



#### Content

 The Bio-based Industries Joint Undertaking: strategic orientations

BBI JU Call 2017

Rules for participation: legal and financial aspects



#### **About BBI JU**

- Public-Private Partnership between European Commission & BIC supporting R&I for Bio-based industries
- BBI Budget: € 3.7 billion (26% EU 74% industry)

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€ 975m<sub>+</sub> € 2.730b = € 3.7 billion
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- Independent legal entity since 26 October 2015
- Horizon 2020 rules for participation
- Principles of openness, transparency and excellence



**Public partner**Represented by EC

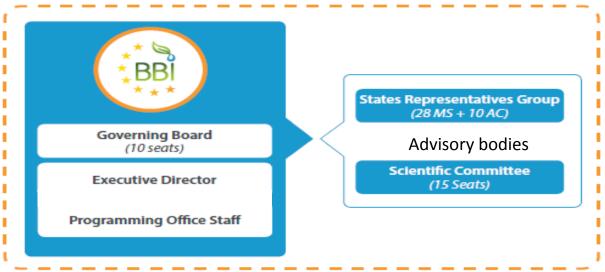
#### **BBI JU**



€ 3.7 billion



Private partner
Represented by BIC
75% of investment
in BBI JU





**Public partner** Represented by EC

#### **BBI JU**



€ 3.7 billion



Private partner Represented by BIC 75% of investment in BBI JU

ordination of Annual ork Plan building all management oposals evaluation ocess AP Process

cle ommunication and vareness



#### **BIC - Main tasks**:

- **Define** the BBI's SIRA
- **Lead** development & drafting of annual BBI Work Plans & Call for Proposals topics
- **Mobilise** relevant stakeholders across Europe: industry, research organisations, universities, regions
- Improve (conditions for) "Access to **finance**" in Europe



#### BIC members – May 2017

#### 77 Full members

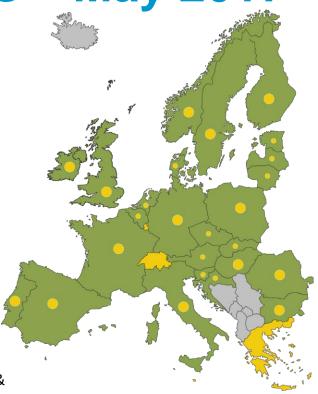
- 31 Large industries
- 30 SMEs
- 16 SME Clusters (representing 110 SMEs)

#### Several industrial sectors covered

- Agriculture & Agri-food
- Forestry and Pulp & Paper
- Technology providers
- Chemicals and materials
- Energy
- Aquatic
- ..

#### 146 Associate members

 Universities, RTOs, European associations & organisations, Technology Platforms (ETPs), public institutions, regional organisations, private banks, ...





#### BBI JU's objectives

Developing sustainable and competitive bio-based industries in Europe, based on advanced biorefineries that source their biomass sustainably by:

- Demonstrating new technologies to fill the gap in value chains
- Developing business models integrating all economic actors along the value chain
- Set-up flagship biorefinery plants deploying business models & technologies to keep investment in EU







#### **BBI JU Calls overview**

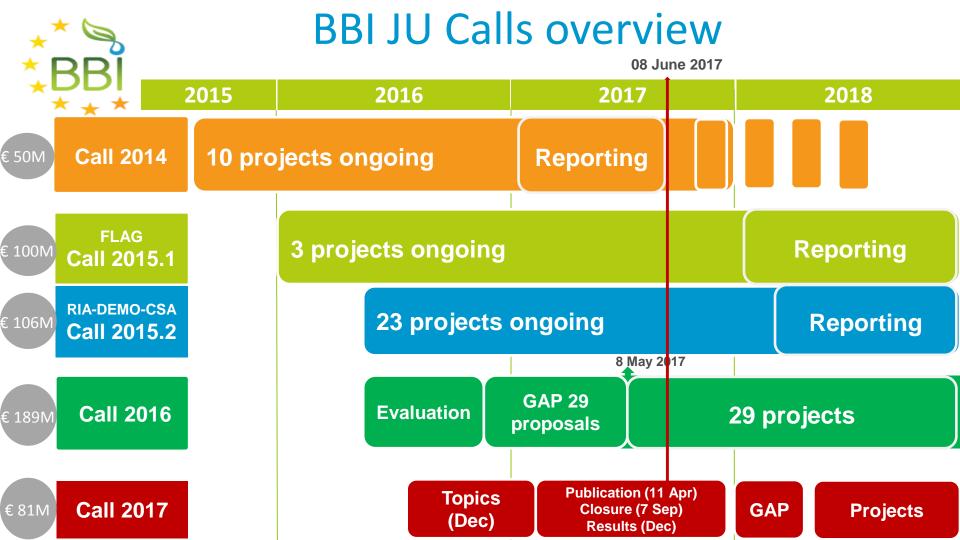


Call 2014: 10 running projects: 1 Flagship, 2 Demo, 7 RIAs

Call 2015.1: 3 Flagship projects

Call 2015.2: 23 running projects: (11 RIA, 9 Demo, 3 CSA)

