

# BIC Annual Report 2018



Bio-based Industries  
Consortium

# BIC Annual Report 2018

Last updated: **June 2019**



# 01 ABOUT BIC

BIC is the private partner in the €3.7 billion public-private partnership with the EU - the Bio-based Industries Joint Undertaking (BBI JU) and is the only industry-led European bioeconomy association pioneering investment and creating synergies for a sustainable, European circular bioeconomy. Its membership includes more than 240 industry members covering the whole value chain, across multiple and diverse sectors, from primary production to brand owners and end-users. More than 200 associate members also participate in BIC, including universities, research and technology organisations (RTOs) and European associations, amongst others.

Private partner in  
**€3.7 billion**  
public-private partnership  
with EU- BBI JU

More than  
**200**  
associate  
members

Includes more than  
**240**  
industry  
members

multiple and  
diverse sectors



**Agriculture, food & feed**



**Technology providers**



**Aquaculture & marine**



**Waste management**



**Chemicals & materials  
including bioplastics**



**Market sectors including  
automotive, packaging,  
construction & beyond**



**Forestry and pulp & paper**

mission

BIC's mission is to build innovative bio-based value chains by developing new biorefining technologies, optimising feedstock use, and creating a favourable business and policy climate to accelerate market acceptance of bio-based products. BBI JU's financial contribution will support the large-scale commercialisation of high-quality bio-based products through investment in innovative manufacturing facilities and processes, as well as in biorefining research and demonstration projects.



## Dirk Carrez – Executive Director

Dirk Carrez is the Executive Director of BIC. He is a bioengineer and holds a PhD in Agricultural Sciences. He is a member of the European Commission's Expert Group for Bio-based products and a member of the advisory board of several European projects.

## Nelo Emerencia – Programming

Nelo Emerencia manages the Programming activities of BIC.

He graduated as a chemical engineer at the Delft University of Technology. During his career, he acquired expertise in engineering & operations, economics & planning, marketing, communication & public affairs as well as education & innovation.



## Marco Rupp – Public Affairs and Governmental Relations



Marco manages Public Affairs & Governmental Relations for BIC. He graduated as an economist. During his career he gained a strong public affairs expertise, holding management positions in consultancies and corporate representations as well as the EU institutions.

## Cathy Tavernier – Membership and Administration

Cathy is responsible for administration and membership at BIC. She is the point of contact for all questions regarding BIC membership including new applications, invoices, member area access, etc.



## Ben Kennard – Communications and Stakeholder Relations



Ben Kennard is responsible for coordinating and executing all BIC's communications activities and coordinating BIC's stakeholder relations. His tasks include developing and implementing BIC's communications strategy, managing relations with the press, developing social media campaigns, managing BIC's website.

# message from the executive director

Our Annual Report gives an overview of our main activities and achievements in 2018. It has been an active year delivering concrete results. Thanks to the BBI JU, knowledge and investments in innovative bio-based production processes are now staying in Europe, BIC companies have around EUR 5.5 billion of investments in the pipeline in Europe for 2018, compared to EUR 2 billion in 2014. There are also a growing number of non-EU BIC companies investing in innovative operations in the continent.

The industry is establishing new innovative value chains, and projects are increasingly market-focused, delivering better products to the market and responding to consumer needs through the growing involvement of brand owners and end-users. Finally, we also observe a growing awareness of the bioeconomy and broader participation from EU-13 countries. In essence, BIC and the BBI JU are setting out what we seek to achieve - structuring the bioeconomy in Europe through closer collaboration between industrial sectors and disciplines.

But what about the future? Together with fifteen other stakeholders from across multiple and diverse sectors, we have developed a Vision for a circular, bio-based society for 2050. In this circular bio-society, informed citizens will choose more sustainable means to live and benefit from a bioeconomic societal model.

Bio-based products and services will be both competitive in price and performance with their fossil-based counterparts. The EU, having proactively invested early in highly efficient and sustainable biomass production for food, feed and non-food in the bioeconomy, is the global hub for bio-based industrial investment and the international reference point for the circular bioeconomy. A sustainable bio-based industry will play a central role in combatting climate change whilst moving Europe towards a carbon-neutral society.

