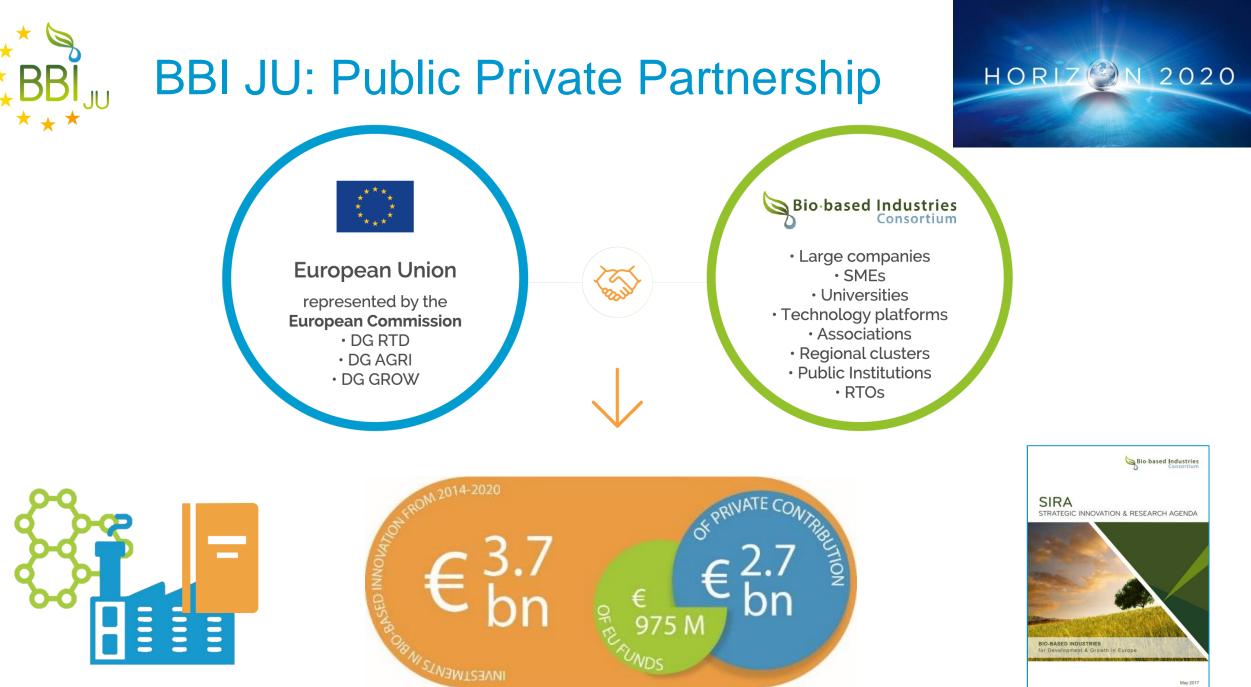




BBI JU in Ireland – Call 2019

Thomas Vyzikas BBI JU Project Officer Limerick, 22 May 2019





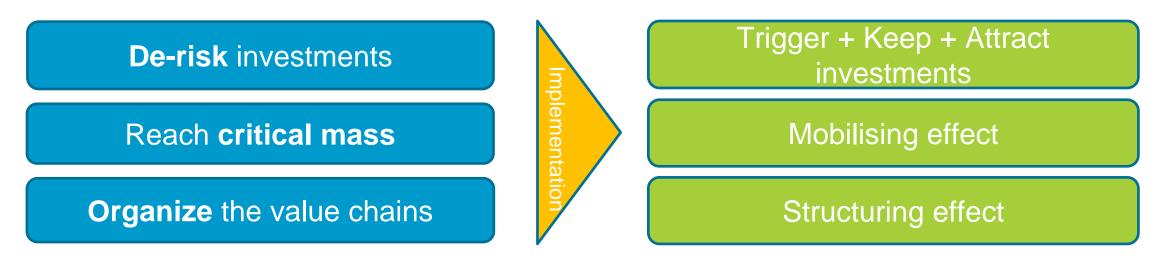


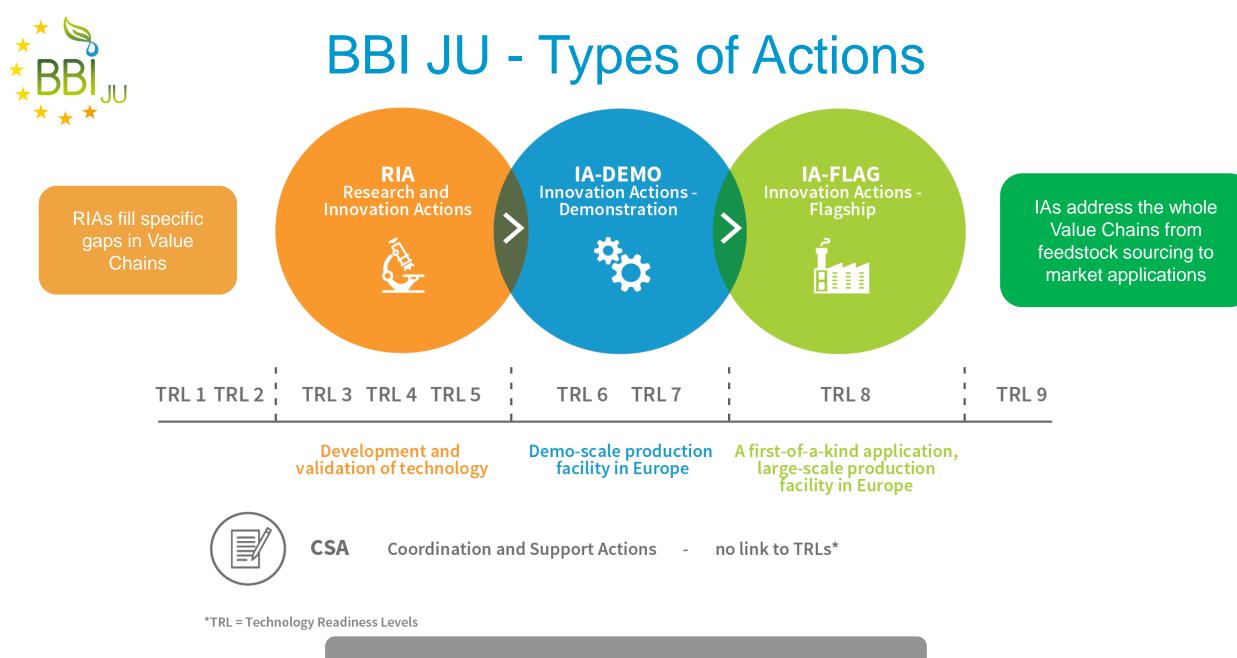
BBI JU was part of the EU Bioeconomy Strategy in 2012

Mission

Under Horizon 2020 rules, implement the Strategic Innovation and Research Agenda (SIRA) developed by the European Bio-based Industries Consortium (BIC) and endorsed by the European Commission (EC)

European public-private partnership (iPPP) aims at:

