



Bio-based Industries
Consortium

Message from the Executive Director

Thank you for taking the time to read this Annual Report looking back on BIC's activities and achievements in 2023. I can certainly say that it was another successful year for our association – and in fact, a milestone year that marked ten years of promoting an innovative, sustainable and competitive bio-based industry in Europe.

2023 was another year of growth for BIC. Thanks to welcoming more diverse companies and organisations spread across all bio-based sectors, Industry Members numbered more than 250 and Associate Members 240.

The year saw increased networking opportunities. We were delighted to host 250 participants at the BIC Matchmaking Event in Brussels in February, facilitating over 1,000 1-to-1 meetings. The evening before, we welcomed 80 Industry Members to an exclusive reception and dinner. And anyone that couldn't attend the Matchmaking Event in person could take advantage of an additional online matchmaking event for all BIC Members.

We continued to focus fostering connections between members via our webinars, including dedicated ones where new BIC members made short presentations highlighting their businesses, areas of expertise and potential for collaboration.

” 2023, was another year of growth for BIC. Thanks to welcoming more diverse companies and organisations spread across all bio-based sectors, Industry Members numbered more than 250 and Associate Members 240.

We partnered again with Tech Tour to help bio-based spin-offs and SMEs access the finance and strategic partnerships they need to scale up. After receiving dedicated training, the spin-offs and SMEs pitched themselves to larger companies, venture capitalists, banks and other potential investors and partners at the Bio-based Scaling and Finance Forum in Wuppertal.

We were happy that many of you could join us in Brussels to mark BIC's 10th anniversary "Sowing the seeds of Europe's bio-based revolution". With high-level international speakers and participants in two panel discussions, we reflected on BIC's beginnings, how far we've come and what the future now holds. The celebration continued into the night with food, drink and entertainment, including a live band.

I would like to thank all members for their commitment and active participation in several working groups. Now that we have sown the seeds of the bio-based revolution and nurtured them for past ten years, let's continue to grow, putting the bio-based industries at the heart of Europe's bioeconomy and green transition.

Dirk Carrez, BIC Executive Director



Message from the Chairperson



“ The year saw the publication of one of the largest CBE Annual Work Plans and the start of several projects created under the partnership. We increased formal networking opportunities with an additional online pitching event for new members.

2023 was a busy year. We enhanced all of our activities under BIC's four pillars: CBE JU, business, finance and society.

The year saw the publication of one of the largest CBE Annual Work Plans and the start of several projects created under the partnership. We increased formal networking opportunities with an additional online pitching event for new members. We further developed our event with Tech Tour facilitating access to finance for SMEs. Brand new initiatives in the form of workshops including stakeholders from the European Commission led to the first ever BIC Trend Report.

Another first was the launching of the BIC Open Innovation Competition. And of course, we continued with many activities that add value and raise awareness, such as BIC member webinars, the student BISC-E competition and spreading the word through our involvement in external events.

It was the year to mark BIC's 10-year anniversary - with a special event to show how mature the organisation has become, while coming together to enjoy a convivial atmosphere.

2024 promises to be an important and crucial year. BIC takes over the chairmanship of the CBE JU for two years. The European elections will

bring a new crop of MEPs who have to be informed about the importance of our sector. We will have a new European Commission with new priorities. Our public affairs and communications activities will be crucial this year if we want to keep bio-based industries high on the political agenda. Therefore, we are preparing studies on the availability of biomass under different scenarios, an update of our biowaste study, a new Trend Report and more.

And, of course, our innovation activities will continue. Some activities here include preparing the CBE Annual Work Plan for 2025 and organising a new round of our BIC Open Innovation Competition.

We need an investment climate and a regulatory framework that can compete with other regions such as the USA and Asia if we want to develop a competitive and sustainable bio-based industry in Europe, become more autonomous and use less virgin fossil fuel.

There are many challenges, but together we can make a difference.

Rob Beekers, BIC Chairperson

Changes & key stats

➤ **We said goodbye to some BIC Board members:**

Michelle Collins (Glanbia/Tirlàn); Claus Crone Fuglsang (Novozymes); Milica Folic (Topsoe); Gloria Gaupmann (Clariant), Frank van Noord (Cosun) and Mat Quaedvlieg (Sappi).