With the right mindset and policies in place, the bio-based industries will realise a European circular bio-society, making an active contribution to achieving twelve of the UN's Sustainable Development Goals, while reducing dependence on fossil resources, to the benefit of the planet, the economy and the citizen. The current BBI JU has established these foundations, by building collaboration between industrial sectors and disciplines and will continue constructing this architecture. We will now turn to translating this Vision into a renewed SIRA, which will be the basis for a new public-private partnership on bio-based industries starting in 2021.

**This is BIC's mission for 2019!  
- Dirk Carrez**



# 02

## BIC ACTIVITIES 2018

### programming & strategic outreach

- Publication and evaluation of BBI 2018 call
- Gap analysis of achievements 2014-2018 versus SIRA and production of Priority Paper 2019-2020
- Development of the Annual Work Plan 2019 in collaboration with the European Commission, the Scientific Committee, the States Representative Group and the BBI JU Project Office
- BIC Matchmaking event 2018: > 200 attendees and 400 one-to-one meetings
- Draft Vision 2050 developed based on input from members and others
- Industry expert group formed for the 3 granted CSA projects in 2018
- BIC advisory role in seven projects/programmes
- Strategic outreach visit to 12 companies in Portugal
- Multiple meetings with BIC members and potential new members
- Presenting BIC at industry meetings in 13 countries
- Interviews across various media focusing on the Annual Work Programme

The BBI JU Annual Work Plan, developed by BIC members, is now more comprehensive and cross-cutting than ever before, accelerating the market uptake of bio-based products and the creation of new value chains

### public affairs

- > 100 meetings (including participation of the BIC board and CEOs from BIC members) with key political contacts in the EU Parliament, European Commission and EU Member States on a BBI 2.0
- Meetings with political representatives in Brussels and in EU Member States on HorizonEurope and the bioeconomy
- BIC speakers at political events e.g. European Parliament conferences, the European People's Party (EPP) summit, EU Bioeconomy Policy Day etc.
- Collaboration with industry partners to support a BBI 2.0 (European Bioeconomy Alliance (EUBA), Food Drink Europe etc...)
- Public Affairs related social media campaigns
- Publication of BIC position papers on UN Sustainable Development Goals, Horizon Europe and the updated EU Bioeconomy Strategy

With more than 100 meetings with key EU political figures and multiple visits to EU Member States, BIC has been actively championing the importance of a public-private partnership for the bio-based industries.

### Position Papers

#### EUBA paper: The Crucial Role of the Bioeconomy in Achieving the UN Sustainable Development Goals

BIC was a signatory of the European Bioeconomy Alliance (EUBA) paper on how to deliver on the implementation of the SDGs in the EU. The paper highlights the crucial role the bioeconomy plays across the three pillars of sustainable development: environment, society and economy.



With a significantly active and large following, BIC is now recognised as one of the leading European organisations communicating about the bioeconomy on Twitter.

- BIC Twitter account reaches 4,500 followers
- Launch of Twitter/online campaigns – “Towards a BBI 2.0” and “What Our CEOs Say” to support a future public-private partnership for the bio-based industries
- Media articles in Agro & Chemistry, Il Bioeconomista and others
- Press releases: two on the EU Bioeconomy Strategy and one on Horizon Europe
- BIC supports 12 UN Sustainable Development Goals
- Update and promotion of BIC country reports - mapping the bioeconomy potential of Portugal, Poland and Romania
- First draft country reports for Estonia, Latvia and Lithuania

# key events

The BIC team participated in or presented at a number of **bioeconomy-related events in 2018**. Below you will find a selection of some of the major events organised by BIC or which members of the team were involved in.

