



THE BIO-BASED INDUSTRIES

Public-Private Partnership

BBI JU

State of play

2014 call for proposals

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**MINISTERIUM
FÜR EIN
LEBENSWERTES
ÖSTERREICH**

Österreichische Delegierte HORIZON 2020 Societal Challenge 2 "Food security, sustainable agriculture, marine and maritime resources & the bioeconomy"
Österreichische Delegierte BBI JU States Representatives Group

Bio-based Industries Joint Undertaking

Public Private Partnership **supporting R&I for bio-based industries:**

- **Partners: European Commission and Bio-based Industries Consortium (BIC)**
- **Budget: € 3.705 billion** (about 75% from industry)
- **Implementation:**
 - Principles of **openness, transparency and excellence**
 - Horizon 2020 rules for participation
- **Objectives: New bio-based value chains for Europe based on 2nd generation/advanced biorefineries.**



HORIZON 2020

Societal Challenges:

- SC2 Bioeconomy
- SC3 Energy
- SC5 Environment

Industrial Leadership:

- KET Biotechnology
- SME Instrument, RSFF/EIB
- SPIRE

EIT:

- Raw Materials KIC
- Food4Future KIC



**Smart Specialisation
Strategies (3S):**

- Research & Innovation
- Shift to low-carbon economy



**European Innovation
Partnerships (EIPs):**

- AGRI
- Water
- Raw Materials

**National bioeconomy R&I
programmes**

Biobased Industries Consortium

More than 170 in one year, and still growing

■ 69 Full members

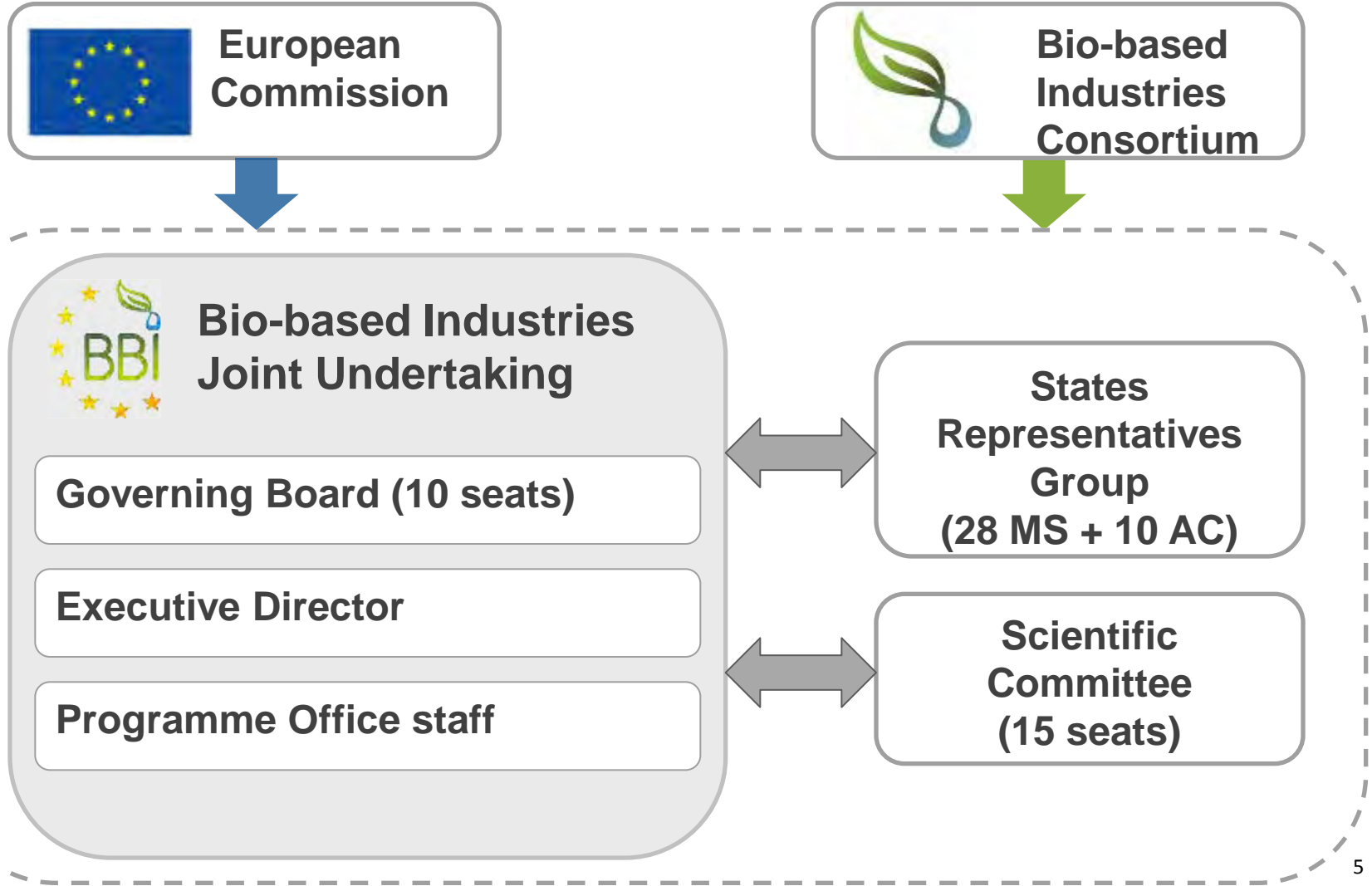
- 40 Large industries
- 17 SMEs
- 12 Clusters