➤ **We welcomed new BIC Board members:**



Iryna Biliaieva
ADM



Christophe Durand
Michelin



Lisa Koep
Glanbia /Tirlàn



Bruno Ferreira
BioTrend & A4F



Carsten Hjort
Novozymes

➤ **We launched a new website** - making it easier and more attractive for people to learn about BIC. On our new website, you can find lots of great information on our [publications](#), [events](#), BIC members' investments, BISC-E and more. The homepage contains a video explaining the bio-based industries and our role in supporting its innovation and growth in Europe. You can also find the video on the [BIC YouTube channel](#).



In 2023, BIC

3 Hosted
live events

➤ Followers on social media

7.8K

350

4 Wrote and co-authored
publications

6 Organised
webinars

9.5K

+5.7K

Sowing the seeds of Europe's bio-based revolution

BIC's 10-year anniversary

“ Europe's industry is showing every day that it is ready to power this transition. Proving that modernisation and decarbonisation can go hand in hand.

Ursula von der Leyen, President of the European Commission



On 5 October, we celebrated our 10th anniversary with a very special event at Le Plaza Theatre in Brussels. We called the event “Sowing the seeds of Europe's bio-based revolution” to mark a dynamic and effective decade spent growing the bio-based industries.

BIC started with just 30 founding members. Nowadays, BIC has more than 250 Industry Members and 240 Associate Members. And as many of you know, during this time, we have represented the private sector in two public-private partnerships dedicating €5.7 billion of public and private investment to growing Europe's bio-based industries.

Around 250 BIC members and stakeholders came to the anniversary event. We opened with [a video sharing some memories of BIC](#), before moving on to panel discussions on BIC's past, present and future. Prominent, international keynote speakers were Jim Philp, Policy Analyst at the OECD and author of over 300 articles; John Elkington,

Founder and Chief Pollinator of Volans, as well as a strategist, writer, thought-leader, and authority on corporate responsibility and sustainable development; and Executive Director of BioFutures and principal author of the Obama administration's National Bioeconomy Blueprint, Mary Maxon.

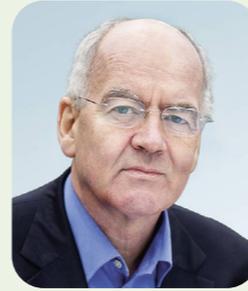
It was a festive occasion, with dinner and drinks, a BIC-themed photo booth and live music performed by harpist Emma Wauters and swing band GetSomeWine.





Fossil-based solutions of the 20th century won't solve our problems in the future. Bio-based solutions are going to be electrifyingly exciting in the next ten years.

John Elkington, Founder & Chief Pollinator, Volans



Circularity is at the core of Europe's bioeconomy policy and of the concept of bioeconomy itself. This way, it will drive the renewal of our industries, where bio-based processes and products are circular-by-design and encourage responsible consumption, the modernisation of our primary production systems, the protection of the environment, and will enhance biodiversity.

John Bell, Director of Healthy Planet, DG Research & Innovation, European Commission



Nurturing innovation

Identifying new bio-based growth opportunities



- With over 250 BIC members coming to Brussels for the [Matchmaking Event](#) in February, a new record was set when more than 1,000 1-to-1 meetings took place. The opening plenary included presentations by BIC's Dirk Carrez and Samuele Ambrosetti, and Acting Executive Director of CBE JU Nicolò Giacomuzzi-Moore.
- 2023 saw the launch of our first ever Open Innovation Competition (OIC), aimed at stimulating cooperation within the industry. Large companies from our Industry Members propose challenges and co-finance the innovation winning projects – and smaller Industry Members (SMEs, start-ups, etc.) and Associate Members who provide the solutions.

“ Open innovation is a way of involving external actors in a company's innovation processes in close cooperation with its own internal resources (as opposed to in-house research and outsourcing). ”

The prize for the winning solution is €10K (half of which provided by BIC and half by the company that supplied the challenge). The winners need to develop a proof-of-concept of the solution within six months of starting the project developing their solution.



