



# BBI JU: Présentation general - Attendus Projets européens bioéconomie – Focus BBI 20 Avril 2020

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## About **BBI JU**



European public-private partnership (iPPP) aims at:





**BBI JU objectives** 



Develop sustainable and competitive bio-based industries in Europe, based on advanced biorefineries that source their biomass sustainably.





#### BBI JU funds **collaborative** industry driven actions



\*TRL = Technology Readiness Levels



1. 'Multi-value-chain' approach, pursuing crossover between 'traditional' and historic value chains.

The SIRA value chains pillars form the four **Strategic Orientations** of the bio-based industry in Europe





# Expected impact for Europe by 2030\*

- ← Constraints
   ← Const
- Replace 25% of oil-based chemicals and 10 times more biobased materials
- Increase by 25% mobilisation of unused sources and develop potential of agro-food "waste" & forestry residues
- Diversify and grow farmers' revenues
- Create 700,000 jobs 80% in rural areas
- Reduce EU's dependency on import of strategic raw material
  - fossil raw materials;
  - protein (- 50%);
  - P & K (- 25%)
- Average 50% GHG emission reduction



## Key achievements Lessons learnt

# **BBI JU programme monitoring**

Progress of the BBI JU programme monitored at 4 levels:

- 1) Efficiency and output monitoring based on Horizon 2020 KPIs
- 2) Project outcomes monitored through 8 BBI specific KPIs described in the SIRA, measured against yearly project reporting and agreed objectives
- 3) Expected socio-economic and environmental impact of the BBI JU projects, based on yearly project survey
- 4) The leverage effect of private contribution versus public funding monitored on a yearly basis. The BBI JU reports in-kind contribution in projects (IKOP) and in-kind additional activities (IKAA) on a yearly basis → leverage effect calculation



### BBI JU programme outputs Calls 2014-18







EU-15

22% FR

18%

23%

23%

27% 18% SI

LT

ES 19%

IT 22%

DE 23%

UK

NL 28%

BE FL 23% LV

EL 9%

PT 15%

AT SE

DK

IE 18%

LU 0%

## **Beneficiaries vs applicants** Calls 2014-2018





# Output: a balanced project portfolio

Calls 2014 + 2015 + 2016 + 2017 + 2018Origin of feedstockRIADEMOFlagshipAgri-based<br/>incl. sidestreamsImage: Calls of the second se

SO4	Policy, regulations and standardization	Consumer awareness of the benefits of the bio-based products	Knowledge gathering and networking
CSA	•		

ightarrow Detailed information on BBIJU Website/project



#### Output Beneficiaries from calls 2014 – 2018 Type of participants



https://www.bbi-europe.eu/news/new-study-bbi-ju-analyseslandscape-smes-its-projects

# Project outcome monitoring KPI 1/8 \* \* \* \* Project outcome monitoring KPI 1/8 from SIRA New cross sector interconnections

Projects expect +140 new cross sector interconnections against a target of <u>36 by 2020</u>

					Type of f	eedstock	
	Colours Code:		from 10 to 13 from 5 to 9 from 2 to 4 1	Agriculture	Forestry	Aquatic	Municipal & industrial organic waste including gaseous side streams (CO2)
	Packaging			11	12	2	7
	Medical & health	ncare		4	5	4	3
	Personal care &	cosmetics		8	4	3	1
	Home care			2	0	0	0
	Pharmaceutical		0	0	2	2	
S	Food and feed in	ngredients		12	7	6	5
5	Textile			4	. 4	1	3
Š	Automotive			5	8	0	2
	Construction			6	8	0	1
σ	Chemicals for ag	riculture		7	5	0	5
⊆	Equipment prod	lucers & designers		4	6	2	5
ш	Adhesives			4	7	1	4
	Coatings			2	7	0	2
	Electronics			0	5	0	1
	Biofuels & Bioen	iergy		6	6	0	3
	Bioplastics			8	8	1	5
	Other sectors			4	5	1	3

→ Detailed information in AAR2018



#### Project outcome monitoring KPI 2/8 from SIRA New bio-based value chains

#### Projects expect +100 new biobased value chains against a target of 10 by 2020

<u>New value chain</u> means either the **feedstock**, the **processing & technologies** or the **final product** is new in relation to existing value chains