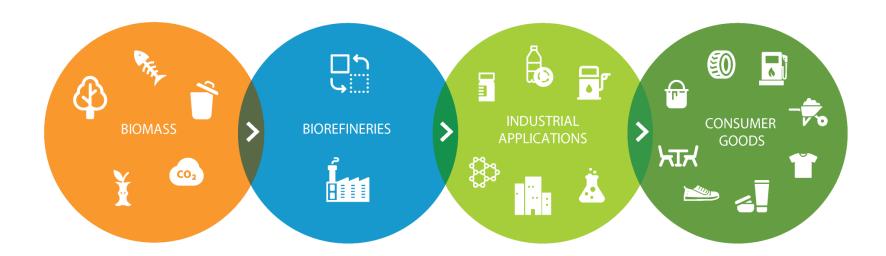




CSAs address non technological challenges of Value Chains



BBI JU Impact



By 2030

50% greenhouse gas emissions

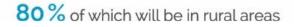
20% biomass supply

25% mobilization of unused sources

30% replacement of petroleum-based products

✗ 10 times more bio-based materials

400.000 skilled jobs by 2020 rising to 700.000 skilled jobs by 2030





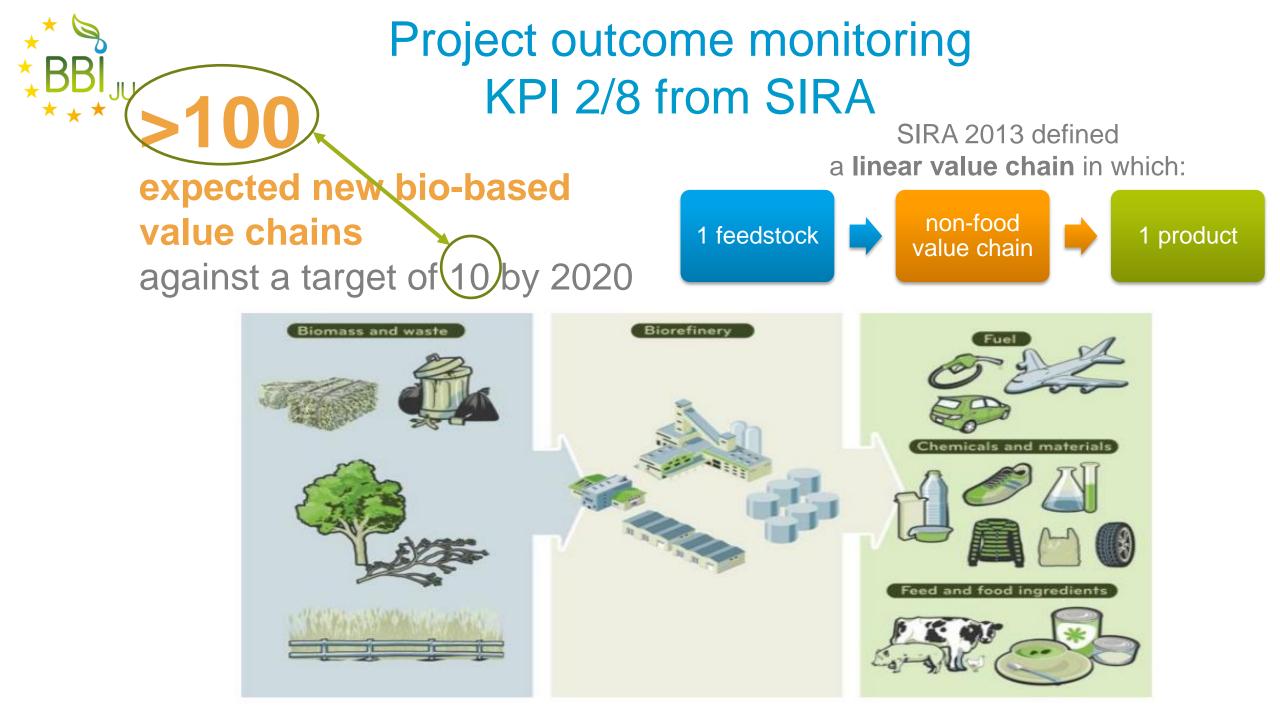
How to measure outcomes and impact

- **KPI1** New cross-sector interconnections
- KPI 2 New bio-based value chains
- **KPI 3*** BBI JU Cooperation projects
- KPI 4 New bio-based building blocks
- KPI 5 New bio-based materials
- KPI 6 New bio-based consumer products
- KPI 7* BBI JU flagships projects
- KPI 8 'TRL' gain

Socio-economic and environmental impact

- All topics address KPI 3 and socioeconomic and environmental impact
- KPIs specific to
 - RIAs: KPI 8
 - IAs: KPI 6
 - FLAGs: KPI 7
- KPIs 1, 2, 4 and 5 are present in all type of actions

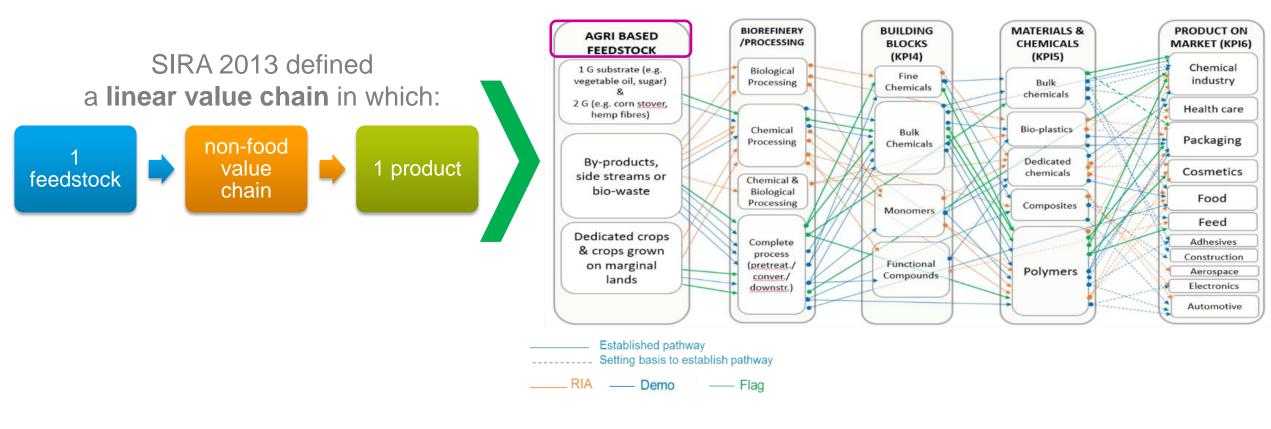
KPIs assessed during the evaluation!





