

Bio-based Industries Joint Undertaking

Current programme results & impacts



Bioeconomy Forum

«Towards a Sustainable and Innovative Bioeconomy»

9 March 2017 - Riga

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Horizon 2020
European Union funding
for Research & Innovation





Conclusion

What?

Why?

How?

Success?

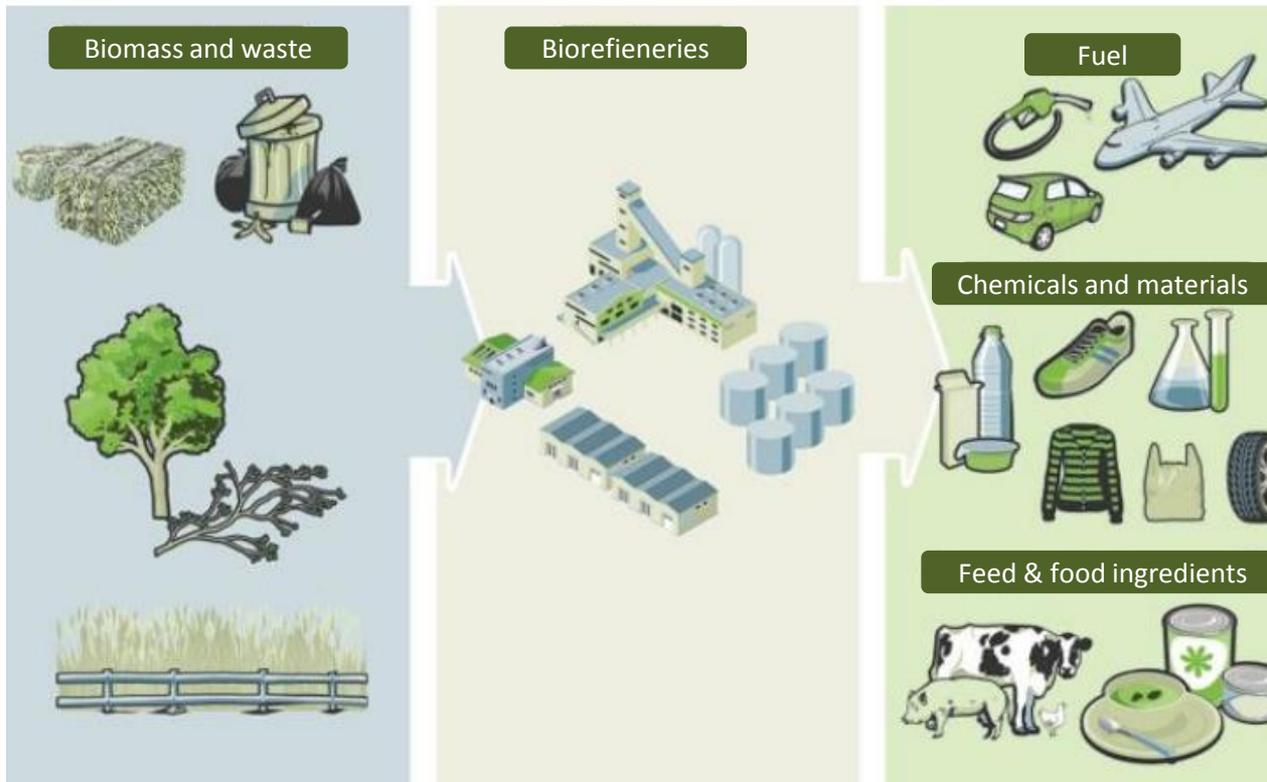
Where?



Bio-based industries value chains in 3 segments

BBI value chains represent 3.2 million jobs and € 600bn turnover but are **extremely fragmented** between **actors** and across **geographical boundaries**

- Industrial side-streams
- Municipal waste
- Waste water
- Algae
- Wood side-streams from forestry
- Ligno-cellulosic & fiber crop
- Agriculture crops
- **AQUATIC**