■ 103 Associated members

- 33 Universities
- 55 RTOs
- 8 European trade organisations
- 4 Associations
- 3 European Technology Platforms (ETPs)



BBI JU Governance



Strategic Innovation & Research Agenda

- **Value Chain 1: From lignocellulosic feedstock to advanced biofuels, bio-based chemicals & biomaterials** realising the feedstock and technology base for the next generation of fuels, chemicals and materials
- **Value Chain 2: Next generation forest-based value chains** utilisation of the full potential of forestry biomass by improved mobilisation and realisation of new added value products and markets
- **Value Chain 3: Next generation agro-based value chains** realising the highest sustainability and added value by improved agricultural production, and new added value products and markets
- **Value Chain 4: New value chains from (organic) waste** from waste problems to economic opportunities by realising sustainable technologies to convert waste into valuable products
- **Value Chain 5: Integrated energy, pulp and chemicals biorefineries** realising sustainable bio-energy production, by backwards integration with biorefinery operations isolating higher added value components



WP2014: Types of actions

➤ **RESEARCH AND INNOVATION ACTIONS**

Focussed on solving specific technological bottlenecks acting as a barrier to realise a value chain.

➤ **INNOVATION ACTIONS - DEMONSTRATION PROJECTS**

Addressing a full value chain from growth/procurement of feedstock to end product(s), establishing a new production process and demonstrating its viability for full scale replication.

➤ **FLAGSHIP PROJECTS**

Developing a first-of-its-kind industrial facility by addressing the complete value chain from feedstock to end product(s); Both by building new operations and upgrading existing and abandoned industrial sites to be converted into biorefinery operations.

2014 ANNUAL WORK PLAN BASIC FIGURES

- **16 Topics:** 10 Research and Innovation (RIA), 5 Demonstration, 1 Flagship covering 4 of the 5 value-chains described in the Strategic Innovation and Research Agenda (SIRA)
- The **estimated budget** for 2014 is 200 M€ (50 M€ from the EU and 150 M€ from the industry).

	Budget (Million Euros)
RIA	15
DEMONSTRATION	18
FLAGSHIP	17



High competition between topics (RIA and DEMO) expected

WP2014: Topics & TRLs

Technology Readiness Levels		PPP funding category	Scale*
9	Actual system proven (successful operation, production of final product/service)	Commercial - no funding	Commercial scale (After flagship project or 'replication' of existing plant)
8	Whole process demonstration completed at scale and product qualified through test	Innovation action - Flagship	*Comparable to commercial scale/ 1st-of-a-kind in Europe
7	Process demonstration in operational environment (integration) at demo scale	Innovation action - Demo	*Small production unit/ demo scale
6	Sub-system or process step demonstration in relevant environment		
5	Pilot - Process step validation in relevant environment (separate process steps)	R&I action	"On the ground" equipments
4	Process validation in laboratory environment	R&I actions	"On the bench" equipments

* Scale varies strongly with the sector, process or product, and thus scale of project must be compared with existing production of same product (with e.g. different feedstock) or comparable product or production system.

