiatives under Horizon Europe, this picture confirms that the CBE JU plays a dynamic role in the circular bio-based economy and that the CBE JU initiative represents a valuable instrument for SME-driven innovation. Moreover, with 56% of private, for profit companies, CBE JU confirmed its role for European competitiveness as an attractive environment for entrepreneurs to grow and scale-up their businesses.
- Another key highlight at the end of 2023 was the leverage effect climbing to EUR 3.23, i.e., for every euro of public funding the programme attracts EUR 3.23 in private investment. The expected leverage value is already above the BBI JU target for 2024. This is an important achievement given the increased demands on public funding and the rising uncertainty among private investors due to the volatile geopolitical context we are currently witnessing.
- In 2023, CBE JU has successfully delivered on devising and implementing the widening strategy to involve more beneficiaries from southern European regions as well as from the Central and Eastern European regions. There still remains a need to stay attentive to the balanced geographical distribution and the flexible adaptation of the widening strategies, in light of possible changes of the national or regional bioeconomy governance. The positive feature reported in the 2023 call was the high level of newcomers (56%), which is especially promising in case of underrepresented Eastern and Central European Member States, and CBE JU should stay attentive to further efforts to attract newcomers.
- In this respect, an increased attention to possible synergies with continuous coordinated programming with Horizon Europe Cluster 6, reported in 2023, could offer further avenues for exchanges and outreach to national and regional policy makers and funding bodies. This may address issues highlighted in the AAR2023 on the governance and funding of the bio-based sector at national/regional level, which may be very different across Europe, leading to the use of different instruments that have different rules, objectives and timeframe) as well as at instrument level (i.e., the difficulty of implementing synergy label mechanisms for complementary funding with ERDF funding etc.
- Progress has been made in 2023 as well on the establishment of the two new CBE JU Deployment Groups (DEG), namely on DEG on Investments & Finance and DEG on Primary Producers, supported by a dedicated Task Force. For the former, the Task Force includes

cooperation with European Innovation Bank. For the latter, a highlight to report was the preparation of the participatory workshop in early 2024 to consult with relevant stakeholders on the proposed objectives, areas of intervention and potential future members of the DEG. To prepare this event CBE JU's State Representatives Group has been consulted in December 2023 to identify relevant stakeholders.

- The 22 projects finalised in 2023- reported actual results. The projects celebrated major achievements. And reported significant (potential) impacts, highlighting how sustainable bio-based solutions can help in addressing some of the most pressing societal challenges. These include inter alia introducing circular approaches in production and consumption, using resource-efficient technologies and processes, reducing GHG emissions and microplastics pollutants and preserving biodiversity. The Governing Board appreciates that the finalised projects are in line with the foreseen KPIs and objectives.
- The Governing Board appreciates the CBE JU's work on communication and outreach, which helped it gain recognition and in particular the excellent preparation of the CBE JU Stakeholder's Forum on December 2023, first one in person meeting of this format since the COVID-19 pandemic, as well as the development of the CBE JU Communication Strategy. The CBE JU programme office organised also other successful meetings and conferences online including the call 2023 Info Day, in hybrid form.
- The Governing Board acknowledges that the programme office management processes and functions meet the four objectives of its internal control framework.

The Governing Board considers that some aspects described in the report merit improvement, and asks the CBE JU to:

- continue to gradually change from expected to validated KPI figures once projects have ended, as planned, and in particular apply automated IT tools for the purpose of KPI management. As some KPI definitions may need to be periodically fine-tuned, the CBE JU should be ready streamline the definitions and seek clear ways to present them to the general public, this should be aligned with the overall communication efforts.
- continue advancing on a Widening Strategy to involve an even wider and more balanced range of participants in its calls from Eastern and Southern parts (Member States and regions) of Europe.
- work on better synergies with the broader bioeconomy initiatives at Horizon Europe level in particular with Cluster 6, but also other Clusters (such as 4 or 5) as relevant.
- finalise the establishment of the Deployment Group on Finances and Investment, as well as the Deployment Group on Primary Producers, and to devise an inclusive and transparent selection methodology for its future members.

The Governing Boards notes that CBE JU remains open for participation and international cooperation, aligned to the overall Horizon Europe rules, which is positive, but it suggests more attention should be devoted to the issue of international (cooperation) opportunities, and related (competitiveness) risks. This may be linked – but not limited to - the new (2024) EC Communication on Biotechnology and Biomanufacturing, of interest to the CBE JU, and where such international cooperation opportunities have been highlighted.

Conclusion

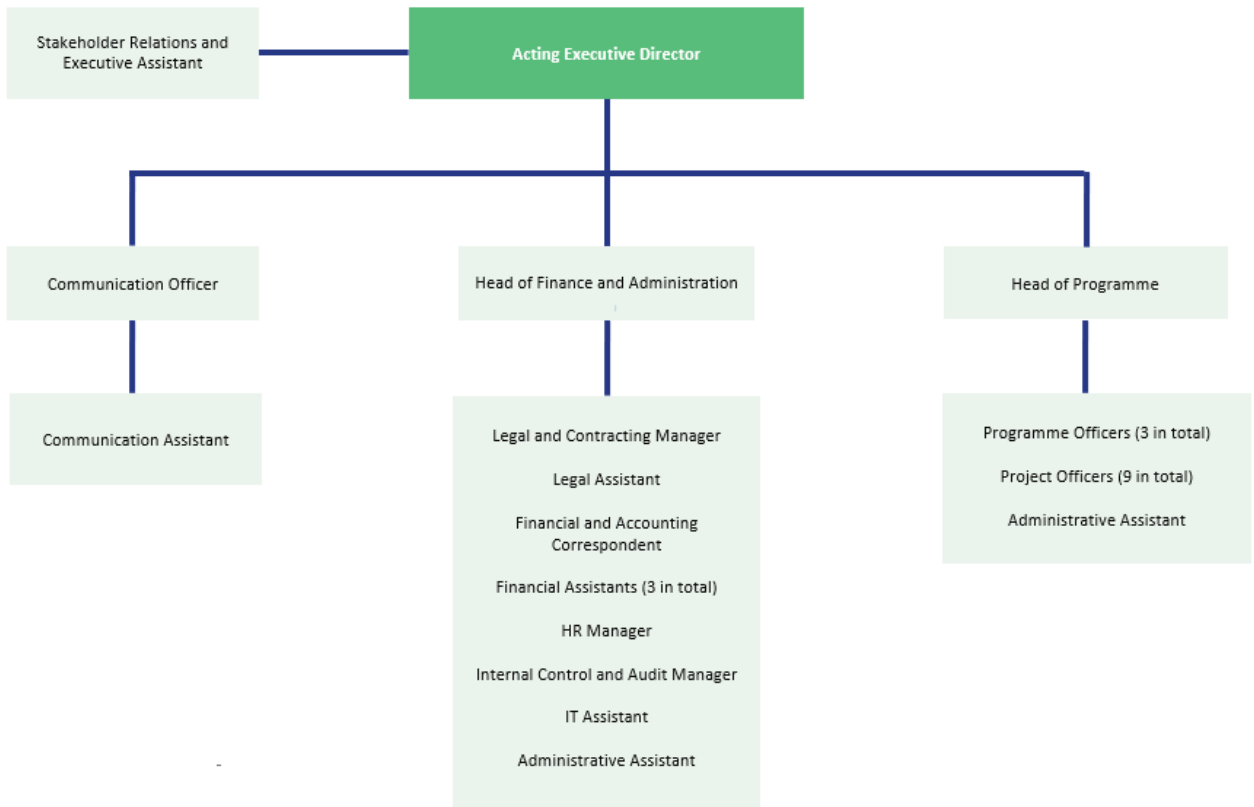
The Governing Board believes that the technical and operational information provided in the 2023 AAR reflects the situation at the end of 2023. It believes that the 2022 AAR provides a complete and accurate report of the progress made by the CBE JU and in 2023, in particular on the objectives set in the 2023 AWP. The report clearly identifies the risks associated with the CBE JU's operations, duly reports on how the resources were used, and indicates the efficiency and effectiveness of the CBE JU's internal control system.

Based on the working group's report, the declaration of the authorising officer, and the information provided in this report, the Governing Board concludes that the 2023 key objectives have been achieved in compliance with the principles of legality and sound financial management.

Taking note of the declaration of assurance provided by the Executive Director of the CBE JU, the Governing Board confirms that, in general, suitable internal control standards either have been put in place or have largely been implemented and require supplementary action, and that the CBE JU is properly monitoring and mitigating any risks.

5. ANNEXES

5.1. ORGANISATIONAL CHART



5.2. ESTABLISHMENT PLAN AND ADDITIONAL INFORMATION ON HR MANAGEMENT

Function group and grade	2022				2023			
	Authorised		Actually filled as of 31/12/2022		Authorised		Actually filled as of 31/12/2023	
	Perm.	Temp.	Perm.	Temp.	Perm.	Temp.	Perm.	Temp.
AD 16								
AD 15								
AD 14		1				1		
AD 13								
AD 12		2		1		2		1
AD 11				1				1
AD 10								
AD 9		3		3		5		3
AD 8		4		4		2		3
AD 7								1
AD 6								
AD 5								
TOTAL AD	10		9		10		9	
AST 11								
AST10								
AST 9								
AST 8								
AST 7								
AST 6								
AST 5						1		1
AST 4		2		2		1		1
AST 3								
AST 2		1		1		1		1
AST 1								
TOTAL AST	3		3		3		3	
AST/SC 6								
AST/SC 5								
AST/SC 4								
AST/SC 3								
AST/SC 2								
AST/SC 1								
TOTAL AST/SC								
TOTAL AD+AST								
AST/SC								
GRAND TOTAL	13		12		13		12	

Contract Agents	Authorised	Actually filled as of 31/12/2023
Function Group IV	10	10
Function Group III	6	6
Function Group III		
Function Group I		
TOTAL	16	16

Seconded National Experts	Authorised	Actually filled as of 31/12/2023
	0	0

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5.4. PATENTS FROM PROJECTS

Project acronym	Number of IPRs	Type of IPR
AgriChemWhey	2	Patent
BIOMOTIVE	5	Patent
DEEP PURPLE	2	Patent
EMBRACED	6	Patent
EnzOx2	2	Patent
EUCALIVA	1	Registered design
FARMYNG	4	Patent
HYPERBIOCOAT	1	Patent
InDIRECT	3	Patent
OLEAF4VALUE	1	Patent
PEference	5	Patent
PHERA	4	Patent
PULP2VALUE	2	Patent
SCALE	5	Trademark
SusBind	1	Patent
TECH4EFFECT	1	Trademark
VEHICLE	5	Patent

5.5. SCOREBOARD OF HORIZON 2020 LEGACY KEY PERFORMANCE INDICATORS

	KPI	Definition	Target at the end of H2020	Results in 2023	
Industrial Leadership	12	SME - Share of participating SMEs Introducing innovations new to the company or the market (covering the period of the project plus three years)	Number and % of Participating SMEs that have introduced innovations to the company or to the market	50 %	Cumulative figures ³⁶ 201 SMEs introduced innovations in the company 238 SMEs introduced innovations in the market
	13	SME – Growth and job creation in participating SMEs	Turnover of company, number of employees	To be developed based on FP7 ex-post evaluation and /or first Horizon 2020 project results	Cumulative figures for projects finalised by 31 December 2023 ³⁷ Turnover: EUR 2 418,712 033 Employees: 10 962
Societal Challenges	14	Publications in peer-reviewed high impact journals	The percentage of papers published in the top 10 % impact ranked journals by subject category Publications from relevant funded projects (DOI: Digital Object Identifiers); Journal impact benchmark (ranking) data to be collected by commercially available bibliometric databases	On average, 20 publications per EUR 10 million funding	2023: 64 publications Total (2015–2023): 808 publications ³⁸
	15	Patent applications and patents awarded in the area of the JTI	Number of patent applications by theme; Number of awarded patents by theme	On average, 2 per EUR 10 million funding (2014-2020)	149 patent applications/30 patents awarded ³⁹
	16	Number of prototypes and testing activities	Number of prototypes and testing (feasibility/demo) activities	To be developed on the basis of first Horizon 2020 results	1 357 ⁴⁰
	17	Number of joint public-private publications in projects	Number and share of joint public-private publications out of all relevant publications	To be developed on the basis of first Horizon 2020 results	n/a in 2023

³⁶ Based on input from 142 projects from calls in 2014-2020, and as per information available on CORDA (13 February 2023). Data is reported per project with no indication of SME share.

³⁷ Based on input from 104 out of 106 projects completed by 31 December 2023. Number of SMEs (distinct beneficiaries) providing data: 323 out of 328.

³⁸ These figures include all peer-reviewed publications as the bio-based sector is multi-disciplinary meaning we cannot determine the top 10 % impact-ranked journals.

³⁹ Cumulative figure (2015-2023).

⁴⁰ Sum of all prototypes and testing activities reported up until end 2023.

	18	New products, processes, and methods launched into the market	Number of projects with new innovative products, processes, and methods. Project count and drop-down list allowing to choose the type processes, products, methods	To be developed on the basis of first Horizon 2020 results	Number of projects with new innovative: Products: 105 Processes: 91 Methods: 55	
Evaluation	N A	Time to inform (TTI) all applicants of the outcome of the evaluation of their application from the final date for submission of completed proposals	To provide applicants with high-quality and timely evaluation results and feedback after each evaluation step by implementing and monitoring a high scientific level peer reviewed process	Number and % of information letters sent to applicants within target, Average TTI (calendar days), Maximum TTI (calendar days)	153 calendar days	n/a in 2023
	N A	Redress after evaluations		Number of redresses requested	n/a	n/a in 2023
Grants	N A	Time to grant (TTG) measured (average) from Call deadline to signature of grants	To minimise the duration of the granting process aiming at ensuring a prompt	Number and % of grants signed within target, Average TTG in calendar days, Maximum TTG in calendar days	TTG ≤ 245 days (as % of GAs signed)	n/a in 2023
	N A	Time to sign (TTS) grant agreements from the date of informing successful applicants (information letters)	implementation of the Grant Agreements through a simple and transparent grant preparation process	Number and % of grants signed within target, Average TTS in calendar days, Maximum TTS in calendar days	TTS ≥ 92 calendar days	n/a in 2023
Payments	N A	Time to pay (TTP) (% made on time) -pre-financing - interim payment -final payment	To optimise the payments circuits, both operational and administrative, including payments to experts (Average number of days for Grants pre-financing, interim payments and final payments; Number of experts appointed Average number of days for administrative payments)	-pre-financing (30 days) - interim payment (90 days) -final payment (90 days)	Operational: -pre-financing (n/a in 2023) - interim payment 100% on time. Average TTP 61 days -final payment 100% on time. Average TTP 63 days Administrative: average TTP 15 days	
HR	N A	Vacancy rate (%)	% of posts filled in, composition of the JU staff	n/a	97%	
JU efficiency	N A	Budget implementation/ execution: 1. % CA to total budget 2. % PA to total budget	Realistic yearly budget proposal, possibility to monitor and report on its execution, both in commitment (CA) and payments (PA), in line with sound financial management principle % of CA and PA	100% in CA and PA	82% CA execution 88% PA execution	
	N A	Administrative Budget: Number and % of total of late payments	Realistic yearly budget proposal, possibility to monitor and report on its execution in line with sound financial management principle (Number of delayed payments % of delayed payments (of the total))	n/a	27 (5%) of a total 571 payments were late	

5.6. SCOREBOARD OF HORIZON EUROPE'S COMMON KEY IMPACT PATHWAY INDICATORS (KIPS)⁴¹

The results shown in the table are for the 21 call 2022 projects, which started only in Q2-Q3 of 2023 and have therefore not delivered results. Only short-term indicators are currently available. Medium- and long-term indicators will be ready at a later stage in the programme.

The data for these indicators is centrally collected to the European Commission's Horizon Europe dashboard, the public version of which is available here: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-dashboard>

Key Impact Pathway ⁴²	Short-term	Medium-term	Longer-term	Detail per action or globally for 2023
Towards scientific impact				
1-Creating high-quality new knowledge	Publications -Number of peer-reviewed scientific publications resulting from the Programme	Citations -Field-Weighted Citation Index of peer-reviewed Publications resulting from the Programme	World-class science -Number and share of peer-reviewed publications resulting from the projects funded by the Programme that are core contribution to scientific fields	0
2-Strengthening human capital in R&I	Skills -Number of researchers involved in upskilling (training, mentoring/coaching, mobility and access to R&I infrastructures) activities in projects funded by the Programme	Careers -Number and share of upskilled researchers involved in the Programme with increased individual impact in their R&I field	Working conditions -Number and share of upskilled researchers involved in the Programme with improved working conditions, including researchers' salaries	366
3-Fostering diffusion of knowledge and open science	Shared knowledge -Share of research outputs (open data/publication/software etc.) resulting from the Programme shared through open knowledge infrastructures	Knowledge diffusion -Share of open access research outputs resulting from the Programme actively used/cited	New collaborations -Share of Programme beneficiaries which have developed new transdisciplinary/trans-sectoral collaborations with users of their open access research outputs resulting from the Programme	Not available for 2023
Towards societal impact				
4-Addressing Union policy priorities and	Results -Number and share of results aimed at addressing identified Union policy priorities and global	Solutions -Number and share of innovations and research outcomes addressing identified	Benefits -Aggregated estimated effects from use/exploitation of results funded by the Programme on tackling identified	Not available for 2023

⁴¹ Based on Annex V to Regulation 2021/695/EU

global challenges through R&I	challenges (including SDGs) (multidimensional: for each identified priority) Including: Number and share of climate-relevant results aimed at delivering on the Union's commitment under the Paris Agreement	Union policy priorities and global challenges (including SDGs) (multidimensional: for each identified priority) Including: Number and share of climate-relevant innovations and research outcomes delivering on Union's commitment under the Paris Agreement	Union policy priorities and global challenges (including SDGs), including contribution to the policy and law-making cycle (such as norms and standards) (multidimensional: for each identified priority) Including: Aggregated estimated effects from use/exploitation of climate-relevant results funded by the Programme on delivering on the Union's commitment under the Paris Agreement including contribution to the policy and law-making cycle (such as norms and standards)	
5-Delivering benefits and impact through R&I missions	R&I mission results -Results in specific R&I missions (multidimensional: for each identified mission)	R&I mission outcomes - Outcomes in specific R&I missions (multidimensional: for each identified mission)	R&I mission targets met -Targets achieved in specific R&I missions (multidimensional: for each identified mission)	Not available for 2023
6-Strengthening the uptake of R&I in society	Co-creation -Number and share of projects funded by the Programme where Union citizens and end-users contribute to the co-creation of R&I content:	Engagement -Number and share of participating legal entities which have citizen and end-user engagement mechanisms in place after the end of projects funded by the Programme	Societal R&I uptake -Uptake and outreach of co-created scientific results and innovative solutions generated under the Programme	Not available for 2023
Towards technological / economic impact				
7-Generating innovation-based growth	Innovative results -Number of innovative products, processes or methods resulting from the Programme (by type of innovation) & Intellectual Property Rights (IPR) applications	Innovations -Number of innovations resulting from the projects funded by the Programme (by type of innovation) including from awarded IPRs	Economic growth -Creation, growth & market shares of companies having developed innovations in the Programme	0
8-Creating more and better jobs	Supported employment -Number of full time equivalent (FTE) jobs created, and jobs maintained in participating legal entities for the project funded by the Programme (by type of job)	Sustained employment -Increase of FTE jobs in participating legal entities following the project funded by the Programme (by type of job)	Total employment -Number of direct & indirect jobs created or maintained due to diffusion of results from the Programme (by type of job)	0
9- Leveraging investments in R&I	Co-investment (= Total Cost(After the reduced funding methodology applied) – EU Contribution) -Amount of public & private investment mobilised with the initial investment from the Programme	Scaling-up -Amount of public & private investment mobilised to exploit or scale-up results from the Programme (including foreign direct investments)	Contribution to '3 % target' - Union progress towards 3 % GDP target due to the Programme	32.19 M EUR

5.7. HORIZON EUROPE PARTNERSHIP KEY PERFORMANCE INDICATORS⁴³

N°	Criterion addressed	Proposed common indicators	Baseline ⁴⁴	Results for 2023	Target ⁴⁵
1	Additionality	Progress towards (financial and in-kind) contributions from partners other than the Union – i.e., committed vs. actual	n/a: planning of contributions still ongoing until 2024. Interim results BBI overall target: EUR 2.73 billion. 2023 result: EUR 2.34 billion (85%)	Total contributions reported, incurred, not yet certified: EUR 65.4 million out of EUR 438 million committed (15%) Planning of contributions still ongoing until 2028.	1000 million €
2	Additionality/ Synergies	Additional investments ⁴⁶ triggered by the EU contribution, including qualitative impacts related to additional activities	n/a	Not available yet	n/a
3	Directionality	Overall (public and private, in-kind and cash) investments mobilised towards EU priorities	Green Deal: 100% of investments Resilience: 100% of investments	Green Deal: 100% Resilience: 100%	n/a
4	International visibility and positioning	International actors ⁴⁷ involved	43 (not unique) beneficiaries from 6 countries (Australia, Bangladesh, Hong Kong, South Africa, Switzerland and United States)	4 (not unique) beneficiaries from 1 country (Switzerland)	n/a

⁴³ Based on an interim report published on 21 June 2021 (Commission experts' report, Section 5 and Appendix 1 <https://op.europa.eu/en/publication-detail/-/publication/6b63295f-d305-11eb-ac72-01aa75ed71a1/language-en/format-PDF/source-215872593>)

⁴⁴ The baseline refers to the cumulative results for BBI JU, the predecessor of CBE JU partnership under Horizon 2020.

