



BBI JU

INFO DAY 2019

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*Alcide de Gasperi room, Charlemagne building,
European Commission, Brussels*

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Session 1 | Keynote speeches

BBI JU as a spearhead initiative mobilising investment in Europe

Alex Michine

CEO, Metgen

Member of Board of Directors, BIC

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A € 3,7 billion public-private partnership

BIC is the private partner in the BBI JU

About Bio-based Industries Joint Undertaking (BBI JU)

- Public-Private Partnership (PPP) with European Commission (Horizon 2020)
- PPP aims to invest € 3.7 billion in bio-based innovation (2014 to 2020)

About Bio-based Industries Consortium (BIC)

- BIC represents the private sector in the BBI JU
- > 220 **industry members (from 45+ in 2013)**: across the value chain and sectors, of which over 80% SME
- > 160 **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**

Cornerstones of BBI JU success

Highlights of SME participation

BBI JU offers a unique opportunity for innovative SME to play important and often leading role in bringing innovation to market

BIC membership: 2/3 of BIC industry members are SMEs

Creating opportunities by providing funding for “proof of concept” via demo projects

Offering the chance to collaborate with large industries and

Move TRL all the way to be qualified for Flagship

Through Demo and Flagship participation open up new opportunities for external financing

Cornerstones of BBI JU success

Highlights of Structuring effect

BBI JU and BIC created unique cross-sectoral boundaries:

development of new innovative value chains, such as

- the food industry collaborating with the chemical industry

- the pulp & paper sector collaborating with chemical and textile industry (e.g. the Neocel project),

- the marine with the chemical/cosmetics industry

- agriculture and home care

- the forestry and the automotive sectors

Increased market focus:

- delivering better products to the market and responding to consumer needs through a growing participation of brand owners and end-users in projects

- by shortening time to market for innovative bio-based products.



METGEN AT GLANCE

- 10 years old SME, 25 employees. Offices and pilot facility in Kaarina, Finland and Geleen, Netherlands
- MetGen's core competencies lie in protein engineering, microbiology, and industrial biotechnology
- Tailor-made industrial enzymatic for bio-based solutions
- Enzymes for renewable chemicals, pulp&paper, water treatment, and biogas sectors
- MetGen aims to significantly contribute to the economics and sustainability of process industries such as pulp & paper, biofuels, and biochemicals.
- Technology platform to create and supply new enzymes at scale with industry leading speed
- Strong IP portfolio
- Wide collaboration network & the preferred enzyme developer in EU Horizon 2020 projects
- To this date, MetGen has been awarded in total 12.7 M€ as EU H2020 grants for 11 ambitious projects

INDUSTRIAL ENZYMES FOR

Biorefineries and Renewable Chemicals



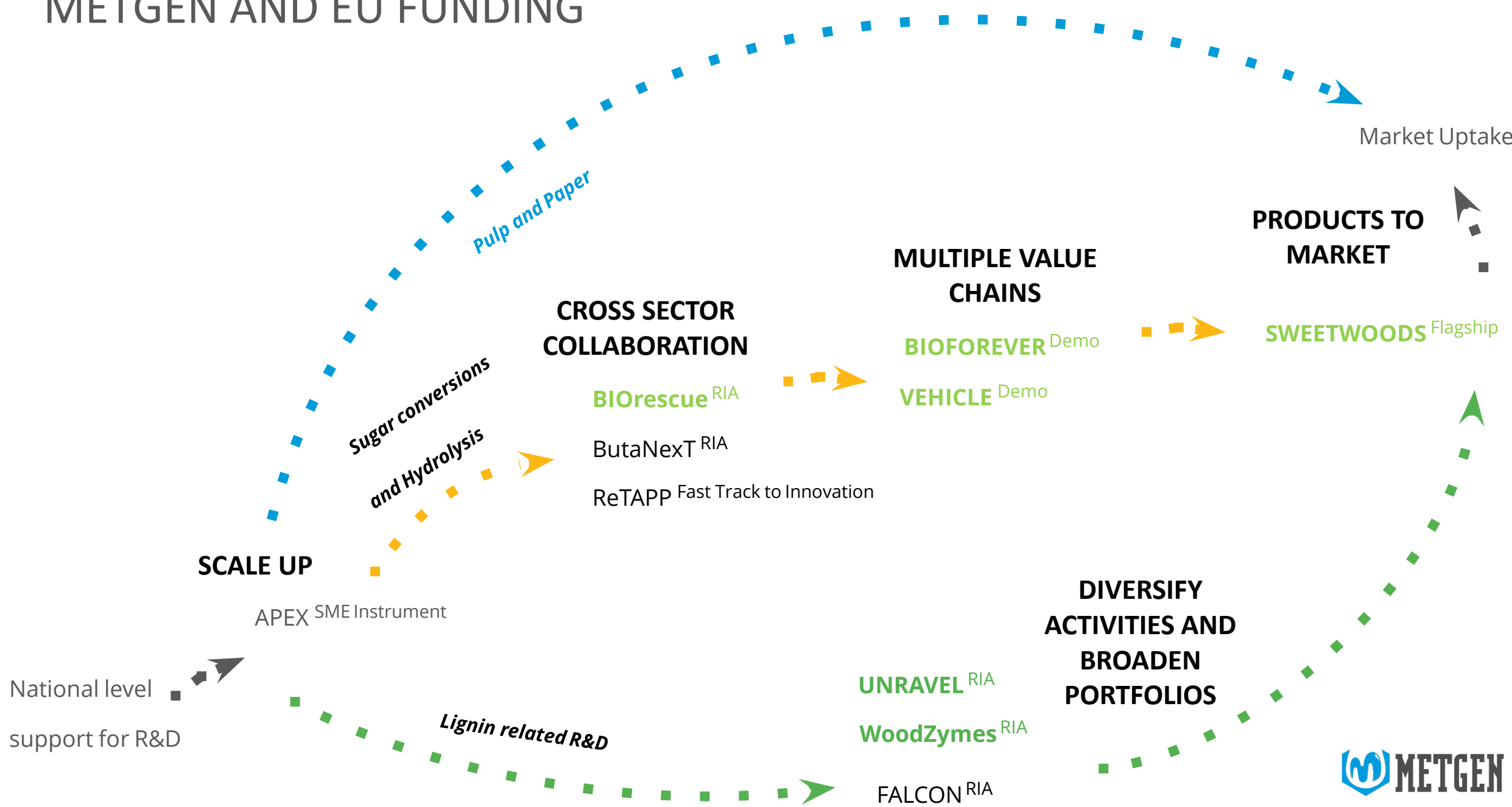
Enzymes used to obtain sugars from cellulose and other valueable renewable chemicals from hemi and lignin fractions