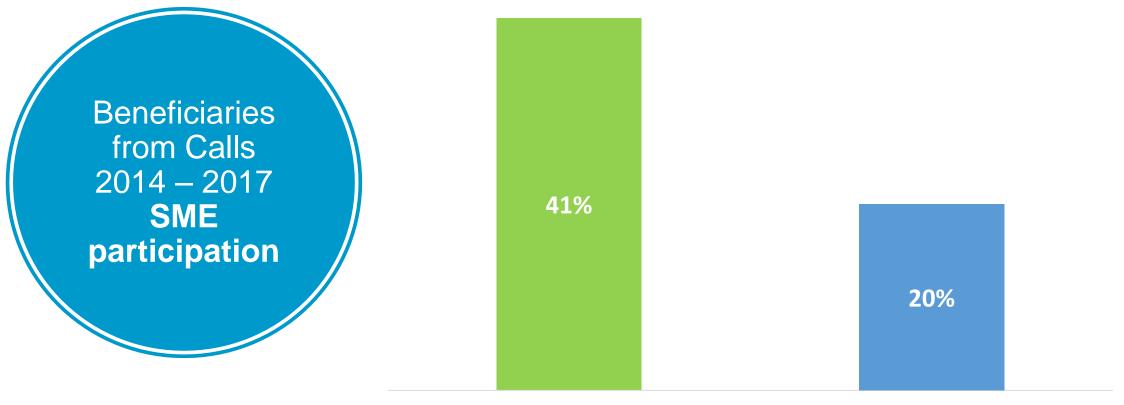
Project outcome monitoring KPI 2/8 from SIRA