- 30-31 JAN** **Biotech Hub meeting**  
Dresden, Germany
- 06-07 FEB** **Bioeconomy Impact 2018**  
Budapest, Hungary
- 21 FEB** **Matchmaking event 2018**  
Brussels, Belgium
- 01 MAR** **Launch of Agri-ChemWay project**  
Dublin, Ireland
- 06-07 MAR** **BIOKET (The Global Conference on the Bioeconomy's Key Enabling Technologies)**  
Strasbourg, France
- 18-20 APR** **Strategic Outreach Programme, Coimbra, Lisbon & Porto, Portugal**
- 19-20 APR** **Global Bioeconomy Summit**  
Berlin, Germany
- 16-17 MAY** **CIBE Congress 2018 (International Confederation of European Beet Growers)**  
Ghent, Belgium
- 28 MAY** **Green Chemistry Network event**  
Ghent, Belgium
- 31 MAY 1 JUNE** **European Maritime Day**  
Burgas, Bulgaria
- 06 JUNE** **Nature-based society – the contribution of the bioeconomy**  
Brussels, Belgium
- 06-07 JUNE** **The European Bioeconomy Venture Forum**  
Viborg, Denmark
- 07-08 JUNE** **Building a biomass innovation ecosystem in a circular bioeconomy in Poland**  
Kraków, Poland
- 16-19 JULY** **BIO World Congress on Industrial Biotechnology**  
Philadelphia, United States
- 16-19 SEPT** **2nd International Conference of Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability**  
Sitges, Spain
- 16-18 OCT** **EFIB 2018 (European Forum for Industrial Biotechnology)**  
Toulouse, France
- 24-26 OCT** **EIB International Conference on Circular Economy**  
Copenhagen, Denmark
- 08-09 NOV** **European People's Party (EPP) Congress**  
Helsinki, Finland
- 23 NOV** **Workshop on opportunities for bio-based industries in Romania (co-hosted by BIC and the Romanian Ministry of Agriculture)**  
Bucharest, Romania
- 04-05 DEC** **BIC Industry Networking and Dinner event**  
Vienna, Austria

● organised by BIC



# 03

## IMPACT OF THE BIO-BASED INDUSTRIES JOINT UNDERTAKING (BBI JU)

18 new projects were funded under the 2018 call for proposals, bringing the total number of BBI JU-funded projects to more than 100.

€85,944,261  
of funds granted

224  
beneficiaries

27  
different countries

144 proposals were submitted in response to the 2018 call:

CSAs  
15

RIAs  
61

IA-Demo  
55

IA-Flagship  
13

The 18 granted projects include:

1

Flagship  
Action

### FARMYNG

Flagship demonstration of industrial scale production of nutrient resources from mealworms to develop a new generation bioeconomy

### B-FERST

Bio-based fertilising products as the best practice for agricultural management

### VAMOS

Value added materials from organic waste sugars

### DEEP PURPLE

Conversion of diluted mixed urban bio-wastes into sustainable materials and products in flexible purple photobiorefineries

### VEHICLE

Valorise extensive quantities of hemicellulosic and cellulosic sugars from lignocellulosic biomass into high-value end products

### INGREEN

Production of functional innovative ingredients from paper and agro-food side-streams through sustainable and efficient tailor-made biotechnological processes for food, feed, pharma and cosmetics

5

Demonstration  
Actions

### MANDALA

Transition of multilayer/multipolymer packaging into more sustainable multilayer/single polymer products for the food and pharma sectors through the development of innovative functional adhesives

### CelluWiz

Process developments for a recyclable and compostable all-cellulose multilayer material for packaging

### SElectiveLi

Conceptual study of electrochemical based novel process using lignosulfonates to produce bio-based monomers & polymers

### WASEABI

Optimal utilisation of seafood side-streams through the design of new holistic process lines

### BIOntop

Novel packaging films and textiles with tailored end-of-life and performance based on bio-based copolymers and coatings

### GRETE

Green chemicals and technologies for the wood-to-textile value chain

### USABLE PACKAGING

Unlocking the potential of sustainable biodegradable packaging

### ECOAT

Eco-sustainable multifunctional bio-based coatings with enhanced performance and end-of-life options

9

Research  
& Innovation  
Actions

3

Coordination  
& Support  
Actions

### UrBIOfuture

Boosting future careers, education and research activities in the European bio-based industry

### LIFT

Unleashing the potential of CSA results to contribute to sustainable and competitive bio-based industries in Europe

### CELEBio

Network of Central European bioeconomy leaders



# NEW BIC MEMBERS IN 2018

BIC welcomed 19 new industry members and 15 new associate members to its fold in 2018. BIC's new members illustrate the growing interest of non-EU industries in accessing funding for investment in the European bioeconomy. There is also a marked increase in representation from the aquaculture & marine and agriculture, food & feed sectors.