⁴⁵ In the Council Regulation targets have been only set for the financial and in-kind contributions of both partners, EU and BIC. For the rest of the indicators, there are no targets set for 2027.

⁴⁶ According to the guidance, these are additional activities or investments triggered by the partnership (not as part of the partnership but in addition to it). Partnership acts as a kind of a trigger (e.g., because of a partnership, MS decides to launch a national programme). These can include e.g. private investments in training or activities required for putting on the market the product/service which results from the European Partnership; or public investments mobilised from other EU/ national / regional programmes (e.g. ERDF, CEF).

⁴⁷ Number of beneficiaries and associated partners from third countries (non-EU, non-associated countries). The baseline refers to the BBI JU programme and the 2023 results to the 2022 call projects, which were signed in 2023.

5	Transparency and openness	Share & type of stakeholders and countries invited/engaged ⁴⁸	4400 unique applicants (33% SME ⁴⁹ , 71% private for profit companies, 23% higher education establishments and research centres) from 77 different countries	1939 unique applicants from 54 different countries (36% SMEs*, 61% private for profit companies, 31% higher education establishments and research centres)	n/a
6	Transparency and openness	No and types of newcomer members ⁵⁰ in partnerships and their countries of origin (geographical coverage)	n/a	124 unique newcomer BIC member applicants from 26 different countries (50% SMEs*, 81% private for profit companies, 13% higher education establishments and research centres)	n/a
7	Transparency and openness	No and types of newcomer beneficiaries ⁵¹ in funded projects (in terms of types and countries of origin)	1200 unique beneficiaries	143 unique newcomer beneficiaries from 24 different countries (48% RIA, 48% IA and 4% CSA)	n/a
8	Coherence and synergies	Number and type of coordinated and joint activities with other European Partnerships ⁵²	n/a	Number of coordinated activities covering Strategic planning, coordination meetings: 4 <ul style="list-style-type: none"> ○ Process4Planet, Sustainable Blue Economy Partnership, Sustainable Food Systems Partnership, Innovative materials for EU 	n/a

⁴⁸ Number of unique applicants, The baseline refers to the BBI JU programme, 2023 results refer to applicants of the 2022 and 2023 calls.

⁴⁹ SMEs include both private and non-profit SMEs.

⁵⁰ In legal terms, the only member of the CBE JU partnership other than the EU is the Bio-based Industries Consortium (BIC). In this indicator, the number of newcomer applicants that are BIC members is reported, 2023 results refer to applicants of the 2023 call.

⁵¹ The baseline refers to unique beneficiaries under the BBI JU programme, and 2023 results refer to unique beneficiaries in CBE JU 2022 call projects.

⁵² Please see a more detailed description of these activities in section 1.7.2 Progress against HE Common JUs KPIs.

<p>9</p> <p>Coherence and synergies</p>	<p>Number and type of coordinated and joint activities with other R&I Initiatives at EU /national/ regional/sectorial level⁵³</p>	<p>n/a</p>	<p>Overall number of coordinated activities: 13</p> <p>Strategic planning activities: 3</p> <ul style="list-style-type: none"> ○ endorsement by CBE JU of Charters of Mission Oceans and Mission Soil ○ participation in Community of Practice ECOSYSTEEX to align priorities in textile sector <p>• Coordinated programming actions: 2</p> <ul style="list-style-type: none"> ○ New Bauhaus 2023 call ○ contributions to Mission Soil included in some 2023 call topics <p>• Portfolio: 3</p> <p>Coordination meetings organised with: Mission Ocean, European Innovation Council, Innovation Fund</p> <p>• Outreach & dissemination:5</p> <p>Coordination activities organized with: MSCA-SE, Mission Oceans, Mission Soil, COST, EEN</p>	<p>n/a</p>
<p>10</p> <p>Coherence and synergies</p>	<p>Complementary and cumulative funding from other Union funds (Horizon Europe, National funding, ERDF, RRF, Other cohesion policy funds, CEF, DEP, LIFE, other)⁵⁴</p>	<p>n/a</p>	<p>Not available yet</p>	<p>n/a</p>
<p>11</p> <p>International visibility and positioning</p>	<p>Visibility of the partnership in national, European, international policy/industry cycles⁵⁵</p>	<p>n/a</p>	<p>Overall number of activities: 33</p>	<p></p>

⁵³ Please see a more detailed description of these activities in section 1.7.2 Progress against HE Common JUs KPIs.

⁵⁴ There is currently no complementary funding from other Union funds allocated at CBE JU programme level. However, information on existing complementary funding is being monitored through channels: i) the national reporting as part of the states' representatives group activities, where countries indicate on other EU funding instruments to support activities relevant for the circular/bio-based sector and ii) at a project level, complementary funds at project level are being reported by CBE JU project coordinators annually, in the context of the CBE JU specific KPI 10.3 *Number of projects with synergies with other funding programmes at EU, national or regional level*. Please see section 1.7.3 Progress towards JU specific KPIs for more information.

⁵⁵ Participation of CBE JU at international events at global, European and national level.

		<p>Most relevant participation at international events at different levels⁵⁶:</p> <ul style="list-style-type: none"> • Global: 2 FAO International Sustainable Bioeconomy Working Group, World BioMarkets • EU: 16 CBE JU Infoday, CBE JU Stakeholder forum, ECOMONDO, EFIB, ECCP, EuropaBio Biomanufacturing platform, AGRI-FISH Council exhibition, European Biostimulants Industry Council Summit, Plant Based Summit, ETC BE, SPRING, EPNOE, RIVBFS, IFIB, EUBCE, CEPI • National: 14 <ul style="list-style-type: none"> ○ 13 national CBE JU info days: BE, CZ, DE, EE, IE, ES, FR, HU, HR, IT, PO, PT, SE ○ Other national events: Swedish Bioeconomy Conference 	n/a

⁵⁶ Please see Annex 5.12 for a full list of events with CBE JU participation.

5.8. SCOREBOARD OF KEY PERFORMANCE INDICATORS SPECIFIC TO THE CBE JU

The KPIs reported in this table are the one set for the CBE JU partnership in its [Strategic Research and Innovation Agenda \(SRIA\)](#).

KPI	Unit of measurement	Estimated target 2025 ^a	Estimated target 2027 ^a	Ambition >2027	Results for 2023
Resources (input), processes and activities					
1. Strategic participation and integration of feedstock producers and suppliers towards large-scale valorisation of sustainable biomass	1.1. No of primary producers, involved as project beneficiaries and/or engaged in value chains at project level	52	79	100	11
	1.2. No of (bio)waste management actors, involved as project beneficiaries and/or engaged in value chains at project level	10	16	20	6
3. Ensure environmental sustainability of feedstock	3.1. No of projects using feedstock generated with practices that contribute to enhance biodiversity	16	24	30	8*
	3.2. No of projects using feedstock generated with practices aiming at zero-pollution (soil, water, air) and/or at reducing water consumption	19	28	40	13*
	3.3. No of projects using feedstock generated with practices contributing to climate change mitigation and/or adaptation	32	47	60	15*
7. Improve the market uptake of biobased products	7. No of brand owners involved as project partners and/or engaged with other mechanisms	24	38	50	15
Outcomes					
2. Unlock sustainable and circular biobased feedstock for the industry	2. No of innovative bio-based value chains created or enabled based on sustainably sourced biomass	60	95	120	27
4. Improve environmental sustainability of bio-based production processes and value chains	4.1. No of projects with innovative & sustainable processes that contribute to GHG emissions reduction	32	47	60	10*
	4.2. No of projects developing innovative & sustainable processes that improve on resource efficiency and zero waste	32	47	60	10*
	4.3. No of projects developing innovative & sustainable processes enabling to address zero pollution	32	47	60	8*
	4.4. No of projects with innovative & sustainable processes with improved energy efficiency	32	47	60	9*
	4.5. No of products with improved life cycle environmental performance	25	40	50	14*

5. Expand circularity in bio-based value chains	5.1. No of innovative products that are biodegradable, compostable, recyclable, reused or upcycled (circular by design)	51	76	100	24*
	5.2. No projects developing circular production practices (incl. industrial & industrial-urban symbiosis)	20	32	40	10*
6. Increase innovative bio-based outputs and products	6.1. No of innovative bio-based dedicated outputs, with novel or significantly improved properties vs relevant alternatives	47	71	100	24*
	6.2. No of innovative bio-based drop-in outputs meeting applications requirements	16	24	30	12*
8. Attract investment on the bio-based sector	8. No of actions implemented at project level to attract investment and/or to create awareness in the investment/funding community	15	23	30	8*
9. Increase resilience and capacity in the bio-based sector	9. No of projects contributing to develop the skills and capacity needed by the EU bio-based sector	26	40	50	20*
10. Improve participation of regions and countries with high unexploited potential and strategic interest to develop it	10.1. No of participants from the underrepresented EU countries and region	50	100	150	63
	10.2. No of regional hubs established and operated to process bio-based feedstocks and other cooperation aspects	8	13	15	6*
	10.3. No of projects with synergies with other funding programmes at EU, national or regional level	30	47	60	20*

(*) Projected contributions reported by CBE JU projects to be validated via expert review of the project reporting.

5.9. IKAA REPORT

Waiting for the onboarding into the corporate IT tools for IKAA planning and reporting, by the end of 2023 CBE JU has collected information on IKAA values estimated for the 2023-2031 period at the level of scope of investments, as initially provided in the AWP 2023. The following table reports on 2023 estimated results at this level. CBE JU plans to collect more detailed data by the end of 2024 in order to inform both the planning and reporting data criteria that were not available by the end of 2023.

IKAA REPORT FOR YEAR 2023													
Description							Annual reporting				Cumulative reporting		
Title	Description	Category	Scope	AA linked to project	Project acronym	AA linked to programme	Estimated value for the year	Incurred value for the year=	Certified value for the year	Estimated total AA value	Cumulative AA value incurred	Cumulative AA value certified	Cumulative AA value not yet certified
na	na	na	(a) investments in new facilities demonstrating a new value chain, including investments in durable equipment, tools and accompanying infrastructure, in particular related to regional deployment and its sustainability verification;	yes	na	no	€133,333.00	€133,333.00	0	€133,333.00	€133,333.00	0	€133,333.00
na	na	na	(b) investments in a new innovative and sustainable production plant or flagship;	yes	na	no	€8,510,813.00	€8,510,813.00	0	€8,510,813.00	€8,510,813.00	0	€8,510,813.00
na	na	na	(c) investments in new research and innovation and justified infrastructure, including facilities, tools, durable equipment or pilot plants (research centres);	yes	na	no	€52,856,237.00	€52,856,237.00	0	€52,856,237.00	€52,856,237.00	0	€52,856,237.00
na	na	na	(d) standardisation activities (not falling in previous scope of investments)	yes	na	no	€0.00	€0.00	0	€0.00	€0.00	0	€0.00
na	na	na	(e) communication, dissemination and awareness-raising activities (not falling in previous scope of investments)	yes	na	no	€38,700.00	€38,700.00	0	€38,700.00	€38,700.00	0	€38,700.00
Totals							€61,539,083.00	€61,539,083.00	0	€61,539,083.00	€61,539,083.00	0	€61,539,083.00

TOTAL IKAA 2023: BREAKDOWN PER COUNTRY	
Country (<i>code</i>)	value (€)
na	na

TOTAL IKAA 2021-2023 (Evolution- Value in €)		
Planned IKAA	Reported IKAA with pending certification	Certified IKAA
€388,084,405.98	€61,539,083.00	€0.00

5.10. FINAL ANNUAL ACCOUNTS

They start on the next page.



**Circular
Bio-based
Europe**

Joint Undertaking

**ANNUAL ACCOUNTS OF THE
CIRCULAR BIO-BASED EUROPE
JOINT UNDERTAKING.**

FINANCIAL YEAR 2023

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• CERTIFICATION OF THE ACCOUNTS

I acknowledge my responsibility for the preparation and presentation of the annual accounts of the *Circular Bio-based Europe* Joint Undertaking, in accordance with Article 52 of the Model Financial Regulation ('MFR')¹ and I hereby certify that the annual accounts of the *Circular Bio-based Europe* JU for the year 2023 have been prepared in accordance with Chapter 8 and the accounting rules adopted by the Commission's Accounting Officer, as are to be applied by all the institutions and Union bodies.

I have obtained from the Authorising Officer, who certified its reliability, all the information necessary for the production of the accounts that show the *Circular Bio-based Europe* Joint Undertaking's assets and liabilities and the budgetary implementation.

Based on this information, and on such checks as I deemed necessary to sign off the accounts, I have a reasonable assurance that the accounts present fairly, in all material aspects, the financial position, the results of the operations and the cash-flow of the *Circular Bio-based Europe* JU.

My assurance statement related to the Final Accounts 2023 will be transmitted to the Accounting Officer of the Commission. The Management Representation Letter, signed by the Authorising Officer and myself, have been sent to the European Court of Auditors for the audit of the Final Accounts.

Signed in Ares – Ref. Ares(2024)4738635

Katty HANCQ

**Accounting Officer of the
Circular Bio-based Europe Joint Undertaking**

¹ Commission Delegated Regulation (EU) 2019/887 of 13 March 2019 on the model financial regulation for public-private partnership bodies referred to in Article 71 of Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council

• **BACKGROUND INFORMATION NOTE**

1. General background on the entity

Establishment

Horizon Europe – the EU Framework Programme for Research and Innovation (2021-2027) – aims to increase the EU’s research and innovation impact by combining European partnership co-investment with additional private and public sector funds in areas where the scope and scale of the research and innovation resources can help achieve the EU’s Horizon Europe priorities notably, its Pillar II – Global challenges and European industrial competitiveness.

The setting up of the joint undertakings under Horizon Europe was regulated through Council Regulation (EU) 2021/2085 of 19 November 2021 (also known as the Single Basic Act) and published in the Official Journal on 30 November 2021.

Under the Single Basic Act (Article 174.3), the Circular Bio-based Europe Joint Undertaking (CBE JU) shall be the legal and universal successor, in respect of all contracts, including employment contracts and grant agreements, liabilities and acquired property, of the Bio-based Industries Joint Undertaking established by Council Regulation (EU) 2014/560 of 6 May 2014, which it shall replace and succeed. The Joint Undertaking is based in Brussels. The Bio-based Industries Joint Undertaking, known also as BBI JU, was a public-private partnership between the European Union (EU) and the Bio-based Industries Consortium (BIC). It aimed to bring together all relevant stakeholders and contributes to establishing Europe as a key player in the research, demonstration and deployment of advanced bio-based products and biofuels.

Mission

CBE JU’s mission is to implement, under Horizon Europe rules, the Strategic Research and Innovation Agenda (SRIA) developed jointly by the industry and by the European Commission and adopted by the CBE JU Governing Board, by organising calls for proposals to support research, demonstration and deployment activities enabling the collaboration between stakeholders along the entire value chains, covering primary production of biomass, processing industry and final use.

Main operational activities

CBE JU contributes to a more resource-efficient and sustainable low-carbon economy, and to increasing economic growth and employment, in particular in rural areas, by developing sustainable and competitive bio-based industries in Europe. This is based on advanced biorefineries that source their biomass sustainably and in particular aims to:

- Accelerate the innovation process and development of the bio-based innovative solutions;
- Accelerate the market deployment of the existing mature innovative bio-based systems; and
- Ensure high level of environmental performance of bio-based industrial systems.

Governance

CBE JU is headed by an Executive Director, who is accountable to a Governing Board – the main decision-making body of the CBE JU. The Governing Board has overall responsibility for the strategic orientation and the operations of the CBE JU and supervises the implementation of its activities. It brings together the two groups of the JU’s Members:

- The EU, represented by the European Commission (the Commission);

- The Bio-based Industries Consortium Aisbl (the 'BIC'), a non-profit organisation established under Belgium law, with its permanent office in Brussels, Belgium.

The Governing Board is made up of five representatives from the Commission and five representatives of the Members other than the Union, at least one of which should represent SMEs.

Other bodies of CBE JU are:

- The Scientific Committee, which is composed of a balanced representation of worldwide recognised experts from academia, industry, SMEs, non-governmental organisations and regulatory bodies;
- The States' Representatives Group, which is composed of one representative of each Member State and of each country associated to Horizon Europe;
- The Stakeholders' or Deployment Groups

Sources of financing

CBE JU is jointly funded by the EU and the "Members other than the Union" (BIC) through financial contributions paid in instalments and in-kind contributions consisting of the costs incurred by them in implementing indirect actions that are not reimbursed by the CBE JU. The resources of the CBE JU entered to its budget are composed of:

- Members' financial contributions to the administrative costs;
- Members' financial contributions to the operational costs;
- Any revenue generated by the JU;
- Any other financial contributions, resources and revenues

● ● **Annual accounts**

Basis for preparation

The legal framework and the deadlines for the preparation of the annual accounts are set by the Model Financial Regulation (MFR)¹. As per this regulation, the annual accounts are prepared in accordance with the rules adopted by the Accounting Officer of the Commission (EU Accounting Rules, EAR), which are based on internationally accepted accounting standards for the public sector (IPSAS).

Accounting Officer

In accordance with the MFR, the Governing Board of the entity appoints the Accounting Officer who is, amongst other tasks, responsible for preparation of the annual accounts.

The Single Basic Act⁵ establishing the new generations of JUs required, within one year following the date of entry into force of the Regulation, the establishment of back-office arrangements, to provide horizontal support functions to the joint undertakings, by concluding service level agreements. The Accounting Back Office (Acco BOA) was established and took over the accounting services from the Accounting Officer of the European Commission from 1 December 2022.

Following the decision of the Circular Bio-based Europe JU Governing Board of 29 November 2022 (CBE-GB-15/22, on behalf of the Acco BOA, as of 1 December 2022 Ms Katty Hancq acts as the Accounting Officer of the Circular Bio-based Europe JU.

Composition of the annual accounts

The annual accounts cover the period from 1 January to 31 December and comprise the financial statements and the reports on the implementation of the budget. While the financial statements and the complementary notes are prepared on an accrual accounting basis, the budget implementation reports are primarily based on movements of cash.

Process from provisional accounts to discharge

The provisional annual accounts prepared by the Accounting Officer are transmitted, by 1 March of the following year, to the European Court of Auditors (ECA) and to the audit company contracted by the JU. Following the audit, the Accounting Officer prepares the final annual accounts and submits them to the Governing Board for opinion.

The final annual accounts, together with the opinion of the Governing Board, are sent to the Accounting Officer of the Commission, the European Court of Auditors, the European Parliament and the Council, by 1 July of the following financial year. The ECA scrutinises the final annual accounts and includes any findings in the annual report for the European Parliament and the Council.

It falls to the Council to recommend, and then to the European Parliament to decide, whether to grant discharge to the Executive Director in respect of the implementation of the budget for a given financial year. Amongst other elements this decision is also based on a review of the accounts and the annual report of the ECA.

¹ Commission Delegated Regulation (EU) 2019/887 of 13 March 2019 on the model financial regulation for public-private partnership bodies referred to in Article 71 of Regulation (EU, Euratom) 2018/1046 of the European Parliament and of the Council (OJ L 14 2, 29.5.2019, p. 16)

² Council Regulation (EU) 2021/2085 of 19 November 2021 establishing the Joint Undertakings under Horizon Europe and repealing Regulations (EC) No 219/2007, (EU) No 557/2014, (EU) No 558/2014, (EU) No 559/2014, (EU) No 560/2014, (EU) No 561/2014 and (EU) No 642/2014

1. Operational highlights

Achievements of the year

CBE JU accomplished its major annual objectives, by signing the first batch of grant agreements under the Horizon Europe mandate, in the launch and successful evaluations of the second call for proposals, the recruitment of new staff, the management of the running projects and the promotion of their achievements.