→ Detailed information in AAR2018



#### Project outcome monitoring KPI 2/8 from SIRA New bio-based value chains



#### $\rightarrow$ Detailed information in AAR2018



## Outcome monitoring – KPI 4/8from SIRA New bio-based building blocks

Projects expect +60 new bio-based building blocks against a target of 5 by 2020



→ Detailed information in AAR2018



## Outcome monitoring – KPI 5/8 from SIRA New bio-based materials

### Projects expect +140 new bio-based materials

against a target of 50 by 2020

Innovation intensity of new bio-based materials



Aspects of novelty in the new bio-based materials

+ 70% CO2	+ 40%	+ 35%
emissions reduction	Improved biodegradability	Improved health & safety aspects

→ Detailed information in AAR2018



## Socio-economic and environnemental impact monitoring

#### Yearly survey of BBI JU projects:

- Investment and job creation
- Science and knowledge
- Environmental impact
- Primary producers and rural deployment
- Education and citizen
- Market and industry
- Regional and local impact
- Safety and health
- contribution to the UN SDGs (First survey 2018)



## Project impact on Jobs & Investment







#### BBI JU – 9 Flagships from calls 2014-18





#### Project impact on science and knowledge





#### **BBI JU key achievements**

- BBI JU is achieving its objectives with two main effects\*:
  1.Structuring effect: new types of collaboration
  2.Mobilizing effect: geographic and sectorial
- Increasing mobilisation in BBI JU calls with new sector
- KPIs on socio-economic and environmental impact well on track
- Optimal Value Chains coverage
- High % of SME participation and key role
- Growing BBI JU awareness (also outside EU)
- The industry invests massively 2014: € 2 bn → 2018: € 5.5 bn
- Europe back on the map

(\*) More information: BBI JU Interim Evaluation report BBI JU Annual Activity report



## "We are not there yet"

- Investments in biorefineries remain huge and risky
  - $\checkmark$  Issues accessing private capital
  - ✓ Remaining funding gaps in Demonstration and Flagship (not bancable)
- Structuration still ongoing: market and demand risks
- Some areas not yet covered enough
  - ✓ Farmers participation
  - ✓ Full feedstock potential
  - ✓ Geographic coverage and « Regional dimension »
  - ✓ ...
- Brand owners and retailers participation is improving
- Sector request a « coherent, supportive and stable regulatory framework »
- Better tell the story of BioEconomy & Bio-Based products: Consumer awareness, education
- Go beyond "fossil to biobased" story:
  - climate mitigation, water quality, human and animal health, biodiversity...

### → Horizon Europe – Proposed partnership CBE



## Ce succès c'est grâce à VOUS

Comment contribuer? Comment participer?

Et,...

Helpful



BBI JU calls follow **H2020 rules for participation**, but:

No BBI JU funding for large industries in RIA & CSA !!! •

All information in:

- BBI JU Annual Work Plan 2020 (AWP)
- **BBI JU Guide for Applicants** (GfA)
- Frequently Asked Questions (FAQ)

https://www.bbi-europe.eu/participate/call-proposals-2020

Horizon 2020

Horizon Susu European Union Funding Research & Innovation



## Budget distribution Call 2020



# SIRA Strategic Orientations (2017)

#### SO 1

#### Foster Supply of sustainable biomass feedstock to feed both existing and new value chains

- Agri-based feedstocl
- Forest-based feedstock
- Aquatic feedstock
- Bio-waste and CO2

#### SO 2

Optimise efficient processing for integrated biorefineries through R&D&I

- Pre-treatment
- Conversion of pre-treated feedstocks to bio-based chemicals and materials
- Downstream processing
- System modelling

#### SO 3

#### Develop innovative bio-based products for identified market applications

- Drop-in bio-based products
- Bio-based products that outperform fossil-based counterparts
- New breakthrough
- Chemicals
- Proteins and active ingredients

#### SO 4

Create and accelerate the market uptake of bio-based products and applications

- Policy & regulations, standardization
- · Consumer awareness of the benefits of bio-based products
- Knowledge gathering and networking



# Call 2020: strategic orientations vs. topics

	info@bbi.europa.eu		TOPICS
FEEDSTOCK	Supply chain hurdles of residual waste streams; biogenic gaseous carbon; lignin; aquatic sources to food ingredients	-	D1-2, F1-F2-F3
PROCESS	Enabling technologies; integral fractionation; recycle composites; extract bioactive compounds; upscale bio-based platform molecule production		R1-4, D3
PRODUCTS	Coatings; packaging solutions		R5, D4
	Access to finance; insight on emerging technologies; create / interlink bio-based education centres; underexploited circular <i>bio</i> economy		S1-4