↑ Samuele Ambrosetti, BIC Innovation & Programming

Criteria for deciding the winner includes the novelty of the solution, its maturity, IP situation, as well as the solution provider's expertise and approach. The winner is decided by a jury of experts from various company departments and sites across three continents.

The challenge for 2023 came from Procter & Gamble and was focused on developing paper-based packaging for detergents. Solutions from five competition entries were pitched to a jury of P&G experts in January 2024 and the winner chosen in February.



“ Even though the US, India, China and Brazil are making bold bioeconomy steps, the EU has more biorefineries operating and being planned than anywhere else. The world envies us because of the CBE JU and BIC.

Christian Patermann, Former Director of Bioeconomy, European Commission



- Some of the Industry Members that joined BIC in 2022 and 2023 introduced themselves to the rest of the BIC membership during a webinar in December. Using three minute pitches, the companies highlighted their expertise and areas for potential collaboration on projects with other BIC members.

The companies that pitched were: [AmphiStar](#); BioAroma ([winners of the 2023 BISC-E competition](#)); [Biosyntia](#); [CellmatTechnologies](#); [CHIMAR](#); [Ineuvo](#); [MAASH](#); [NatStruct](#); [PackBenefit](#); [Vaxa](#); and [Zero-Emissions Engineering](#).

- We first published a Country Report on Poland in 2018. It remains a nation with potentially very large availabilities of unused, underutilised, and residual biomass available that can be converted to added value products and services through the bio-based industry.

This year we updated the Report, releasing [a new version](#) that highlights Poland's untapped and under-exploited bio-based resources.

Bio-based Industries Consortium

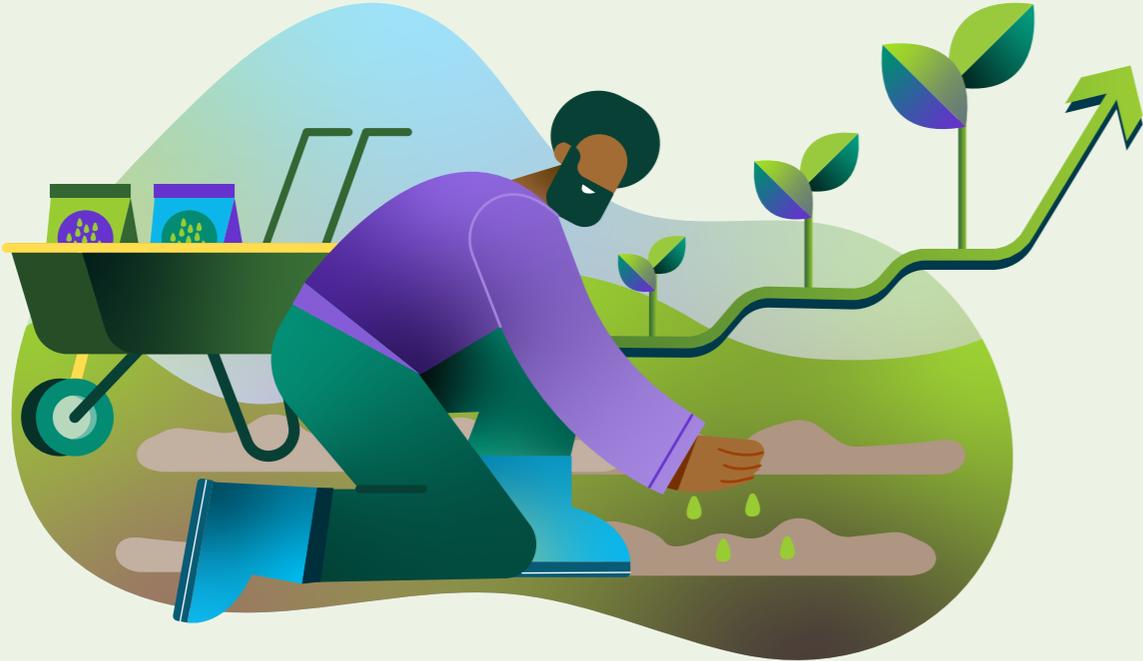
Mapping Poland's bio-based potential

Country Report →

The graphic features a map of Poland in white on a green background. The map is surrounded by various icons representing bio-based industries: a leaf, a red bowl with yellow flowers, a tree, a red radish, wheat stalks, a DNA double helix with equals signs, a yellow cow, and a yellow field. The text 'Bio-based Industries Consortium' is in the top left, 'Mapping Poland's bio-based potential' is in the middle, and 'Country Report' with a right arrow icon is in the bottom left.