The most important achievements of 2023 were that:

- The second CBE call under Horizon Europe was published in April and the evaluations were successfully carried out in late autumn, setting the basis for the signature of the grant agreements in 2024. Over the same period, the JU's partners prepared the ambitious Annual Work Plan 2024 also with a large call of over EUR 200 million. The definition of the call topics for 2024 was a result of the joint effort in defining and respecting a very tight planning and in involving to a maximum extent the Scientific Committee and the States Representatives Group in the process.
- A second call for proposals was also launched in 2023 regarding a Coordination and Support Action to support the establishment of the New European Bauhaus Academy. The call was successfully evaluated and the ranking list was approved in December. On the occasion of the European Year of Skills, this action represents a good example of synergies between CBE JU and the New European Bauhaus, by promoting upskilling and re-skilling of workforce towards sustainable use of bio-based construction materials.
- On the project management side, the GAP of Call 2022 was successfully completed within the deadlines, and the pre-financing payments all made. For BBI JU ongoing projects 45 interim and final payments were processed on time, covering over EUR 119 million of requested EU contribution and reaching a 95% execution of the voted budget.
- In this sense, the budget implementation was very good overall, particularly on the operational side. On the administrative side the BBI JU legacy budget was executed in priority (as it should be fully executed by end 2024), so the CBE administrative budget remained with a surplus which will be reactivated in the budgets of 2024 and 2025.
- On the Communications side, the CBE Info Day in April and the Stakeholder Forum event in December were the first "in-person" large stakeholder events for CBE, and were highly successful, with impressive feedback and networking interaction. CBE JU continued to promote success stories from the projects, improving the visibility and reputation of the Joint Undertaking and its beneficiaries.
- On the IT side, CBE JU set up a new IT tool to gather information from beneficiaries on their achievements, reflecting also the KPIs of the Joint Undertaking. The project was concluded in December and the first gathering of data will be finalised in 2024. This tool will help structure the feedback from beneficiaries about their achievements, will support a structured elaboration of data, also facilitating the communication and reporting about the CBE JU specific objectives.
- On the recruitment side, the selection process for the new Executive Director was finalised in December and the new Executive Director will take up his functions in early 2024. Several other recruitments took place in 2023 (IT office, HR office, administrative assistant) almost reaching the full CBE JU staff establishment plan.
- On the HR side, CBE JU took the lead in the setting up of the Back Office Arrangement for HR jointly with IHI JU. The concept note was finalised and approved by the JUs' Governing Boards, and the SLA including all JUs will be signed early 2024. In this period the JUs kept working on joint action, under the coordination of CBE JU, improving the coherence of the IT landscape and legal framework, implementing joint selection procedures and reinforcing the joint network of confidential counsellors.

Budget and budget implementation

2023 was the second year for which there was a combined budget for both CBE JU as well as the BBI JU legacy, which will continue until the end of 2024 for the administrative part, and up to at least end 2027 for the operational part (final payments of the last ongoing BBI projects).

The Governing Board adopted the 2023 budget on 8 December 2022, for the global amount of kEUR 224 959 in commitment appropriations (CA) and kEUR 136 226 in payment appropriations (PA), including prior year unused reactivated appropriations). The budget was amended in early 2023 to include an extra kEUR 1 624 in CA for CBE JU, leading to total CA 226 583 (of which kEUR 5 501 for BBI and kEUR 221 182 for CBE) and total PA kEUR 136 232 ⁵⁷in payment appropriations (of which kEUR 48 451 for BBI and kEUR 87 781 for CBE)

The total amended C1 (fresh budget), without prior year (C2) reactivations, was kEUR 156 800 in CA and kEUR 103 643 in PA⁵⁸.

The BBI JU budget included a relatively large surplus of unused budget from prior years (2020, 2021 and 2022): on the administrative side, kEUR 1 502 in CA and kEUR 1 563 in PA, and on the operational side kEUR 30 000 in PA. These reactivated appropriations were consumed wherever possible in priority in line with CBE's Financial Rules art. 6(5), and reached 88% consumption on the admin CA side, 83% on the admin PA side, and 100% on the operational PA side by year end. Any unused BBI C2 appropriations will be reactivated in the 2024 budget (via a budgetary amendment in early 2024). At the end of 2023, there was a total remaining surplus of BBI JU unused appropriations of kEUR 395 in administrative CA and kEUR 1 047 in administrative PA, as well as kEUR 769 in operational CA and kEUR 4 867 in operational PA.

On the CBE side there were also reactivated appropriations in 2023. On the administrative side, kEUR 612 in CA and kEUR 1 027 in PA (of which hardly any execution), and on the operational side, kEUR 67 300 – 100% execution - in CA.

As, on the administrative side, the execution of the BBI JU legacy budget will be prioritised until end of 2024, a relatively small amount of the CBE JU admin budget was executed in 2023. The total C1 administrative budget for CBE JU was kEUR 1 646 in CA and PA. Of this amount, kEUR 595 – 36% -was executed in CA and kEUR 106 – 6% -in PA

On the operational side, for CBE JU, the operational commitment appropriations available for the CBE 2023 call, including kEUR 66 300 from 2021 (unused) totalled kEUR 217 162 (this excludes kEUR 1 668 in the operational budget for expert-evaluators of the call). The amount committed for the call was kEUR 215 429 (99%). So there remained kEUR 1 734 of unused CA at the end of the year, which is foreseen to be reactivated in the calls of future years in line with the CBE JU Financial Rules. EUR 1 million is already earmarked for the commitment, in early 2024, of the 2nd call of 2023 for the "NEBA" (see section on operational expenditure below).

A Governing Board decision was taken at the end of 2023 to reactivate in the 2024 budget:

- Administrative:
 - CA: kEUR 2 187 (BBI JU kEUR 808 from 2021 and 2022, CBE JU kEUR 979 from 2020 and kEUR 400 from 2023)
 - PA: kEUR 2 200 (BBI JU kEUR 1 418 from 2021 and 2022, CBE JU kEUR 382 from 2022 and kEUR 400 from 2023).
- Operational:
 - CA: kEUR 66 683 in CA (BBI JU kEUR 23 147 from 2021 and 2022, CBE JU kEUR 45 536 from 2022 and 2023)
 - PA: kEUR 26 590 from BBU JU 2021 and kEUR 529 from CBE 2022

⁵⁷ This amount is net of EUR 356,493 (relating to a change in EFTA rate for the CBE operational commitment appropriations) which should have been removed following a late amendment voted on December 2023. The correction was overlooked and will be rectified in 2024. It is immaterial and does not change the overall CA execution.

⁵⁸ This amount is net of EUR 356,493 (relating to a change in EFTA rate for the CBE operational commitment appropriations) which should have been removed following a late amendment voted on December 2023. The correction was overlooked and will be rectified in 2024. It is immaterial and does not change the overall CA execution.

In addition, an amendment was drawn up in early 2024 to add additional unused administrative reactivations from 2023, for BBI JU, of kEUR 640 in CA (includes 2023 C8 RAL decommitted) and kEUR 1 046 in PA, with a view to executing a maximum by the end of 2024.

Administrative expenditure

The total consumption of the administrative budget was 74% in CA and 56% in PA. For BBI JU, for which the budget implementation continued to have priority over that of CBE JU, the rates were 82% in CA and 88% in PA.

Title 1: Overall CA implementation of staff-related costs was 64%. For CBE, only 3% of the salaries budget of kEUR 1 531 was executed. For BBI JU the total T1 execution was 95%. On the BBI JU only side, salary costs (total budget EUR 2.7 million) showed a strong execution at 98% and other staff costs somewhat less (kEUR 465) at 65%. There were no installation/resettlement costs (budgeted at kEUR 60) and only 55% execution of the training budget (kEUR 113) because of continued use of on-line training courses. The overall PA execution in Title 1 is 57% of which 91% for BBI JU. The CBE JU total T1 budget of kEUR 1 919 was executed at only 1%. Several of the SLA contracts for staff-related costs for 2023 (such as training) will send their invoices only in 2024.

Title 2: The 2023 infrastructure budget achieved an overall CA implementation of 88% in 2023. For BBI JU the total was 91%, with very high implementation rates of between 94% and 100% in all chapters apart from studies/consultancy (total kEUR 114 - 59% execution), and external staff (total kEUR 387 - 63% execution). The overall PA consumption in Title 2 is 54%. For BBI JU this is 67%. For CBE, execution was low for rental costs (total kEUR 320 - 0% execution) and IT equipment costs (total kEUR 417 - 25% execution). In addition, some very large contracts signed in Title 2 in 2023 (and committed on both BBI and CBE budget lines), notably for the Stakeholder Forum event (December 2023) and the new IT KPI tool, still have to be paid in 2024.

Operational expenditure

Following the first call of CBU JU, launched in mid-2022 for EUR 120 million, the first grant agreements were signed in 2023. Call 2023, for EUR 215.5 million, was launched in April 2023 and, following the evaluations of the proposals in November 2023, the GAP should be finalised by end May 2024. A separate call for the New European Bauhaus Academy (for EUR 1 million), was also launched towards the end of 2023 and will be committed (from 2023 reactivated operational CA) in early 2024.

In respect of the PA relating to BBI JU projects, the Programme Office achieved an overall 89% implementation of the 2023 budget, with payments of interim and final periodic reports for grants from the previous BBI JU calls (total kEUR 39 013 out of total Title 3 BBI JU projects budget of kEUR 43 880). This represented a large improvement compared to 2022 (71% execution).

The pre-financing payments for CBE Call 2022 reached 95% (plus a lower execution of 39% for the kEUR 1 668 expert-evaluators' budget managed by the REA on CBE's behalf - due to an over-estimation by CBE).

Regarding the payment of the BBI projects' periodic reports, the CBE JU Programme Office dealt with 45 periodic reports requesting a total contribution of over EUR 119 million which led to 45 net payments (including those with 100% pre-financing clearing) in 2023 for a total of EUR 39 million.

Impact of the activities in the financial statements

In the financial statements, the impact of the above-mentioned activities resulted in:

- **Pre-financing:** In 2022 the first call for proposals under the Horizon Europe Programme was launched and the pre-financing only occurred in 2023 for a total kEUR 79 472. Nevertheless, for ongoing BBI JU projects and the finalisation of several projects the clearing of the pre-financing with incurred expenses, impacted the increase of pre-financing from kEUR 127 879 in 2022 to kEUR 136 110 in 2023 (see note **2.3**).
- **Increase of payables:** The payables increased by kEUR 34 699 (2023: kEUR 112 382 from 2022: kEUR 77 683) mainly because of the adjustments for transactions occurring between March and May 2023 relating to the in-kind contributions to be validated for the provisional accounts as well as the in-kind contributions of 2022 which were actually validated. In 2021 CBE JU changed the methodology of estimation and validation of IKOP at the end of the year. For the provisional accounts, the estimations of the contributions in kind to be validated changed from an estimation based on annual declarations of Members to an estimation based on i) pro rata of IKOP reported in projects' cost claims (which is not automatically recorded in the accounting system) as well as a pro rata calculation based on total IKOP allocated in projects for either the whole year, or part of the year, following the period covered by pro rata of IKOP reported in cost claims. For the final accounts, the accrued IKOP based on cost claims received between March and May in year n+1 replaces the estimated IKOP for the provisional accounts for the relevant projects. The same methodology was applied in 2023(see note **2.7**).
- **Operational costs:** The increase in the operational costs is mainly due to an increase in the estimated in-kind contributions and the validated costs claims for operational project costs relating to Call 2020 (see note **3.4**).

- **FINANCIAL STATEMENTS AND EXPLANATORY NOTES**

BALANCE SHEET

	Note	31.12.2023	31.12.2022
NON-CURRENT ASSETS			
<i>Intangible assets</i>	2.1	-	-
<i>Intangible asset under construction</i>	2.1	112,436.10	-
<i>Property, plant and equipment</i>	2.2	67,588.26	75,700.91
<i>Long term pre-financing</i>	2.3	75,056,897.80	47,407,069.23
		75,236,922.16	47,482,770.14
CURRENT ASSETS			
<i>short term Pre-financing</i>	2.3	65,310,787.10	80,471,832.26
<i>Exchange receivables and non-exchange recoverable</i>	2.4	58,448,096.64	81,458,223.51
<i>Cash and cash Equivalents</i>	2.5	-	-
		123,758,883.74	161,930,055.77
TOTAL ASSETS		198,995,805.90	209,412,825.91
NON-CURRENT LIABILITIES			
<i>Payables</i>	2.7	-	-
CURRENT LIABILITIES			
<i>Short term provisions</i>	2.6	-	-
<i>Payables and other liabilities</i>	2.7	78,642,417.55	77,683,442.66
<i>Accrued charges and deferred income</i>	2.8	29,433,882.75	34,991,138.81
		108,076,300.30	112,674,581.47
TOTAL LIABILITIES		108,076,300.30	112,674,581.47
NET ASSETS			
<i>Contribution from Members</i>	2.9	979,226,825.78	857,243,481.92
<i>Accumulated deficit</i>		(760,505,237.48)	(656,755,282.24)
<i>Economic result of the year</i>		(127,802,082.70)	(103,749,955.24)
NET ASSETS		90,919,505.60	96,738,244.44
LIABILITIES AND NET ASSETS		198,995,805.90	209,412,825.91

STATEMENT OF FINANCIAL PERFORMANCE

	Note	2023	2022
REVENUE			
Revenue from non-exchange transactions			
<i>Recovery of operating expenses</i>	3.1	116,279.90	259,895.76
<i>Other non-exchange revenue</i>	3.2	-	-
Revenue from exchange transactions			
<i>Financial revenues</i>	3.3	-	-
<i>Other exchange revenue</i>		18,188.69	783.98
Total revenue		134,468.59	260,679.74
EXPENSES			
<i>Operating costs</i>	3.4	(120,180,335.69)	(99,476,686.06)
<i>Staff costs</i>	3.5	(2,757,139.48)	(2,568,112.14)
<i>Financial expenses</i>	3.6	(2,842,169.01)	(200.13)
<i>Other expenses</i>	3.7	(2,156,907.11)	(1,965,636.65)
Total expenses		(127,936,551.29)	(104,010,634.98)
ECONOMIC RESULT OF THE YEAR		(127,802,082.70)	(103,749,955.24)

CASHFLOW STATEMENT⁵⁹

	2023	2022
<i>Economic result of the year</i>	(127,802,082.70)	(103,749,955.24)
<u>Operating activities</u>		
Depreciation and amortisation	27,534.25	29,565.04
(Increase)/Decrease in pre-financing	(12,488,783.41)	78,872,722.48
(Increase)/Decrease in exchange receivables and non-exchange	23,010,126.87	(369,318.07)
(Increase)/Decrease in payables	958,974.89	(11,803,382.16)
(Increase)/Decrease in accrued charges & deferred income	(5,557,206.06)	(21,902,370.17)
(Increase)/Decrease in cash contributions	96,024,106.58	45,308,126.42
(Increase)/Decrease in in-kind contributions	25,959,237.28	13,659,789.65
Other non-cash movements		
<u>Investing activities</u>		
(Increase)/Decrease in intangible assets and property, plant, equipment	(131,857.70)	(45,448.60)
Net Cashflow	0.00	(270.65)
Net Increase/(decrease) in cash and cash equivalents	-	-
Cash and cash equivalents at the beginning of the year	-	-
Cash and cash equivalents at year end	-	-

⁵⁹ The treasury of Circular Bio-based Europe JU is integrated into the Commission's treasury system. Because of this Circular Bio-based Europe JU does not have any bank accounts of its own. All payments and receipts are processed via the Commission's treasury system and registered on intercompany accounts, which are presented under the heading non-exchange recoverables.

STATEMENT OF CHANGES IN NET ASSETS

	Contribution from Members	Accumulated Surplus/(Deficit)	Economic result of the year	Net Assets
BALANCE AS AT 31.12.2021	798,275,565.85	(510,041,318.21)	(146,713,964.03)	141,520,283.61
<i>Allocation 2021 economic result</i>	-	(146,713,964.03)	146,713,964.03	-
<i>Cash contribution</i>	45,308,126.42	-	-	45,308,126.42
<i>Contribution in-kind</i>	13,659,789.65	-	-	13,659,789.65
<i>Unpaid cash contributions</i>	-	-	-	-
<i>Economic result of the year</i>	-	-	(103,749,955.24)	(103,749,955.24)
BALANCE AS AT 31.12.2022	857,243,481.92	(656,755,282.24)	(103,749,955.24)	96,738,244.44
<i>Allocation 2022 economic result</i>	-	(103,749,955.24)	103,749,955.24	-
<i>Cash contribution</i>	96,024,106.58	-	-	96,024,106.58
<i>Contribution in-kind</i>	25,959,237.28	-	-	25,959,237.28
<i>Unpaid cash contributions</i>	-	-	-	-
<i>Economic result of the year</i>	-	-	127,802,082.70	(127,802,082.70)
BALANCE AS AT 31.12.2023	979,226,825.78	(760,505,237.48)	127,802,082.70	90,919,505.60

NOTES TO THE FINANCIAL STATEMENTS

1. SIGNIFICANT ACCOUNTING POLICIES

1.1. ACCOUNTING PRINCIPLES

The objective of financial statements is to provide information about the financial position, performance and cash flows of an entity that is useful to a wide range of stakeholders.

The overall considerations (or accounting principles) to be followed when preparing the financial statements are laid down in EU Accounting Rule 1 'Financial Statements' and are the same as those described in IPSAS 1: fair presentation, accrual basis, going concern, consistency of presentation, materiality, aggregation, offsetting and comparative information. The qualitative characteristics of financial reporting are relevance, faithful representation (reliability), understandability, timeliness, comparability and verifiability.

1.2. BASIS OF PREPARATION

1.2.1. Reporting period

Financial statements are presented annually. The accounting year begins on 1 January and ends on 31 December.

1.2.2. Currency and basis for conversion

The annual accounts are presented in euros, the budget implementation tables are presented in thousands of euros, the euro being the EU's functional currency. Foreign currency transactions are translated into euros using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of foreign currency transactions and from the re-translation at year end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of financial performance. Different conversion methods apply to property, plant and equipment and intangible assets, which retain their value in euros at the date when they were purchased.

Year-end balances of monetary assets and liabilities denominated in foreign currencies are translated into euros on the basis of the European Central Bank (ECB) exchange rates applying on 31 December.

Euro exchange rates

Currency	31.12.2023	31.12.2022	Currency	31.12.2023	31.12.2022
BGN	1.9558	1.9558	PLN	4.3395	4.6808
CZK	24.724	24.116	RON	4.9756	4.9495
DKK	7.4529	7.4365	SEK	11.096	11.1218
GBP	0.8869	0.8869	CHF	0.926	0.9847
NOK	11.2405	10.4812	JPY	156.33	140.66
HUF	382.80	400.87	USD	1.105	1.0666

1.2.3. Use of estimates

In accordance with IPSAS and generally accepted accounting principles, the financial statements necessarily include amounts based on estimates and assumptions by management based on the most reliable information available. Significant estimates include, but are not limited to: amounts for employee benefit liabilities, financial risk of accounts receivable and the amounts disclosed in the notes concerning financial instruments, impairment allowance for financial assets at amortised cost and for financial guarantee contract liabilities, accrued revenue and charges, provisions, degree of impairment of intangible assets and property, plant and equipment, net realisable value of inventories, contingent assets and liabilities. Actual results could differ from those estimates. Reasonable estimates are an essential part of the preparation of financial statements and do not undermine their reliability. An estimate may need revision if changes occur in the circumstances on which the estimate was based or as a result of new information or more experience. By its nature, the revision of an estimate does not relate to prior periods and is not the correction of an error. The effect of a change in accounting estimate shall be recognised in the surplus or deficit in the periods in which it becomes known.

1.2.4. Application of new and revised European Union Accounting Rules (EAR)

Revised IPSAS standards which have been issued, and are effective for annual periods beginning on or after 1 January 2025

The following IPSAS standards are effective as of January 1, 2025 (earlier application is permitted):

- **IPSAS 43 Leases:** IPSAS 43 introduces new or amended requirements with respect to lease accounting. It introduces significant changes to lessee accounting by removing the distinction between operating and finance lease and requiring the recognition of a right-of-use asset and a lease liability at commencement for all leases, except for short-term leases and leases of low value assets.
- **IPSAS 44 Non-current Assets Held for Sale and Discontinued Operations:** IPSAS 44 specifies the accounting for assets held for sale and the presentation and disclosure of discontinued operations. IPSAS 44 includes additional public sector requirements, in particular, the disclosure of the fair value of assets held for sale that are measured at their carrying amounts, when the carrying amount is materially lower than their fair value.

The Accounting Officer is assessing the impact of the above standards on the Annual Accounts and considering a possible revision of relevant EAR accordingly.

1.3. BALANCE SHEET

1.3.1. Intangible assets

An intangible asset is an identifiable non-monetary asset without physical substance. An asset is identifiable if it is either separable or arises from binding arrangements. Acquired intangible assets are stated at historical cost less accumulated amortisation and impairment losses. Internally developed intangible assets are capitalised when the relevant criteria of the EU accounting rules are met, and the expenses relate solely to the development phase of the asset. Intangible assets are amortised on a straight-line basis over their estimated useful lives (3 to 11 years).

1.3.2. Property, plant and equipment

All property, plant and equipment are stated at historical cost less accumulated depreciation and impairment losses. Cost includes expenditure that is directly attributable to the acquisition, construction or transfer of the asset. Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits or service potential associated with the item will flow to the entity and its cost can be measured reliably. Repairs and maintenance costs are charged to the statement of financial performance during the financial period in which they are incurred. Land is not depreciated, as it is deemed to have an indefinite useful life. Assets under construction are not depreciated as these assets are not yet available for use. Depreciation on other assets is calculated using the straight-line method to allocate their cost less their residual values over their estimated useful lives, as follows:

Type of asset	Straight line depreciation rate
• <i>Buildings</i>	• 4 % to 10 %
• <i>Plant and equipment</i>	• 10 % to 25 %
• <i>Furniture and vehicles</i>	• 10 % to 25 %
• <i>Computer hardware</i>	• 25 % to 33 %
• <i>Other</i>	• 10 % to 33 %

Gains or losses on disposals are determined by comparing proceeds less selling expenses with the carrying amount of the disposed asset and are included in the statement of financial performance.

Leases

A lease is an agreement whereby the lessor conveys to the lessee, in return for a payment or series of payments, the right to use an asset for an agreed period of time. Leases are classified as either finance leases or operating leases.