Making industry sustainable by:

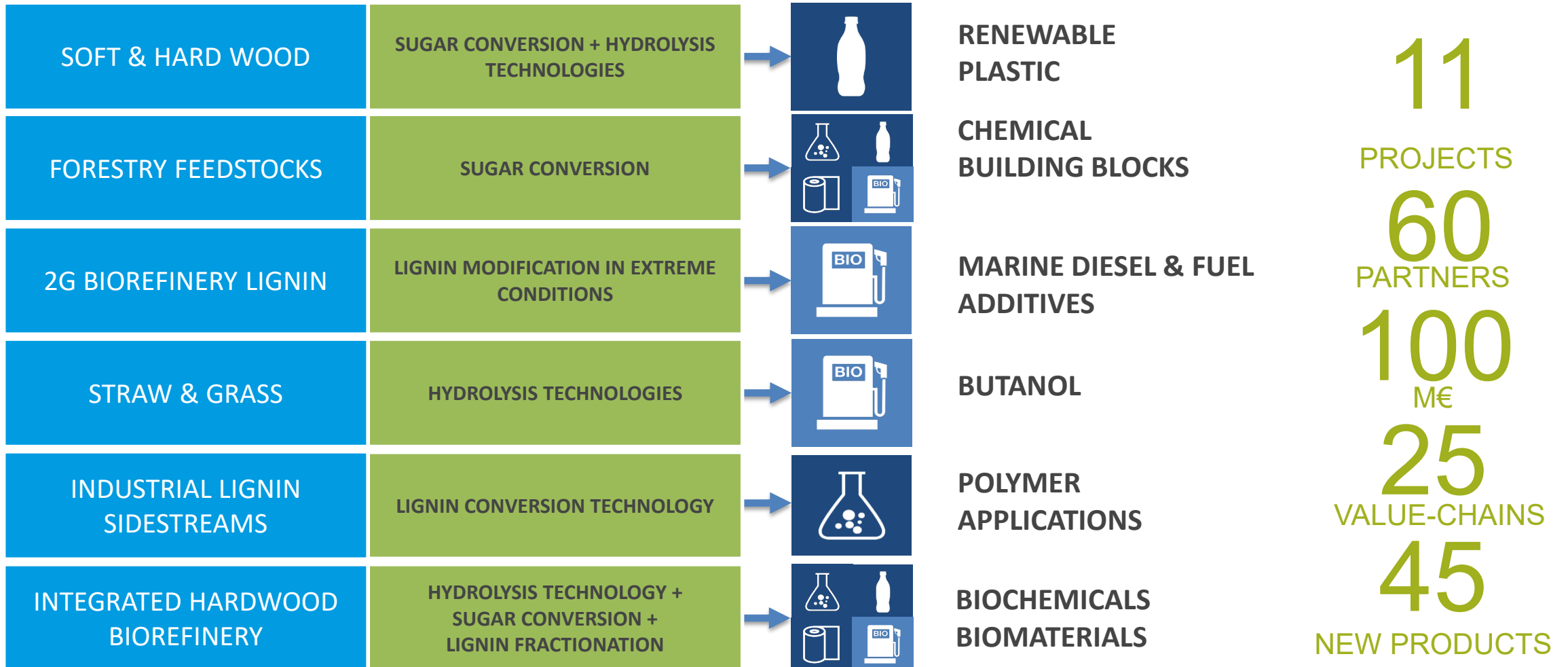
- Enabling new & better products
- Making modern biorefineries actually economically viable

