



# Introducing BIC and BBI JU 2020 call to stakeholders in Austria

Webinar, 28 Jan. '20; Nelo Emerencia, Director Programming BIC

# I would like to cover today

## BBI JU 2020 call

- objectives
- topics
- budget
- Building on experience since 2014

## Beyond Horizon 2020

- BBI JU successor: CBE
- Vision 2050 and SIRA 2030

But first: who is BIC?

Webinar 28 January 2020

For Austria

# **The Bio-based Industries Consortium (BIC)**

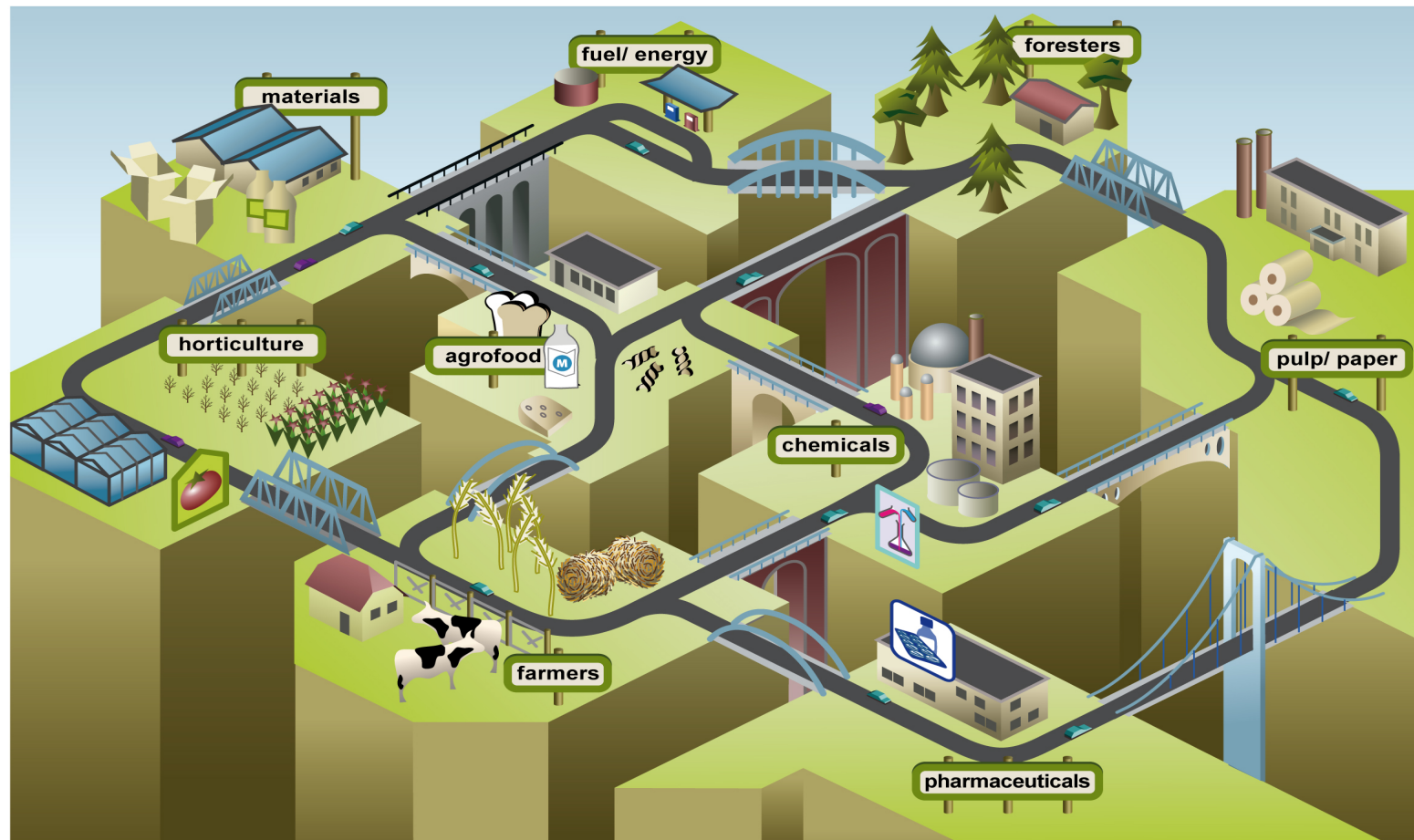


# Where we are coming from

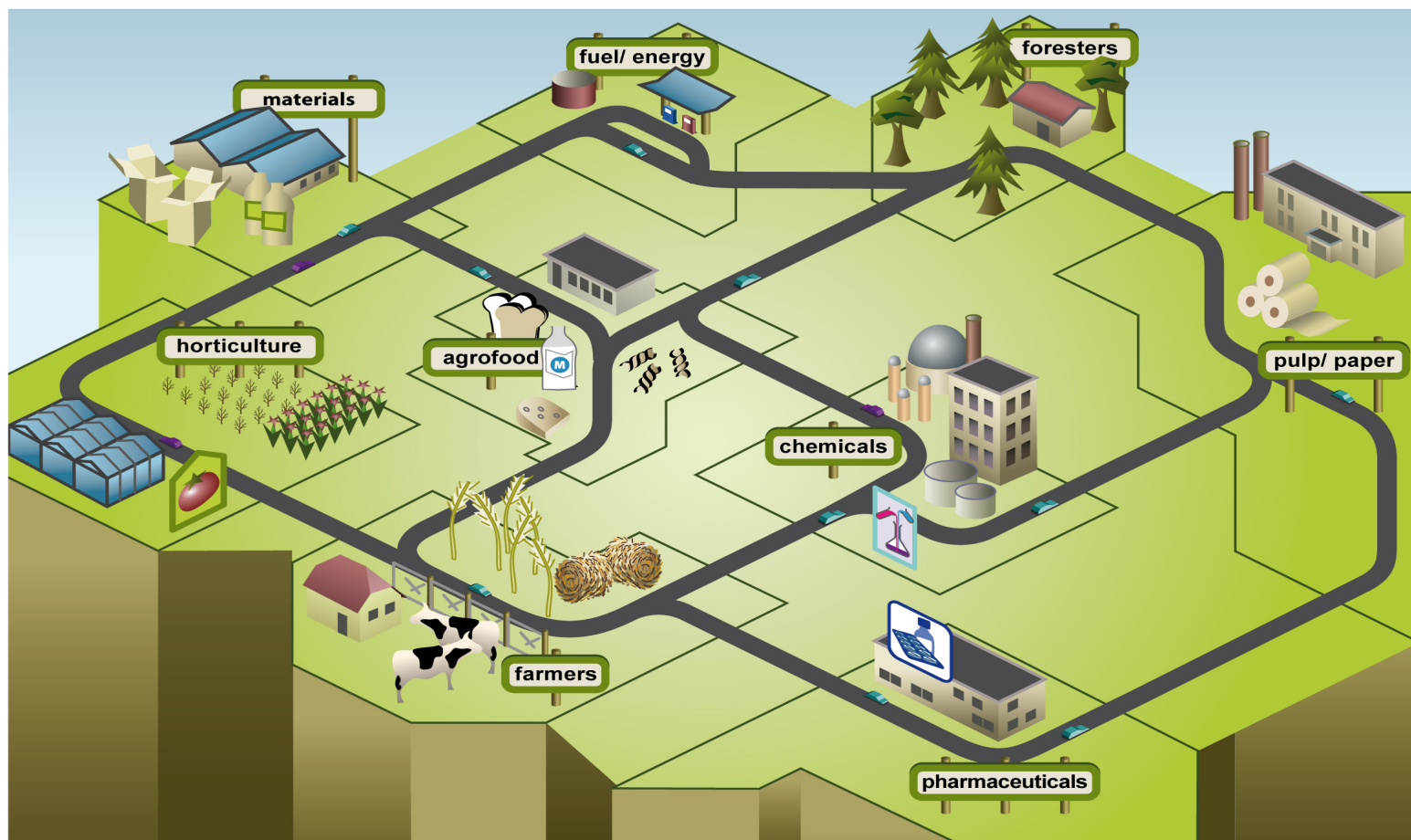




# Where we are going to



# Where we want to be



# The Bio-based Industries Consortium (BIC)

## Members and mission

### Our members (1 January 2020)

- 239 industry members (from 45+ in 2013), of which over 80% SME's