→ 36 running projects + 29 from Call 2016 = 65 projects





### Call 2016 Overview of evaluation

- 103 proposals submitted: 55 above threshold
- High quality: 53% of proposals above threshold: 51% RIA, 66% CSA, 50% DEMO and 67% FLAG
- 29 proposals out of 103 retained for funding, showing 28% success rate
- Better coverage of VC4 organic waste, aquatic biomass and CSA
- Significant mobilisation of the BBI sector with good proposals and an optimal topic coverage



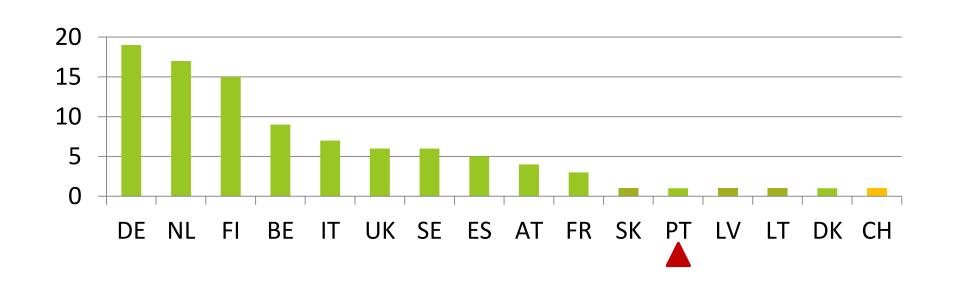
#### BBI on-going projects

Calls 2014 + 2015 + 2016

Value Chains	RIA	DEMO	Flagship	CSA
VC1 (lignocellulose)	US2GREENCHEM, Zelcor, LIBRE, HYPERBIOCOAT, SSUCHY	ValChem, GreenSolRes, BIOFOREVER, LigniOx, EUCALIVA, GRACE  BIOSKOH, LIGNOFLAG, PEFerence		
VC2 (forest-based)	SmartLi, Greenlight, PROVIDES, NeoCel, TECH4EFFECT, EFFORTE	FRESH, EXILVA		
VC3 (agro-based)	Carbosurf, PROMINENT, LIBBIO, BioBarr	Pulp2Value, AgriMax, Funguschain, GreenProtein, LIPES	FIRST2RUN	
VC4 (organic waste)	NewFert, AFTERLIFE, PERCAL, BARBARA	EMBRACED, URBIOFIN		
Across VCs	EnzOx2, InDIRECT, BIOrescue, ReSolve, BIOSMART, ECOXY, SHERPACK, REFUCOAT, POLYBIOSKIN	DEMETER, OPTISOCHEM, SYLFEED, BIOMOTIVE		BioCannDo, BIOWAYS, STAR4BBI, BIOPEN, RoadToBio, Pilots4U
Aquatic Biomass	MACROCASCADE, BIOSEA, ABACUS, MAGNIFICENT, VALUEMAG			



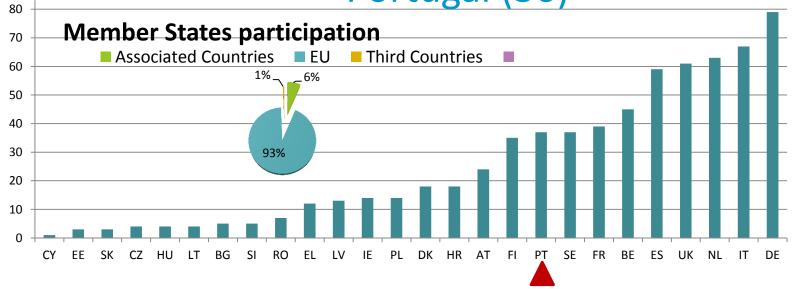
# Call 2014 submission statistics Portugal (1)