Also supply enzymes for pulp&paper, biogas and waste water sectors

METGEN AND EU FUNDING



METGEN'S ENZYMATIC TECHNOLOGIES & VALUE-CHAINS IN EU PROJECTS



SWEETWOODS PROJECT

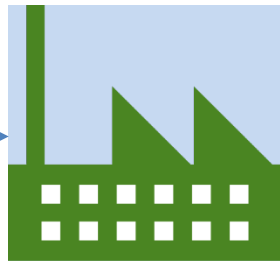
43 M€ INTEGRATED BIOREFINERY FLAGSHIP



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Sustainable
hardwood biomass



23%

LIGNIN

67%

SUGARS



Polyurethane foams
Elastomeric foams
Biocomposites
Cosmetics
Carbon nanofiber
Car tires
Aromatics
Resin for MDF,
plywood, paints...



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Bio-Isobutene
2G Ethanol
PLA
Xylitol

Fructose & Glucosone
for Renewable Platform
chemicals, including
bioplastics such as PEF

LSCA: 2B S.p.A – Technology viability: Vertech – Project management: Spinverse

METGEN AND BBI JU FUNDING. SUCCESS STORY

- BBI JU and BIC open innovation approach is aligned with own MetGen strategy : to be the best in what we are doing and collaborate for getting maximum impact of our solutions on consumers, society and environment
- MetGen only applies for projects where we have a clear role, and our activities are according to our strategy.
- The programme has provided an ideal opportunity for MetGen to increase the TRL levels of our products.
- As part of the BBI JU and BIC, a SME can collaborate with large industry players. As a result, MetGen has great opportunities to prove their place in the new value chain(s).
- We have been able to move forward in three key areas: aiding the demonstration and deployment of novel technologies to enable new chemicals, building blocks, materials and consumer products to commercial level; developing value chain in linking biomass production through to B2B and B2C in the market; and setting up flagship biorefinery
- We fully convinced that a institutional private-public partnership for the bio-based industries should be part of Horizon Europe.

Vision “The circular Bio-society in 2050”

Additional sectors & widening value chains



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.

Mobilising stakeholders

BIC is driver to widen scope of BBI in line with EU policy objectives

This Vision is the result of the collective work by the Bio-based Industries Consortium (BIC) and its members, the BBI JU's advisory bodies: the States Representatives Group and Scientific Committee, and the following organisations:

- **European Bioeconomy Alliance (EUBA) and its members:**
 - ✓ (Confederation of European Forest Owners (CEPF);
 - ✓ Confederation of European Paper Industries (CEPI);
 - ✓ European Association for Bioindustries (EuropaBio);
 - ✓ European Association of Sugar Producers (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)**

The Institute for European Environmental Policy (IEEP) has been consulted in this process.

A new BBI JU under Horizon Europe

A strategic Research and Innovation Agenda as the basis for a new PPP

SIRA: Important tool to realise and implement **four** pillars of vision with involved stakeholders (primary producers, industry, academia, EU, society)

1 Foster food security for a growing world population and meet demand for sustainable products

Through integrated, efficient production of food, feed, bio-based products, services and energy with minimal environmental impact.

2 Contribute to a sustainable planet

With carbon-neutral value chains, using natural resources optimally, protecting the environment, adding value to society and the economy.

3 Create jobs and growth in the circular bioeconomy

With value chains that mobilise available and potential local feedstock, making products that meet demand and benefit all actors.

4 Achieve a circular bioeconomic society

Through effective networks of innovation and knowledge centres, connecting industrial actors, investors and municipalities across boundaries of geography and competence, with informed and participating citizens.

MAIN MOTIVATIONS AND DRIVERS TO PARTICIPATE TO THE BBI JU PROGRAMME

- Working in BBI JU projects enables to develop contact network and find cooperation possibilities in multiple industry segments.
- Open innovation throughout the value chain has proven a powerful tool to impact the industry far beyond what would be possible any company/research organisation working alone.
- BBI JU and BIC offer an unique opportunity for development novel technologies from lower TRL levels to commercial products and industrially integrated technologies gradually through collaborative projects.
- Large-scale operators and small size businesses work side by side. With the frames provided by each BBI JU call, the project cooperation partners have an easier task finding each other and seeking mutual ground to work upon.
- To work on a research, demonstration or business case, the BBI JU provides an ideal platform to proceed to solve a specific challenges at hand.

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Thank you!

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