  - Growing: Brand owners and SME-clusters (in particular 'food' clusters)
- Covering all relevant industrial sectors :
  - Agriculture & Agri-food, Forestry and Pulp & Paper, Marine and Aquatic, Bio-energy, Chemicals and materials, Waste management;
  - Also: Technology providers, Brand owners
- 183 associate members e.g. universities, think tanks, R&D clusters

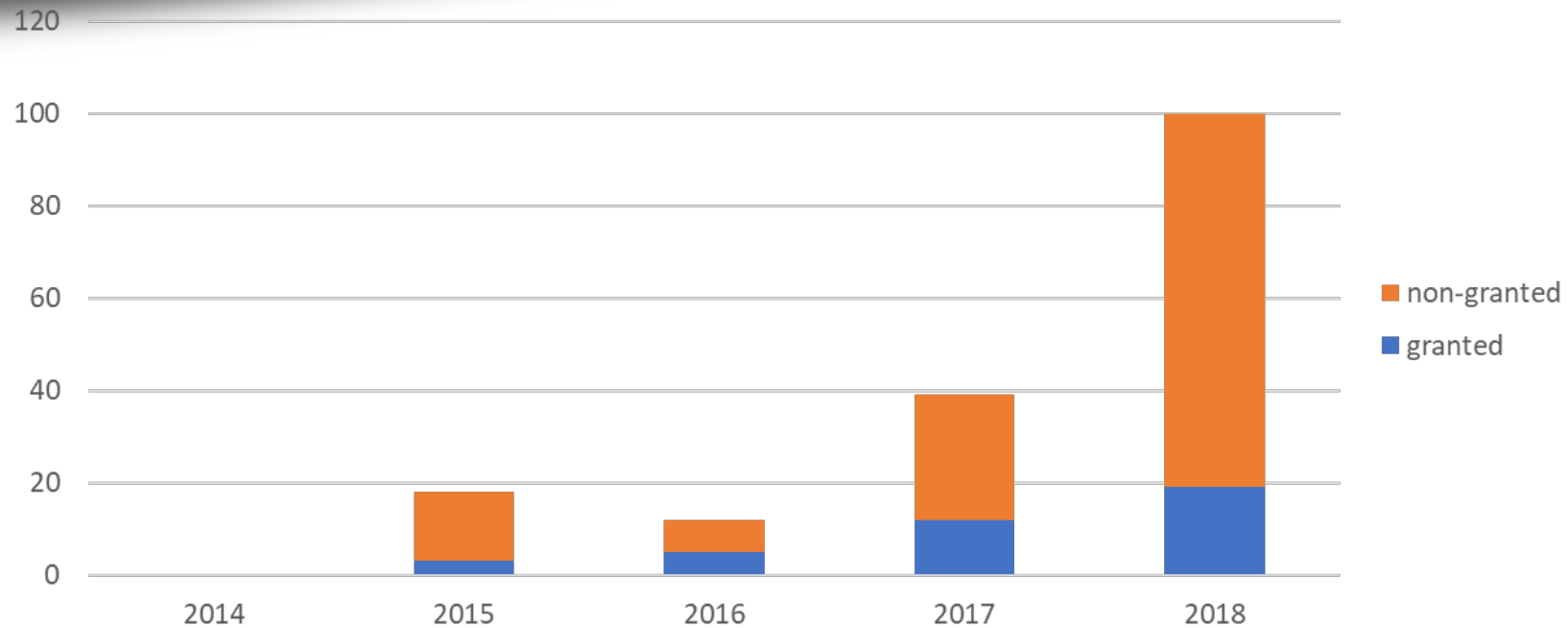
### Our mission

- Build new bio-based value chains
- Create favorable business and policy climate to accelerate market uptake (with the EC)



# Growing participation of brand owners in BBI calls

BIC is reaching out to the market



Sectors:

Food & drinks  
Personal care  
Construction  
Furniture  
Fashion/textile  
Automotive  
Car tires

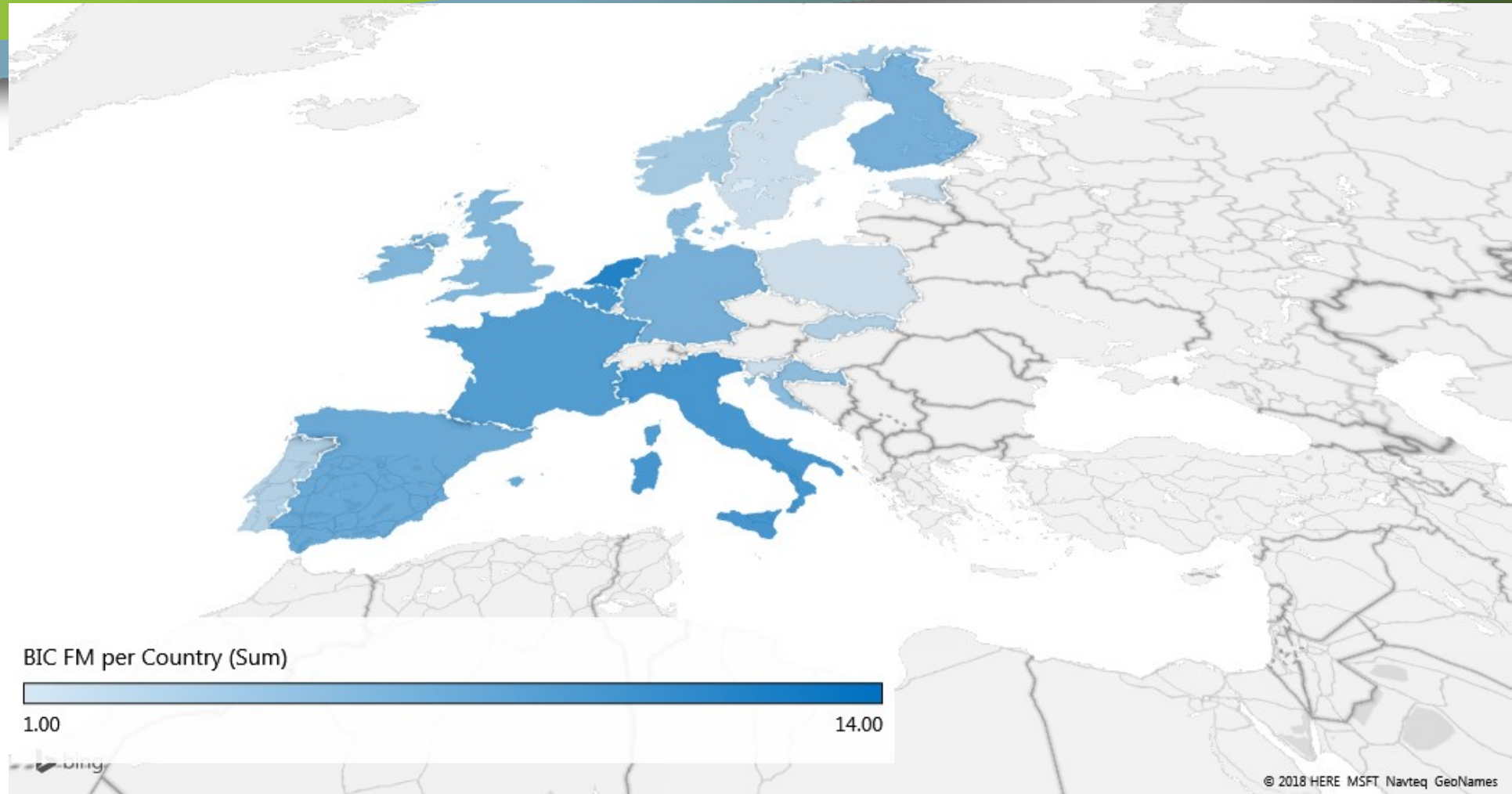
Food & drinks  
Toys  
Water (industrial)  
Paints

Food & drinks  
Energy supplier  
Sanitary  
Personal care  
Automotive  
Car tires  
Fashion/textile  
Healthcare  
Furniture  
Lab products

Food & drinks  
Food & feed ingredients  
Agro-products  
Personal care  
Automotive  
Construction  
Fashion/textile  
Furniture  
Healthcare  
Lab products  
Packaging  
Aviation