Cultivating growth

Securing access to new sources of finance



➤ In 2023, we once again partnered with Tech Tour for the second edition of our event connecting bio-based start-ups and SMEs with possible investors, including such as venture capitalists, banks, corporate partners and more.

The Tech Tour Bio-based Industries Programme (TTBIP) was held in Wuppertal, Germany on 15 November. More than 110 people took part in a day dedicated to matching bio-based businesses in Europe with funding opportunities and strategic partnerships.

Out of 90 applicants, 32 SMEs and start-ups were chosen by the Selection Panel to pitch to Expert Juries in six different categories: bio-based chemicals and materials; forestry & pulp and paper-based products; aquaculture, algae and marine; biowaste valorisation; waste management and treatment; and recycling and circular models.





How to get finance and investment for scaling up bio-based innovation has been at the heart of what we do for the past few years.

Marco Rupp, Public Affairs & Sustainability, BIC

➤ One of BIC's key objectives is to bridge the gap between bio-based investment opportunities and financial incentives at regional level. In 2023, we continued to provide a service to BIC members and regions with regular updates of the BIC Regional Funding Platform. Twice a year, we reach out to regions to collect data on funding for advanced projects in the bioeconomy (at least TRL 7 – demonstration in operational environment or higher) to compile a database. The database has a search engine, which you can use with certain keywords like type of funding instrument, bio-based feedstock, bio-based products.

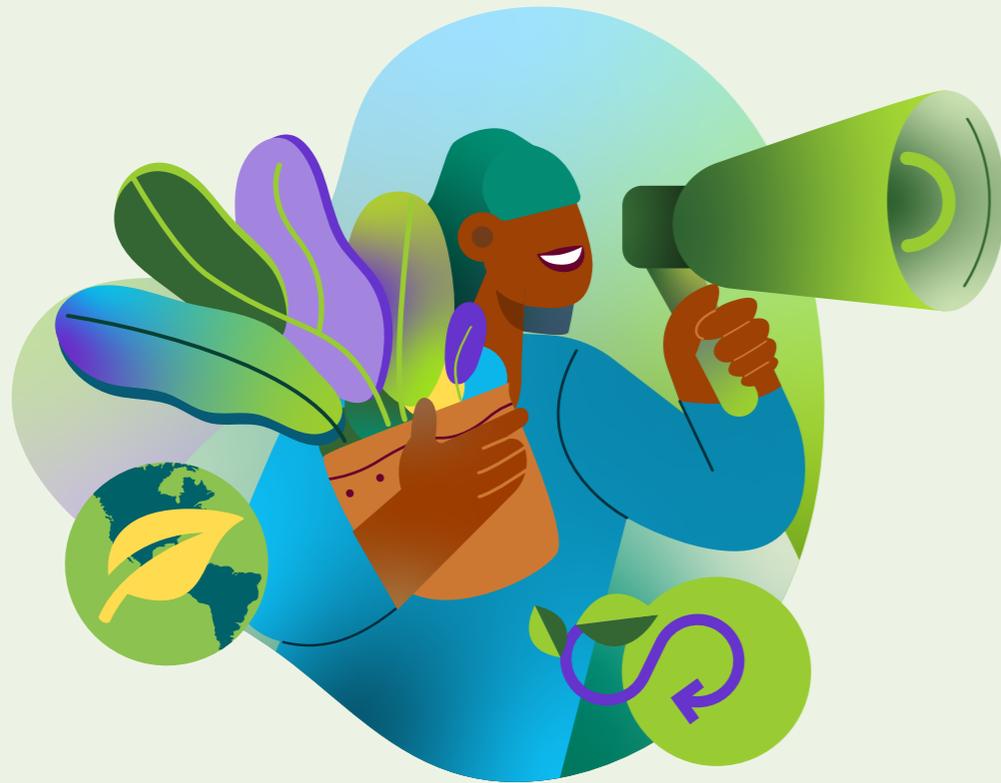
➤ As a complement to the Regional Funding Platform, our webinar in June aimed to facilitate peer learning and policy exchange between the regions and BIC members on how to scale up bio-based innovation at national and regional level.