### 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!

Note \* KPI3 & KPI7 will be measured at program level; the numbers will refer to successful projects. Source: <u>SIRA</u>



## Rules for participation



### 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, non-governmental organisations, etc. from all over the world:
- Also international organisations or participants from non-EU/H2020 Associated Countries can participate

### 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 (AC). The entities must be independent from each other



## Eligibility for funding

Legal entities from all over the world can participate H2020 & BBI calls

#### • Automatically eligible for funding:

- EU and Horizon 2020 Associated Countries
- Countries listed in <u>Annex A of the Horizon 2020 Work Programmes</u>

#### NOT automatically eligible for funding:

- Industrialised countries and emerging economies: participants are not eligible BUT some countries have forms of co-funding mechanisms
- o EXCEPTIONS if: bilateral agreement; country is identified in AWP or call

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



## Leverage of private investments is crucial!

The consortium own contribution in BBI JU projects consists of:

#### In-kind contributions

The costs incurred by one partner implementing the project minus the funding provided by BBI JU

#### **Financial contributions**

Financial transfers from one or more to one or more partners of a BBI JU project to carry out part of the action

#### Additional investments

Investments (e.g. infrastructure, facilities, durable equipment, etc.) that contribute to achieving the objectives of the projects and the BBI initiative



### Call 2020 Indicative Timetable



For more information (topics, timing FAQs), visit <u>BBI JU</u> website



### Submission of Proposal

Check the H2020 Online Manual

- an overview of all steps you need to know for the electronic management of proposals or grants;
- easy navigation by process steps;
- a brief description on how to complete your tasks.







#### **ADMISSIBILITY CRITERIA**

- A proposal is **submitted** via the official online submission system **before the call deadline** and it is **readable**, **accessible** and **printable**
- The proposal is **complete** accompanied by the **relevant administrative forms**, proposal description and any **supporting documents specified in the call**.
- The proposal includes a draft plan for the exploitation and dissemination of the result
- Page limit (RIA/IA: 70 pages –CSA: 50 pages)

#### **ELIGIBILITY CRITERIA**

- Contents are in line with the topic description in the call
- <u>Standard eligibility criteria</u> (eg. RIA and IA at least three legal entities, established in a different Member State or Associated Country)
- · Any other eligibility conditions set out in the call or topic page



Admissibility -Eligibility check Evaluation of proposals

Grant Preparation Grant signature

#### **Scores**

0 Proposal does not meet the criterion at all or cannot be assessed due to missing or incomplete information

1 Poor – serious weaknesses

2 Fair – goes some way to meeting criterion, but with significant weaknesses

3 Good – but with a number of shortcomings

4 Very good – but with a small number of shortcomings

5 Excellent – meets criterion in every relevant respect. Any shortcomings are minor

#### Three evaluation criteria Four thresholds

- Excellence score = min. 3/5
- Implementation score = min. 3/5
- Impact score = min. 4/5
- The sum of the three individual scores = min. 11/15

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

#### **Competition within each budget line**

- Call 2020: 6 budget lines (1 CSA, 1 RIA, 1 DEMO, 3 FLAGS)
- It can be competing with other proposals submitted under different topics in the same budget line
   => high-quality proposals are essential!



- Online grant preparation: The process is supported through the Participant Portal.
- Follow your proposal: The grant agreement and its annexes must not differ from the proposal. No negotiation in H2020.
- **Timeframe:** The Grant Agreement must be signed at the latest 8 months after the call deadline

SME self-assessment (check beforehand - In RIA and CSAs: no confirmed SME = no funding)

SME self-assessment

Financial Viability of the Coordinator (select your COO wisely) - <u>Financial Viability Self-Check</u>

**IPR issues and Consortium Agreement** 



Admissibility - Eligibility check	Evaluation of proposals	Grant Preparation	Grant signature









## **Christophe Luguel - IAR**



## How to write a good preposal?

## 3 main evaluation criteria



# BBI Central role of expert-evaluators

- Excellence: is the concept sound and the methodology credible, is the idea innovative and beyond the state of the art? Are the objectives of the proposal clear? Are the objectives pertinent
- Impact: Does the proposal address all 'expected impacts'; impact on new market opportunities, companies, environment, climate change,...) exploitation, dissemination, communication and IPR management; maximize the impact with IKOP
- Implementation: Quality and effectiveness of the work plan (WPs, Deliverables, Milestones, Risks), including extent to which the resources assigned; Complementarity of the participants; valid role and adequate resources in the project to fulfil that role.
- SMART goals must be Specific, Measurable, Achievable, Relevant, and Time Bound.