The reality of the sector





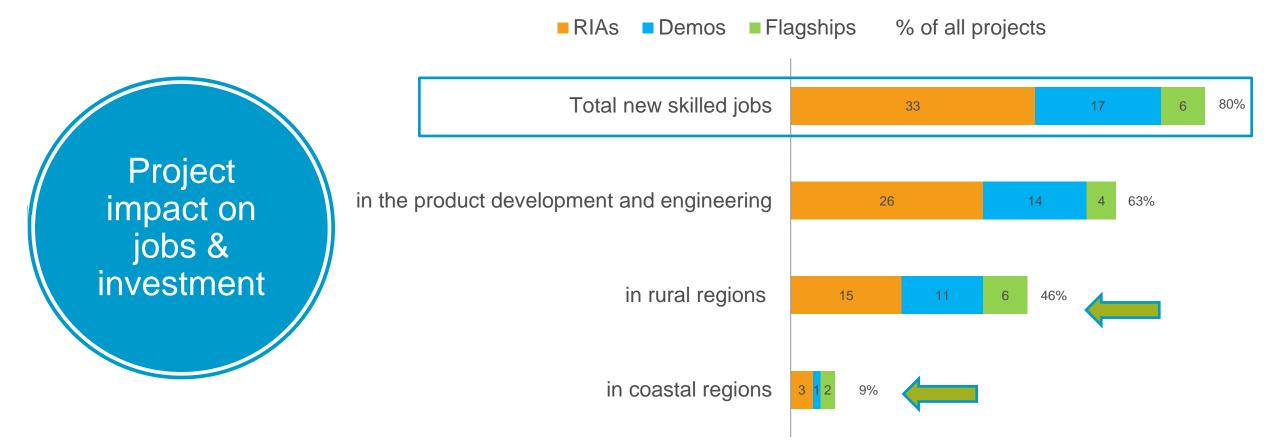
High representation by SMEs

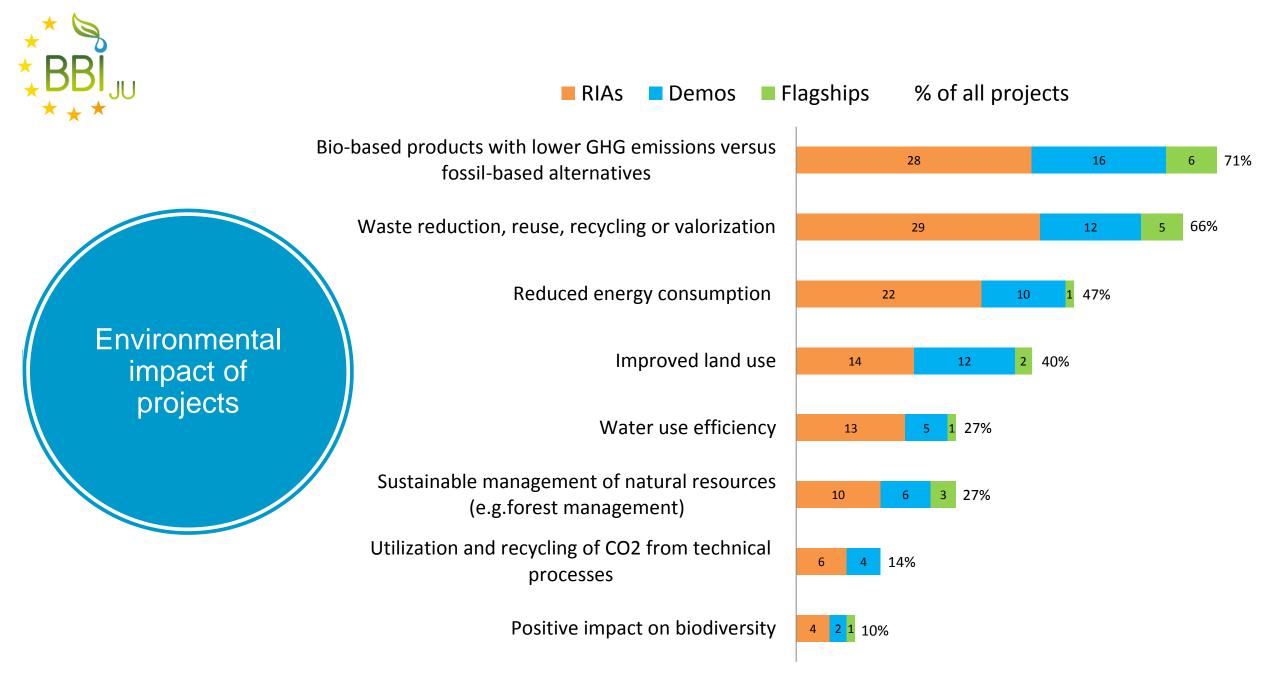


BBI JU 2014-2018

H2020 SME participation











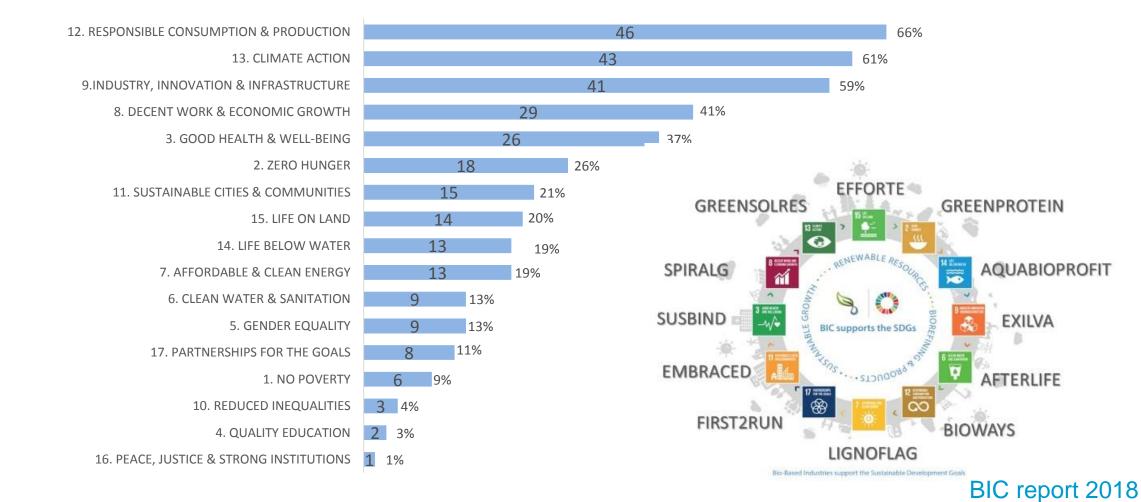


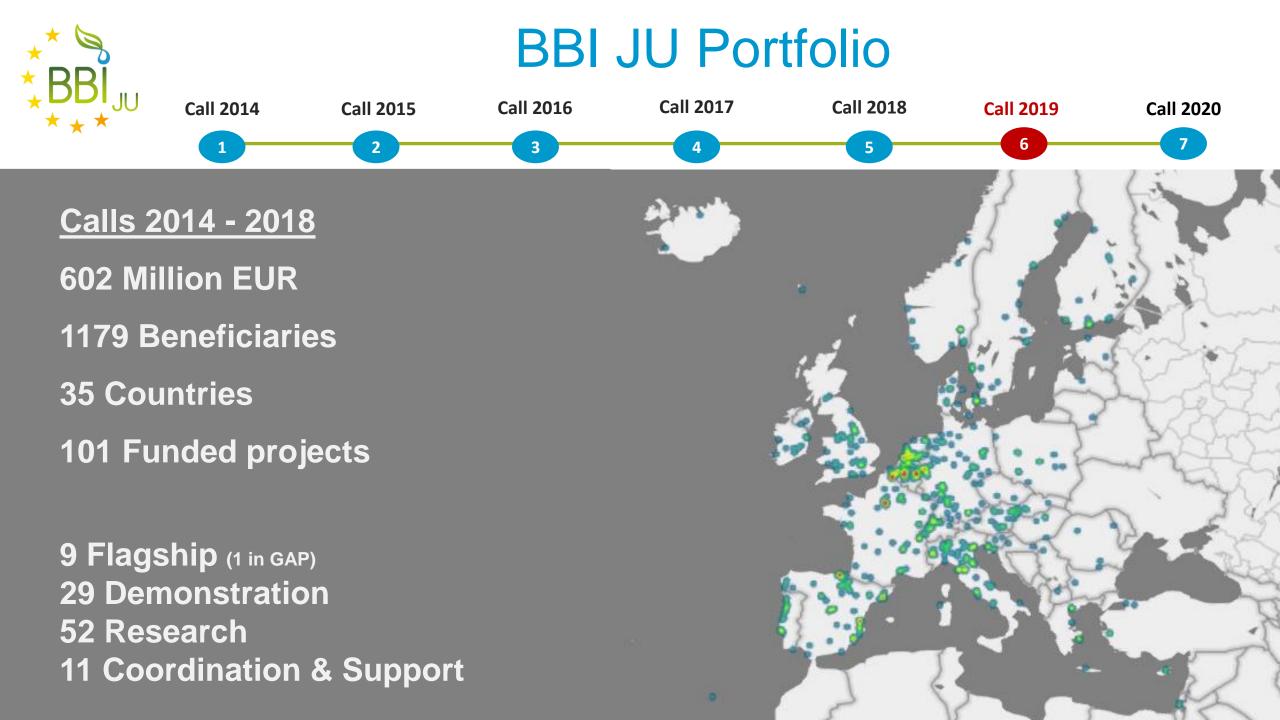
Project contribution to UN SDGs



Contribution to BBI JU to the SDGs

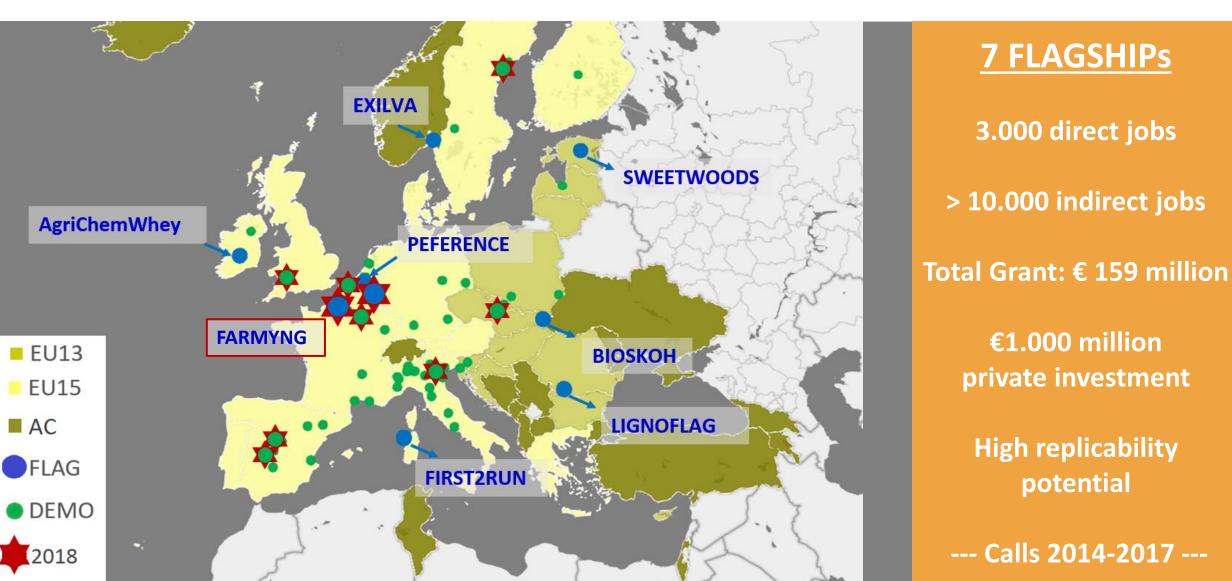
Number and percentage of projects reporting an expected contribution







FLAG and DEMO biorefineries





BBI JU activities in Ireland



(*) EU public contribution for Calls 2014-2017



BBI JU projects in Ireland



first-of-its-kind flagship biorefinery converting dairy sidestreams into bioproducts