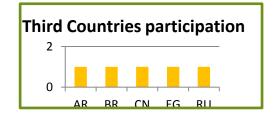


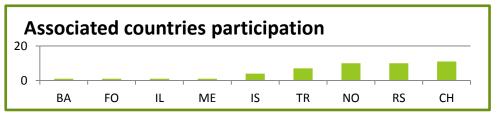


#### Call 2015.2 submission statistics





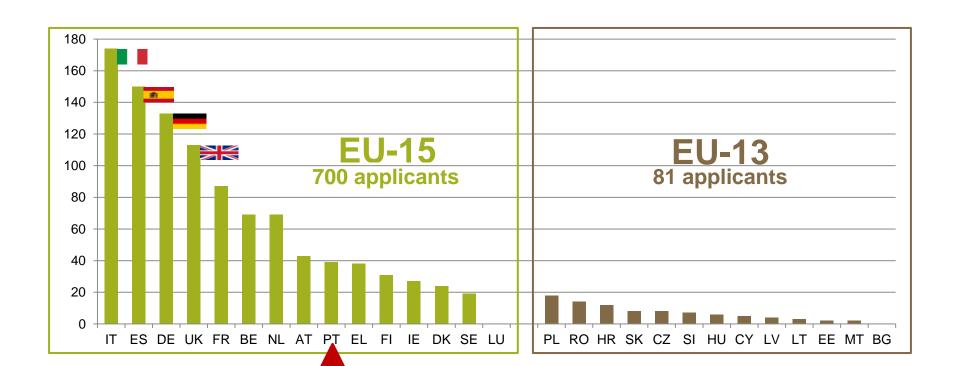






#### Call 2016: Submission statistics:

\* \*781 different applicants from the EU 28 : Portugal (39)

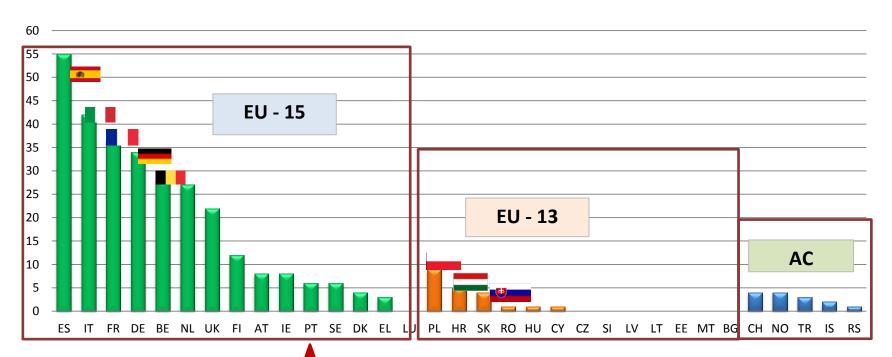




#### Call 2016

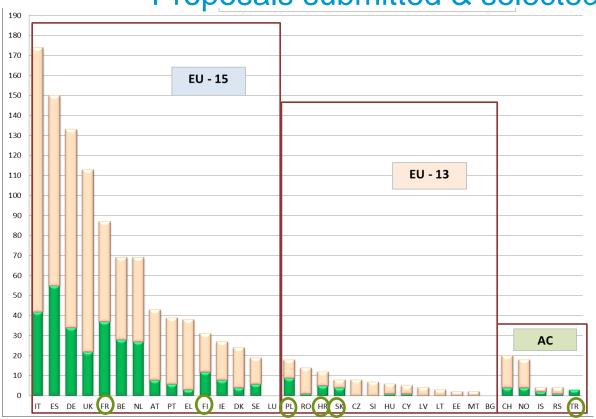
#### Proposals retained for funding

6 Beneficiaries out of 327





### Success rate: Call 2016 Proposals submitted & selected





#### Content

 Industry-academia cooperation: the Bio-based Industries Joint Undertaking

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## BBI implementation Steps towards a Call for Proposals

#### Strategic level: SIRA

Strategic Innovation and Research Agenda guiding document developed by BIC





RESEARCH & INNOVATION

Participant Portal

.