A4F - Algae for Future



AEP Polymers



AciesBio



Alginor



Arbiom



Braskem



Capax Biobased Development



Cellicon



Citrique Belge



CMP - Commercial Mushrooms Producers



CRCF - Centro Ricerche per La Chimica Fine



EnginZyme



Fermentalg



Graanul Invest



Haldor Topsøe



Nova Pangaea Technologies



Planet Bioplastics



Process Design Centre



Procter & Gamble

industry members

associate members

- Armines
- Biocom
- Cartif
- CETEC - Plastics and Footwear Technology Center
- Cidetec Fundación
- Cré - Composting and Anaerobic Digestion Association of Ireland
- CRF - Centro Ricerche Fiat
- Fundecyt-Pctex
- ILVO - Flanders Research Institute for Agriculture, Fisheries and Food
- Meat Technology Ireland
- New Chemical Syntheses Institute
- NORCE Norwegian Research Centre
- University of Limerick
- University of Ferrara
- University of Vic (Central University of Catalonia)

# 05 CURRENT MEMBERS



A4F - Algae for Future



AEP Polymers



AB InBev



Acies Bio



ADM



Agro Business Park



AlgaEnergy



Alginor



Apeiron Synthesis



Arbiom



ARD



Avantium



BASF



BE Basic Foundation



BII – Bio-marine Ingredients Ireland



Bio Base Europe Pilot Plant



Bio Eco Energy Company



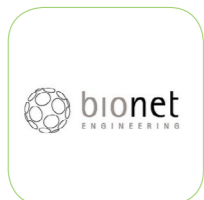
Bio-mi



Biobased Delta



BioEconomy Cluster



Bionet Ingenieria



BIOPRO Baden-Württemberg



Bioprocess Pilot Facility



Biosphere



Biosynthia



BioVale



BLC3



Borregaard



Braskem



Capax Biobased Development



Carbery Food Ingredients



Cargill



Cellicon



Cellucomp Ltd.



Celtic Renewables



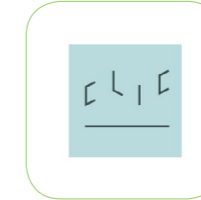
Citrique Belge



Clariant Group



CLIB2021



Clic Innovation



Cluster Food+i



CMP – Commercial Mushrooms Producers Ltd.



Consorzio Italbiotec



Corbion



CRCF – Centro Ricerche per la Chimica Fine



CTA - Corporacion Tecnologica de Andalucia



DSM



DuPont



Dutch Biorefinery Cluster



EnergoChemica



EnginZyme AB



Evonik Nutrition & Care



Exergy Ltd.