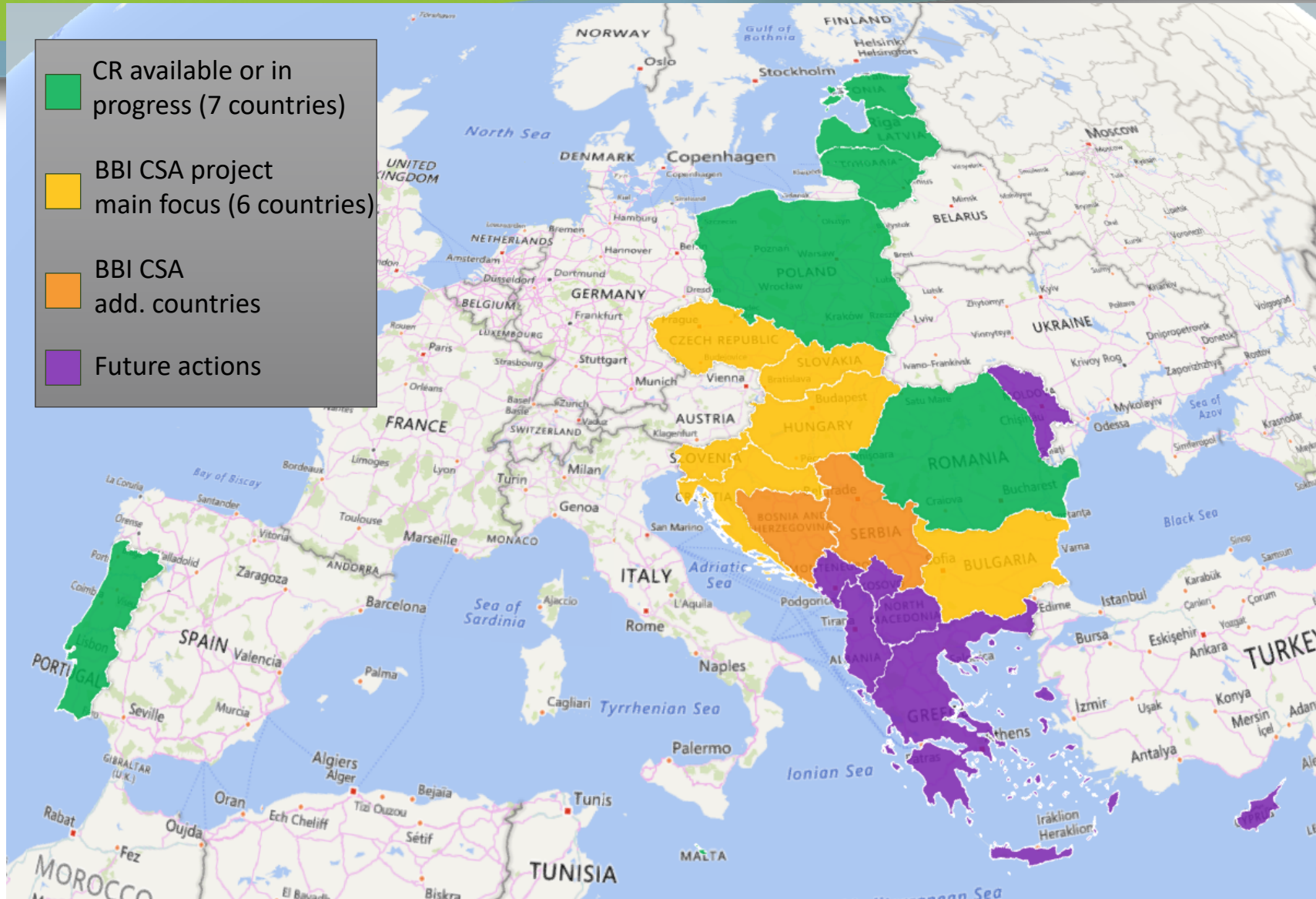
# BIC industry members across Europe

In line with European innovation scoreboard



# Expanding bio-based industry across Europe

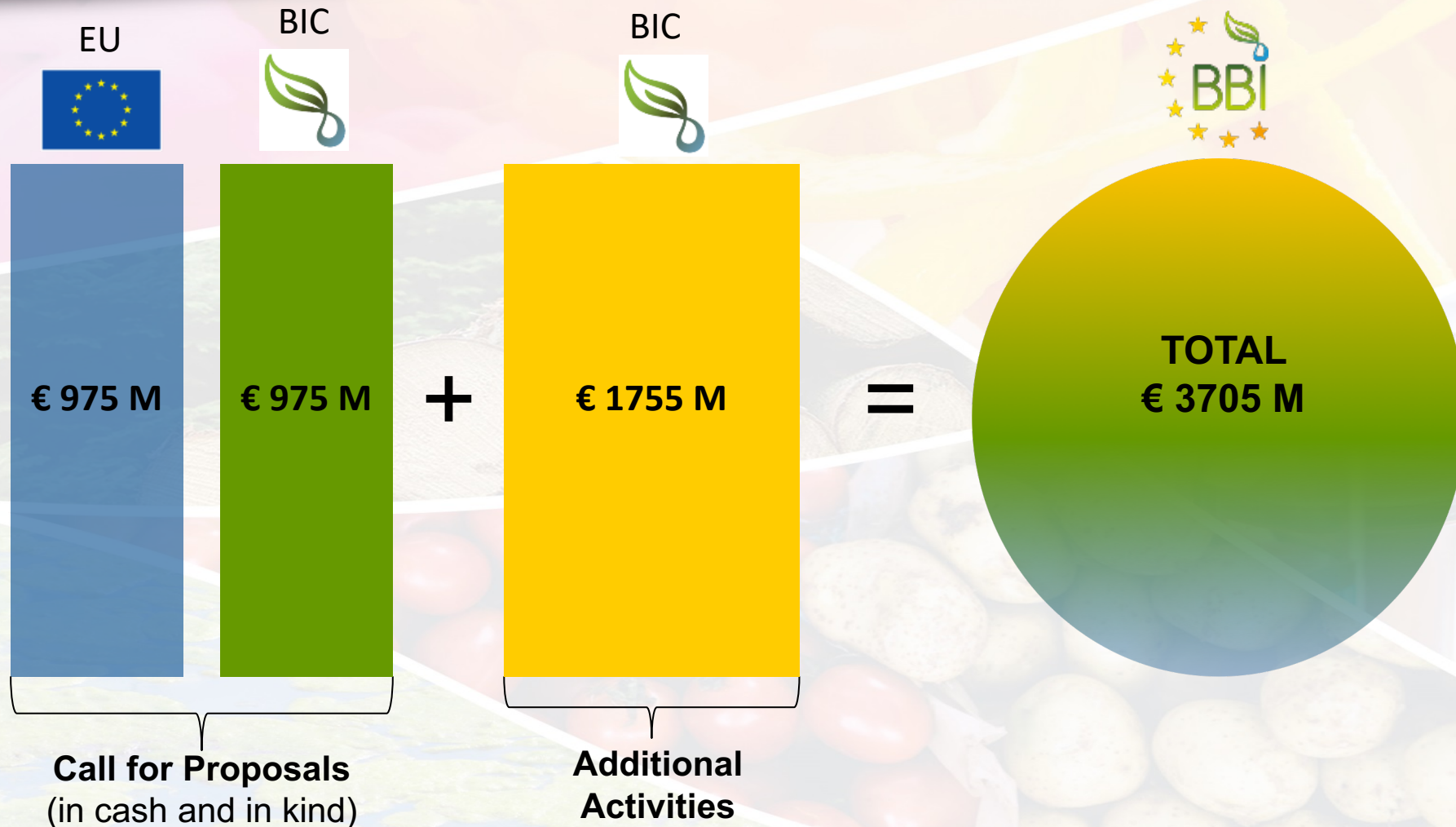
BIC strategic outreach programme





# BIC: Private partner in an EU public-private partnership (BBI JU)

BBI JU = Bio-Based Industries Joint Undertaking



Implemented through annual work plans

# Industry-driven initiative

**Strategic level: SIRA**  
Strategic Innovation and Research Agenda  
guiding document developed by BIC



**Operational Level**  
Annual Work Plan

Drafting – Approval – Supporting



+ Scientific Committee  
+ States Representatives Group



Call for proposals  
(RIAs, IAs, CSAs)