Finance leases are leases where substantially all the risks and rewards incidental to ownership are transferred to the lessee.

An operating lease is a lease other than a finance lease, i.e., a lease where the lessor retains substantially all the risks and rewards incidental to ownership of an asset. When entering an operating lease as a lessee, the operating lease payments are recognised as an expense in the statement of financial performance on a straight-line basis over the lease term with neither an asset nor a liability recognised in the balance sheet.

1.3.3. Impairment of non-financial assets

Assets that have an indefinite useful life are not subject to amortisation/depreciation and are tested annually for impairment. Assets that are subject to amortisation/depreciation are tested for impairment whenever there is an indication at the reporting date that an asset may be impaired. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable (service) amount. The recoverable (service) amount is the higher of an asset's fair value less costs to sell and its value in use.

Intangible assets and property, plant and equipment residual values and useful lives are reviewed, and adjusted if appropriate, at least once per year. If the reasons for impairments recognised in previous years no longer apply, the impairment losses are reversed accordingly.

1.3.4. Financial assets

The classification of the financial instruments is determined at initial recognition. Based on the management model and the asset contractual cash-flow characteristics the financial assets can be classified in three categories: Financial assets at amortised cost ('AC'), financial assets at fair value through net assets/equity ('FVNA') or financial assets at fair value through surplus or deficit ('FVSD'). Based on this classification, the entity has only 'financial assets at amortised cost', which are exchange receivables.

Financial assets at amortised cost are non-derivative financial assets that meet two conditions: 1) The entity holds them in order to collect the contractual cash flows. 2) On specified days, there are contractual cash flows that are solely payments of the principal and interest on the outstanding principal.

Financial assets at amortised cost are included in current assets, except for those with maturity of more than 12 months from the balance sheet reporting date.

Initial recognition and measurement

Financial assets at amortised cost are initially recognised at their fair value plus the transaction costs.

Subsequent measurement

Financial assets at amortised cost are carried at amortised cost, which is the amount initially recognised minus the principal repayments, plus or minus the cumulative amortisation of the interests using the effective interest method. In addition, the entity recognises a loss allowance for expected credit losses over the lifetime of the financial assets. At each reporting date, the annual movement in the loss allowance adjusts the carrying amount of the financial asset. In the statement of financial performance, the entity recognises an impairment gain or loss for the adjustment of the loss allowance.

Derecognition

Financial assets at amortised cost are derecognised either when the rights to receive cash flows from the investments have expired or are waived, or and when the entity has transferred substantially all risks and rewards of ownership to another party.

1.3.5. Pre-financing amounts

Pre-financing is a payment intended to provide the beneficiary with a cash advance, i.e., a float. It may be split into a number of payments over a period defined in the particular contract, decision, agreement or basic legal act. The float or advance is either used for the purpose for which it was provided during the period defined in the agreement or it is repaid. If the beneficiary does not incur eligible expenditure, he has the obligation to return the pre-financing advance to the entity. Thus, as the entity retains control over the pre-financing and is entitled to a refund for the ineligible part, the amount is recognised as an asset.

Pre-financing is initially recognised on the balance sheet when cash is transferred to the recipient. It is measured at the amount of the consideration given. In subsequent periods pre-financing is measured at the amount initially recognised on the balance sheet less eligible expenses (including estimated amounts where necessary) incurred during the period.

1.3.6. Receivables and recoverables

The EU accounting rules require separate presentation of exchange and non-exchange transactions. To distinguish between the two categories, the term 'receivable' is reserved for exchange transactions, whereas for non-exchange transactions, i.e., when the EU receives value from another entity without directly giving approximately equal value in exchange, the term 'recoverables' is used (e.g., recoverables from Member States related to own resources).

Receivables from exchange transactions meet the definition of financial instruments. The entity classified them as financial assets at amortised cost and measured them accordingly.

Recoverables from non-exchange transactions are carried at fair value as at the date of acquisition less write-down for impairment. A write-down for impairment is established when there is objective evidence that the entity will not be able to collect all amounts due according to the original terms of the recoverables. The amount of the write-down is the difference between the asset's carrying amount and the recoverable amount. The amount of the write-down is recognised in the statement of financial performance.

1.3.7. Cash and cash equivalents

Cash and cash equivalents are financial assets at amortised cost and include cash at hand, deposits held at call or at short notice with banks, and other short-term highly liquid investments with original maturities of three months or less.

1.3.8. Payables

Included under accounts payable are both amounts related to exchange transactions such as the purchase of goods and services, and to non-exchange transactions e.g., to cost claims from beneficiaries, grants or other EU funding, or pre-financing received (see note **1.3.5**), or non-validated in-kind contributions to operational activities (see note **1.6.2**).

Where grants or other funding are provided to the beneficiaries, the cost claims are recorded as payables for the requested amount, at the moment when the cost claim is received. Upon verification and acceptance of the eligible costs, the payables are valued at the accepted and eligible amount.

Payables arising from the purchase of goods and services are recognised at invoice reception for the original amount. The corresponding expenses are entered in the accounts when the supplies or services are delivered and accepted by the entity.

1.3.9. Accrued and deferred revenue and charges

Transactions and events are recognised in the financial statements in the period to which they relate. At year end, if an invoice is not yet issued but the service has been rendered, or the supplies have been delivered by the entity or a contractual agreement exists (e.g., by reference to a contract), an accrued revenue will be recognised in the financial statements. In addition, at year end, if an invoice is issued but the services have not yet been rendered or the goods supplied have not yet been delivered, the revenue will be deferred and recognised in the subsequent accounting period.

Expenses are also accounted for in the period to which they relate. At the end of the accounting period, accrued expenses are recognised based on an estimated amount of the transfer obligation of the period. The calculation of accrued expenses is done in accordance with detailed operational and practical guidelines issued by the Accounting Officer. These aim at ensuring that the financial statements provide a faithful representation of the economic and other phenomena they purport to represent. By analogy, if a payment has been made in advance for services or goods that have not yet been received, the expense will be deferred and recognised in the subsequent accounting period.

1.3.10. Provisions

Provisions are recognised when the entity has a present legal or constructive obligation towards third parties as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. Provisions are not recognised for future operating losses. The amount of the provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date. Where the provision involves a large number of items, the obligation is estimated by weighting all possible outcomes by their associated probabilities ('expected value' method).

When the obligation whose existence will be confirmed by uncertain future events that are not wholly within the control of the entity, is possible, no provision is recognised, but a contingent liability is disclosed. Refer to note **1.5.2** for details.

1.3.11. Net assets

Net assets are the residual of assets and liabilities and comprise accumulated contributions received from the Members of the JU (EU and industry) less the accumulated contributions used. The contributions include financial contributions received by the JU and contributions provided by the Members to the funded projects in-kind. The net assets also contain reserves, if applicable. Refer to note **1.6** for details.

1.4. STATEMENT OF FINANCIAL PERFORMANCE

1.4.1. Revenue

Revenue comprises gross inflows of economic benefits or service potential received and receivable by the entity, which represents an increase in net assets, other than increases relating to contributions from owners.

Depending on the nature of the underlying transactions in the statement of financial performance, revenue is distinguished between:

(i) Revenue from non-exchange transactions

Revenue from non-exchange transactions are taxes and transfers because the transferor provides resources to the recipient entity, without the recipient entity providing approximately equal value directly in exchange. Transfers are inflows of future economic benefits or service potential from non-exchange transactions, other than taxes. For the EU entities, transfers mostly comprise funds received from the Commission (e.g., balancing subsidy to the traditional agencies, operating subsidy for the delegation agreements).

The entity shall recognise an asset in respect of transfers when the entity controls the resources as a result of a past event (the transfer) and expects to receive future economic benefits or service potential from those resources, and when the fair value can be reliably measured. An inflow of resources from a non-exchange transaction recognised as an asset (i.e., cash) is also recognised as revenue, except to the extent that the entity has a present obligation in respect of that transfer (condition), which needs to be satisfied before the revenue can be recognised. Until the condition is met the revenue is deferred and recognised as a liability.

(ii) Revenue from exchange transactions

Revenue from the sale of goods and services is recognised when the significant risk and rewards of ownership of the goods are transferred to the purchaser. Revenue associated with a transaction involving the provision of services is recognised by reference to the stage of completion of the transaction at the reporting date.

1.4.2. Expenses

Expenses are decreases in economic benefits or service potential during the reporting period in the form of outflows or consumption of assets or the incurring of liabilities that result in decreases in net assets. They include both the expenses from exchange transactions and expenses from non-exchange transactions.

Expenses from exchange transactions arising from the purchase of goods and services are recognised when the supplies are delivered and accepted by the entity. They are valued at the original invoice amount. Furthermore, at the balance sheet date expenses related to the service delivered during the period for which an invoice has not yet been received or accepted are recognised in the statement of financial performance.

Expenses from non-exchange transactions relate to transfers to beneficiaries and can be of three types: entitlements, transfers under agreement and discretionary grants, contributions and donations. Transfers are recognised as expenses in the period during which the events giving rise to the transfer occurred, as long as: the nature of the transfer is allowed by regulation, or an agreement has been signed authorising the transfer; any eligibility criteria have been met by the beneficiary; and a reasonable estimate of the amount can be made.

When a request for payment or cost claim is received and meets the recognition criteria, it is recognised as an expense for the eligible amount. At year end, incurred eligible expenses due to the beneficiaries but not yet reported are estimated and recorded as accrued expense.

1.5. CONTINGENT ASSETS AND LIABILITIES

1.5.1. Contingent assets

A contingent asset is a possible asset that arises from past events and of which the existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity. A contingent asset is disclosed when an inflow of economic benefits or service potential is probable.

1.5.2. Contingent liabilities

A contingent liability is either a possible obligation of which the existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the entity; or a present obligation where it is not probable that an outflow of resources embodying economic benefits or service potential will be required to settle the obligation.

A contingent liability also arises in the rare circumstances where a present obligation exists but cannot be measured with sufficient reliability.

Contingent liabilities are not recognised in the accounts. They are disclosed unless the possibility of an outflow of resources embodying economic benefits or service potential is remote.

1.6. CONTRIBUTIONS FROM MEMBERS

The contributions from the Members of the Joint Undertakings (JU) form the funding of the JU and are treated as contributions from owners. An owner in this context does not mean an owner in the sense of owning shares of the JU (no shares are issued) but rather in the sense of political interest and governance of the JU by exercising the voting rights linked to these contributions.

1.6.1. Financial contributions

Financial contributions are contributions of Members made in cash in order to provide funding of the operational or administrative needs of the JU.

Horizon 2020 Programme: financial contributions are contributions of Members made in cash in order to provide funding of the operational or administrative needs of the JU. These financial contributions are recognised in net assets in the period in which the enforceable right to receive the payment was established.

Horizon Europe Programme:

- EU Contributions: In accordance with Article 19 of the Financial Framework Partnership Agreement (FFPA) 2020-2027, the JU received from the European Union a pre-financing payment for the implementation of the Horizon Europe Framework Programme.
- According to the Specific Guidance for the accounting of the EU cash contributions received by the Joint Undertakings under FFPA related to MFF 2021-2027, the contributions payments made by the EU for the Horizon Europe Programme are accounted for as 'Contributions in cash to be validated'. During the provisional accounting closure, the JU should, on the basis of the payment's implementation report, determine the amounts of operating and administrative expenditure that have been covered from the EU financial contributions to the Horizon Europe Programme. In the accounting of the JU the underlying amount should be, for the purpose of the preparation of the provisional financial statements, transferred from the provisional payments to the net assets of the JU (cut-off procedure). It will be qualified as final payments and formally transferred to the net assets once the Commission has accepted the Consolidated Annual Activity Report – AAR (Art. 19.2 FFPA)
- Private (Bio-based Industries Consortium) contributions: financial contributions are contributions made in cash in order to provide funding of the administrative needs of the JU. These financial contributions are recognised in net assets in the period in which the enforceable right to receive the payment was established

1.6.2. In-kind contributions

Members other than the EU (i.e., 'Private Members') can also contribute resources other than cash, e.g., laboratory equipment, specialised staff, etc. These in-kind contributions consist of the costs incurred by Private Members in implementing indirect actions.

The Regulation distinguishes between two types of in-kind contributions: (1) in-kind contributions to operational activities (IKOP) and (2) in-kind contributions to additional activities (IKAA).

The IKOP represents in-kind contributions made to the JU linked to its work plan and co-financed by the EU. The IKOP is recognised in the net assets of the JU in the period in which the conditions for Members' contributions stipulated by the Regulation are met.

As IKOP calculated from periodic cost claims of projects is not automatically recorded in the statement of financial performance, at yearend, this incurred IKOP as well as IKOP not yet reported (via received costs claims) is estimated and recorded as other liabilities ('Contributions of Members to be validated').

The EU makes available cash contributions to the CBE projects in advance of the project start date (until the total of this pre-financing payment and other periodic cost reimbursements reach 90% of the agreed maximum grant amount for the project), providing the beneficiaries with a sufficient "frontloading" of funds to implement the programme activities. On the other hand the in-kind contributions provided by the private Members can be verified and recognised only after the activities are concluded, reported and certified.

The EU cash contributions are validated and recognised in the accounts of the JU when paid to the JU (or based on the payments processed by the JU, in the case of HE, see point 1.1.2.) at the beginning of the project implementation, while Members' in-kind contributions are only recognised after validation of the costs incurred and declared. Consequently, due to this time gap, during the programme implementation the amounts of contributions recognised per member category (EU and Private Members) differ significantly from each other. This gap between the recognised amount of EU cash contributions on the one hand and in-kind contributions on the other will be closed as the programme approaches the finalisation stage.

Due to major simplifications introduced in the H2020 Programme (which continue to be applied also for Horizon Europe), the certification of IKOP is based on the CFS20 certificate for the total eligible project costs. The certificates for IKOP are only due to be submitted to the JU after the end of the last project reporting period. This time frame causes a major delay between the date when the IKOP balances are committed (upon signature of the grant) and the moment they are finally validated and recognised in the net assets of the JU.

The IKAA (under Horizon 2020 Programme) are contributions linked to implementing additional activities, included in the annual additional activities plan annexed to the main part of the work programme, that do not receive financial support from the Joint Undertaking but contribute to its objectives.

These additional activities (under the Horizon Europe Programme) are directly linked to the projects and activities of the Circular Bio-based Europe Joint Undertaking, including in particular:

- a) investments in new facilities demonstrating a new value chain, including investments in durable equipment, tools and accompanying infrastructure, in particular related to regional deployment and its sustainability verification;
- b) investments in a new innovative and sustainable production plant or flagship;
- c) investments in new research and innovation and justified infrastructure, including facilities, tools, durable equipment or pilot plants (research centres);
- d) standardisation activities;

Because the outflow of resources related to those activities is outside of the JU's control, these contributions are not recognised in its financial statements. However, to provide a complete picture of the operational activities related to the JU they are still disclosed as additional information in the notes.

2. NOTES TO THE BALANCE SHEET



ASSETS

2.1. INTANGIBLE ASSETS

Intangible assets under construction	TOTAL
<i>Gross carrying amount at 31.12.2022</i>	
<i>Additions</i>	<i>112,436.10</i>
Gross carrying amount at 31.12.2023	112,436.10
NET CARRYING AMOUNT AT 31.12.2023	112,436.10
<i>NET CARRYING AMOUNT AT 31.12.2022</i>	

In 2023 for the first time, an amount of IT development costs was capitalised under “intangible assets under construction”. This relates to the development of a KPI tool for project reporting, with a total end value of kEUR 280. Completion is expected by end 2024, and as soon as the tool is operational it will be transferred to the intangible assets account and depreciated over 5 years.

2.2. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are tangible assets that are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes, and are expected to be used during more than one reporting period.

	Plant and equipment	Furniture and vehicles	Computer hardware	Other	TOTAL
<i>Gross carrying amount at 31.12.2022</i>		34,368.30	96,689.50	69,906.57	200,964.37
<i>Additions</i>		6,255.07	12,515.56	650.97	19,421.60
Gross carrying amount at 31.12.2023		40,623.37	109,205.06	70,557.54	220,385.97
<i>Accumulated depreciation at 31.12.2022</i>		(23,041.30)	(70,604.50)	(31,617.66)	(125,263.46)
<i>Depreciation charge for the year</i>		(4,175.07)	(13,145.56)	(10,213.62)	(27,534.25)
Accumulated depreciation at 31.12.2023		(27,216.37)	(83,750.06)	(41,831.28)	(152,797.71)
NET CARRYING AMOUNT AT 31.12.2023		13,407.00	25,455.00	28,726.26	67,588.26
<i>NET CARRYING AMOUNT AT 31.12.2022</i>		11,327.00	26,085.00	38,288.91	75,700.91

2.3. PRE-FINANCING

Pre-financing is a payment intended to provide the beneficiary with a cash advance, i.e., a float. It may be split into a number of payments over a period defined in the particular underlying contract, decision, agreement or basic legal act.

	31.12.2023	31.12.2022
<i>Long term pre-financing</i>	75,056,897.80	47,407,069.23
<i>Short term pre-financing</i>	65,310,787.10	80,471,832.26
Total	140,367,684.90	127,878,901.49

The pre-financing included under this heading comprises only pre-financing for operational activities.

For all pre-financing amounts open at 31 December 2023 a case-by-case assessment has been performed and all pre-financing that was considered unlikely to be cleared in the course of 2024 was classified as non-current pre-financing.

The outstanding pre-financing presented under this heading is net of estimated (cut-off) expenses for ongoing projects without validated cost claims as at 31 December 2023. The clearing of pre-financing against year-end (cut-off) adjustments amounted to kEUR 96 185 (2022: kEUR 107 739) for ongoing projects without validated cost claims as at 31 December 2023. The remaining portion of the cut-off expenses is recorded in accrued charges (see note **2.8**).

In 2023 the first call for proposals under the Horizon Europe Programme was launched and the pre-financing will only be paid in 2024. Nevertheless, for ongoing BBI JU projects and the finalisation of several projects the clearing of the pre-financing against incurred expenses, resulted in an overall increase of pre-financing from kEUR 127 879 in 2022 to kEUR 140 368 in 2023.

2.4. EXCHANGE RECEIVABLES & NON-EXCHANGE RECOVERABLES

Exchange transactions are transactions in which the entity receives assets or services, or has liabilities extinguished, and directly gives approximately equal value (primarily in the form of goods, services or use of assets) to the other party in exchange. Non-exchange transactions are transactions in which an entity either receives value from another entity without directly giving approximately equal value in exchange, or gives value to another entity without directly receiving approximately equal value in exchange.

The amounts included under this heading are fully composed of current receivables from exchange transactions.

	31.12.2023	31.12.2022
Recoverables from non-exchange transactions		
<i>Public bodies</i>		
<i>Accrued Income Non exchange</i>	293,597.50	293,597.50
<i>Central treasury liaison accounts</i>	58,147,155.63	78,141,513.91
<i>Cash Contributions to be paid by the Members</i>		
<i>Other</i>		
Receivables from exchange transactions		
<i>Customers</i>	2,846,539.36	3,005,343.76
<i>Amounts written down (-)</i>	(2,842,169.01)	-
<i>Receivables from Members and partners</i>	-	-
<i>Receivables from the Commission</i>	-	-
<i>Accrued income and deferred charges</i>	-	-
<i>Other</i>	2,973.16	17,768.34
Total	58,448,096.64	81,458,223.51

The largest amount under this heading relates to the central treasury liaison (intercompany) accounts with the European Commission that represent a virtual bank account of CBE JU. The treasury of CBE JU has been integrated into the European Commission's treasury system. The payments and receipts are processed via the European Commission's treasury system and registered on these intercompany accounts. The ending balance of this heading is thus the result of the incoming and outgoing payments and represents the funds available for the Joint Undertaking.

2.5. CASH AND CASH EQUIVALENTS

The majority of payments and receipts are processed via the Commission's treasury system and registered on liaison accounts, which are presented under the heading 'receivables from exchange transactions' (see 2.4).

	31.12.2023	31.12.2022
Imprest account		

Not applicable.

LIABILITIES

2.6. Provisions

Provisions are recognised when the entity has a present legal or constructive obligation towards third parties as a result of past events, it is more likely than not that an outflow of resources will be required to settle the obligation, and the amount can be reliably estimated. Provisions are not recognised for future operating losses. The amount of the provision is the best estimate of the expenditure expected to be required to settle the present obligation at the reporting date. Where the provision involves a large number of items, the obligation is estimated by weighting all possible outcomes by their associated probabilities ('expected value' method).

	31.12.2023	31.12.2022
Short-Term provisions		

Not applicable.