36% of beneficiaries are **SMEs**

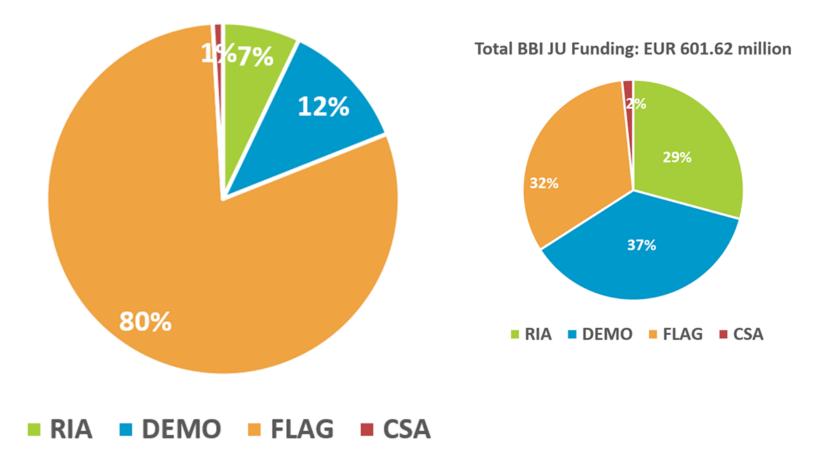






BBI JU funding to Irish beneficiaries per type of action

Total BBI JU Funding to Ireland EUR 22.29 million





BIC membership

Irish beneficiaries

BBI JU beneficiaries 209 7 196 774 13 Full Associated No

*Data of BIC membership as declared on 05/03/2019

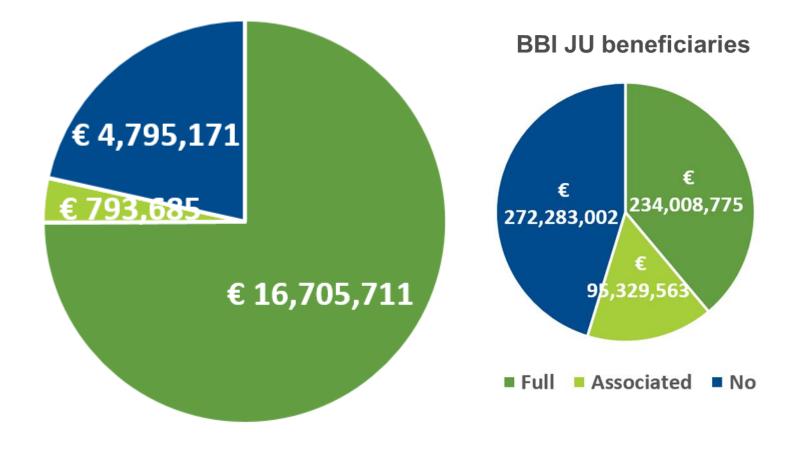
Full Associated No



Funding to BIC members

Irish beneficiaries

Full Associated



No

*Data of BIC membership as declared on 05/03/2019



A well balanced project portfolio Calls 2014 + 2015 + 2016 + 2017 + 2018 (*)

		Per Type of Action		
	Origin of feedstock	RIA	DEMO	FLAGSHIP
Per SO1 Feedstock	Agri-based	Carbosurf, PROMINENT, LIBBIO, HYPERBIOCOAT, Zelcor, BIOrescue, EnzOx2, InDIRECT, BioBarr, SSUCHY, ReSolve, BIOSMART, ECOXY, REFUCOAT, POLYBIOSKIN NEWPACK, Pro-Enrich, Prolific, EXCornsEED, VIPRISCAR iFermenter, USABLE PACKAGING, ECOAT		
	Forest based			
	Bio-waste and CO₂			
	Aquatic Biomass			
Per SO4 Market uptake	SO4	Policy, regulations and standardization	Consumer awareness of the benefits of the bio based products	Knowledge gathering and networking
	CSA	STAR4BBI	BioCannDo, BIOWAYS BIOBRIDGES	BIOPEN, Pilots4U, RoadToBio ICT-BIOCHAIN CELEBio, UrBIOfuture, LIFT



A well balanced project portfolio Calls 2014 + 2015 + 2016 + 2017 + 2018 (*)

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	Forest based			
	Bio-waste and CO₂			
	Aquatic Biomass			
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Examples of BBI JU projects * in Ireland



By using a first-of-its-kind integrated biorefinery, **AgriChemWhey** proposes to **convert dairy-processing sidestreams** into added-value products, developing rural communities by creating local jobs. Replicating this flagship biorefinery has the potential to create over **1,000 rural jobs** within four years of project completion.



LIBRE will utilise lignin-rich sidestream feedstock from the pulp and paper industry to create a more resource-efficient and lowemission production process creating higher quality carbon fibre. This will give a competitive edge to end user sectors such as transportation, renewable energy and construction.

(*) More information about EU grant contribution to projects can be found on BBI JU website: <u>https://www.bbi-europe.eu/projects</u>



Examples of BBI JU projects * in Ireland



FUNGUSCHAIN extracts value from the agricultural waste of **commercial mushroom farming** and produces a spectrum of biobased products, notably food **supplements for the elderly and plastic products**. It uses environmentally friendly techniques that SMEs and **local** industries can adopt thus stimulating local entrepreneurship and developing rural areas.

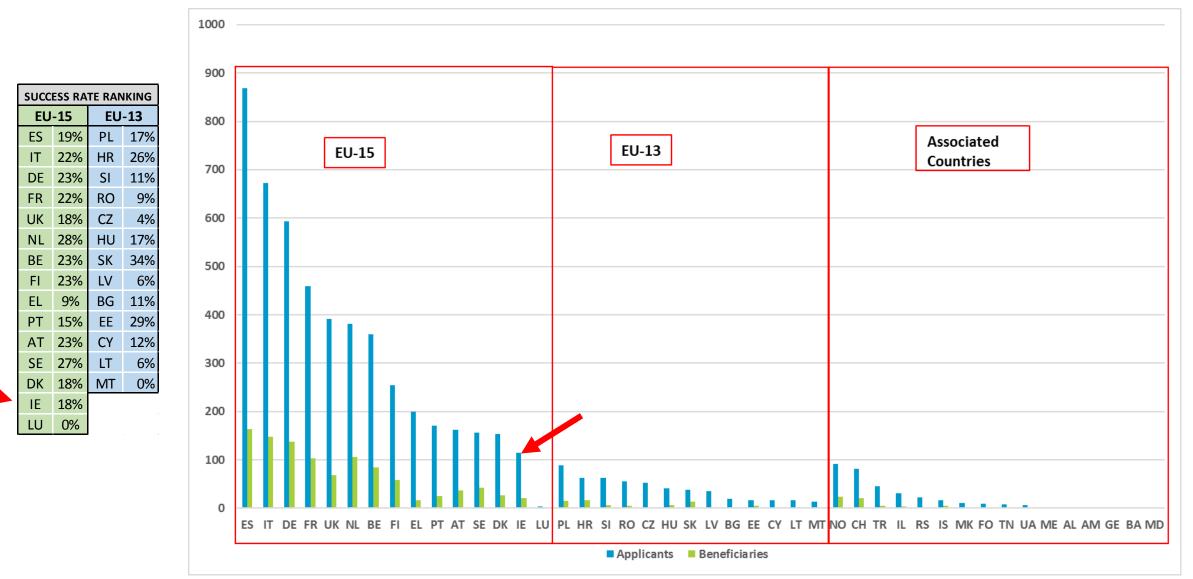


BIOrescue aims to develop the concept of an **integrated bioproduction process** based on the cascading use of spent **mushroom substrate**. Its replication in other mushroom production sites will bring environmental and economic benefits and address the need for development in rural areas across Europe.