Dr Levin Pal from the Slovenian Research and Innovation Agency (ARIS) described the organisation's work and how it allocates available funding. Dr Christian Klar from Koordinierungsstelle Bioökonomie REVIER gave some examples and best practices for driving the systemic and economic transformation of regions through the bioeconomy.

➤ The BIC Regional Newsletter was launched in 2023. Published quarterly, it covers news from the EU institutions, EU Member States and regions, on what is new and relevant for/in the regions regarding bio-based innovation and investment.

Sowing success stories

Public Affairs 2023: creating a buzz for bio



The bioeconomy is an economic and societal model. In a circular bioeconomy, biological resources are renewable, sustainably-managed, recovered and reused as much as possible. Putting such a model into practice requires new paths for collaboration and innovation.

BIC 2023/2024 Trend Report

- “Rethinking the EU’s approach to the bioeconomy” was the headline of four workshops held by BIC between April and June, where discussions took place around different themes. The aim was to explore possible policies which can help unleash the potential of the bioeconomy in Europe and for the benefit of people and the planet.

The workshops involved participants from the EU institutions, think-tanks and NGOs. BIC Industry Members introduced each theme with a real-life case study, and then together we discussed policies related to the bioeconomy to drive forward Europe’s resilience, innovation and growth, as well as to contribute to defossilisation, biodiversity and environmental protection.

One outcome of the workshops was the [BIC Trend Report 2023/2024](#).



- With an eye towards European elections in 2024, we published a [Manifesto with policy recommendations for EU policy-makers](#), and which includes the urge to exploit readily available and future bio-based solutions and to take policy actions in order for Europe to benefit from the circular bioeconomy.

We are inviting the European Parliament, EU Member States and the European Commission to consider the BIC Manifesto 2024 and its recommendations when setting the political priorities for the next mandate period.

- Working alongside our fellow members of the European Bioeconomy Alliance (EUBA), [we contributed to EUBA's Bioeconomy Blueprint](#) – a manifesto with policy recommendations to contribute to achieving the EU's vision for a more sustainable, resilient and competitive economy.
- BIC hosted in 2024 a series of [webinars with policy-makers and other key stakeholders](#). In one of them, European Commission representatives were invited to our webinar on BioMADE – a US public-private partnership securing America's future through bio-industrial manufacturing innovation, education, and collaboration.

An initiative such as BioMADE is particularly interesting for Europe in light of the 2022 US Executive Order announcing the National Biotechnology and Biomanufacturing Initiative and 2022 US Inflation Reduction Act.

- BIC Executive Director Dirk Carrez's interview with [Il Bioeconomista](#) was another opportunity to compare Europe's bioeconomy efforts with those of the US, China and other nations taking bold steps – highlighting the danger of Europe falling behind.

And BIC's Head of Public Affairs Marco Rupp spoke to European [Biotechnology magazine](#) (page 28-29) about Europe's need for prompt action if the bioeconomy is to fulfil its role in the green transition.



Bioeconomy is an integral part of the EU's Green Deal and Circular Economy ambitions. But the Bioeconomy isn't just some idea still on the EU policy drawing board. It already delivers benefits across Europe, contributing nearly €2.4 trillion annually to the EU economy and more than 17 million jobs to EU citizens.

The Bioeconomy Blueprint: Building a Circular and Resilient Europe, European Bioeconomy Alliance (EUBA)

- BIC set up a taskforce on biogenic carbon. The rationale for the taskforce is to create a level playing field for the contribution of biogenic carbon vis-à-vis fossil carbon.

The defossilisation of sectors like material and chemicals by 2050 will not be possible without biogenic carbon, but the benefits of biogenic carbon must be better acknowledged, accounted for and incentivised, including in EU standards, Life Cycle Assessments and the Product Environment Footprint Methodology. In addition, BIC is considering becoming more involved in ongoing discussions and decision-making on biogenic carbon at EU level.