full members



Fater



Fermentalg



Fertinagro



Flanders' Food



Orineo



Orsted



Particula Group



Planet Bioplastics



Fortum



GF Biochemicals



Glanbia Ingredients Ireland



Graanul Invest



Plastica Alfa



Process Design Center



Procter & Gamble



Royal Cosun



GreenWin



Haldor Topsøe



IAR



IBioIC



Sappi



SAV – Agricultores de la Vega de Valencia



SBIOC



Smurfit Kappa



Idener



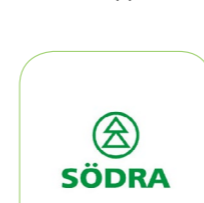
Innoven



ISPT



Lygos



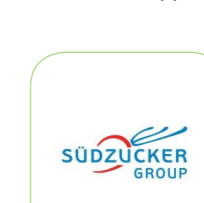
Södra



Soremartec Italia-Gruppo Ferrero



Stora Enso



Südzucker



MEtabolic EXplorer



Metgen Oy



Metsä Group



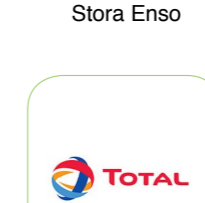
Mi-plast



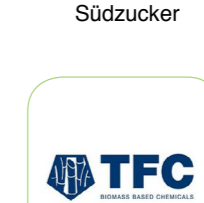
SUSPACC



Tectero



Total



Transfurans Chemicals



Monaghan Mushrooms Group



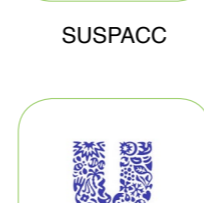
Natac Biotech



Neste Corporation



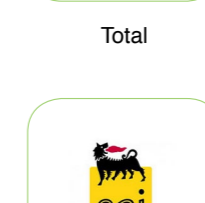
Norske Skog



Unilever



UPM



Versalis



Vertech Group



Nova Pangaea Technologies Limited



Novamont



Novozymes



Oleon

# associate members

- 3N Kompetenzzentrum Niedersachsen Netzwerk Nachwachsende Rohstoff
- Aalto University
- Aarhus University - Danish Centre for Food and Agriculture
- Åbo Akademi University
- ACIB (Austrian Centre of Industrial Biotechnology)
- AGRANA Stärke
- Agro Innovation International
- AIJU - Asociacion de Investigacion de la Industria del Juguete
- AIMPLAS - Technological Institute of Plastics
- AINIA Technology Centre
- AIT - Austrian Institute of Technology
- AITEX - Textile Research Institute
- AITIIP Technology Centre
- Andaltec Plastic Technological Center
- Andalusian Region
- ARCMED - Association of Mediterranean Forest Owners
- Armines
- Automotive Industry Institute
- Ayming
- Bay Zoltan Nonprofit Ltd. For Applied Research
- Biocom AG
- Bio Deutschland
- Bio4Energy
- Bioplat - Spanish Biomass Technology Platform
- Boku - University of Natural Resources and Life Sciences
- Campus Iberus
- Cartif
- CEA
- CEFIC - European Chemical Industry Council
- CENER - National Renewable Energy Center
- Centexbel
- CEPF - Confederation of European Forest Owners
- CEPI - Confederation of European Paper Industries
- Certech - The Centre of Technological Resources in Chemistry
- CERTH - Centre of Research and Technology Hellas
- CETEC - Plastics and Footwear Technology Center
- Cetenma - Centro Tecnológico de la Energía Y El Medio Ambiente
- Chalmers University of Technology
- Chamber of Commerce and Industry of Stajerska
- CIBE - International Confederation of European Beet Growers
- Cidetecc Fundación
- CIEMAT - Centro de Investigaciones Energéticas, Medio-ambientales y Tecnológicas
- CIRAD - Agricultural Research for Development
- CIRCE - Research Centre for Energy Resources and Consumption
- CNR - National Research Council of Italy
- CNRS - National Centre for Scientific Research
- CNTA - National Centre for Technology and Food Safety
- CoEBBE - Center of Expertise Bio-based Economy
- Condorcet FRS
- COPA Cogeca
- Cré - Composting and Anaerobic Digestion Association of Ireland
- CRF - Centro Ricerche Fiat
- CSIC - Spanish National Research Council
- CT Aqua - Andalusian Aquaculture Technology Centre
- CTFC - Forest Sciences Centre of Catalunya
- CTP - Centre Technique du Papier
- Danish Technological Institute
- DECHEMA - Society for Chemical Engineering and Biotechnology
- Diadikasia Business Consulting
- DTU - Biosustain - Centre for Biosustainability at the Technical University of Denmark
- ECN - (Energy Research Centre of the Netherlands) part of TNO - Netherlands Organisation for Applied Scientific Research
- ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development
- Environment Park
- ERFO - European recovered Fuel Organisation
- ERRMA - European Renewable Resources and Materials Association
- ESA - European Seed Association
- EuropaBio
- European Bioplastics
- FCBA - Institut Technologique Forêt Cellulose Bois-construction Ameublement
- FEUGA
- FoodDrinkEurope
- Forschungszentrum Jülich