(*) More information about EU grant contribution to projects can be found on BBI JU website: <u>https://www.bbi-europe.eu/projects</u>

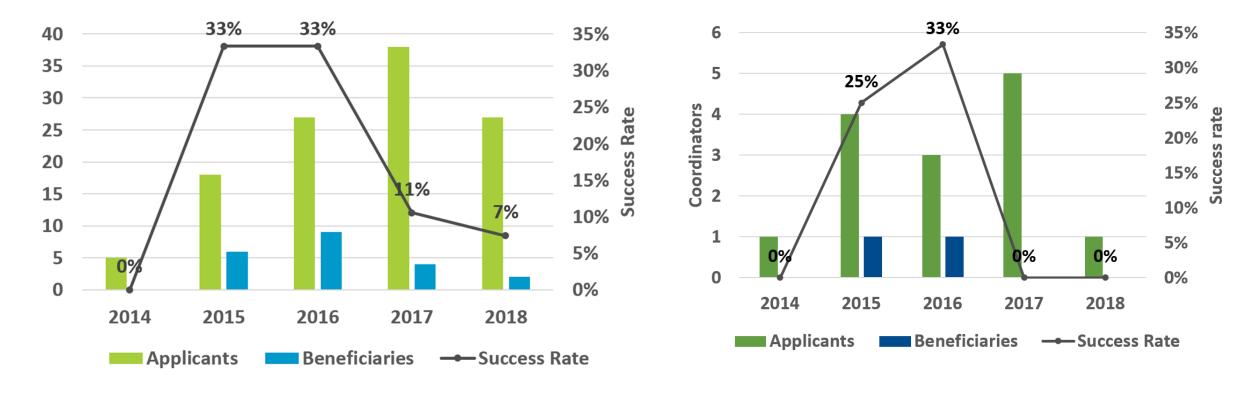


Beneficiaries vs Applicants Calls 2014-2018





Irish Participations BBI JU Calls 2014-2018



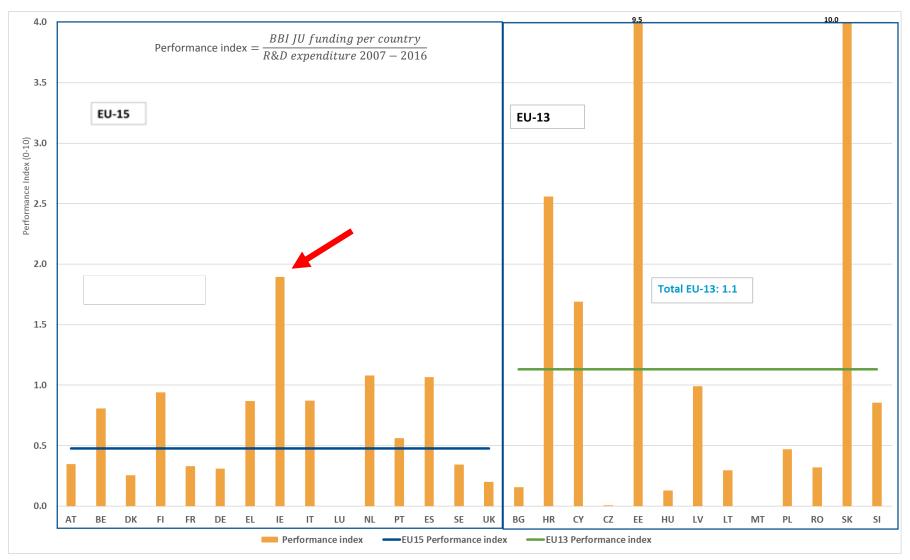
Partners

Coordinators



- Highest success comes from the EU13 countries Slovakia (BIOSKOH) and Estonia (SWEETWOODS)
- Despite the higher BBI JU funding received by EU15 countries in absolute terms, EU13 countries perform more than two times better, when normalized against R&D investment
- Ireland top performer in EU15, because of the FLAG (AgriChemWhey), but low mobilization in BBI JU

Distribution of funding in Calls 2014-2018 per country normalised by GERD





Unlocking the potential



Bioeconomy potential in Ireland

- The Irish government has recognised the potential of the bioeconomy and published a "National Policy Statement on the Bioeconomy" in February 2018.
- The recently created National Bioeconomy Research Centre (Beacon) and the Irish Bioeconomy Foundation (IBF) are creating an ecosystem linking fundamental and industry led research from lab to industrial scale and aim to turn Ireland's bioeconomy into a well-oiled, profitable machine.
- The bioeconomy's annual turnover in Ireland amounts to approximately EUR 60 billion and the sector employs more than 181 000 people.
- A first-of-its-kind Flagship biorefinery, that will contribute to the creation of over 1,000 jobs in a rural area, represents a significant part of the BBI JU activity in Ireland.



3 / 21 Topics

18 / 27 (67%) in

Irish applications in Call 2018 Where was the interest?

Number	Торіс	Strategic Orientation
 7 (26%) 1 beneficiary INGREEN 1 coordinator applicant 	D5 – Produce sustainable and cost- efficient <u>high-performance functional</u> <u>ingredients</u> from alternative sources	SO3: Develop innovative bio-based products for identified market applicationsProteins and active ingredients for feed/food, pharma and cosmetics
<mark>6 (22%)</mark>	R10 – Develop bio-based <u>packaging</u> products that are biodegradable/ compostable and/or recyclable	SO3: Develop innovative bio-based products for identified market applications Bio-based products that outperform fossil-based counterparts
5 (19%)	R1 – Resolve logistical, infrastructural and technological challenges to valorise residual and side streams from <u>aquaculture, fisheries and the aquatic</u> biomass processing industries	SO1: Expand the exploitation of under-utilised or new feedstock for the bio-based industries