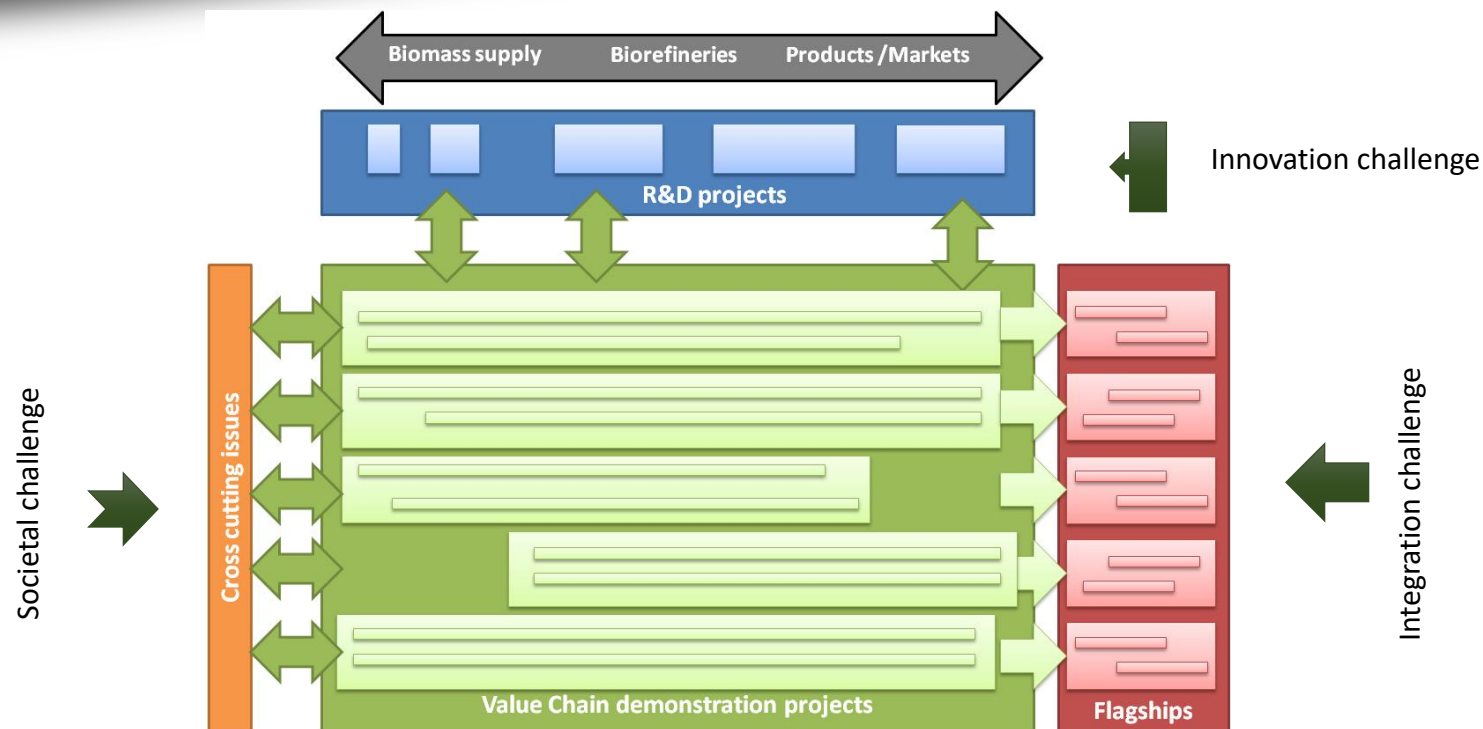
Publication &  
Implementation



Reporting – monitoring  
Dissemination – com.

Portfolio management

# 'Actions' in annual work plans



Research and innovation actions: TRL 4-5;	30.5% of budget
Innovation actions – demonstration: TRL 6-7;	30.5% of budget
Innovation actions – flagship: TRL 8;	35.5% of budget
Coordination & support actions;	3.5% of budget



# Sustainable, circular bio-based value chains

## Biomass and organic waste

### From the agro-based industries

- Feedstock originating from the agriculture and agro-food industries
- Agricultural crops such as flax, hemp and fibre
- Co-products, side streams, and residues from the agriculture, including animal manure and from the agro-food industries, including residues from food processing plants

### From the forest-based industries

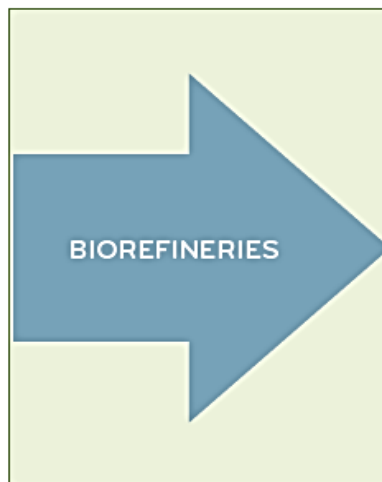
- Feedstock originating from the forest and forest-based industries
- 'Woody and non-wood forest feedstock'
- Co-products, side streams, and residues from the forest and forest-based industries, including the wood industry, saw mills, Paper and Pulp

### From the aquatic-based industries

- Feedstock originating from the aquatic and aquatic-based industries, including aquaculture, the fish and fish processing industries
- Co-products, side streams and residues from the aquatic and aquatic-based industries