2.7. PAYABLES AND OTHER LIABILITIES

Payables are liabilities to pay for goods or services that have been received or supplied and - unlike accrued charges - have already been invoiced or formally agreed with the supplier. Payables can relate to both exchange transactions (such as the purchase of goods and services) and non-exchange transactions (e.g., cost claims from beneficiaries of grants, pre-financing or other EU funding)

	31.12.2023	31.12.2022
Non-current		
<i>Pre-financing received from EC – operating subsidy</i>	-	-
Current		
<i>Contribution in kind to be validated</i>	62,343,926.59	67,644,357.15
<i>Contribution in cash to be validated</i>	7,418,646.92	823,610.50
<i>Suppliers</i>	7,819,172.35	9,215,475.01
<i>Others</i>	1,060,671.69	-
<i>Member States</i>	-	-
<i>Consolidated entities</i>	-	-
	78,642,417.55	77,683,442.33
Total	78,642,417.55	77,683,442.66

Included under the heading 'Contributions in-kind from Members to be validated' are the in-kind contributions from Members related to ongoing projects without a validated contribution certificate at 31 December. The amount for the 2023 IKOP is recognised based on the periodic cost claims received from the Members. For any period not covered by cost claims an additional pro rata estimation is calculated, on a case-by-case basis, using the best available information on the projects at 31 December 2023. The total estimate can be split between:

- IKOP without validation: BBI kEUR 58,635, CBE kEUR 3 708
- IKOP with validation: BBI kEUR 50 448

The estimated cash contribution to the operational cost of those projects is included under accrued charges (see note 2.8).

After validation of the contributions by the Authorising Officer (Executive Director), the amounts will be booked to net assets and presented as "Contributions received from Members" (Note 2.9).

The 'contributions in cash to be validated' are the received but unspent EC financial contributions to the Horizon Europe Programme (Notes 1.6.1).

The amount of vendor payables relates to invoices and cost claims received but not yet validated and paid at the year end.

2.8. ACCRUED CHARGES

Accruals are liabilities to pay for goods or services that have been received or supplied but - unlike payables - have not yet been invoiced or formally agreed with the supplier. They include amounts due to employees (e.g., accruals for untaken holidays). The calculation of accruals is based on the open amounts of budgetary commitments at year end. The portion of the estimated accrued charges relating to pre-financing paid has been recorded as a reduction of the pre-financing amounts.

	31.12.2023	31.12.2022
<i>Accrued charges</i>	29,429,669.61	34,991,138.81

The heading comprises estimated operational costs of kEUR 28 280, accrued administrative expenses of kEUR 1 094 and accrued staff expense for untaken leave of kEUR 55.

Accrued operating charges relate to ongoing projects without a validated cost statement, where the 2023 expense was estimated on a case-by-case basis using the best available information about the projects at 31 December 2023. The portion of the estimated accrued charges which relates to pre-financing paid has been recorded as a reduction of the pre-financing amounts in line with the H2020 and HE rules (see note **2.3**). Following the validation of a large number of final and interim cost claims, the estimated expenses were replaced by actual costs hence the decrease in the accrued charges. Of the total operational accrual of kEUR 28 280, kEUR 14 371 relates to the first H Europe projects (which started up as of mid-2023).

Net assets

2.9. CONTRIBUTIONS FROM MEMBERS

The JU is funded by contributions from its Members. Given their funding nature these contributions, which comprise both cash contributions and contributions in kind, are recognised in the JU's net assets as 'Contributions from owners' once validated. The term 'owner' does not imply ownership of any shares of the JU (in fact no shares are issued) but reflects the specific governance of the JU where voting rights are allocated in accordance with the contributions made.

In accordance with Article 19 of the Financial Framework Partnership Agreement (FFPA) 2020-2027, the CBE JU received from the European Union a pre-financing payment of kEUR 86 131 for the implementation of the Horizon Europe Framework Programme (see note **1.6.1**).

According to the Specific Guidance for the accounting of the EU cash contributions received by the Joint Undertakings under FFPA related to MFF 2021-2027, the contributions payments made by the EU for the Horizon Europe Programme are accounted for as 'Contributions in cash to be validated'. They will be qualified as final payments and formally transferred to the net assets once the Commission has accepted the Consolidated Annual Activity Report – AAR (Art. 19.2 FFPA).

Programming period	2023			2022		
	Cash	in-Kind	Total	Cash	in-Kind	Total
<i>Horizon 2020</i>	805,525,227.74	91,857,581.96	897,382,809.70	790,504,541.74	65,898,344.68	856,402,886.42
<i>Horizon Europe</i>	81,844,016.08		81,844,016.08	840,595.50		840,595.50
Total	887,369,243.82	91,857,581.96	979,226,825.78	791,345,137.24	65,898,344.68	857,243,481.92

1.1.1. 2014-2020 (Horizon 2020) MFF: Total Members' Contributions (in € million)

With regard to the Horizon 2020 Programme, Council Regulation (EC) No 2014/560 (its current legal mandate stems from the amending Regulation (EU) 2018/121 of 23 January 2018) distinguishes between Members (European Commission, Industry Grouping) and non-Members of the JU. In addition, only the in-kind contributions from the Members that are both certified by external auditors and validated by the Executive Director of CBE JU are accounted for in the JU's net assets. Estimated in-kind contributions, i.e. contributions for which no certifications have been received and/or this certification has not been validated by the Executive Director, are reported under 'other liabilities' (see note 2.7).

Horizon 2020

Member	Commission		Industry Grouping		Total	
	Cash		Cash	In kind	Cash	In kind
<i>Running costs contributions at 31.12.2022</i>	16,506,365.97		16,992,851.31		16,992,851.31	
<i>Current year contributions</i>	1,952,637.00		1,952,637.00		1,952,637.00	
Running costs contributions at 31.12.2023	18,459,002.97		18,945,488.31	-	18,945,488.31	37,404,491.28
<i>Operating costs contributions at 31.12.2022</i>	753,755,324.46		3,250,000.00	65,898,344.68	69,148,344.68	757,005,324.46
<i>Current year contributions</i>	11,115,412.00		-	25,959,237.28	25,959,237.28	11,115,412.00
Operating costs contributions at 31.12.2023	764,870,736.46		3,250,000.00	91,857,581.96	95,107,581.96	768,120,736.46
<i>TOTAL contributions at 31.12.2022</i>	770,261,690.43		20,242,851.31	65,898,344.68	86,141,195.99	790,504,541.74
TOTAL contributions at 31.12.2023	783,329,739.43		22,195,488.31	91,857,581.96	114,053,070.27	805,525,227.74

The rules relating to distribution of voting rights are defined in Article 54 of Council Regulation (EU) 2021/2085 of 19 November 2021. Based on this article, the number of votes of the Members other than the Union shall collectively hold 50% of the voting rights

For what concerns the total level of the contribution by BIC Members at the end of 2023, the IKOP target was set at the closure of the BBI JU calls, and it will contribute to achieving the overall legal target alongside the finalisation of BBI JU projects (29% of which are still ongoing).

1.1.2. Research and Innovation Funding Programme for 2021-2027 (Horizon Europe)

In accordance with Article 19 of the Financial Framework Partnership Agreement (FFPA) 2020-2027, in 2023 the CBE JU received from the European Union a pre- financing payment for the amount of kEUR 86 131 for the implementation of the Horizon Europe Framework Programme (see note **1.6.1**).

According to the Specific Guidance for the accounting of the EU cash contributions received by the Joint Undertakings under FFPA related to MFF 2021-2027, the contributions payments made by the EU for the Horizon Europe Programme are accounted for as 'Contributions in cash to be validated'. They will be qualified as final payments and formally transferred to the net assets once the Commission has accepted the Consolidated Annual Activity Report – AAR (Art. 19.2 FFPA).

Under the new SBA (Horizon Europe Programme) the in-kind contributions to operational activities should be accounted for solely on the basis of eligible costs and should be reported and audited in accordance with the mechanism applicable to the specific grant agreement. These legal requirements do not change the substance of the operation. Also, under Horizon Europe, only contributions validated and accepted by the Executive Director can be recognised under net assets. Therefore, the same accounting treatment as used under the previous regulations should be applied to IKOP under Horizon Europe.

Horizon Europe						
Member	Commission Cash	Industry Grouping			Total Cash	In kind
		Cash	In kind	Total		
<i>Running costs contributions at 31.12.2022</i>	8,492.50	832,103.00		832,103.00	840,595.50	-
<i>Current year contributions</i>	64,123.58	823,120.00	-	823,120.00	887,243.58	-
Running costs contributions at 31.12.2023	72,616.08	1,655,223.00	-	1,655,223.00	1,727,839.08	-
<i>Operating costs contributions at 31.12.2022</i>					-	-
<i>Current year contributions</i>	80,116,177.00				80,116,177.00	-
Operating costs contributions at 31.12.2023	80,116,177.00	-	-	-	80,116,177.00	-
<i>TOTAL contributions at 31.12.2022</i>	8,492.50	832,103.00	-	832,103.00	840,595.50	-
TOTAL contributions at 31.12.2023	80,188,793.08	1,655,223.00	-	1,655,223.00	81,844,016.08	-

The rules relating to distribution of voting rights are defined in Article 54 of Council Regulation (EU) 2021/2085 of 19 November 2021. Based on this article, the number of votes of the Members other than the Union shall collectively hold 50 % of the voting rights.

In 2022 CBE JU started the implementation of the HE Programme and only very few contributions are being reported as at year end.

3 NOTES TO THE STATEMENT OF FINANCIAL PERFORMANCE

REVENUE

NON-EXCHANGE REVENUE

Revenue from non-exchange transactions relates to transactions where the transferor provides resources to the recipient entity without the recipient entity providing approximately equal value directly in exchange. The heading mainly includes amounts received from the Commission during the year and recoveries of operational expenses.

3.1. RECOVERY OF EXPENSES

The revenue resulting from recovery of expenses refers to operational expenses recovered from beneficiaries during the year and adjustments coming from audits that will be collected in the following year.

	2023	2022
<i>Recovery of expenses</i>	116,279.90	259,895.76

For 2023 this amount relates to recoveries in four BBI terminated projects.

3.2. Other non-exchange revenue

	2023	2022
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Other

Not applicable

EXCHANGE REVENUE

3.3. Revenue from exchange transactions

The revenue from exchange transactions and events relates to following types of transactions: rendering of services; sales of goods; and the use by others of entity assets yielding interest, royalties and dividends.

	2023	2022
<i>Recovery of administrative expenses</i>	17,679.00	783.98
<i>Miscellaneous income exchange</i>	509.69	
<i>Interest income on late payment</i>		
<i>Financial revenue</i>		
<i>Write back of previously written-off amount.</i>		
<i>other</i>		
Total	18,188.69	783.98

For 2023 these are recharges to other JUs of common JU administrative costs (such as the Systal HR tool implementation) for which CBE was the lead contracting JU.

EXPENSES

3.4. OPERATIONAL COSTS

Included under this heading are operational expenses related to projects that were carried out in the current year. The part of the operational costs related to ongoing projects without any validated cost claims (or equivalent) available on 31 December was estimated using the best information available at the time of preparation of the annual accounts. The estimation is based on the case-by-case assessment of completion which ensures that only costs that reflect the services or work performed by 31 December are included in the operational costs of the year. Depending on the availability of information at the time of preparation of the annual accounts, the estimates are based on costs incurred to date as a proportion of the estimated total costs of the projects ("pro-rata temporis").

The break-down of the operational costs between operational costs incurred on the basis of validated cost claims (or equivalent) and estimated operational costs is given in the table below:

	2023	2022
<i>Operational costs: validated in-kind contributions</i>	25,959,237.38	13,659,789.65
<i>Operational costs: estimated in-kind contributions</i>	(5,300,430.56)	(12,232,582.78)
Total operational costs from in-kind contributions	20,658,806.72	1,427,206.87
<i>Operational costs: validated EU contributions</i>	117,460,850.03	101,192,102.26
<i>Operational costs: estimated EU contributions</i>	(17,939,321.56)	(3,142,623.07)
Total operational costs from EU contributions	99,521,528.97	98,049,479.19
Total	120,180,335.69	99,476,686.06

Depending on the availability of information at the time of the preparation of the annual accounts, the estimates are based on cost claims received or by pro rata temporis estimates based on total project grant amounts (remaining balance).

The operational costs from estimated in-kind contributions were calculated following the new methodology (put in place in 2021) of estimation of the IKOP for which no project cost claims covering the whole year were validated at the year end. Instead of basing the estimates on annual declarations of IKOP from the private Members, the new method combines the real amount of IKOP from the project cost claims validated during the year with a pro rata estimate based on total IKOP allocated to the project, calculated for the remaining period after the cost claim end date.

The operational cost from EU contributions shows an increase of the costs incurred and validated and a decrease of estimated operational costs. This evolution is in line with the phasing out of the Call 2020 projects where larger costs are incurred on the basis of the validated mid-term and final cost claims and lower amounts thus need to be estimated.

3.5. STAFF COSTS

This heading includes the expenses for salaries, allowances and other employment-related benefits. Based on the service level agreement between the JU and the Commission, the calculation of staff-related costs is carried out by the Commission's Office for Administration and Payment of Individual Entitlements (also known as the Paymaster's Office - PMO). The pensions of the JU staff members are covered by the Pension Scheme of European Officials. This pension scheme is a defined benefit plan, i.e. the amount of benefit an employee will receive on retirement depends on several factors, the most important of which is years of service. Both the JU staff, the JU and the EU budget contribute to the pension scheme, with the contribution percentage being revised annually in line with the changes in the Staff Regulation governing the scheme. The cost to the EU Budget is not reflected in the JU accounts. Similarly, no provision related to the future pension payments is recognised in the annual accounts of the JU, as the obligation falls to the Commission.

As per Article 83a (2) of the Staff Regulations, the part paid by the JU shall correspond to the percentage share between a) the JU's revenues without the subsidy from the general budget, and b) its total revenues. To avoid disruptive variations over time, the JU's employer's pension contribution is calculated with a single percentage share for the whole duration of the JU. This single percentage was established on the basis of the EU and non-EU Members' respective contributions, as foreseen in the JU's legal basis, with a correction and regularisation to be foreseen in the last year of existence of the JU. The contribution of the Circular Bio-based Europe Joint Undertaking was set as 2.3 % of the total pension scheme contributions. This contribution is accounted for within staff costs.

In view of implementation problems and the principle of good administration, it was agreed between the Commission and the JUs that the provisions of Article 83a (2) are applied only to the JUs set up by the SBA and the Euro HPC JU, and not to those established under the previous Regulations. Given the late entry into force of the SBA at the end of November 2021, it became applicable as from 2022.

	2023	2022
<i>Staff costs</i>	2,757,139.48	2,568,112.14

The increase in 2023 is related to the indexation of salaries and the reclassification exercise.

3.6. FINANCE EXPENSES

	2023	2022
<i>Interest expense on late payment of charges</i>		200.13
<i>Net impairment losses on receivables</i>	2,842,169.01	
Total	2,842,169.01	200.13

The net impairment loss relates to a provision against a doubtful debt which arose in 2022 following the early termination of a large Flagship project, BIOSKOH. Part of the total original debt was repaid. For the remaining balance, CBE is still in communication with the coordinator with a view to putting in place a payment instalment plan. As at end 2023 there was no progress at this level.

3.7. OTHER EXPENSES

Included under this heading are expenses of administrative nature such as external non-IT services, operating leasing expenses, communications and publications, training costs etc.

	2023	2022
<i>Property, plant and equipment related expenses</i>	27,534.25	29,565.04
<i>External non-IT services</i>	191,912.23	314,336.33
<i>Legal Expenses</i>	-	883.90
<i>Maintenance and security expenses</i>	2,811.41	8,000.00
<i>Office Supplies & maintenance</i>	8,574.04	17,721.06
<i>External IT services</i>	444,805.53	404,335.27
<i>Experts' expenses</i>	211,521.85	268,419.66
<i>Car & transport expenditures</i>	-	1,409.19
<i>Training costs</i>	45,733.08	35,773.66
<i>Recruitment costs</i>	723.71	18,792.12
<i>Missions</i>	55,059.81	18,409.13
<i>Communications & publications</i>	818,797.28	535,259.55
<i>Rent expenses</i>	349,957.63	312,705.14
<i>Losses on realisation of trade debtors</i>	(0.01)	(0.04)
<i>Insurances</i>	476.30	26.64
Total	2,156,907.11	1,965,636.65

The rise in the costs for missions - kEUR 37 - and communication and publication expenses - kEUR 284 - can be explained by the increase in activities and business travel organised in 2023 compared to 2022, due to the relaxing of COVID-19 related measures.

The increase of Communications and publications costs is mainly due to the additional costs of the Stakeholder Forum in December 2023 (+/- kEUR 500).

Operating lease expenses concern the CBE JU office in the 'White Atrium' building. Amounts committed to be paid during the remaining term of this lease contract (the existing rent contract is only in force until November 2025) include rent and related charges and are as follows:

An overview of the amounts to be committed and paid during the remaining term of these lease contracts are as follow:

	Future amounts to be paid			Total
	< 1 year	1- 5 years	> 5 years	
<i>Buildings</i>	338.405,33	697.250,34		1.035.655,67

4 OTHER SIGNIFICANT DISCLOSURES

4.1 CONTINGENT ASSETS

	31.12.2023	31.12.2022
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Contingent assets

In mid-2023 an exercise was launched to assess and take action on a backlog of project-related audit implementation files, including a revision and increased automation of the related procedures. The outcome of this exercise became known during the subsequent events review following the 2023 provisional accounts. There are negative audit adjustments raised for several of the projects, but the estimated total amount (currently between kEUR 500 and kEUR 1 000) is still under evaluation and could change substantially. No recovery orders have as yet been issued. The total recoverable, which is unlikely to be material, will therefore be accounted for in the 2024 accounts once the amount is known with certainty.

4.2 CONTINGENT LIABILITIES

	2023	2022
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Legal cases

Other

Total

Not applicable in 2023.

4.3 OUTSTANDING COMMITMENTS NOT YET EXPENSED

The outstanding commitments not yet expensed comprise the budgetary RAL ('Reste à Liquider') less related amounts that have been included as expenses in the current year's statement of financial performance. The RAL represents the open budgetary commitments for which payments and/or de-commitments have not yet been made. This is a normal consequence of the existence of multi-annual programmes.

	EUR '000	
	31.12.2023	31.12.2022
<i>Outstanding commitments not yet expensed</i>	267,450	179,789

The outstanding commitments not yet expensed are the result of the correction of the budgetary RAL with the estimated costs, determined by using the accrual-based principle which is not reflected in the budgetary result, where the cash-based principle is used. The increase between the years is due to the high increase of kEUR 54 119 in the budgetary RAL and the decrease of kEUR 21 898 in the accruals, which is shown in the budget implementation reports (see chapter 6).

4.4 IN-KIND CONTRIBUTIONS

According to both Council Regulation (EU) No 558/2014 and Council Regulation (EU) No 2021/2085, the Members other than the Union shall provide in-kind contributions to the Joint Undertaking.

Under the H2020 Programme, in-kind contributions by Private Member beneficiaries and their affiliated entities consist of the costs incurred by them in implementing indirect actions less the contribution of the Joint Undertaking and any other Union contribution to those costs. For the purpose of valuing these in-kind contributions, the costs are determined in accordance with the usual cost accounting practices of the entities concerned, the applicable accounting standards of the country where the entity is established, and also the applicable International Accounting Standards and International Financial Reporting Standards. The costs shall be certified by an independent external auditor appointed by the entity concerned. The valuation method may be verified by the Joint Undertaking, should there be any uncertainty arising from the certification.

Further simplification was introduced under the Horizon Europe Programme. In that context, a simplified reporting mechanism was put in place for the Members, who are no longer required to report on non-eligible costs for in-kind contributions to operational activities. According to Art.2. (8) of the SBA: "in-kind contributions to operational activities means contributions by private members, constituent entities or the affiliated entities of either, by international organisations and by contributing partners, consisting of the eligible costs incurred by them in implementing indirect actions less the contribution of that joint undertaking and of the participating states of that joint undertaking to those costs". Consequently, in-kind contributions to operational activities are accounted for solely on the basis of eligible costs and reported and audited in accordance with the mechanism applicable to the specific grant agreement. Such accounting based on eligible costs allows for the automated calculation of in-kind contributions to operational activities via the Horizon Europe IT tools.

4.5 IN-KIND IN ADDITIONAL ACTIVITIES (IKAA)

The joint undertakings provide a systematic opportunity and incentive for Members other than the Union to combine their research and innovation activities with those of the joint undertaking. Additional activities do not receive financial support from the joint undertaking. However, they are accounted for as Members' in-kind contributions to additional activities when they contribute to the objectives of the joint undertaking and are directly linked to its activities, including non-eligible costs of indirect actions funded by the joint undertaking where this is provided for in the annual additional activities plan. That link can be established through the uptake of results from indirect actions funded by the joint undertaking or its preceding initiatives, or by demonstrating a significant Union added value. The respective costs should be certified by an independent audit body appointed by the entity concerned, subject to the valuation method being open to verification by the joint undertaking in the event of uncertainty. Council Regulation (EU) No 2021/2085 laid down more specific provisions concerning the scope of additional activities for each joint undertaking, to the extent that it is necessary to achieve the desired directionality and impact.

"Additional activity" means an activity, included in the annual additional activities plan annexed to the main part of the work programme, that does not receive financial support from the joint undertaking but contributes to its objectives, and is directly linked to the uptake of results from projects under that joint undertaking or its preceding initiatives or that has a significant Union added value.

In-kind contributions to additional activities are contributions by the Private Members, constituent entities or the affiliated entities of either, and by international organisations, consisting of the costs incurred by them in implementing additional activities less any contribution to those costs from the Union and from the participating states of that joint undertaking.