Time to get involved Call 2019





Key Figures Call 2019

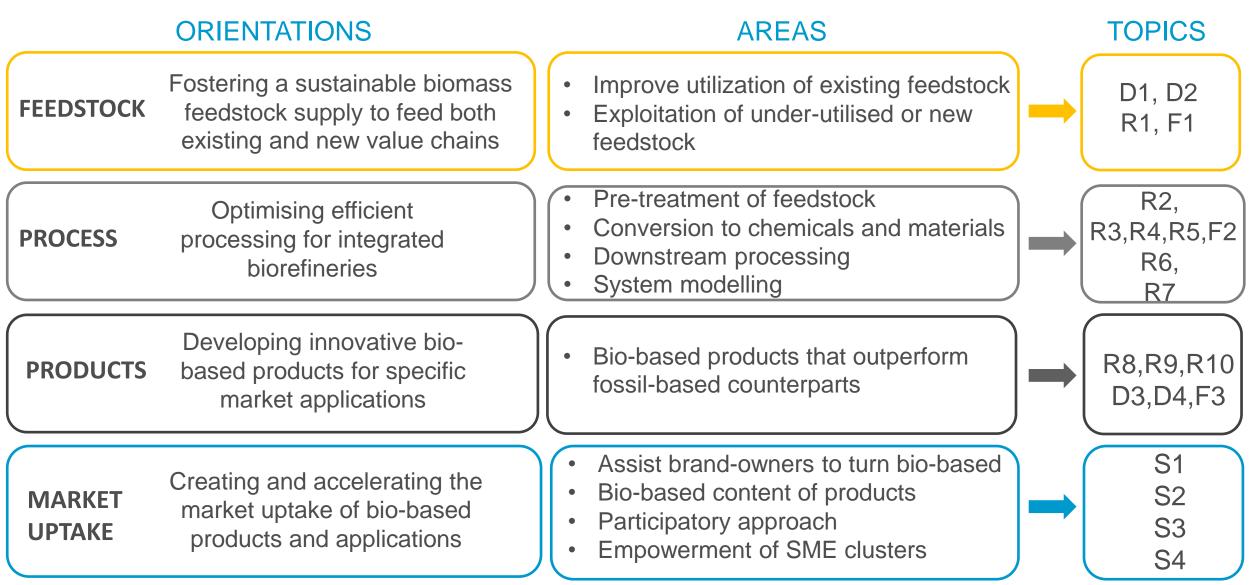


Total indicative BBI JU budget € 135 million for 21 topics

In addition substantial resources from industry expected Estimated value of the in-kind contribution is minimum € 60 million



Strategic Orientations against topics in Call 2019





Novelties: Call 2019

- In addition to topic-specific requirements:
 - Call introductory pages (p. 18-23)
 - Standard requirements for each type of actions in table (p. 27-28)
- AWP 2019 contains a topics glossary: a dedicated section with definitions of key concepts
- Wider range of expected impacts, with specific social, environmental and economic impacts detailed for each topic
- While there is a single budget line for each type of action in the case of RIAs, DEMOs and CSAs, but each flagship topic has its own dedicated budget

Remarks: Call 2019

 \star \star AWP 2019 will accelerate the development of sustainable value chains through:

- Sustainable and efficient utilization of existing, under-utilized and new feedstock
- Development of innovative technologies and processes for pre-treatment, conversion and downstream processing and modelling; and production of new bio-based products outperforming fossil-based counterparts
- Focus on SMEs clusters, participatory approach, and assisting brand owners to turn biobased

Strong focus on impact & KPIs

- Wider range of expected impacts, with specific social, environmental and economic impacts detailed for each topic
- Proposals should clearly address (including quantitative targets) how they contribute to KPIs and expected impacts of the call topics

Industry driven program

• Demonstrate it with consortium own contributions and coverage of the entire value chain



Rules for participation 1/2



Who can apply?

• Any 'legal entity'

natural or legal person created & registered under national law

e.g. any company, big or small, research organisations, universities, nongovernmental organisations, etc.

• From all over the world

Also international organisations or participants from non-EU/H2020 Associated Countries can participate



Rules for participation 2/2



Consortium composition?

- **CSA**: can be carried out by a single 'legal entity'
- RIA and IA: at least 3 'legal entities' established in at least 3 different Member States and/or Associated Countries
 *The entities must be independent from each other





Legal & Financial aspects

BBI JU Calls follow H2020 rules for participation, except: No BBI JU funding for large industries in RIA & CSA

Participant	RIA	IA	CSA
Large Industries	0%	70%	0%
SMEs	100%	70%	100%
Non profit, legal entities (Universities, RTOs, NGOs etc.)	100%	100%	100%



How to write a good proposal





H2020: What – Why – How



Evaluation of proposals

Scores: 0-5

Four thresholds

- Excellence score = min. 3/5
- Implementation score = min. 3/5
- Impact score = min. 4/5
- Total score = min. 11/15

For Innovation Actions, to determine the ranking, the score for the criterion 'impact' will be given a weighting of 1.5



Even if you have unique expertise, it is not enough to be successful (competition within a budget line)

> High competition/ quality proposals

Every word counts... within the page limit

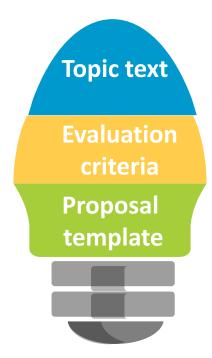


Excellence: WHAT?





- <u>Excellence</u> Objectives - Scope
- Are the objectives:
 - ✓ clear,
 - ✓ structured,
 - ✓ well-quantified (if applicable),



Objective Description (Specific	Target values (Measurable)	Achieved at time
---------------------------------	----------------------------	------------------

✓ linked (pertinent) to the topic text?



Specific challenges of the call/topic	Addressed challenges in proposal	WPs



_

<u>Excellence</u> Concept – Methodology

- 'Concept': the 'big idea' behind the proposal
 ✓ Concept in a "nutshell" (diagram)
 - 'Proposed methodology':





- How to go from the 'big idea' to reaching the stated objectives
- Have all elements described in the topic text been taken into account?

Topic Specific / Call introductory pages (18-23) / Standard requirements (27-28)





State of the Art

Extent that proposed work is <u>beyond the state of the art</u> and demonstrates innovation potential.

- What is the **state of the art** (SoA)? (evaluated as is)
- What's the **benchmark**?
- how does your proposal go beyond the SoA?
- What are the benefits versus existing state-of-the-art technologies.
- <u>Tip for RIA</u>: clearly describe the (start and end) TRLs

Item	e.g. Technology	State of the art	Progress compared to SoA
------	-----------------	------------------	--------------------------





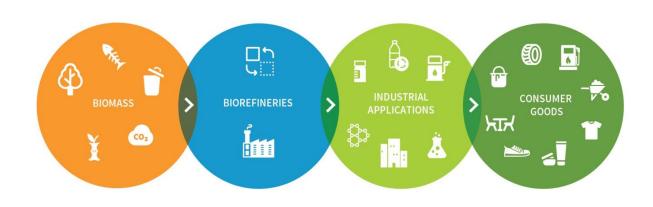
Excellence

Coverage of the value chain

For IAs that are close to market:



- Is the entire value chain **comprehensively assessed and covered**?
- Are the needs / issues related to all relevant stakeholders addressed?
 - ✓ biomass producers,
 - ✓ processing partners,
 - ✓ tech providers,
 - ✓ end-users





Impact: SO WHAT?





Impact

- Are **all** 'expected impacts' listed in the topic text dealt with..... in a qualitative AND quantitative manner?
- convincing evidence of the claimed impacts.
- claimed impacts quantified and based on calculations.
- any other impacts (even negative) that could result from the project and are not mentioned in the Call?



Impact

- Are ALL 'expected impacts' listed in the topic text dealt with.....
 in a qualitative AND quantitative manner?
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- convincing evidence of the claimed impacts.
- claimed impacts quantified and based on calculations.
- any other impacts (even negative) that could result from the project and are not mentioned in the Call?