- BIC is participating in two projects under Horizon Europe. [BIO2REG](#) is to enable regional stakeholders of disadvantaged, GHG-intensive economies to unlock their regions' bioeconomy potential by transitioning towards model regions for circular and systemic bioeconomy.

The second project, [BOOST4BIOEAST](#), is focused on increasing bioeconomy deployment in the Central Eastern European and Baltic countries. It aims to boost the participation of national stakeholder networks in the development of national bioeconomy action plans and to build long-lasting structures for national and macro-regional cooperation.

BIC's role in these two projects is mainly advisory, communication support and creating links with industry.



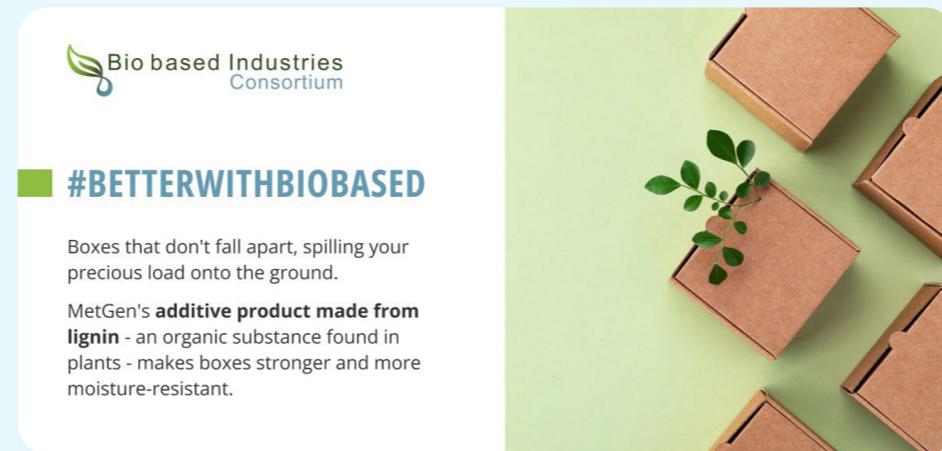
Harvesting ideas

Promotion of the bio-based industry



One of the reasons we launched the #BetterwithBiobased social media campaign across our Twitter, LinkedIn and Facebook accounts was help spread the message that bio-based solutions are a greener alternative.

Sophia De Smet, Communications Manager, BIC



Bio based Industries Consortium

#BETTERWITHBIOBASED

Boxes that don't fall apart, spilling your precious load onto the ground.

MetGen's **additive product made from lignin** - an organic substance found in plants - makes boxes stronger and more moisture-resistant.

➤ The aim of the #BetterwithBiobased social media campaign was to raise awareness of the green and sustainability credentials of products consumers could connect to that are already being produced by BIC members. These important messages help consumers to see the environmental benefits of bio-based products over fossil-based. Bio-based laundry detergent, insulation and flooring material were some of the products featured. The campaign ran for eight weeks across all the BIC social media channels.

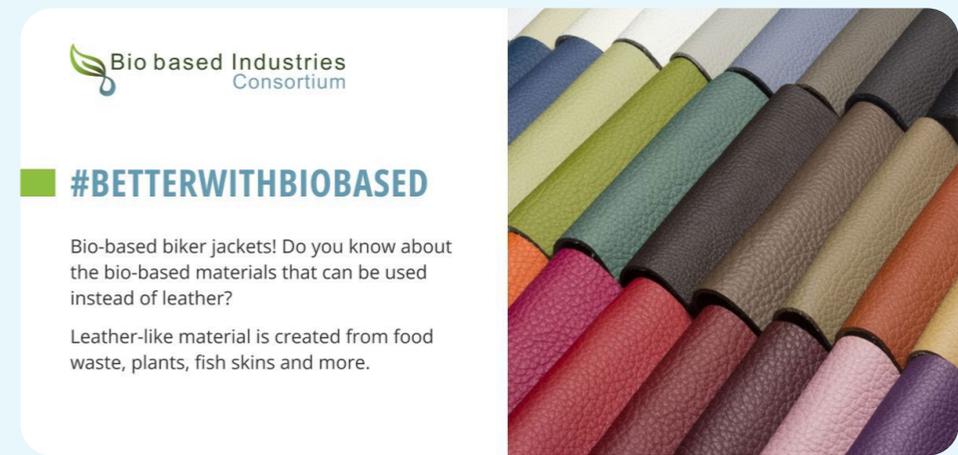


Bio based Industries Consortium

#BETTERWITHBIOBASED

Protect items being delivered while also protecting the planet!