Art. 49 of the SBA defines the scope of CBE's additional activities:

a) investments in new facilities demonstrating a new value chain, including investments in durable equipment, tools and accompanying infrastructure, in particular related to regional deployment and its sustainability verification;

(b) investments in a new innovative and sustainable production plant or flagship;

(c) investments in new research and innovation and justified infrastructure, including facilities, tools, durable equipment, or pilot plants (research centres);

(d) standardisation activities; (e) communication, dissemination and awareness-raising activities.

4.6 CONTRIBUTIONS PER PROGRAMME

TARGETS

	EU cash (a)	Private members' cash (c)	Private members' IKOP (d)	Private members' IKAA (e)	Total (f)=(a)+(b)+ (c)+(d)+(e)
H2020	835,000,000.00	22,195,488.31	263,293,995.00	2,444,510,516.69	3,565,000,000.00
Horizon Europe	1,000,000,000.00	23,500,000.00	976,500,000.00		2,000,000,000.00

ACTUALS

	Members contributions as of 31.12.2023							Total	Achievement rate
	EU cash validated	EU cash not validated (PF)	Other members cash	Other members IKOP validated	Other members IKOP reported but not validated	IKAA certified	IKAA reported but not certified		
H2020	783,329,739.43		22,195,488.31	91,857,581.96	58,635,334.90	1,734,572,377.00	416,000,000.00	3,119,628,528.92	87%
Horizon Europe	80,188,793.08	7,418,646.92	1,655,223.00	-	3,708,591.69		61,539,083.00	147,091,690.77	8%

H2020 contributions are in line with expectations.

For what concerns the EU cash contributions validated at the end of 2023, it should be noted that EUR 156.5 million (20% of EUR 783.3 million) represent open pre-financing (based on paid cost claims and before accounting adjustments). As such they are not EU cash contributions validated by CBE JU as being spent in the projects, but they constitute a cash advance which remains a receivable until clearing.

Regarding the contributions by other Members at the end of 2023, the IKOP target was set at the closure of all the BBI JU calls in signed grants. It is not a legal target set in the founding regulation of the BBI JU initiative and the IKOP will contribute to achieving the overall legal target alongside the finalisation of BBI JU projects (29% of which are still ongoing).

The specific legal target for IKAA contributions was already achieved in 2022 at the planning stage, and the planning cycle for these contributions will continue until 2024. Therefore, IKAA will play a pivotal role in the achievement of the EUR 2.73 billion overall target of BIC contributions to the BBI initiative. In order to achieve this result, the IKAA planning process aims at around EUR 2.5 billion to be contributed by the end of the initiative.

Also, for the EU cash contributions validated at the end of 2023 under Horizon Europe, it shall be noted that only one call out of six planned has been implemented by the cutoff and EUR 78.5 million (98% of EUR 80.2 million) represent open pre-financing, and its accounting treatment follows the same steps described above for H2020 contributions.

Regarding the contributions by other Members at the end of 2023 under Horizon Europe, there is a pro rata estimation of EUR 3.9 million IKOP for the first CBE JU projects that started in 2023, as no cost claims were received. The EUR 61.5 million IKAA value for 2023 was communicated by other Members in the first multi-annual planning cycle done at the closure of the first call of CBE JU. The total value of this plan up to 2031 amounts to EUR 388 million.

4.7 RELATED PARTIES

These are the related parties of the JU and the key management personnel of these entities. As transactions between the JU and these parties take place as part of the normal operations of the JU and on terms and conditions that are normal for such transactions, no specific disclosures are required.

4.8 KEY MANAGEMENT ENTITLEMENTS

The Director, or Head of Entity, is remunerated in accordance with the Staff Regulations of the European Union, which establish the rights and obligations of all officials of the EU. The Staff Regulations are published on the Europa website.

	31.12.2023	31.12.2022
<i>Executive Director</i>	<i>AD 14</i>	<i>AD 14</i>

The Executive Director is remunerated in accordance with the Staff Regulations of the European Union that is published on the Europa website and is the official document describing the rights and the obligations of all officials of the EU.

At its meeting of 17 June 2022, the CBE JU Governing Board took note of the previous Executive Director's resignation with effect from 1 September 2023. On 25 July 2023, the GB appointed Nicolò Giacomuzzi-Moore as CBE JU's Executive Director ad interim as of 1 September 2023. He was officially nominated as the new Executive Director during the Governing Board meeting of 6 December 2023 and will take up his official duties in early January 2024.

4.9 OTHER EVENTS

Russia-Ukraine war

The war does not affect materially the recognition and measurement of any assets and liabilities on the balance sheet nor of any revenue and expenses recognised in the statement of financial performance.

Based on the facts and circumstances at the time of preparation of these financial statements, in particular, the evolving situation, the financial effect of the war on subsequent reporting periods of the IHI JU cannot be reliably estimated.

4.10 OTHER INFORMATION

BREXIT - United Kingdom joins Horizon Europe Programme

As of 1 January 2024, the United Kingdom becomes an associated country to Horizon Europe. Its researchers will be able to participate in this research and innovation programme of the EU on the same terms as researchers from other associated countries and will have access to Horizon Europe funding.

4.11 EVENTS AFTER REPORTING DATE

Not applicable.

4.12 OBSERVATIONS ON MANAGEMENT AND CONTROL SYSTEMS

Not applicable.

5 FINANCIAL RISK MANAGEMENT

5.1 TYPES OF RISK

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate, because of variations in market prices. Market risk embodies not only the potential for loss, but also the potential for gain. It comprises currency risk, interest rate risk and other price risk (the entity has no significant interest rate risk and other price risk).

(1) **Currency risk** is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. This risk arises from the change in the price of a foreign currency against the functional currency of an entity.

(2) **Interest rate risk** is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. As an example, higher interest rates will lead to lower prices of fixed rate bonds (other things equal), and vice versa. The entity does not have any securities thus it is not exposed to the interest rate risk.

(3) **Credit risk** is the risk of loss due to a debtor's non-payment or other failure to meet a contractual obligation. The default events include a delay in repayments, and bankruptcy.

(4) **Liquidity risk** is the risk that an EU entity will encounter difficulty in meeting obligations associated with financial liabilities that are settled by delivering cash or another financial asset.

5.2 CURRENCY RISKS

At the end of the year, the financial assets are composed of exchange receivables. The financial liabilities are composed of accounts payable. Their ending balances are quoted in EUR, the entity is thus not exposed to currency risk.

5.3 CREDIT RISK

At the end of the year, the financial assets comprise exchange receivables that are not past due for more than 30 days. As no credit loss is expected during the lifetime of those receivables the entity is not exposed to any significant credit risk.

5.4 LIQUIDITY RISK

The financial liabilities are mainly composed of accounts payable. All the accounts payable have remaining contractual maturity of less than 1 year.

CIRCULAR BIO-BASED EUROPE JOINT UNDERTAKING
FINANCIAL YEAR 2023

- **THE BUDGET IMPLEMENTATION REPORTS AND EXPLANATORY NOTES**

1. BUDGETARY PRINCIPLES AND STRUCTURE

1.1. BUDGETARY PRINCIPLES

The establishment and implementation of the budget of Circular Bio-based Europe is governed by the following basic principles set out in the Chapter 2 of the Financial Rules of the Joint Undertaking:

Principles of unity and budget accuracy

This principle means that no revenue shall be collected and no expenditure effected unless booked to a line in the budget of the joint undertaking. No expenditure may be committed or authorised in excess of the appropriations authorised by the budget. An appropriation may be entered in the budget only if it is for an item of expenditure considered necessary.

Principle of annuality

The appropriations entered in the budget shall be authorised for a financial year which shall run from 1 January to 31 December.

Principle of equilibrium

Revenue and payment appropriations shall be in balance.

Principle of unit of account

The budget shall be drawn up and implemented in euro and the accounts shall be presented in euro.

Principle of universality

Total revenue shall cover total payment appropriations and all revenue and expenditure shall be entered in full without any adjustment against each other.

Principle of specification

Appropriations shall be earmarked for specific purposes at least by title and chapter.

Principle of sound financial management

Appropriations shall be used in accordance with the principle of sound financial management, namely in accordance with the principles of economy, efficiency and effectiveness.

Principle of economy

The principle of economy requires that the resources used by the JU in the pursuit of its activities shall be made available in due time, in appropriate quantity and quality and at the best price.

Principle of efficiency

The principle of efficiency concerns the best relationship between resources employed and results achieved.

Principle of effectiveness

The principle of effectiveness concerns the attainment of the specific objectives set and the achievement of the intended results.

Principle of internal control

The principle of internal control of budget implementation means that the JU budget shall be implemented in compliance with effective and efficient internal control in order to provide reasonable

assurance of achieving effectiveness, efficiency and economy of operations; reliability of reporting; safeguarding of assets and information; prevention, detection, correction and follow-up of fraud and irregularities; inadequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multi-annual character of the programmes as well as the nature of the payments concerned.

Principle of transparency

The budget shall be established and implemented and the accounts presented in accordance with the principle of transparency. The budget and any amending budgets shall be published on the internet site of the joint undertaking within four weeks of their adoption and shall be transmitted to the Commission and the Court of Auditor.

1.2. STRUCTURE AND PRESENTATION OF THE BUDGET

Since 1 January 2015, no distinction between non-dissociated and dissociated appropriations is made. All appropriations follow the dissociated logic.

Following the provisions of the Financial Rules of the Joint Undertaking, the budget accounts shall consist of a statement of revenue and a statement of expenditure. The budget is distributed in the following titles:

Title 1

Budget lines relating to staff expenditure such as salaries and allowances for personnel working with the Joint Undertaking. It also includes recruitment expenses, staff missions, expenses for the socio-medical infrastructure and representation costs.

Title 2

Budget lines relating to all infrastructure, equipment and miscellaneous administrative expenditure.

Title 3

Budget lines providing for the implementation of the activities and tasks assigned to the Joint Undertaking in accordance with its establishing Council Regulation.

1.3. RESULT OF THE IMPLEMENTATION OF THE BUDGET

	Title	2023	2022
Revenue		103 647	49 439
of which:			
European Commission (incl. EFTA) contribution to administrative expenditure BBI	1	1 953	2 220
European Commission (incl. EFTA) contribution to operational expenditure BBI	1	96 424	39 557
Bio-based Industries Consortium contribution to administrative expenditure BBI	1	2 776	3 052
Joint Undertaking revenues BBI	1	18	80
Other income BBI	1	1 009	3 227
European Commission (incl. EFTA) contribution to administrative expenditure CBE	1	823	832
European Commission (incl. EFTA) contribution to operational expenditure CBE	1	644	471
Expenditure		(123 710)	(52 052)
of which:			
Staff expenditure	1	(2 938)	(2 761)
Administrative expenditure	2	(1 643)	(1 860)
Operational expenditure	3	(119 129)	(47 431)
Exchange rate differences		0	0
Budget result		(20 063)	(2 613)

1.4. RECONCILIATION OF ECONOMIC RESULT WITH BUDGET RESULT

	2023	2022
ECONOMIC RESULT OF THE YEAR	(127 802)	(103 750)
Adjustment for accrual items (items not in the budgetary result but included in the economic result)	5 789	(1 486)
<i>Adjustments for accrual cut-off (net)</i>	5 855	(1 516)
<i>Depreciation, amortization and impairment of intangible and tangible assets</i>	28	30
<i>Other income adjustment</i>	(94)	
<i>Uncleared balance on projects' payments</i>		
<i>Other individually immaterial</i>		
Adjustment for budgetary items (item included in the budgetary result but not in the economic result)	101 950	102 623
<i>Members' cash contributions collected in the year</i>	102 619	46 661
<i>Other income</i>	1 009	2 778
<i>Asset acquisitions (less unpaid amounts)</i>	(132)	(32)
<i>New pre-financing paid in the year and remaining open as at 31 December</i>	(1 539)	53 224
<i>Other individually immaterial</i>	(8)	(8)
BUDGET RESULT OF THE YEAR	(20 063)	(2 613)

2. IMPLEMENTATION OF BUDGET REVENUE⁶⁰

	Item	Income appropriations		Entitlements established			Revenue				Out-standing
		Initial budget	Final budget	Current year	Carried over	Total	On entitlements of current year	On entitlements carried over	Total	%	
		1	2	3	4	5=3+4	6	7	8=6+7	9=8/2	
1001	European Commission (incl. EFTA) contribution to administrative expenditure BBI	1 953	1 953	1 953	0	1 953	1 953	0	1 953	100 %	0
1002	European Commission (incl. EFTA) contribution to operational expenditure BBI	11 115	11 115	96 424	0	96 424	96 424	0	96 424	867 %	0
1003	Bio-based Industries Consortium contribution to administrative expenditure BBI	1 953	1 953	2 776	0	2 776	2 776	0	2 776	142 %	0
1005	Joint Undertaking revenues BBI	0	0	19	0	19	18	0	18	-	1
1006	Other income BBI	0	0	828	3 027	3 855	824	185	1 009	-	2 846
1007	European Commission (incl. EFTA) contribution to administrative expenditure CBE	823	823	823	0	823	823	0	823	100 %	0

⁶⁰ The administrative and operational contributions from the EC and BIC (Industry Member) were fully received, though certain recovery orders were booked on incorrect income lines. Re-allocating contributions to the correct lines we get:

Budget line 1002: total establishments kEUR 11,115, implementation 100%.

Budget line 1003: total establishments kEUR 1,953, implementation 100%.

Budget line 1008: total establishments kEUR 85,953, Total budget, reduced by kEUR 356 amendment mentioned in note 6 to the breakdown of payment appropriations table, is kEUR 86,976. Total implementation 99%. Outstanding difference is amount retained by RTD for co-delegation to REA for expert-evaluators of Call 2023. To be recovered in 2024.

Budget line 1009: total establishments kEUR 823, implementation 100%.

Budget line 1006: outstanding amount is a (partly cashed) open recovery order relating to a project.

Annual accounts of the Circular Bio-Based Europe Joint Undertaking 2023

1008	European Commission (incl. EFTA) contribution to operational expenditure CBE	87 332	87 332	644	0	644	644	0	644	1 %	0
1009	Bio-based Industries Consortium contribution to administrative expenditure CBE	823	823							-	
Total Chapter 10		103 999	103 999	103 466	3 027	106 493	103 462	185	103 647	100 %	2 847
Total Title 1		103 999	103 999	103 466	3 027	106 493	103 462	185	103 647	100 %	2 847
2019	C2 reactivation of appropriations for administrative expenditure (2023)	1 589	1 589							-	
2020	C2 reactivation of appropriations for operational expenditure (2023)	30 000	30 000							-	
2030	C2 reactivation of appropriations for administrative expenditure (2023) CBE	1 000	1 000							-	
Total Chapter 20		32 589	32 589							-	
Total Title 2		32 589	32 589							-	
GRAND TOTAL		136 589	136 589	103 466	3 027	106 493	103 462	185	103 647	76 %	2 847

3. IMPLEMENTATION OF BUDGET EXPENDITURE

Breakdown & changes in commitment appropriations

Breakdown & changes in commitment appropriations – Title 1

	Item	Budget appropriations				Additional appropriations			Total approp. available
		Initial adopted budget	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	8=4+7
1100	Staff costs BBI	2 257	0	(107)	2 150	452	0	452	2 602
1101	Staff costs CBE	919	0	0	919	612	0	612	1 531
1110	Trainees BBI	7	0	0	7	25	0	25	32
Total Chapter 11		3 183	0	(107)	3 076	1 090	0	1 090	4 166
1200	Sundry recruitment expenses BBI	0	0	0	0	16	0	16	16
1201	Installation, resettlement and daily subsistence allowances and removal and travel expenses BBI	0	0	0	0	60	0	60	60
Total Chapter 12		0	0	0	0	76	0	76	76
1300	Mission expenses, duty travel expenses and other ancillary expenditure BBI	2	0	7	9	57	0	57	66
Total Chapter 13		2	0	7	9	57	0	57	66
1400	Medical service BBI	0	0	0	0	18	0	18	18
1401	Mobility costs and other social expenses for staff BBI	11	0	0	11	141	0	141	152
1402	Training BBI	2	0	0	2	93	18	111	113
1403	Supplementary aid for the disabled BBI	0	0	0	0	29	0	29	29
Total Chapter 14		13	0	0	13	281	18	300	312
1500	Staff teambuilding and related events BBI	0	0	0	0	10	0	10	10
Total Chapter 15		0	0	0	0	10	0	10	10
Total Title 1		3 198	0	(100)	3 098	1 514	18	1 532	4 630

Breakdown & changes in commitment appropriations – Title 2

	Item	Budget appropriations				Additional appropriations			Total approp. available
		Initial adopted budget	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	
2000	Rentals BBI	67	0	57	124	236	0	236	361
2001	Rentals CBE	720	0	(583)	137	0	0	0	137
2010	Charges and works BBI	0	0	0	0	0	0	0	0
Total Chapter 20		788	0	(526)	262	236	0	236	498
2100	IT equipment & software purchase/development costs BBI	128	0	(55)	73	0	0	0	73
2101	Other IT costs BBI	280	0	(21)	259	17	0	17	275
2102	IT equipment & software purchase/development costs CBE	0	0	314	314	0	0	0	314
2103	Other IT costs CBE	0	0	80	80	0	0	0	80
Total Chapter 21		408	0	318	725	17	0	17	742
2300	Stationery and office supplies BBI	18	0	(9)	9	3	0	3	12
2302	Legal expenditure BBI	0	0	0	0	2	0	2	2
2303	Other current administrative expenditure BBI	0	0	1	1	0	0	0	1
Total Chapter 23		18	0	(8)	10	5	0	5	15
2400	Telecommunications and postal charges BBI	0	0	0	0	4	0	4	4
Total Chapter 24		0	0	0	0	4	0	4	4
2500	Expenditure on formal meetings BBI	78	0	(33)	45	0	0	0	45
Total Chapter 25		78	0	(33)	45	0	0	0	45
2600	Events and campaigns BBI	152	0	131	282	231	0	231	513
2601	Materials BBI	148	0	(17)	131	2	0	2	133

Annual accounts of the Circular Bio-Based Europe Joint Undertaking 2023

2602	Communications tools BBI	74	0	54	128	0	0	0	128
2603	Public relations BBI	75	0	(57)	18	0	0	0	18
2604	Events and campaigns CBE	0	0	154	154	0	0	0	154
2605	Materials CBE	0	0	8	8	0	0	0	8
Total Chapter 26		448	0	273	722	233	0	233	955
2700	Studies, consultancy and other services BBI	19	0	(10)	9	105	0	105	114
2701	Service contracts BBI	1	0	(1)	0	0	0	0	0
2702	Audit costs BBI	31	0	0	31	0	0	0	31
2706	External staff BBI	400	0	(13)	387	0	0	0	387
Total Chapter 27		451	0	(24)	427	105	0	105	532
2900	Expert reviewers BBI	250	0	0	250	0	0	0	250
Total Chapter 29		250	0	0	250	0	0	0	250
Total Title 2		2 441	0	(0)	2 441	600	0	600	3 041

Breakdown & changes in commitment appropriations – Title 3

	Item	Budget appropriations				Additional appropriations			Total appropr. available
		Initial adopted budget	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	8=4+7
3000	Previous years' calls BBI	0	0	0	0	0	765	765	765
Total Chapter 30		0	0	0	0	0	765	765	765
3100	Current year call BBI	0	0	100	100	0	0	0	100
3101	Current year call CBE	149 581	0	0	149 581	67 582	0	67 582	217 162
Total Chapter 31		149 581	0	100	149 681	67 582	0	67 582	217 262
3200	Evaluators' contract CBE	1 668	0	0	1 668	0	0	0	1 668
Total Chapter 32		1 668	0	0	1 668	0	0	0	1 668
Total Title 3		151 248	0	100	151 348	67 582	765	68 347	219 695

GRAND TOTAL	156 887	0	(0)	156 887	69 696	783	70 479	227 366
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Breakdown & changes in payment appropriations

Breakdown & changes in payment appropriations – Title 1

	Item	Budget appropriations				Additional appropriations			Total approp. available
		Initial budget adopted	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	
1100	Staff costs BBI	2 136	0	(7)	2 129	569	0	569	2 698
1101	Staff costs CBE	919	0	0	919	1 000	0	1 000	1 919
1110	Trainees BBI	0	0	0	0	36	0	36	36
Total Chapter 11		3 055	0	(7)	3 048	1 605	0	1 605	4 654
1200	Sundry recruitment expenses BBI	0	0	0	0	16	0	16	16
1201	Installation, resettlement and daily subsistence allowances and removal and travel expenses BBI	0	0	0	0	60	0	60	60
Total Chapter 12		0	0	0	0	76	0	76	76
1300	Mission expenses, duty travel expenses and other ancillary expenditure BBI	0	0	7	7	60	0	60	66
Total Chapter 13		0	0	7	7	60	0	60	66
1400	Medical service BBI	0	0	0	0	18	0	18	18
1401	Mobility costs and other social expenses for staff BBI	152	0	0	152	1	0	1	153
1402	Training BBI	40	0	0	40	55	18	73	113
1403	Supplementary aid for the disabled BBI	0	0	0	0	29	0	29	29
Total Chapter 14		192	0	0	192	102	18	120	312
1500	Staff teambuilding and related events BBI	0	0	0	0	10	0	10	10
Total Chapter 15		0	0	0	0	10	0	10	10

Total Title 1	3 247	0	0	3 247	1 853	18	1 871	5 118
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Breakdown & changes in payment appropriations – Title 2