Impact New: Categories of Impacts

- <u>Tip</u>:
- Describe explicitly how your proposal contributes to each listed 'expected impact', e.g. via a table.



Impact BBI Exploitation, Dissemination, Communication

- Dissemination & exploitation: more than an eligibility criterion
- <u>Tailored</u> to the project and its objectives

– Tips:

• Also provide quantative data (how many conferences, publications, target audiences,...)

Visibility in the work plan

- Include relevant (also public) deliverables
- Explicitly describe IPR (Intellectual Property Rights) management
- Share the results with the bio-based industry, the public sector, R&I organisations, consumers.
- IAs: Consider using bio-based materials for their dissemination activities.





Consortium own contribution

Initions &

,Jates in the GfA!

Leverage of private investments is crucial!

The consortium own contribution in BBI JU projects consists of:

In-kind contributions

The eligible costs incurred for implementing the project minus the funding requested from BBI JU

Financial transfers

Financial transfers (in-cash) between partners of a BBI JU project to implement part of the action, outside the budget table of the project

Additional investments

Investments (e.g. infrastructure, facilities, durable equipment, etc.) that contribute to achieving the objectives of the projects and the BBI JU initiative (maximize impact), outside the budget table of the project and not limited to the duration of the project.





Consortium own contribution

Extent to which the proposed <u>consortium own contribution</u>, including additional investments, will help <u>maximising the impact</u> of the action

- Clearly describe if and how much "own contribution" ('in-kind', 'Financial Transfers' and/or 'additional investments') is included in the proposal...
- -...AND explain how this will maximise the impact of the action
- Don't just list the amounts, also explain them

Part A: Call-Specific Questions



Part B: Resources to be committed



Example IKOP: RIA & CSA

Funding Rates 100% (0% for large industry)*

Partici- pant	(A) Direct personnel costs/€	(B) Other direct cost/€	(F) Indirect Costs/€ =0.25 (A+B)	(H) Total estimated [eligible] costs/€	(I) Reimb rate (%)	(J) Max grant (=H*I)	(K) Requested grant/€
RTO	400	300	175	875	100	875	875
Large Industry	500	1500	500	2500	0	0	0
SME	350	50	100	500	100	500	400
University	300	50	87.5	437.5	100	437.5	437.5
Total				3562.5		1812.5	1712.5
* as per Derogation from H2020 Rules of Participation Consortium own contribution to the project is total costs not reimbursed by the BBI JU. IKOP:1850							

Participants can request a lower funding, thereby increasing the consortium own contribution



Example Financial Transfers

Part A

5 - Call-specific questions

Cash Contributions

Does the proposal foresee cash contributions?	⊙ Yes ⊖No	
Name of the entities contributing cash		
Total amount including all entities' cash contributions	550,000	

Part B: Section 3.4 'Resources to be committed'

Beneficiary providing financial transfers			List of activities to be performed by the receiving beneficiary	
Large industry 1	SME 1	€ 250, 000	Upscale production of	
Large industry 2	University of A	€ 300, 000	Use of laboratory facilities	



Example Additional Investments

Part A

Additional Investments

Does the proposal foresee additional investments?	⊙ Yes ∩No	
Name of the entities contributing additional Large Industry 1; Large Industry 2; SME		2; SME 1
Total amount including all entities' additional investments	3,500,000	

Part B: Section 3.4 'Resources to be committed'

Overview of the additional investments						
Beneficiary	Activity (Description of the Additional Investment)	Contribution to the BBI objectives	Estimated value public investment (if any)	Other EU funding for this Activity (if any)	Estimated private investment	
Large industry 1	Biorefinery	KPI 1,2 & 6			€ 2,500,000	
SME 1	Upscaling equipment	KPI 1,2 & 6			€ 500,000	
Large industry 1	Additional new equipment	KPI 1,2 & 6			€ 500,000	



Implementation: HOW?





Implementation Work Plan - Resources

- <u>Quality</u> and <u>effectiveness</u> of the work plan
- Appropriate <u>allocation of resources</u>

Presentation of the overall structure of the work plan

- ✓ Timing of the work packages and their components (Gantt chart or similar);
- ✓ Duration of the project should be realistic (H2020: extension is not granted automatically)
- ✓ Detailed work description
- ✓ Details of the resources to be allocated to each work package.
- ✓ Resources assigned to work packages: in line with the objectives and deliverables
- Tip: check coherence and consistency of budget allocation and timing throughout the proposal (e.g. list of deliverables and Gantt chart: same timing?)

Time – Scope - Resources



BBI JU-specific subcriterion (IAs) <u>Implementation</u> Business case and Business plan Is it sound, credible and convincing?

Administrative Forms
Edit will open the forms.
edit forms view history print preview
Part B and Annexes

In this section you may upload the technical annex of the proposal (in PDF format only) and any other requested attachments.



- Why? IAs are close to market => business case and business plan are needed
- How to present? See Guide for Applicants and proposal template (bullet points describing business case & plan requirements)
 - Appropriate integration and remuneration of *primary biomass producers*.
- Tip: present it quantitatively and thoroughly
- FAQ: how much info is needed?
 - "(Further) details can be provided in part B sections 4-5" (= not included in 70-page limit)
 - (Only) for Flagships: clarifications via hearings



Implementation Readiness of the technology

- Clearly state the *starting and end TRLs* of the key technology or technologies targeted in the project.
- Enable the technology or system to achieve the end TRL within the *project timeframe*.
- *Flagships*: demonstrate that by the time of the submission of their application they have been operating relative *demonstration scale plants* at a significant production capacity

Tip:

Lesson Learnt

- not clearly stated,
- not realistic to reach the expected TRL at the end of the project.

e.g.
TechnologyTRL at project
startTRL that will be
achieved at the end of
the project

• (Only) for Flagships: clarifications via hearings



Building a consortium

- Any legal entity can participate
- Liaise with NCP and EEN
- Find partners
 - SEDIA
 - BBI JU partnering platform
 - BBI JU project participants
 - <u>CORDIS</u>
 - https://www.bbi-europe.eu/
- Info Days and stakeholder fora
- BIC (member) activities





Bio-based Industries JU: a €3.7 billion partnership between the EU and the Bio-based Industries Consortium

Home About BBI JU Participate Projects News Events Multimedia Jobs





Tips to succeed

Write a good proposal

- H2020 evaluation criteria + BBI JU subcriteria
- Every word counts:

Think like an evaluator and write for an evaluator

- Industry commitment: consortium own contribution

Find all information needed BBI JU website - SEDIA

- BBI JU-specific info (SIRA)
- Annual Work Plan 2019
- Guide for Applicants
- FAQ for Applicants and Coordinators
- Infoday 2019 video
- H2020 online manual

Become a BBI expert (experts @bbi.europa.eu)



Topic text Evaluation criteria Proposal template



ádh mór!

Thank you!

Contact us



info@bbi.europa.eu www.bbi-europe.eu

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Bio-based Industries Joint Undertaking

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