- -Every word counts
- -Think like an evaluator
- -Write for an evaluator



## From main to subcriteria

## Different 'types' of evaluation subcriteria

- 'Standard' Horizon 2020 subcriteria
- BBI JU-specific subcriteria

## Differences between 'types of action'

- Coordination & Support Actions (CSAs)
- Research & Innovation Actions (RIAs)
- Innovation Actions (IAs)
  - DEMOs
  - Flagships



### Excellence: WHAT? Subcriteria





### <u>Clarity and pertinence of the objectives</u>

- Are the objectives clear, structured, well-quantified (if applicable),...
- ...and are they linked (*pertinent*) to the topic text?
- Soundness of the <u>concept</u> and credibility of the <u>proposed methodology</u>
  - 'Concept': the 'big idea' behind the proposal
  - 'Proposed methodology':



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



- Extent that proposed work is <u>beyond the state of</u> <u>the art</u>, and demonstrates innovation potential.
  - What is the state of the art (SOTA)? What's the benchmark?
  - …and how does your proposal go beyond the SOTA?



Clearly describe the (starting and end) TRLs

# BBI JU-specific subcriterion (*IAs*)

- Coverage of the <u>whole value chain</u>
  - <u>Why?</u> IAs are close to market => this subcriterion checks that your idea take into account biomass, processing and end products and markets;
  - <u>Why not in RIAs?</u> Because RIAs can (topic-specific) focus on a specific technological problem in a part of the value chain





### Impact: SO WHAT? Subcriteria



# \* **BBI**JU

## Importance of impact

- 'European Science paradox'
  - 1995, Green paper on Innovation
  - EU funding: "great science, but limited impact"
  - Since 1995, impact has become more and more important in EU funding (evaluations)
- BBI JU focuses on impact
  - <u>Impact score</u>: max. 5/5 (like 'Excellence' and 'Implementation')...
  - ...but <u>threshold</u> is 4/5 (⇔ 3/5 in 'Excellence' and 'Implementation')...
  - ...and weighting factor of 1,5 in IAs





- Outputs of the project vs. the <u>expected</u> <u>impacts</u> mentioned in the work plan
  - Are all 'expected impacts' listed in the topic text dealt with...
  - ... in a qualitative AND quantitative manner?



Describe explicitly how your proposal contributes to each listed 'expected impact', e.g. via a table.



- <u>Exploitation</u>, dissemination and communication of project results (including IPR and - where relevant - research data management)
  - <u>Dissemination & exploitation</u>: more than an eligibility criterion; this is also evaluated by experts



- Also provide quantative data (how many conferences, publications, target audiences,...) => be *specific*, avoid 'generic' diss./comm./expl. plans
- Include relevant (also public) deliverables
- Explicitly describe IPR (Intellectual Property Rights)
   management

# 

- Extent to which the proposed <u>consortium</u> <u>own contribution</u>, including additional investments, will help maximising the impact of the action
  - Clearly describe if and how much "own contribution" ('in kind', 'in cash' <u>and/or</u> '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 and to what extent they contribute to the impact



## Implementation: HOW? Subcriteria





• Quality and effectiveness of the <u>work plan</u> (incl. deliverables), including <u>resource allocation</u>



- Check *coherence* of budget allocation and timing throughout the proposal (e.g. list of deliverables and Gantt chart: same timing?)
- <u>FAQ</u>: difference between methodology (What: 'Excellence') and work plan (How: 'Implementation')?



 <u>Allocation of tasks</u>, ensuring that <u>all</u> <u>participants have a valid role</u> and adequate resources



Convince expert-evaluators that you don't have 'token' consortium members, e.g. via resource allocation (money talks...)



- <u>Management</u> structures and procedures, including risk and innovation management.
  - Consortium of 5 or 20 members: different management (structures) needed
  - 'Innovative' management techniques are not necessary; it needs to work!



- explicitly mention / describe risk and innovation management...
  - ...and include 'real' (not token) risks and mitigation measures



## BBI JU-specific subcriteria (IAs)

### Soundness of the <u>business case and business plan</u>

- <u>Why?</u> IAs are close to market => business case and business plan are needed
- <u>How?</u> See Guide for Applicants and proposal template (bullet points describing business case & plan requirements)
- 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: additional info via hearings



## BBI JU-specific subcriteria (IAs)

#### <u>Readiness of the technology</u>



clearly indicate the start and end TRLs

– "In particular, for flagships applicants must demonstrate that by the time of the submission of their application they have been operating relative demonstration scale plants at a significant production capacity (justification shall be provided in the proposal)."