	Item	Budget appropriations				Additional appropriations			Total approp. available
		Initial budget adopted	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	8=4+7
2000	Rentals BBI	304	0	41	345	16	0	16	361
2001	Rentals CBE	720	0	(401)	320	0	0	0	320
2010	Charges and works BBI	41	0	(41)	0	0	0	0	0
Total Chapter 20		1 065	0	(400)	665	16	0	16	681
2100	IT equipment & software purchase/development costs BBI	128	0	(55)	73	0	0	0	73
2101	Other IT costs BBI	154	0	7	161	138	0	138	300
2102	IT equipment & software purchase/development costs CBE	0	0	287	287	22	0	22	309
2103	Other IT costs CBE	0	0	103	103	5	0	5	108
Total Chapter 21		282	0	343	625	165	0	165	790
2200	Movable property and associated office equipment purchase costs BBI	0	0	0	0	4	0	4	4
Total Chapter 22		0	0	0	0	4	0	4	4
2300	Stationery and office supplies BBI	18	0	(1)	17	3	0	3	20
2302	Legal expenditure BBI	0	0	0	0	1	0	1	1
2303	Other current administrative expenditure BBI	0	0	1	1	0	0	0	1
Total Chapter 23		18	0	(0)	18	4	0	4	22
2400	Telecommunications and postal charges BBI	0	0	0	0	2	0	2	2
Total Chapter 24		0	0	0	0	2	0	2	2

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2500	Expenditure on formal meetings BBI	78	0	(23)	55	0	0	0	55
Total Chapter 25		78	0	(23)	55	0	0	0	55
2600	Events and campaigns BBI	192	0	0	192	176	0	176	368
2601	Materials BBI	19	0	78	97	103	0	103	201
2602	Communications tools BBI	0	0	0	0	122	0	122	122
2603	Public relations BBI	0	0	0	0	28	0	28	28
2605	Materials CBE	0	0	3	3	0	0	0	3
Total Chapter 26		211	0	81	292	429	0	429	721
2700	Studies, consultancy and other services BBI	0	0	0	0	62	0	62	62
2701	Service contracts BBI	0	0	0	0	28	0	28	28
2702	Audit costs BBI	0	0	0	0	26	0	26	26
2706	External staff BBI	400	0	0	400	0	0	0	400
Total Chapter 27		400	0	0	400	115	0	115	516
2900	Expert reviewers BBI	250	0	0	250	0	0	0	250
Total Chapter 29		250	0	0	250	0	0	0	250
Total Title 2		2 305	0	(0)	2 305	736	0	736	3 041

Breakdown & changes in payment appropriations – Title 3

		Budget appropriations				Additional appropriations			Total approp. available
	Item	Initial budget adopted	Amending budgets	Transfers	Final adopted budget	Reactivated appropriations	Assigned revenue	Total	
		1	2	3	4=1+2+3	5	6	7=5+6	8=4+7
3000	Previous years' calls BBI	11 115	0	(4 115)	7 000	16 381	765	17 146	24 146
3001	Previous years' calls CBE	85 308	0	(85 308)	0	0	0	0	0
Total Chapter 30		96 424	0	(89 424)	7 000	16 381	765	17 146	24 146
3100	Current year call BBI	0	0	6 115	6 115	13 619	0	13 619	19 734
3101	Current year call CBE ⁶¹	356	0	83 308	83 665	0	0	0	83 665
Total Chapter 31		356	0	89 424	89 780	13 619	0	13 619	103 399
3200	Evaluators' contract CBE	1 668	0	0	1 668	0	0	0	1 668
Total Chapter 32		1 668	0	0	1 668	0	0	0	1 668
Total Title 3		98 448	0	0	98 448	30 000	765	30 765	129 213
GRAND TOTAL		103 999	0	0	103 999	32 589	783	33 372	137 372

⁶¹ This amount (relating to a change in EFTA rate for the CBE operational commitment appropriations) should have been removed following a late amendment voted on December 2023. The correction was overlooked and will be rectified in 2024. It is immaterial and does not change the overall CA execution.

4. IMPLEMENTATION OF COMMITMENT APPROPRIATIONS

Implementation of commitment appropriations – Title 1

	Item	Total approp. available	Commitments made					Appropriations carried over to 2024			Appropriations lapsing			
			from final adopt. budget	from re-activations	from assign. revenue	Total	%	Assign. revenue	By decision	Total	from final adopt. budget	from re-activations	from assign. revenue	Total
		1	2	3	4	5=2+3+4	6=5/1	7	8	9=7+8	10	11	12	13=10+11+12
1100	Staff costs BBI	2 602	2 150	452	0	2 602	100 %	0	0	0	0	0	0	0
1101	Staff costs CBE	1 531	42	0	0	42	3 %	0	0	0	877	612	0	1 489
1110	Trainees BBI	32	7	25	0	32	100 %	0	0	0	0	0	0	0
Total Chapter 11		4 166	2 199	478	0	2 677	64 %	0	0	0	877	612	0	1 489
1200	Sundry recruitment expenses BBI	16	0	16	0	16	100 %	0	0	0	0	0	0	0
1201	Installation, resettlement and daily subsistence allowances and removal and travel expenses BBI	60	0	0	0	0	0 %	0	0	0	0	60	0	60
Total Chapter 12		76	0	16	0	16	21 %	0	0	0	0	60	0	60
1300	Mission expenses, duty travel expenses and other ancillary expenditure BBI	66	9	41	0	50	75 %	0	0	0	0	16	0	16
Total Chapter 13		66	9	41	0	50	75 %	0	0	0	0	16	0	16
1400	Medical service BBI	18	0	12	0	12	67 %	0	0	0	0	6	0	6

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1401	Mobility costs and other social expenses for staff BBI	152	11	141	0	152	100 %	0	0	0	0	0	0	0
1402	Training BBI	113	2	60	0	62	55 %	0	0	0	0	33	18	51
1403	Supplementary aid for the disabled BBI	29	0	0	0	0	0 %	0	0	0	0	29	0	29
Total Chapter 14		312	13	213	0	226	72 %	0	0	0	0	68	18	86
1500	Staff teambuilding and related events BBI	10	0	10	0	10	100 %	0	0	0	0	0	0	0
Total Chapter 15		10	0	10	0	10	100 %	0	0	0	0	0	0	0
Total Title 1		4 630	2 221	757	0	2 978	64 %	0	0	0	877	757	18	1 652

Implementation of commitment appropriations – Title 2

	Item	Total approp. available	Commitments made					Appropriations carried over to 2024			Appropriations lapsing			
			from final adopt. budget	from re-activations	from assign. revenue	Total	%	Assign. revenue	By decision	Total	from final adopt. budget	from re-activations	from assign. revenue	Total
		1	2	3	4	5=2+3+4	6=5/1	7	8	9=7+8	10	11	12	13=10+11+12
2000	Rentals BBI	361	124	236	0	361	100 %	0	0	0	0	0	0	0
2001	Rentals CBE	137	0	0	0	0	0 %	0	0	0	137	0	0	137
2010	Charges and works BBI	0	0	0	0	0	0 %	0	0	0	0	0	0	0
Total Chapter 20		498	124	236	0	361	72 %	0	0	0	137	0	0	137
2100	IT equipment & software purchase/development costs BBI	73	73	0	0	73	100 %	0	0	0	0	0	0	0

Annual accounts of the Circular Bio-Based Europe Joint Undertaking 2023

2101	Other IT costs BBI	275	259	17	0	275	100 %	0	0	0	0	0	0	0
2102	IT equipment & software purchase/development costs CBE	314	314	0	0	314	100 %	0	0	0	0	0	0	0
2103	Other IT costs CBE	80	80	0	0	80	100 %	0	0	0	0	0	0	0
Total Chapter 21		742	725	17	0	742	100 %	0	0	0	0	0	0	0
2300	Stationery and office supplies BBI	12	9	3	0	12	100 %	0	0	0	0	0	0	0
2302	Legal expenditure BBI	2	0	2	0	2	100 %	0	0	0	0	0	0	0
2303	Other current administrative expenditure BBI	1	1	0	0	1	97 %	0	0	0	0	0	0	0
Total Chapter 23		15	10	5	0	15	100 %	0	0	0	0	0	0	0
2400	Telecommunications and postal charges BBI	4	0	4	0	4	100 %	0	0	0	0	0	0	0
Total Chapter 24		4	0	4	0	4	100 %	0	0	0	0	0	0	0
2500	Expenditure on formal meetings BBI	45	45	0	0	45	100 %	0	0	0	0	0	0	0
Total Chapter 25		45	45	0	0	45	100 %	0	0	0	0	0	0	0
2600	Events and campaigns BBI	513	279	231	0	510	99 %	0	0	0	3	0	0	3
2601	Materials BBI	133	131	2	0	133	100 %	0	0	0	0	0	0	0
2602	Communications tools BBI	128	120	0	0	120	93 %	0	0	0	8	0	0	8
2603	Public relations BBI	18	18	0	0	18	100 %	0	0	0	0	0	0	0
2604	Events and campaigns CBE	154	152	0	0	152	99 %	0	0	0	2	0	0	2
2605	Materials CBE	8	8	0	0	8	94 %	0	0	0	1	0	0	1

Annual accounts of the Circular Bio-Based Europe Joint Undertaking 2023

Total Chapter 26		955	707	233	0	941	98 %	0	0	0	14	0	0	14
2700	Studies, consultancy and other services BBI	114	1	65	0	67	59 %	0	0	0	7	40	0	47
2702	Audit costs BBI	31	3	0	0	3	10 %	0	0	0	28	0	0	28
2706	External staff BBI	387	242	0	0	242	63 %	0	0	0	145	0	0	145
Total Chapter 27		532	247	65	0	312	59 %	0	0	0	180	40	0	220
2900	Expert reviewers BBI	250	250	0	0	250	100 %	0	0	0	0	0	0	0
Total Chapter 29		250	250	0	0	250	100 %	0	0	0	0	0	0	0
Total Title 2		3 041	2 109	561	0	2 669	88 %	0	0	0	332	40	0	372

Implementation of commitment appropriations – Title 3

	Item	Total approp. available	Commitments made					Appropriations carried over to 2024			Appropriations lapsing			
			from final adopt. budget	from re-activations	from assign. revenue	Total	%	Assign. revenue	By decision	Total	from final adopt. budget	from re-activations	from assign. revenue	Total
		1	2	3	4	5=2+3+4	6=5/1	7	8	9=7+8	10	11	12	13=10+11+12
3000	Previous years' calls BBI	765	0	0	0	0	0 %	0	0	0	0	0	765	765
Total Chapter 30		765	0	0	0	0	0 %	0	0	0	0	0	765	765
3100	Current year call BBI	100	96	0	0	96	96 %	0	0	0	4	0	0	4
3101	Current year call CBE	217 162	147 847	67 582	0	215 429	99 %	0	0	0	1 734	0	0	1 734
Total Chapter 31		217 262	147 942	67 582	0	215 524	99 %	0	0	0	1 738	0	0	1 738
3200	Evaluators' contract CBE	1 668	644	0	0	644	39 %	0	0	0	1 024	0	0	1 024
Total Chapter 32		1 668	644	0	0	644	39 %	0	0	0	1 024	0	0	1 024
Total Title 3		219 695	148 586	67 582	0	216 168	98 %	0	0	0	2 762	0	765	3 527

GRAND TOTAL	227 366	152 916	68 900	0	221 816	98 %	0	0	0	3 971	796	783	5 550
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5. IMPLEMENTATION OF PAYMENT APPROPRIATIONS

Implementation of payment appropriations – Title 1

	Item	Total approp. availab. ·	Payments made					Appropriations carried over to 2024				Appropriations lapsing			
			from final adopt. budget	from re-activations	from assign. revenue	Total	%	Autom. carry-overs	By decision	Assigned rev.	Total	from final adopt. budget	from re-activations	from assign. rev.	Total
		1	2	3	4	5=2+3+4	6=5/1	7	8	9	10=7+8+9	11	12	13	14=11+12+13
1100	Staff costs BBI	2 698	2 040	569	0	2 609	97 %	0	0	0	0	89	0	0	89
1101	Staff costs CBE	1 919	0	22	0	22	1 %	0	0	0	0	919	978	0	1 897
1110	Trainees BBI	36	0	27	0	27	76 %	0	0	0	0	0	9	0	9
Total Chapter 11		4 654	2 040	619	0	2 659	57 %	0	0	0	0	1 008	987	0	1 995
1200	Sundry recruitment expenses BBI	16	0	1	0	1	4 %	0	0	0	0	0	15	0	15
1201	Installation, resettlement and daily subsistence allowances and removal and travel expenses BBI	60	0	0	0	0	0 %	0	0	0	0	0	60	0	60
Total Chapter 12		76	0	1	0	1	1 %	0	0	0	0	0	75	0	75
1300	Mission expenses, duty travel expenses and other ancillary expenditure BBI	66	6	41	0	47	71 %	0	0	0	0	1	19	0	20
Total Chapter 13		66	6	41	0	47	71 %	0	0	0	0	1	19	0	20
1400	Medical service BBI	18	0	17	0	17	93 %	0	0	0	0	0	1	0	1

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1401	Mobility costs and other social expenses for staff BBI	153	131	1	0	132	86 %	0	0	0	0	21	0	0	21
1402	Training BBI	113	18	45	15	77	68 %	0	0	0	0	23	10	3	36
1403	Supplementary aid for the disabled BBI	29	0	0	0	0	0 %	0	0	0	0	0	29	0	29
Total Chapter 14		312	149	63	15	226	72 %	0	0	0	0	44	39	3	86
1500	Staff teambuilding and related events BBI	10	0	6	0	6	64 %	0	0	0	0	0	4	0	4
Total Chapter 15		10	0	6	0	6	64 %	0	0	0	0	0	4	0	4
Total Title 1		5 118	2 194	730	15	2 938	57 %	0	0	0	0	1 053	1 124	3	2 180

Implementation of payment appropriations – Title 2

	Item	Total approp. available	Payments made					Appropriations carried over to 2024				Appropriations lapsing			
			from final adopt. budget	from re-activations	from assign. revenue	Total	%	Autom. carry-overs	By decision	Assigned rev.	Total	from final adopt. budget	from re-activations	from assign. rev.	Total
			1	2	3	4	5=2+3+4	6=5/1	7	8	9	10=7+8+9	11	12	13
2000	Rentals BBI	361	344	16	0	361	100 %	0	0	0	0	1	0	0	1
2001	Rentals CBE	320	0	0	0	0	0 %	0	0	0	0	320	0	0	320
Total Chapter 20		681	344	16	0	361	53 %	0	0	0	0	321	0	0	321
2100	IT equipment & software purchase/development costs BBI	73	29	0	0	29	40 %	0	0	0	0	44	0	0	44
2101	Other IT costs BBI	300	102	137	0	239	80 %	0	0	0	0	59	1	0	60
2102	IT equipment & software purchase/development costs CBE	309	0	22	0	22	7 %	0	0	0	0	287	0	0	287
2103	Other IT costs CBE	108	76	5	0	81	75 %	0	0	0	0	27	0	0	27
Total Chapter 21		790	207	164	0	371	47 %	0	0	0	0	417	1	0	418
2200	Movable property and associated office equipment purchase costs BBI	4	0	0	0	0	0 %	0	0	0	0	0	4	0	4
Total Chapter 22		4	0	0	0	0	0 %	0	0	0	0	0	4	0	4
2300	Stationery and office supplies BBI	20	16	2	0	18	90 %	0	0	0	0	1	1	0	2
2302	Legal expenditure BBI	1	0	0	0	0	0 %	0	0	0	0	0	1	0	1
2303	Other current administrative expenditure BBI	1	1	0	0	1	92 %	0	0	0	0	0	0	0	0
Total Chapter 23		22	17	2	0	19	85 %	0	0	0	0	1	2	0	3

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2400	Telecommunications and postal charges BBI	2	0	2	0	2	86 %	0	0	0	0	0	0	0	0
Total Chapter 24		2	0	2	0	2	86 %	0	0	0	0	0	0	0	0
2500	Expenditure on formal meetings BBI	55	27	0	0	27	48 %	0	0	0	0	28	0	0	28
Total Chapter 25		55	27	0	0	27	48 %	0	0	0	0	28	0	0	28
2600	Events and campaigns BBI	368	1	145	0	146	40 %	0	0	0	0	191	31	0	221
2601	Materials BBI	201	0	54	0	54	27 %	0	0	0	0	97	50	0	147
2602	Communications tools BBI	122	0	113	0	113	93 %	0	0	0	0	0	8	0	8
2603	Public relations BBI	28	0	24	0	24	86 %	0	0	0	0	0	4	0	4
2605	Materials CBE	3	3	0	0	3	100 %	0	0	0	0	0	0	0	0
Total Chapter 26		721	4	336	0	340	47 %	0	0	0	0	288	93	0	381
2700	Studies, consultancy and other services BBI	62	0	62	0	62	100 %	0	0	0	0	0	0	0	0
2701	Service contracts BBI	28	0	3	0	3	9 %	0	0	0	0	0	25	0	25
2702	Audit costs BBI	26	0	26	0	26	99 %	0	0	0	0	0	0	0	0
2706	External staff BBI	400	201	0	0	201	50 %	0	0	0	0	199	0	0	199
Total Chapter 27		516	201	90	0	292	57 %	0	0	0	0	199	25	0	224
2900	Expert reviewers BBI	250	231	0	0	231	93 %	0	0	0	0	19	0	0	19
Total Chapter 29		250	231	0	0	231	93 %	0	0	0	0	19	0	0	19
Total Title 2		3 041	1 032	611	0	1 643	54 %	0	0	0	0	1 273	125	0	1 398

Implementation of payment appropriations – Title 3

	Item	Total approp. availab.	Payments made					Appropriations carried over to 2024				Appropriations lapsing			
			from final adopt. budget	from re-activations	from assign. revenue	Total	%	Autom. carry-overs	By decision	Assigned rev.	Total	from final adopt. budget	from re-activations	from assign. rev.	Total
			1	2	3	4	5=2+3+4	6=5/1	7	8	9	10=7+8+9	11	12	13
3000	Previous years' calls BBI	24 146	3 054	16 381	759	20 195	84 %	0	0	0	0	3 946	0	5	3 951
Total Chapter 30		24 146	3 054	16 381	759	20 195	84 %	0	0	0	0	3 946	0	5	3 951
3100	Current year call BBI	19 734	5 199	13 619	0	18 818	95 %	0	0	0	0	916	0	0	916
3101	Current year call CBE	83 665 ⁶²	79 472	0	0	79 472	95 %	0	0	0	0	4 193	0	0	4 193
Total Chapter 31		103 399	84 672	13 619	0	98 290	95 %	0	0	0	0	5 109	0	0	5 109
3200	Evaluators' contract CBE	1 668	644	0	0	644	39 %	0	0	0	0	1 024	0	0	1 024
Total Chapter 32		1 668	644	0	0	644	39 %	0	0	0	0	1 024	0	0	1 024
Total Title 3		129 213	88 369	30 000	759	119 129	92 %	0	0	0	0	10 079	0	5	10 084
GRAND TOTAL		137 372	91 595	31 341	774	123 710	90 %	0	0	0	0	12 404	1 249	9	13 662

⁶² See footnote 2. Total includes an amount of Keur 356 (relating to a change in EFTA rate for the CBE operational commitment appropriations) which should have been removed following a late amendment voted on December 2023. The correction was overlooked and will be rectified in 2024. It is immaterial and does not change the overall CA execution.