#### **Operational Level**

**Annual Work Plan** 



Call for proposals (RIAs, IAs, CSAs)









+ Scientific Committee

+ States Representatives Group

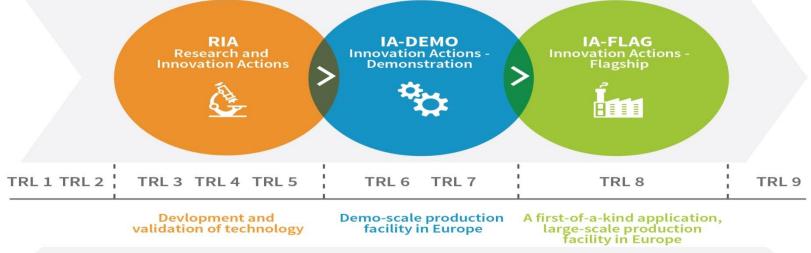


Publication & Implementation



#### **Actions and TRL**

- TRL: method of estimating technology maturity...
- ...using a scale from **1** (basic principles observed and reported) to **9** (actual system proven)







#### What does BBI JU finance?

#### **BBI JU funds 3 types of actions:**



Research & Innovation - RIA



Innovation (Demonstrators and Flagships) - IA



Coordination and Support - CSA



#### Strategic orientation in Call 2017

#### - 4 pilars of value chains -





#### **FEEDSTOCK**

Fostering a sustainable biomass feedstock supply to feed both existing and new value chains



expand & diversify the biomass feedstock portfolio





Optimising efficient processing for integrated biorefineries

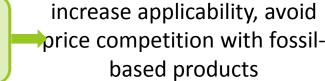


improve efficiency & sustainability, develop new processes



#### **PRODUCTS**

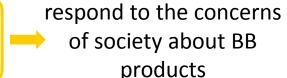
Developing innovative bio-based products for specific market applications







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





#### Strategic orientation in Call 2017

- 4 pilars of value chains -

**Topics** 



#### **FEEDSTOCK**

Fostering a sustainable biomass feedstock supply to feed both existing and new value chains

→ R1, D1, D2





Optimising efficient processing for integrated biorefineries



R2, R3, F1



#### **PRODUCTS**

Developing innovative bio-based products for specific market applications



R4, R5, R6, R7, D3, D4, D5 F2

MARKET UPTAKE



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

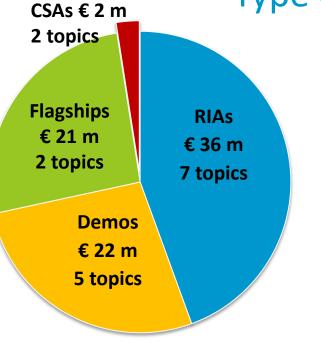


S1, S2



#### Budget distribution Call 2017





Indicative total BBI JU budget

€ 81 million

for 16 topics

In addition substantial resources from industry expected Estimated value of the in kind contributions: >40 M €



#### 7 RIA topics in Call 2017



Objective: Filling specific gaps in the value chain by validating a technology, process or materials/product at TRLs 4/5

BBI JU Budget: € 36 million // Grant: € 2-5 million per proposal

Feedstock	Valorisation of gaseous side streams (R1)		
Process	Pre-treatment & separation of lignocellulosic feedstock (R2), Extremophiles & extremozymes for processing (R3)  Conversion of pre-treated feedstock		
Products	Proteins & other bioactive ingredients from side streams (R4)  Novel BB chem. precursors for mass consumption prod. (R5)  Bio-based plastics for a sustainable end-of-life phase (R6)  Novel BB chemicals without sig. fossil-based counterparts (R7)		
Market uptake			



#### 5 Demo topics in Call 2017



Objective: demonstration of the technical and economic viability of a new or improved technology, process, product or service or value chain, achieving TRL 6-7.

BBI JU Budget € 22 million // Grant: up to € 7 million / proposal

Feedstock	Valorisation of <b>liquid and solid side streams</b> (D1) Valorisation of <b>algae</b> into materials/additives (D2)		
Process			
Products	Bio-based chemicals without sig. fossil-based counterparts (D3) Bio-based fertilizing products (D4) Bio-based fibres & materials for large-volume applications (D5)		
Market uptake			



#### 2 Flagships in Call 2017



Objective: deployment of a technology, which has been already demonstrated leading to a system, which is complete and qualified (TRL8) for successful commercial operation (large scale production facility in Europe)



BBI JU Budget € 21 million / Grant: up to € 21 million / proposal

Feedstock		
Process	Integrated 'zero waste' biorefinery utilising all fractions of the feedstock for production of chemicals and materials (F1)	
Products	Large scale production of proteins for <b>food and feed applications</b> from alternative, sustainable sources (F2)	
Market uptake		



#### 2 CSAs in Call 2017



Objective: non-technological actions supporting value chains development through various means (no link to TRL)