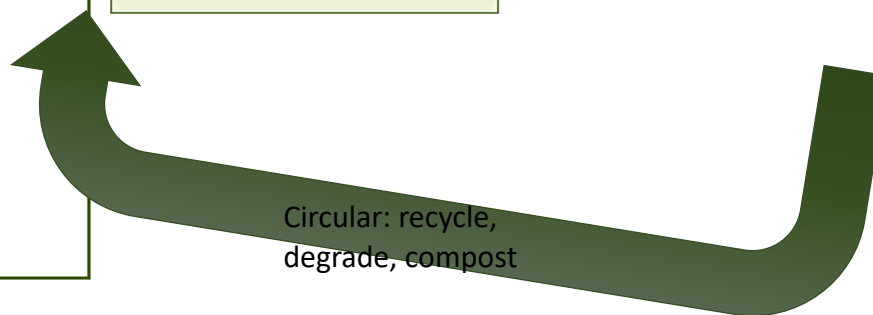
### Bio-waste and CO<sub>2</sub>

- Biodegradable garden and park waste
- Food and kitchen waste from households, restaurants, caterers and retail premises
- Waste water and sludge
- CO<sub>2</sub>



## Bio-based products & markets

- Bio-based chemicals
- Bio-based plastics, polymers, materials, packaging
- Specialties (for example bio-based surfactants, lubricants, pharmaceuticals, nutraceuticals, cosmetics)
- Textiles
- Food ingredients and feed
- Advanced biofuels



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Q&As

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BBI JU 2020 call



# Granted BBI projects 2014 – 2018



## Outputs from Calls 2014 - 2018

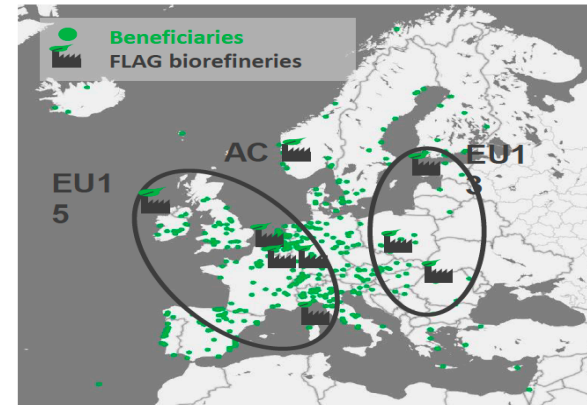
BIC members:  
> € 5.5 bn investments  
'in the pipeline'

1179 beneficiaries  
40% SMEs  
35 countries  
8 FLAGs (SIRA objective: 5) +  
1 FLAG under GAP

Through 2018:  
9 FLAG  
29 DEMO  
52 RIA  
11 CSA

100 projects (well spread)  
€ 602 million grant (EC)  
€ 1.65 bn private contribution

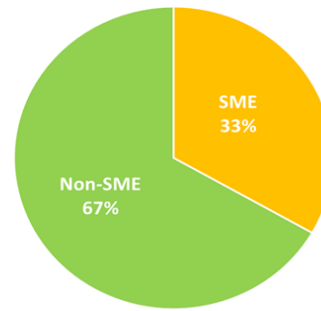
1 project -  
GAP  
Ongoing



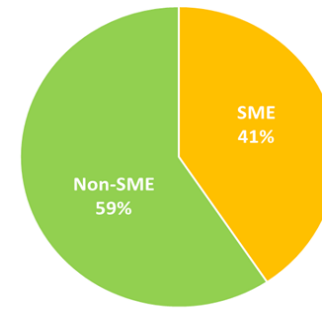
7 Calls • € 813 million EU grant

# SMEs participation 2014-2018

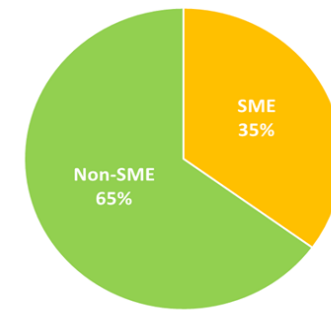
- **High mobilisation** of SMEs in biobased industries
- 41% participation in granted projects, corresponding to 35% of the funding
- 30% increase in total SME funding since 2017
- First SME to lead a Flagship project (Call 2018)



Applicants



Participants in projects

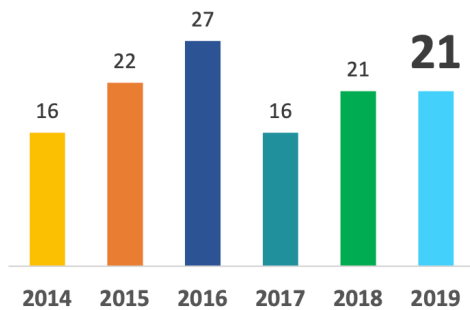


Funding

# Key results/learnings so far

Overall

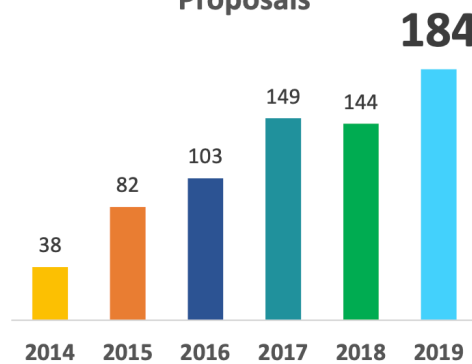
Topics



50	179	185	85	102	135
M€	M€	M€	M€	M€	M€

10	26	29	17	19
Granted projects				

Proposals



Mobilising effect:

- proposals exceeding available budget
- Success rate from 25% to about 14% (overall)
- Increasing number of excellent proposals not granted

Re-structuring effect:

- Increasing consortia with many sectors; including primary sectors
- Increasing participation from CEE; in proposals & granted projects

Actions:

- BIC: platforms to connect inventors with investors
- BBI JU: 'synergy label' to assist consortia in search of financing
- BIC: re-look at 'width' of topics
- BIC: re-look at link between topic text and evaluation criteria