6. OUTSTANDING COMMITMENTS

Outstanding commitments – Title 1

	Item	Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
		Commitm. carried forward from previous year	Decommit. Revaluation Cancellations	Pay-ments	Total	Commit-ments made during the year	Pay-ments	Cancel-lation of commit. which cannot be carried forward	Commit. outstand-ing at year-end	
		1	2	3	4=1+2-3	5	6	7	8=5-6-7	
1100	Staff costs BBI	16	(3)	13	0	2 602	2 596	0	6	6
1101	Staff costs CBE	0	0	0	0	42	22	0	20	20
1110	Trainees BBI	6	(6)	0	0	32	27	0	5	5
Total Chapter 11		22	(9)	13	0	2 677	2 646	0	31	31
1200	Sundry recruitment expenses BBI	9	(9)	0	0	16	1	0	15	15
Total Chapter 12		9	(9)	0	0	16	1	0	15	15
1300	Mission expenses, duty travel expenses and other ancillary expenditure BBI	19	(17)	2	0	50	45	0	5	5
Total Chapter 13		19	(17)	2	0	50	45	0	5	5
1400	Medical service BBI	7	(1)	6	0	12	11	0	1	1
1401	Mobility costs and other social expenses for staff BBI	32	(9)	12	0	152	119	0	33	33
1402	Training BBI	74	(56)	18	0	62	60	0	2	2
Total Chapter 14		113	(77)	36	0	226	190	0	36	36
1500	Staff teambuilding and related events BBI	0	0	0	0	10	6	0	4	4
Total Chapter 15		0	0	0	0	10	6	0	4	4

Total Title 1	162	(111)	51	0	2 978	2 888	0	91	91
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Outstanding commitments – Title 2

	Item	Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
		Commitm. carried forward from previous year	Decommit. Revaluation Cancellations	Pay-ments	Total	Commit-ments made during the year	Pay-ments	Cancel-lation of commit. which cannot be carried forward	Commit. outstand-ing at year-end	
		1	2	3	4=1+2-3	5	6	7	8=5-6-7	
2000	Rentals BBI	0	0	0	0	361	361	0	0	0
Total Chapter 20		0	0	0	0	361	361	0	0	0
2100	IT equipment & software purchase/development costs BBI	8	0	8	0	73	21	0	52	52
2101	Other IT costs BBI	176	(13)	60	104	275	180	0	96	199
2102	IT equipment & software purchase/development costs CBE	22	0	22	0	314	0	0	314	314
2103	Other IT costs CBE	31	0	28	3	80	53	0	27	30
Total Chapter 21		237	(13)	118	107	742	254	0	488	595
2300	Stationery and office supplies BBI	8	0	8	0	12	9	0	3	3
2302	Legal expenditure BBI	0	0	0	0	2	0	0	2	2
2303	Other current administrative expenditure BBI	0	(0)	0	0	1	1	0	0	0
Total Chapter 23		9	(0)	8	0	15	10	0	5	5
2400	Telecommunications and postal charges BBI	7	(6)	0	0	4	2	0	2	2
Total Chapter 24		7	(6)	0	0	4	2	0	2	2
2500	Expenditure on formal meetings BBI	4	(4)	0	0	45	27	0	18	18
Total Chapter 25		4	(4)	0	0	45	27	0	18	18
2600	Events and campaigns BBI	116	(7)	109	0	510	38	0	472	472

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2601	Materials BBI	0	0	0	0	133	54	0	80	80
2602	Communications tools BBI	57	(57)	0	0	120	113	0	7	7
2603	Public relations BBI	8	(2)	6	0	18	18	0	0	0
2604	Events and campaigns CBE	0	0	0	0	152	0	0	152	152
2605	Materials CBE	0	0	0	0	8	3	0	5	5
Total Chapter 26		181	(66)	115	0	941	226	0	715	715
2700	Studies, consultancy and other services BBI	1	(1)	0	0	67	62	0	5	5
2701	Service contracts BBI	3	0	3	0	0	0	0	0	0
2702	Audit costs BBI	87	(41)	26	20	3	0	0	3	23
2706	External staff BBI	9	0	9	0	242	192	0	50	50
Total Chapter 27		100	(42)	38	20	312	254	0	58	78
2900	Expert reviewers BBI	80	(2)	78	0	250	154	0	96	96
Total Chapter 29		80	(2)	78	0	250	154	0	96	96
Total Title 2		617	(134)	356	127	2 669	1 286	0	1 383	1 510

Outstanding commitments – Title 3

		Commitments outstanding at the end of previous year				Commitments of the current year				Total commitm. outstanding at year-end
Item		Commitm. carried forward from previous year	Decommit. Revaluation Cancellations	Pay-ments	Total	Commit-ments made during the year	Pay-ments	Cancel-lation of commit. which cannot be carried forward	Commit. outstand-ing at year-end	
		1	2	3	4=1+2-3	5	6	7	8=5-6-7	
3000	Previous years' calls BBI	33 687	(1 312)	20 195	12 181	0	0	0	0	12 181
Total Chapter 30		33 687	(1 312)	20 195	12 181	0	0	0	0	12 181
3100	Current year call BBI	60 270	(1 843)	18 722	39 705	96	96	0	0	39 705
3101	Current year call CBE	119 471	(3 743)	79 472	36 256	215 429	0	0	215 429	251 684
Total Chapter 31		179 740	(5 585)	98 195	75 960	215 524	96	0	215 429	291 389
3200	Evaluators' contract CBE	529	0	0	529	644	644	0	0	529
Total Chapter 32		529	0	0	529	644	644	0	0	529
Total Title 3		213 956	(6 897)	118 389	88 670	216 168	740	0	215 429	304 099
GRAND TOTAL		214 736	(7 142)	118 796	88 797	221 816	4 914	0	216 902	305 699

7. GLOSSARY

Administrative appropriations

Appropriations to cover the running costs of the entities (staff, buildings, office equipment).

Adopted budget

Draft budget becomes the adopted budget as soon as approved by the budgetary authority.

Amending budget

Decision adopted during the budget year to amend (increase, decrease, transfer) aspects of the adopted budget of that year.

Appropriations

Budget funding.

The budget forecasts both commitments (legal pledges to provide finance) and payments (cash or bank transfers to the beneficiaries). Appropriations for commitments and payments often differ — differentiated appropriations — because multiannual programmes and projects are usually fully committed in the year they are decided and are paid over the years as the implementation of the programme and project progresses.

Assigned revenue

Revenue dedicated to finance specific items of expenditure.

Budget result

The difference between income received and amounts paid, including adjustments for carry-overs, cancellations and exchange rate differences.

For agencies, the resulting amount will have to be reimbursed to the funding authority.

Budget implementation

Consumption of the budget through expenditure and revenue operations.

Budget item / Budget line / Budget position

Revenue and expenditure are shown in the budget structure in accordance with a binding nomenclature, which reflects the nature and purpose of each item, as imposed by the budgetary authority. The individual headings (title, chapter, article or item) provide a formal description of the nomenclature.

Budgetary commitment

Operation by which the authorising officer responsible reserves the budget appropriations necessary to cover for subsequent payments to honour legal commitments.

Cancellation of appropriations

Appropriations which have not been used by the end of the financial year and which cannot be carried over, shall be cancelled.

Carryover of appropriations

Exception to the principle of annuality in so far as appropriations that could not be used in a given budget year may, under strict conditions, be exceptionally carried over for use during the following year.

Commitment appropriations

Commitment appropriations cover the total value of legal obligations (contracts, grant agreements or decisions) that could be signed in the current financial year.

De-commitment

Operation whereby the authorising officer responsible cancels wholly or partly the reservation of appropriations previously made by means of a budgetary commitment.

Differentiated appropriations.

Differentiated appropriations are used to finance multiannual operations; they cover, for the current financial year, the total cost of the legal obligations entered into for operations whose implementation extends over more than one financial year.

Economic result

Impact on the balance sheet of expenditure and revenue based on accrual accounting rules.

Entitlements established

Right to collect income from a debtor as recognised through the issuing of a recovery order.

Exchange rate difference

The difference resulting from currency exchange rates applied to the transactions concerning countries outside the euro area, or from the revaluation of assets and liabilities in foreign currencies at the date of the accounts.

Expenditure

Term used to describe spending the budget from all types of funds sources.

Grants

Direct financial contributions from the budget to third-party beneficiaries, engaged in activities that serve Union policies.

Lapsing appropriations

Unused appropriations to be cancelled at the end of the financial year. Lapsing means the cancellation of all or part of the authorisation to make expenditures and/or incur liabilities, as represented by an appropriation.

For joint undertakings (and EIT), as specified in their Financial Rules, any unused appropriations may be entered in the estimate of revenue and expenditure of up to the following three financial years (the so-called "N+3" rule). Hence, lapsing appropriations for JUs can be re-activated until financial year "N+3".

Legal basis / basic act

The legal act adopted by the legislative authority (usually the Council and European Parliament) specifying the objective of a Union spending programme, the purpose of the appropriations, the rules for intervention, expiry date and the relevant financial rules to serve as a legal basis for the implementation of the spending programme.

Legal commitment

The act whereby the Authorising Officer enters into an obligation towards third parties which results in a charge for the Union budget.

Common forms of legal commitments are contracts in the case of procurement, grant agreements and grant decisions.

Non-differentiated appropriations

Appropriations which meet annual needs and must therefore be committed during the budget year. Only amounts qualifying for automatic carryover can be disbursed in the following year. Non-differentiated appropriations which have not been used, i.e. committed, by the end of the year, are cancelled (unless, exceptionally, permission is given by a Commission decision for a non-automatic carryover). Non-differentiated appropriations apply to administrative expenditure and commitment appropriations equal payment appropriations.

Operational appropriations

Operational appropriations finance the different policies, mainly in the form of grants or procurement.

Outstanding commitments

Outstanding commitments (or RAL, from the French 'reste à liquider') are defined as the amount of appropriations committed that have not yet been paid. They stem directly from the existence of multiannual programmes and the dissociation between commitment and payment appropriations.

Payment appropriations

Payment appropriations cover expenditure due in the current year, arising from legal commitments entered in the current year and/or earlier years.

RAL (Reste à liquider)

Amount remaining to be paid on a budgetary commitment at a given moment. Cf. Outstanding commitments

Surplus

Positive difference between revenue and expenditure, which has to be returned to the funding authority. Cf. Budget result

Transfer between budget lines

Transfers between budget lines imply the relocation of appropriations from one budget line to another, in the course of the financial year, and thereby they constitute an exception to the budgetary principle of specification.

5.11. MATERIALITY CRITERIA

The 'materiality' concept provides the Authorising Officer with a basis for assessing the importance of the weaknesses/risks that have been identified and thus whether those weaknesses should be subject to a formal reservation to his declaration.

When deciding whether something is material, both qualitative and quantitative terms have been considered.

In qualitative terms, assessing the significance of any weakness takes the following factors into account:

- The nature and scope of the weakness.
- The duration of the weakness.
- The existence of compensatory measures (mitigating controls that reduce the impact of the weakness).
- The existence of effective corrective action to correct the weaknesses (action plans and financial corrections) that have had a measurable impact.

In quantitative terms, in order to make a judgement on the significance of a weakness, the officer quantifies the potential maximum (financial) impact.

Whereas the BBI JU control strategy is multiannual (i.e. the effectiveness of the JU's control strategy can only be assessed at the end of the programme, when the strategy has been fully implemented and any errors corrected), the Executive Director is required to sign a declaration of assurance for each financial year. In order to determine whether to qualify his declaration of assurance with a reservation, the effectiveness of the JU's control system must be assessed, not only for the year of reference, but more importantly, with a multiannual perspective.

The control objective for BBI JU is set out in the Commission proposal for the Council Regulation on the Bio-based Industries Joint Undertaking. It is to ensure that the 'residual error rate' – i.e., the level of errors that remain undetected and uncorrected – on an annual basis, remains between 2-5 %, with the ultimate aim of achieving a residual level of error as close as possible to 2 % at the closure of the multiannual programme. Progress towards this objective is to be (re)assessed annually, in view of the results of the ex-post audit strategy. As long as the residual error rate is not close to 2 % at the end of a reporting year within the programme life cycle, the Authorising Officer may also look at other management information to identify the overall impact of the situation and determine whether or not to include a reservation.

If it is not possible to make an adequate calculation of the residual error rate for reasons other than audit deficiencies, the consequences are to be assessed quantitatively by estimating the likely exposure for the reporting year. The relative impact on the declaration of assurance would then be

considered by analysing the available information on qualitative grounds and considering evidence from other sources and areas (e.g. information available on error rates in more experienced organisations with similar risk profiles).

EFFECTIVENESS OF CONTROLS

The starting point for determining the effectiveness of the controls in place is the ‘representative error rate’ (RepER) expressed as a percentage of errors in favour of the BBI JU, detected by ex-post audits with respect to the actual amounts of BBI JU contributions accepted after ex-ante controls.

The representative error rate will be based on the weighted average error rate (WAER) for a population, from which a random sample has been drawn according to the following formula:

$$\text{WAER}\% = \frac{\sum (\text{er})}{\text{RepA}} = \text{RepER}\%$$

Where:

Σ (er) = sum of all individual errors in the sample (in value). Only looks at errors in favour of the JU⁶³;

RepA = total amount of the representative audited sample expressed in EUR;

Second step: calculating the residual error rate.

In order to allow for the impact of the ex-post controls, this error level is to be adjusted by subtracting:

- errors detected and corrected as a result of implementing audit conclusions;
- errors corrected as a result of the extrapolation of audit results to non-audited contracts with the same beneficiary.

This results in a residual error rate that shows how much error is left in the auditable population after the outcome of ex-post audits. It is calculated by using the following formula:

$$\text{ResER}\% = \frac{[\text{RepER}\% * (\text{P}-\text{A}) - \text{RepERsys}\% * \text{E}]}{\text{P}}$$

⁶³ Adjustments in favour of the Beneficiary are considered as 0 for the purpose of calculating the WAER.

Where:

ResER% = residual error rate, expressed as a percentage.

RepER% = representative error rate, or error rate detected in the representative sample, in the form of the WAER, expressed as a percentage and calculated as described above (WAER%).

RepERSys% = systematic portion of the RepER% (the RepER% is composed of complementary portions reflecting the proportion of 'systematic' and 'non-systematic' errors detected) expressed as a percentage of errors in favour of the BBI JU detected by ex-post audits measured with respect to the amounts of BBI JU eligible contributions accepted after ex ante controls. Only errors in favour of the JU that are more than 2 % (threshold for extrapolation) will be taken into consideration⁶⁴.

P = total amount of the auditable population of cost claims, expressed in EUR.

A = total amount of all audited amounts, expressed in EUR.

E = total non-audited amounts of all audited beneficiaries, expressed in EUR. This will comprise the total amount of all non-audited but validated and paid costs for all audited beneficiaries, excluding those beneficiaries for which an extrapolation is ongoing.

This calculation will be performed on a point-in-time basis, i.e., all the figures will be provided as of a certain date.

⁶⁴ Adjustments in favour of the beneficiary are considered as 0 for the purpose of calculating the RepERSys.

5.12. LIST OF EVENTS WITH CBE JU PARTICIPATION

Date	Event	Place	Type of participation
19/01/2023	SPIRALG Final Forum	Caen, France	Speaker
13/02/2023	EXCornsEED final event	Online	Speaker
16/02/2023	EFFECTIVE's final event	Ljubljana, Slovenia	Speaker
27/02/2023	Living in the Bioeconomy conference	Stockholm, Sweden & online	Speaker
14/03/2023	CBE JU exhibition in DG RTD - CDMA building	Brussels, Belgium	Organiser, speaker
15/03/2023	Biomanufacturing platform policy summit	Brussels, Belgium	Speaker
16/03/2023	National info day – Wallonia	Mont-Saint Guibert, Belgium	Speaker
23/03/2023	FOODforce meeting	Brussels, Belgium	Speaker
29/03/2023	AXELERA & Bioeconomy for Change: the alliance of chemistry and biochemistry for a sustainable future	Paris, France	Speaker
29/03/2023	CBE JU information event in France	Paris, France	Speaker
30/03/2023	National info day in Poland	Warsaw, Poland	Speaker
13/04/2023	National info day in the Czech Republic	Online	Speaker
14/04/2023	ECOSYSTEEX webinar	Online	Speaker
18/04/2023	National info day in Croatia	Online	Speaker
20/04/2023	CBE JU Info Day 2023	Brussels, Belgium	Organiser, speaker
24/04/2023	Webinar - working group on circular economy	Online	Speaker
25/04/2023	CBE JU exhibition at AGRIGISH Council	Luxembourg	Organiser
25/04/2023	National info day in France	Online	Speaker
26/04/2023	National info day in Hungary	Budapest, Hungary	Speaker
02/05/2023	National info day in Estonia	Online	Speaker
03/05/2023	National info day in Germany	Online	Speaker
05/05/2023	National info day in Sweden	Online	Speaker
10/05/2023	World Bio Markets	The Hague, Netherlands	Speaker

11/05/2023	CBE JU exhibition in DG GROW – BREYDEL building	Brussels, Belgium	Organiser, speaker,
11/05/2023	National info day in Portugal	Lisbon, Portugal	Speaker
11/05/2023	National info day in Spain	Madrid, Spain	Speaker
16/05/2023	National info day in Italy	Online	Speaker
31/05/2023	COOPID Bioeconomy Conference	Brussels, Belgium	Speaker
05/06/2023	EUBCE 2023	Bologna, Italy	Speaker
05/06/2023	CBE JU information event in Italy	Bologna, Italy	Organiser, speaker
06/06/2023	National info day in Ireland	Online	Speaker
08/06/2023	EBIC Food Security and Sustainability Summit	Brussels, Belgium	Speaker
13/06/2023	Plant-based Summit	Lille, France	Speaker
22/06/2023	SwissCore	Brussels, Belgium	Speaker
28/06/2023	EEN Info session	Online	Speaker
28/06/2023	SPRING Italian Circular Bioeconomy Cluster	Rome, Italy	Speaker
21/09/2023	ESEIA Round Table at EPNOE	Graz, Austria & online	Speaker
28/09/2023	IFIB 2023	Florence, Italia	Speaker
28/09/2023	Biocircularcities unlocked - The Brussels stop	Brussels, Belgium 7 online	Speaker
02/10/2023	Deep Purple inauguration	Linares, Estonia	Speaker
13/10/2023	'Regional Innovation Valleys for Bioeconomy and Food Systems' launch event	Plovdiv, Bulgaria	Speaker
23/10/2023	On the Road to Sustainable Packaging	Warsaw, Poland	Speaker
24/10/2023	EFIB 2023	Rotterdam, Netherlands	Speaker
24/10/2023	Sustainable plastics & EU policies	Online	Speaker
24/10/2023	Circular Bioeconomy Day	Warsaw, Poland	Speaker
07/11/2023	ECOMONDO	Rimini, Italy	Speaker
14/11/2023	Biobased Polymers as enabler for Green Deal	Brussels, Belgium	Speaker
15/11/2023	Sustainable Food Systems: Cluster Approaches in the Bio-based Economy	Online	Speaker
28/11/2023	Paper & Beyond	Brussels, Belgium	Speaker
06/12/2023	CBE JU Stakeholder Forum 2023	Brussels, Belgium	Organiser, speaker

5.13. LIST OF ACRONYMS

AA	Annual Activity
AAR	Annual Activity Report
AHP	Absorbent Hygiene Products
APIK	All Participants In-Kind contributions
AWP	Annual Work Plan
BBI JU	Bio-Based Industries Joint Undertaking
BIC	Bio-based Industries Consortium
BOA	Back Office Arrangement
BYOD	Bring Your Own Device
CEO	Chief Executive Officer
CA	Contractual Agent or Commitment Appropriation
CAS	Common Audit Service of the European Commission
CBE JU	Circular Bio-based Europe Joint Undertaking
CIC	Common Implementation Centre
CO ₂	Carbon dioxide
CRS	Common Representative Sample
CSA	Coordination and Support Actions
DEMOS-IA	Innovation Action for demonstrators
DEG	Deployment Group
DG AGRI	Directorate-General Agriculture & Rural Development
DG GROW	Directorate-General Internal Markets, Industry, Entrepreneurship and SMEs
DG HR	Directorate-General for Human Resources
DG RTD	Directorate-General Research and Innovation
DPO	Data Protection Officer
EC	European Commission
ED	Executive Director
ECA	European Court of Auditors
ECBF	European Circular Bioeconomy Fund
ED	Executive Director
EFIB	European Forum for Industrial Biotechnology and the Bioeconomy
EFTA	European Free Trade Association
EIB	European Investment Bank
EU	European Union

F&T Portal	Funding & Tender opportunities Portal
FAQ	Frequently Asked Question
FC	Financial Contribution
FDCA	Furan Dicarboxylic Acid
FLAGS-IA	Innovation Action for Flagship
FR	Financial Regulation of the European Union
FWC	Framework Contract
GA	Grant Agreement
GAP	Grant Agreement preparation
GB	Governing Board of the BBI JU and CBE JU
GDP	Gross Domestic Product
GHG	Green House Gas
HE	Horizon Europe
HES	Higher or Secondary Education
I&F	Investments and Finance
IA	Innovation Action
IAS	Internal Audit Service
ICF	Internal Control Framework
ICT	Information and communication technology
IFIB	International Forum on Industrial Biotechnology and Bioeconomy
IKAA	In-kind contributions by BIC's constituent entities to additional activities
IKOP	In-kind contributions by BIC's constituent entities to operational activities
IPR	Intellectual Property Rights
IT	Information Technology
JU	Joint Undertaking
KIPS	Key Impact Pathways
KPI	Key Performance Indicator
LA	Lactic Acid
LGO	Levoglucosenone
LISO	Local Informatics Security Officer
MAP	Multi-annual Planning
MGA	Model Grant Agreement
MS	Member State of the European Union
MSW	Municipal Solid Waste
OFMSW	Organic Fraction of Municipal Solid Waste
OLAF	European Anti-Fraud Office

OTH	Other type of organisations
PA	Payment Appropriation
PEF	Polyethylene furanoate
PET	Polyethylene terephthalate
PPP	Public Procurement Planning
PRC	Private- for- Profit
PUB	Public Body (excluding research and education)
R&D	Research and Development
REA	Research Executive Agency
REC	Research Organisation
RIA	Research and Innovation Actions
RTO	Research and Technology Organisation
SBA	Single Basic Act
SC	Scientific Committee of the BBI JU
SDG	Sustainable Development Goal
SIAP	Strategic Internal Audit Plan
SIR	Specific Implementing Rules
SIRA	Strategic Innovation and Research Agenda for BBI JU
SLA	Services Legal Agreement
SMEs	Small and Medium-Size Enterprises
SO	Strategic Orientation provided in the Strategic Innovation and Research Agenda
SRG	States' representatives group of the CBE JU
SRIA	Strategic Research and Innovation Agenda for CBE JU
TA	Temporary Agent
ToR	Terms of Reference
TRL	Technology Readiness Level
TTG	Time to Grant
TTI	Time to Inform
TTP	Time to Pay
UN	United Nations