BBI JU Budget € 2 million // € 1 million / proposal

Feedstock	
Process	
Products	
Market uptake	Establish cooperation and partnership with <b>brand owners &amp; consumer</b> representatives to improve market access (S1)  Identify <b>opportunities for ICT</b> to increase efficiency of biomass supply chains for the bio-based industry (S2)



# Importance of Impact ...even more focus on impact in call 2017

- Emphasis is increased on sustainability, addressing the environmental, social and economic dimension
- More focus on products with new functionalities
- All 'expected impacts' (qualitative & quantitative) are clearly listed in the topic text
- Clear contribution to BBI Key Performance Indicators (KPI) expected (each proposal shall explain how it is contributing to the KPIs as defined in the current <u>SIRA</u>, p30f.)



#### **BBI JU Key Performance Indicators (KPI)**

KPIs addressed in the topics (expected impact)

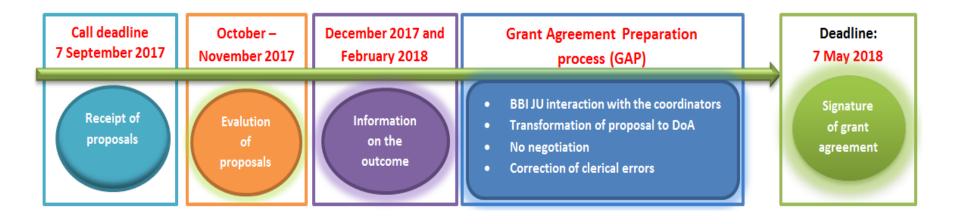
- KPI 1 New cross-sector interconnections → all 16 topics, all actions
- KPI 2 New bio-based value chains → 14 topics (all RIAs + IAs)
- KPI 3\* BBI Cooperation projects → All topics
- KPI 4 New BB chemical building blocks → 2 topics (R1, D3)
- KPI 5 New bio-based materials → 7 topics (RIA, Demo, Flag)
- KPI 6 New BB 'consumer' products → 7 topics (Demo, Flag)
- KPI 7\* BBI flagships projects → 2 topics (Flag)

Note \* KPI3 & KPI7 will be measured at programme level; the numbers will refer to successful projects

Source: SIRA p. 30f



#### **Indicative Timing**



## \*BBI

#### **BBI JU Evaluation Criteria:**

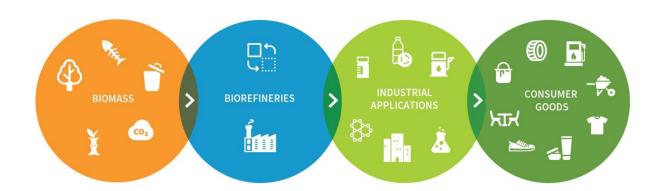
#### \* H2020 rules apply + Specificities of the BBI JU Programme

	CSA	RIA	IA
Excellence	H2020	H2020	H2020 + coverage of the value chain
Impact	H2020	H2020 + extent to which consortium contribution will help maximising impact of the action	H2020 + extent to which  consortium contribution will help maximising impact of the action
Implementation	H2020	H2020	H2020 + Soundness of the business case and business plan + Readiness of the technology for the implementation of the pilot phase, demonstration or <a href="flagship">flagship</a> *



# BBI JU-specific subcriterion **Excellence** (IAs)

Coverage of the <u>whole value chain</u>





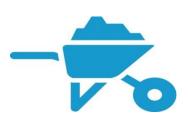
# BBI JU subcriteria Impact (RIAs and IAs) Consortium own contribution

#### 3 types of own contribution

- In kind:
  - RIA and CSA: large enterprises received no funding: 100% of their eligible costs is own contribution – industry commitment
  - RIA and CSA for SMEs and RTO ,100% reimbursement rate. But the request can be less → visible in Part A (budget)
- **In cash:** cash contribution given to one or more partners
- Additional investments\*



#### **Additional Investments**



- WHAT are additional investments?
  - Activities outside the work plan of the BBI JU contributing to the objectives of the BBI Initiative (investments at the implementation or exploitation phase infrastructure, durable equipment,...)
- WHY do you need additional investments?
  - Industry via BIC shall provide at least € 1 755 million in additional investments\*
- HOW are additional investments registered?
  - Costs are not eligible -> not included in the budget table but described in the proposal (part A and B);
  - at evaluation stage they are assessed within the criterion Impact