## How to write a good proposal?

Ensure that expert-evaluators *quickly* find the *right* information to assess the evaluation subcriteria.



- Be aware of the evaluation subcriteria of 'your' type of action (CSA, RIA, IA)...
- ...and provide (explicit) answers to these subcriteria in your proposal...
- ...using the proposal structure / template described in the Guide For Applicants (GfA)



## Where to find more info?

- BBI JU website
  - <u>https://www.bbi-europe.eu/participate/calls-proposals-2020</u>
  - Links to Guide for Applicants, FAQ, National Contact Points (NCPs), European IPR helpdesk, BIC, EEN (Enterprise Europe Network),...
  - Overview (incl. URLs): see Q0.1 of Call 2020 'FAQ for Applicants'
- Participant Portal, Horizon 2020 <u>online manual</u> (find a call, register organisations, submit proposal)
- <u>Helpdesk@bbi.europa.eu</u>



## Join us

• Register on our partnering platform:

#### https://bbi-ju.lifepartnering.com/

- Access a network
- Receive all relevant information about our calls
- Acces to reports and information
- E-Newsletter



- Information on call 2020
- Brokerage event and networking
- 2019: > 600 participants > 1000 F2F meetings
- 2020 → 1,500 registrations

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Bio-based Industries Joint Undertaking





# Call 2020: strategic orientations vs. topics

			TOPICS
FEEDSTOCK	Supply chain hurdles of residual waste streams; biogenic gaseous carbon; lignin; MSW; aquatic sources to food ingredients		D1-2, F1-F3
PROCESS	Enabling technologies; integral fractionation; recycle composites; extract bioactive compounds; upscale bio-based platform molecule production	-	R1-4, D3
PRODUCTS	Coatings; packaging solutions	-	R5, D4
	Access to finance; insight on emerging technologies; create / interlink bio-based education centres; underexploited circular <i>bio</i> economy		S1-4



## Call 2020 - RIAs

Feedstock	/
Process	<ul> <li>R1 – Use enabling technologies to improve feedstock availability and sustainability for the bio-based industry</li> </ul>
	<ul> <li>R2 – Develop integral fractionation of lignocellulose to produce components for high- value applications</li> </ul>
	<ul> <li>R3 – develop bio-based solutions to recycle composites</li> </ul>
	<ul> <li>R4 – extract bioactive compounds from new, underexploited and/or recalcitrant residual bio-based streams for high-value applications</li> </ul>
Products	<ul> <li>R5 – improve the sustainability of coatings</li> </ul>
Market uptake	/



## Call 2020 - DEMOs

Feedstock	<ul> <li>D1 – resolve supply-chain hurdles for turning residual waste streams into functional molecules for food and/or nonfood market applications</li> </ul>
	D2 – use biogenic gaseous carbon to increase feedstock availability for the industry
Process	<ul> <li>D3 – upscale the production of bio-based platform molecules for larger market applications</li> </ul>
Products	<ul> <li>D4 – demonstrate superior bio-based packaging solutions with minimal environmental damage</li> </ul>
Market uptake	/



## Call 2020 - Flagships

Feedstock	<ul> <li>F1 – Valorise the organic fraction of municipal solid waste through an integrated biorefinery at commercial level</li> <li>F2 – Turn lignin into materials and chemicals for highend applications</li> <li>F3 – Produce food ingredients with high nutritional value from aquatic sources</li> </ul>
Process	/
Products	/
Market uptake	/

Note: a dedicated budget line per Flagship topic

- F1: € 15 million
- F2: € 16 million
- F3: € 16 million



## Call 2020 - CSAs

Feedstock	/
Process	/
Products	/
Marketuptake	<ul> <li>S1 – Help start-ups and spin-offs to gain access to finance</li> </ul>
	S2 – Provide insight on emerging technologies for biobased value chains
	S3 – Create and interlink bio-based education centres to meet industry's needs of skills and
	competences
	S4 – Expand circular economy to include the underexploited circular bioeconomy

#### Note:

- Although all CSA topics fall under the same budget line (total: € 5 million)...
- ...max. 1 CSA project can be funded per topic



#### **Contact us**



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