- FORTH/ICE-HT - Foundation for Research and Technology Hellas - Institute of Chemical Engineering Sciences
- Fraunhofer
- FTP - Forest-based Sector Technology Platform
- Funditec - Foundation for Development and Technological Innovation
- IAPAN - Institute of Agrophysics of the Polish Academy of Sciences
- IFP Energy Nouvelles
- IK4 Research Alliance
- ILVO, Flanders Research Institute for Agriculture, Fisheries and Food
- Imdea Energy - Fundacion Imdea Energía
- Ineris - L' Institut National de l' Environnement Industriel et des Risques
- INIA - National Institute for Agricultural Research and Experimentation
- InnoExc
- Innovhub SSI - Stazioni Sperimentali per l'Industria
- INRA - French National Institute for Agricultural Research
- Institute Charles Viollette
- INSTM - National Interuniversity Consortium of Materials Science and Technology
- Irish Bioeconomy Association
- IRMO - Institute for Development and International Relations
- ITENE - Packaging, Transport and Logistics Research Centre
- ITERG - Institut des Corps Gras
- KIT - Karlsruhe Institute of Technology
- Kplus Wood - Kompetenzzentrum Holz GmbH
- KTH - Royal Institute of Technology in Stockholm
- KU-Leuven
- Laborelec
- Lappeenranta University of Technology
- Leitat Technological Center
- LGP2 - Laboratoire de Génie des Procédés Papetiers
- Linköping University
- LSIWC - Latvian State Institute of Wood Chemistry
- LIST - Luxembourg Institute of Science and Technology
- LUKE - Natural Resources Institute Finland
- Lund University
- Luxinnovation
- Materia Nova
- Matis
- Meat Technology Ireland
- NanoGUNE - Nanoscience Cooperative Research Center
- New Chemical Syntheses Institute
- NIBIO - Norwegian Institute of Bioeconomy Research
- NORCE Norwegian Research Centre
- Norut Narvik - Northern Research Institute Narvik
- Nova Institut GmbH
- NTNU - Norwegian University of Science and Technology
- NTUA - National Technical University of Athens
- Piteå Science Park (Solancer Cleantech)
- PNO Innovation
- Rabobank
- RAIZ - Forest and Paper Research Institute
- RE-CORD - Renewable Energy Consortium for Research and Demonstration
- Regional Council of Kainuu
- RISE - Research Institutes of Sweden
- RIVM - National Institute for Public Health and the Environment
- RSB - Roundtable on Sustainable Biomaterials
- RTDS Association
- SciTech-Service Oy Ltd.
- SINTEF
- Skogforsk
- SPRING - Sustainable Processes and Resources for Innovation and National Growth
- Starch Europe
- STU - Slovak University of Technology
- SusChem
- Swerea IVF AB
- Swerea SICOMP
- Tecnalia Corporation
- The James Hutton Institute
- Timac Agro Düngemittel-produktions - Und Handels-gmbh
- TU Delft - Delft University of Technology
- TU Eindhoven - Eindhoven University of Technology
- TU Wien - Vienna University of Technology
- TUHH - Hamburg University of Technology
- UA - University of Alicante
- UAB - Universitat Autònoma de Barcelona
- UAH - University of Alcalá
- UAL - University of Almería
- UCA - University of Cádiz
- UCCS - Unité de Catalyse et de Chimie du Solide
- UCPH - IFRO - University of Copenhagen - Department of Food and Resource Economics
- Unimore - University of Modena and Reggio Emilia
- Unipetrol Centre for Research and Development (Unicre)
- Università Cattolica del Sacro Cuore - Catholic University of the Sacred Heart
- University of Bologna
- University of Eastern Finland
- University of Ferrara
- University of Ghent
- University of Graz
- University of Hohenheim
- University of León
- University of Limerick
- University of Naples "Federico II"
- University of Oulu
- University of Oviedo
- University of Rome "La Sapienza"
- University of Rovira - Virgili
- University of Salerno - Unison
- University of Santiago de Compostela
- University of Valladolid
- University of Venice - Ca' Foscari
- University of VIC
- University of Vigo
- UPVLC - Polytechnic University of Valencia
- Vito
- VTT Technical Research Centre of Finland
- WUR - Wageningen University & Research
- XAMK - South Eastern Finland University of Applied Sciences





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