Fibre-based containers, often used in packaging, can be coated with an additive derived from trees thanks to an innovation by Borregaard.



Bio based Industries Consortium

#BETTERWITHBIOBASED

Bio-based biker jackets! Do you know about the bio-based materials that can be used instead of leather?

Leather-like material is created from food waste, plants, fish skins and more.



↑ BIC's Marco Rupp, bioeconomy seminar (June)

- BIC staff participated in several events throughout the year as speakers, panelists, with information stands and more. These events included: ECBF Forum; World BioMarkets; European Bioeconomy Scientific Forum; International Forum on Industrial Biotechnology and Bioeconomy (IFIB); at Agritech Food & Bioeconomy; European Forum for Industrial Biotechnology (EFIB); CBE JU Stakeholder Forum and more.
- We continued to publicise investments in capital made by BIC members through the BIC Investment Portal.



↑ BIC's Sophia De Smet, World Bio Markets (June)



↑ From the top: BIC's Samuele Ambrosetti, CBE JU Info Day (April) and BIC's Dirk Carrez, CBE JU Stakeholder Forum (December)

Cultivating knowledge

Aligning education and bio-based industrial needs



↑ Aiganym Abduraimova, Fernanda Thimoteo Azevedo Jorge, Nurdana Orynbebek and Anastasyia Valakhanovich, Team BioAroma

➤ French team BioAroma from AgroParisTech won the 2023 edition of the Bio-based Innovation Student Challenge Europe (BISC-E) with their proposal to sustainably produce 2-phenylethanol (2-PE) via fermentation, using a non-GMO yeast strain and low-cost food by-products as substrates such as apple pomace and whey.

This method replaces the current chemical synthesis, which is toxic and polluting, and an extraction from flowers that is costly, labour-intensive and season-dependent.

The team was presented with their prize of 5k euros and a one-year of complimentary BIC membership by BIC Chair Rob Beekers at the 10-year anniversary event. [Watch the BISC-E 2023 Finalists' videos.](#)

➤ BIC's Nelo Emerencia mentored six teams in the bioindustry section of the Blue Bio Value Acceleration programme (BBVA). BBVA aims to accelerate start-ups that utilise marine bioresources and blue biotechnology in ecosystems to create sustainable products and services that address societal challenges and improve the health of ocean resources.

2023 was the sixth year of the programme and involved 20 start-ups from 14 countries. Two of the teams mentored by Nelo were included in the three winners. [Zeefier](#) utilises seaweed as sustainable textile dyes to reduce pollution in the textile industry. [SeaWood Materials/BlueBlocks](#) produces building blocks for construction industry and fibres for furniture from seaweed using sustainable energy.

Zeefier and Seawood Materials/BlueBlocks each received a one-year complimentary BIC membership and 15K euros prize money (not awarded by BIC).

Blossoming future

BIC in 2024 and beyond...



- Alongside our usual Matchmaking Event in February, in addition, we will host a second live event in October, giving BIC Industry Members the opportunity to meet in person in Brussels.
- Our efforts to nurture the next generation of bio-based innovators will also increase, as we co-organise the visit of the university students as part of the Talent4BBI Winter School in February.
- There will be two collaborations with Tech Tour, co-organisers of our bio-based annual pitching events since 2022. In 2024, we will team up with them to offer more pitching opportunities to start-ups and SMEs during a second event – the Tech Tour Circular Programme in Ghent in April in addition to the November Bio-based Industries event.
- 2024 sees European elections – and we will do our best to reach out to new MEPs and the new European Commission, putting the benefits and needs of the bio-based industries on their agendas.

Bio-based Industries Consortium (BIC)

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#BetterwithBiobased