# Evaluation: From main to subcriteria

Excellence	Impact	Quality and efficiency of the implementation
<ul style="list-style-type: none"> <li>• Clarity</li> <li>• Credibility</li> <li>• Soundness of the concept</li> <li>• Quality</li> <li>• Extent that proposed work is ambitious, has innovation potential, and is beyond the state of the art</li> <li>• Coverage of the value chain</li> </ul>	<ul style="list-style-type: none"> <li>• Effectiveness</li> <li>• Enhancing innovation capacity and integration of new knowledge</li> <li>• Strengthening the competitiveness and growth of companies</li> <li>• Any other environmental and socially important impacts</li> <li>• Effectiveness (including IPR management)</li> <li>• Communication</li> <li>• Extent to which consortium contribution, including additional investment, will help maximising the impact of the action</li> </ul>	<ul style="list-style-type: none"> <li>• Coherence and effectiveness of the work plan</li> <li>• Complementarity of the participants within the consortium (if relevant)</li> <li>• Appropriateness of the management structures and procedures</li> <li>• Soundness of the business case and business plan</li> <li>• Readiness of the technology for the implementation of the pilot phase, demonstration or flagship</li> </ul>





# Trends from 2014 – 2018 towards 2020+

## Overall

- New **sectors** joining to valorise/use side streams and residual streams
  - For economic, environmental and 'general sustainability' reasons (contribute to EU policies, SDGs; societal development)
- Expanding liaising with **regions** throughout Europe
  - Link with Smart Specialisation Strategies; BIC is building a platform to interact and matchmaking
- Growing interest/commitment from industry for **circularity**
  - For economic, environmental and 'general sustainability' reasons (contribute to EU policies, SDGs; 'from linear to circular'; image'; license to operate)
- Growing interest/commitment from industry for **higher TRL actions**
  - Especially Demonstration actions: budget consumed in 2014 – 2019; move budget from Flagship and RIA to Demonstration in 2020
- Growing interest from **EC DGs** to 'participate' in BIC/BBI programme
  - DG AGRI; DG GROW

# Annual work plan 2020

Action	Topics	M€
RIA	5	22
DEMO	4 (1: prim. sector leads)	28
FLAGSHIP	2 (1: aquatic/marine)	32 (16 each)
CSA	4 (1: educational centres)	5
TOTAL	15	87

- We now have 1 flagship topic in each major feedstock category: agri, forest, aquatic & bio-waste
- Interest for demonstration topics/projects very high and increasing! (By actors inside and outside BIC)
- Call opens 15 April 2020 and runs till 3 September 2020 cob

## Objectives:

- Fulfil SIRA goals and objectives
  - Meet budget allocations for the different actions
    - OK for RIA and Flagships; exceeded for Demo; below target for CSA
  - Flagships in all strategic orientations
- Set the basis for 2020+
  - Increase 'influence'/participation of primary sectors
  - Increase focus on circularity, environment protection and abatement of climate change
  - More visible contribution to UN SDGs
  - Stimulate digitalisation across the board

I.e.: prepare for the Green Deal, Industry strategy & digitalisation under Horizon Europe

# THE LOOK AHEAD

# Realising the Vision 2050: the circular bio-society in 2050

## Definitions and actions

### **Bioeconomy:**

The EC: 'the bioeconomy comprises those parts of the economy that use renewable biological resources from land and sea – such as crops, forests, fish, animals and micro-organisms – to produce food, materials and energy.'

### **Circular bioeconomy:**

Nova-Institute: the circular bioeconomy is the combination of circular economy and bioeconomy and utilises much better the bio-based side streams and links different industrial sectors, traditionally non partners in value chains.

### **Circular bio-society:**

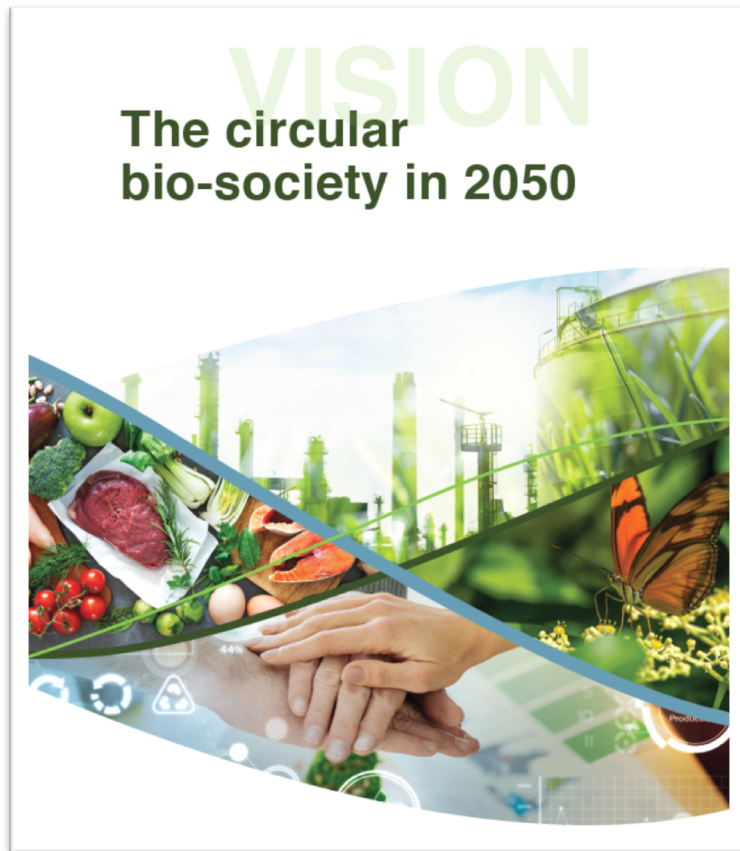
BIC and 15 associations: need to include the citizens in the process to achieve behavioural change

The change we're pursuing is 'purchasing and consumption behaviours that are different than traditional 20<sup>th</sup> century ones':

- Circular, and not linear
- With products/services that are recyclable or degradable
- With informed and engaged citizens
  - With industry providing transparent communications on the benefits and user-friendly tools for citizens to interact with the industry



# Vision 2050



By 2050, Europe will have a **sustainable** and **competitive** bio-based industry providing jobs and growth that contribute to a **circular bio-society**.