# BBI JU subcriteria Impact (RIAs and IAs)

- 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



#### "Own contribution" in proposal?

#### Part A:

- 'In kind': can be derived from budget table (e.g. € 1 million costs, € 650k requested BBI JU contribution = € 350k 'in kind')
- <u>'In cash'</u> and <u>'additional investments'</u>: cf. call-specific questions in the proposal's 'part A'



# Part A: Call-Specific Questions

-								
Cash Contributions								
Does the proposal foresee cash cont Cash Co	ntributions	Yes						
Name of the entities contributing cast	Entity C							
Total amount including all entities' cash contributions								
Additional Investments								
Does the proposal foresee additional restments?		Yes						
Additional Investments								
BBI-JU - Research - Participants Proposal Submission Forms  Go to  Table Of Contents  Validate Form  Save and Close								
Proposal ID SEP-210352992 Aeronym bbi ju								
Name of the entities contributing additional investments	eg. Entity A, Entity B, Entity C							
Total amount including all entities' additional investments								



# "Own contribution" in proposal?

#### Part A:

- <u>'In kind':</u> can be derived from budget table (e.g. € 1 million costs, €
   650k requested BBI JU contribution = € 350k 'in kind')
- <u>'In cash'</u> and <u>'additional investments'</u>: call-specific questions in the proposal's 'part A'

#### Part B:

- To be described in more detail (incl. their impact) in section 3.4 ('resources to be committed')
- Additional investments: table in Guide for Applicants (GfA)



# BBI JU-specific subcriteria Implementation (IAs)

- Soundness of the <u>business case and business plan</u>
  - Why? IAs are close to market => business case and business plan are needed
  - How? 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 Implementation (IAs)

- Readiness of the technology
  - <u>Tip</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)."



### Content

 The Bio-based Industries Joint Undertaking: strategic orientations

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• Rules for participation: legal and financial aspects



### What does BBI JU finance?

#### **BBI JU funds 3 types of actions:**



Research & Innovation – RIA TRL 3-5



Innovation Actions – IA
Demo TRL 6-7 and Flagships TRL 8



Coordination and Support – CSA



# Participation & funding rates per action

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



## E.g. financial regime: RIA & CSA

Funding Rates 100% (n/a for large industry)\*

Participant	(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	900	350	1750	NA	0	0
SME	350	50	100	500	100	500	500
Univer-sity	300	50	87.5	437.5	100	437.5	437.5
Total				3562.5		1812.5	1812.5

<sup>\*</sup> as per Derogation from H2020 RoP

€ 2 -5 million

Note: This is an example for RIA as provided in the GfA for Call 2015. Costs in k€.

Consortium / Industry own contribution to the project is k€1.750 (total costs not reimbursed by the BBI JU), which represents about 50% of the total budget in this case (k€ 3562.5).



## E.g. financial regime: IAs

Funding Rates 70% (100% for non profit org)

	Participant	(A) Direct personnel costs/€	(B) Other direct cost/€	(F) Indirect Costs/€ =0.25 (A+B)	(H) Total est [eligible] costs/€		(I) Reimb rate (%)	(J) Max grant (=H*I)	(K) Requested grant/€
	RTO	200	240	110		550	100	550	550
$\left( \ \right)$	1. Large Industry	2500	6000	2125		10625	70	7437.5	4872.5
	2. Large Industry	1000	1000	500		2500	70	1750	1750
	SME	210	650	215		1075	70	752.5	752.5
	Total			€ 15 millio	n ->	14750		10490	7925

Note: This is an example for IA (DEMO) as provided in the GfA for Call 2015. Costs in k€. SME & large industry partners can receive 70% and the RTO can receive 100% of the total eligible costs.

Participants can request a lower funding (eg 1. Large Industry) —> increasing the consortium/ industry own contribution in the project (in this case to 46%) -> in line with BBI JU policy.



### Financial Regime in BBI JU Calls

Industry-driven programme

the participation of the industry matters

- RIA and CSA: no funding for large companies
  - → specific for BBI JU
- Innovation Actions: 70% reimbursement rate
  - → common for H2020

#### **Consortium own contribution**

- requesting less than funding rate
- « Additional investments »
- → specific for BBI JU

Is positive in evaluation



## Takeaway messages

- Industry-driven programme: the participation of the industry is crucial, it has to bring the idea, define the gap(s) & provide the financial contribution
- Benefit from BIC membership: better access to information (before topic publication); contribution to topic drafting
- It is about Impact though Excellence & Implementation count