R&I projects (up to TRL 5)

- BBI VC1.R1: Efficient pre-treatment of lignocellulosic residues to advanced bio-based chemicals and biomaterials
- BBI VC2.R2: New sustainable pulping technologies
- BBI VC2.R3: New products from sustainable cellulose pulp exploitation
- BBI VC2.R4: Fibres and polymers from lignin
- BBI VC2.R5: Sugars from effluents of the pulping process and discharged fibres
- BBI VC3.R6: Fermentation processes to obtain biosurfactants and specialty carbohydrates from agricultural and agro-industrial streams
- BBI VC3.R7: Protein products from plant residues
- BBI VC3.R8: Bioactive Compounds from meso-organism conversion
- BBI VC4.R9: Valuable products from heterogeneous biowaste streams
- BBI VC4.R10: Nutrient recovery from biobased waste streams and residues

Demo projects (TRL 6-7)

- BBI VC1.D1: Lignocellulosic residues to (di)carboxylic acids, diols and polyols
- BBI VC1.D2: Chemical building blocks and value-added materials through integrated processing of wood
- BBI VC2.D3: Advanced products from lignin and cellulose streams of the pulp and paper industry
- BBI VC3.D4: Functional additives from residues from the agro-food industry
- BBI VC4.D5: Cost efficient manure valorisation on large scale

Flagship project (TRL 8)

- BBI VC3.F1: Added value products from underutilised agricultural resources

More information on the BBI JU 2014 call for proposals

<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-bbi-ppp-2014-1.html>

The screenshot shows the 'Find a Call' interface on the European Commission Participant Portal. The main heading is 'Horizon 2020 Calls for Proposals'. On the left, there are navigation menus for 'My Organisation(s)', 'My Proposal(s)', 'My Project(s)', 'My Notification(s)', and 'My Expert Area'. Below these are sections for 'Horizon 2020' (Search Topics, Calls, Call Updates) and 'Other EU Programmes 2014-2020' (Research Fund for Coal & Steel, COSME, 3rd Health Programme, Consumer Programme). At the bottom, there is a section for 'FP7 & CIP Programmes 2007-2013'. The main content area features a search filter set to 'BBI' with a 'FILTER' button highlighted by a purple arrow. Below the filter, there are sorting options: 'Sort by' with radio buttons for 'Title', 'Call Id', 'Planned Opening Date' (selected), and 'Deadline Date'. The search results display 'Societal Challenges' and 'BIO-BASED INDUSTRIES PPP' with a deadline of 15/10/2014 and a planned opening date of 09/07/2014. A red box highlights the search filter and the 'FILTER' button.

Ihre Ansprechpartnerin in der FFG:

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Update: State of Play preparation for the 2015 call of proposals

	Date	Steps
2014	From July 10 until early September 2014	Extensive consultation, including: <ul style="list-style-type: none"> - Scientific Committee (Meeting 1 September 2014) - State Representatives Group (SRG) (Meeting 3 September 2014) - BIC members - European Associations - European Technology platforms
	End September	<u>First version of the scoping paper with overarching priorities for the 2015 (and 2016)* annual work plan.</u>
	End October	<u>Consultation of the SC and SRG</u> on the final version of the scoping paper prior finalisation and adoption by the GB.
	1 st December	First version of the 2015 annual work plan with topics by BIC
2015	End January	Final version of the 2015 annual work plan
	February 2015	<u>Adoption of an opinion on by the SRG</u>
	March/April 2015	<ul style="list-style-type: none"> - Adoption of the 2015 work plan by the Governing Board - Approve the calls as well as, where appropriate, the related rules for submission, evaluation, selection, award and review procedures
	April/May 2015	- Publication of the call for 2015
	September 2015	- Closure call
	Mid-October 2015	- Evaluation