In this circular bio-society, **informed citizens** choose a sustainable way of life, supporting an economy that couples economic growth with **societal well-being** and respect for the **environment**.

# Partners

- All associations that are stakeholders in a bioeconomy:  
Confederation of European Forest Owners (**CEPF**), Confederation of European Paper Industries (**CEPI**), European Association for Bioindustries (**EuropaBio**), European Association of Sugar Manufacturers (**CEFS**), European Bioplastics (**EUBP**), European Farmers and European Agri-Cooperatives (**Copa-Cogeca**), European Renewable Ethanol Producers Association (**ePURE**), European Starch Industry Association (**Starch Europe**), European Vegetable Oil and Protein Meal Industry (**FEDIOL**), Forest-based Sector Technology Platform (**FTP**), Primary Food Processors (**PFP**), European Agricultural Machinery Industry (**CEMA**), European Chemical Industry Council (**Cefic**), European Technology Platform '**Food for Life**', European Technology Platform for Sustainable Chemistry (**SusChem**)
- Consulted organisations representing NGOs (Institute for European Environmental Policy, Zero Waste Europe) for a better and clear link to the SDGs; and municipalities.

# SIRA2030: the roadmap towards Vision 2050; focus on impacts

Change from current structure

## Impacts that we pursue:

1. Create new business models to integrate strategic partners
  - a) Cross-sectoral, involving primary sectors and market actors as full-fledged partners/beneficiaries
2. Commercialise sustainable products and services to meet market demand and create employment
  - a) delivering sustainable and competitive products/services meeting market demand
3. Establish carbon-neutral value chains to mitigate climate change
4. Establish new purchasing and consumption patterns to create a circular bio-society
  - a) maintaining nutrients and water balances
  - b) nurturing the soil
  - c) protecting the environment

Each will contribute to specific UN's SDGs and to EU policies and regulations

# SIRA2030 content

## What we need:

- People with the right skills and competencies
- Biomass feedstock and waste in sufficient and sustainable quantities
- Applicable technologies, incl. digitalisation
- Value-adding and sustainable innovation and breakthrough R&D
- Supporting regulation
- Acceptance/endorsement/demand of sustainable products and services
- Investments, incl. public co-funding to resolve market failure



# European partnership on 'Circular Bio-based Europe'

EU Commission's proposal



Ref. Ares(2019)4972449 - 30/07/2019

INCEPTION IMPACT ASSESSMENT	
Inception Impact Assessments aim to inform citizens and stakeholders about the Commission's plans in order to allow them to provide feedback on the intended initiative and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to make available any relevant information that they may have, including on possible impacts of the different options.	
TITLE OF THE INITIATIVE	European Partnership on 'Circular bio-based Europe: sustainable innovation for new local value from waste and biomass' (Sustainable, inclusive and circular bio-based solutions)
LEAD DG (RESPONSIBLE UNIT)	DG Research and Innovation (RTD.C1)
LIKELY TYPE OF INITIATIVE	Proposal for a Council Regulation for a European Partnership on Circular bio-based Europe under Horizon Europe
INDICATIVE PLANNING	Q1 2020
ADDITIONAL INFORMATION	-
<b>The Inception Impact Assessment is provided for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by the Inception impact assessment, including its timing, are subject to change.</b>	
<b>A. Context, Problem definition and Subsidiarity Check</b>	
<b>Context</b>	
The proposal for Horizon Europe, the future EU's future research and innovation (R&I) programme for 2021-2027, outlines the approach (Article 8) and criteria (Annex III) for R&I partnerships under the umbrella term 'European Partnerships'. According to the political agreement between the Council and European Parliament, "European Partnerships shall be established for addressing European or global challenges only in cases where they will more effectively achieve objectives of Horizon Europe than the Union alone and when compared to other forms of support of the Framework programme". The overall financial framework for the upcoming partnerships still has to	

- Based on an 'inception impact assessment'
- The intent is to build on the achievements of the BBI JU
- The format of the PPP is not decided yet

# EC expectations from the partnership CBE

## Sustainable and strong Europe

- Use biomass and waste to replace non-renewable fossil and mineral resources
  - **Valorise/use by-products**; recycle nutrients
  - increase the **circularity of agri-food systems**
  - Produce **renewable products and nutrients**
- Create **sustainable and climate-neutral solutions** to accelerate the transition to a healthy planet
  - Provide durable carbon sink opportunities
- Support renewal of the EU's industrial base
  - **Demonstrate biorefinery operations** and **keep sustainable innovation in Europe**
- Create **awareness, capacity and structures, mobilising** industry partners, producers of biological resources and **end users**
- Create a **long-term scientific and technological basis** in the EU

# Challenges to realise the full potential of the sector

EC's perspective

- **Technological and innovation challenges**
  - To develop reliable and competitive supply chains for sustainable biomass; and
  - processes for converting biomass into industrial products
- **Multi-sectoral nature** of the bio-based sector
  - with fragmented value chains and untried or non-existent industrial ecosystems
- **Wide range of applicable policies** (agriculture, waste, industry, fertilisers, chemicals, etc.)
  - at EU, national and regional level, leading to a complex and sometimes fragmented policy environment
- **High risk and large capital expenditure** required to demonstrate and deploy large biorefineries;
- **Uncertainty around feedstock availability and costs.**

# BIC's preference format: an institutional PPP

Capitalising on the work of BBI JU

With an iPPP:

- Budget is known; with agreed commitments
- Agreed roadmap with milestones: the SIRA 2030, leading to the Vision 2050
- Industry leads the specification of topics for the annual work plans: best way to
  - mobilise actors, bring together untraditional partners from wide spread of different sectors, disciplines and regions
  - (re)structure the industrial landscape and
  - foster the development of the emerging bio-based industry
- BIC coordinates a broad alliance of industrial sectors, all stakeholders of a circular bio-society in Europe
  - Increasing the commitment level to make the PPP a success

We're now in the process with the EC to obtain more clarity/insight into the detailed conditions of an iPPP to firm up our commitments.



Thank you!