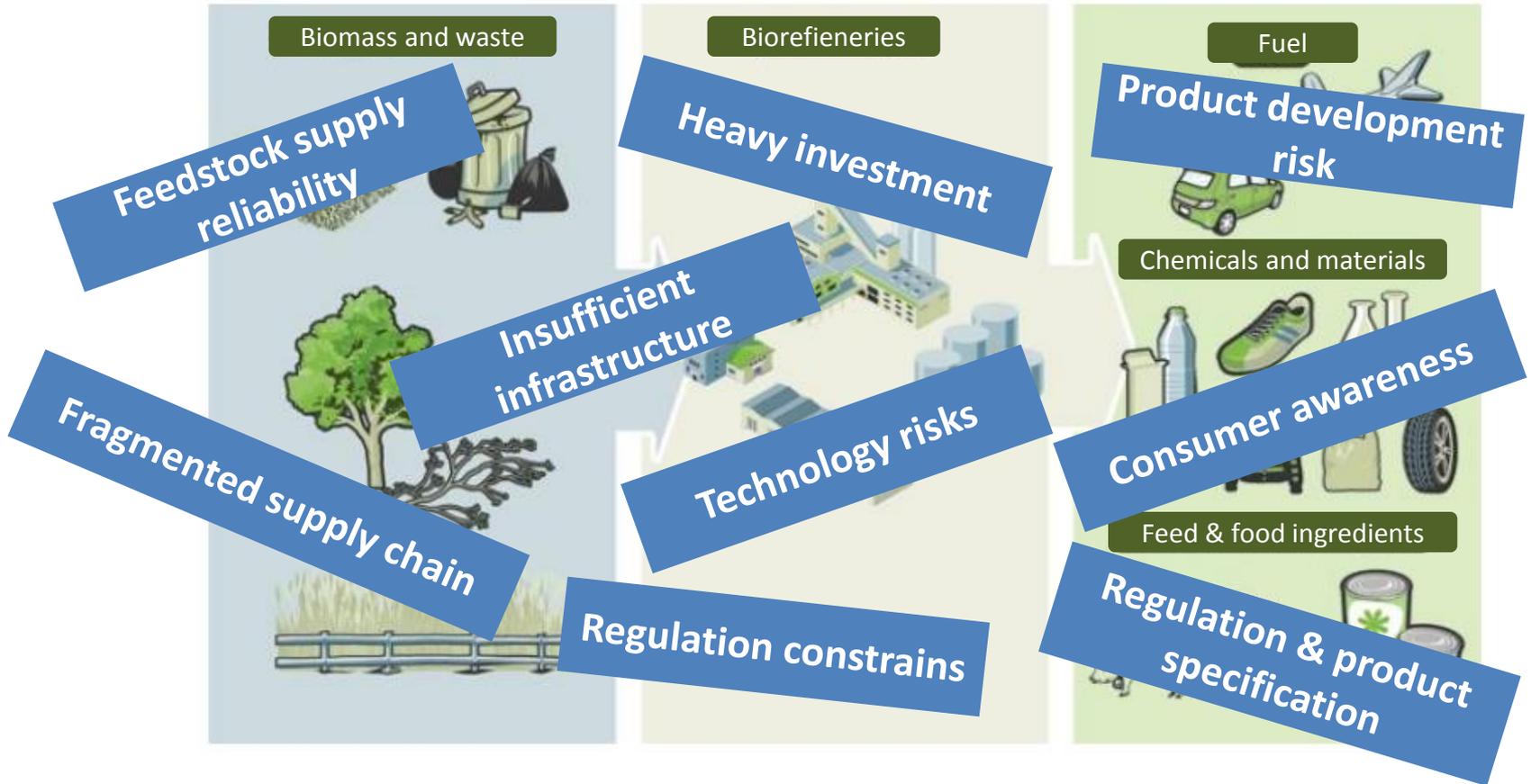


- Biofuel
- Bioplastics
- Biopolymers
- Chemical building blocks
- Biosolvent
- Surfactants
- Biolubricants
- Coatings
- Textiles
- Pharmaceuticals
- Food & feed ingredients



Bio-based industries value chains

Bio-based industries value chains are facing with several **challenges** and **risks** to further develop





Why BBI JU was needed EU Bioeconomy strategy in 2012

European public-private partnership was needed to :

- **De-risk** investments;
- **Organize** the value chains;
- Reach **critical mass** of this “emerging” sector



BBI JU was needed to :

1. **Pool resources** from public & private sectors, to create a common platform;
2. Have **joint approach**, across sectors & geographies;
3. Offer **joint financial** commitment and a jointly defined programme;
4. Leverage **additional investments**;
5. Implement **clear framework** that brings **clarity for activities & investments**;
6. Ensure **long term stability** and predictability



What?



About BBI JU

- Public-Private Partnership between European Commission & BIC supporting R&I for Bio-based industries
- BBI Budget: € 3.7 billion (25% EU - 75% industry)

$$\text{mil 975€} + \text{mil 2,730 €} = \text{mil 3,700 €}$$

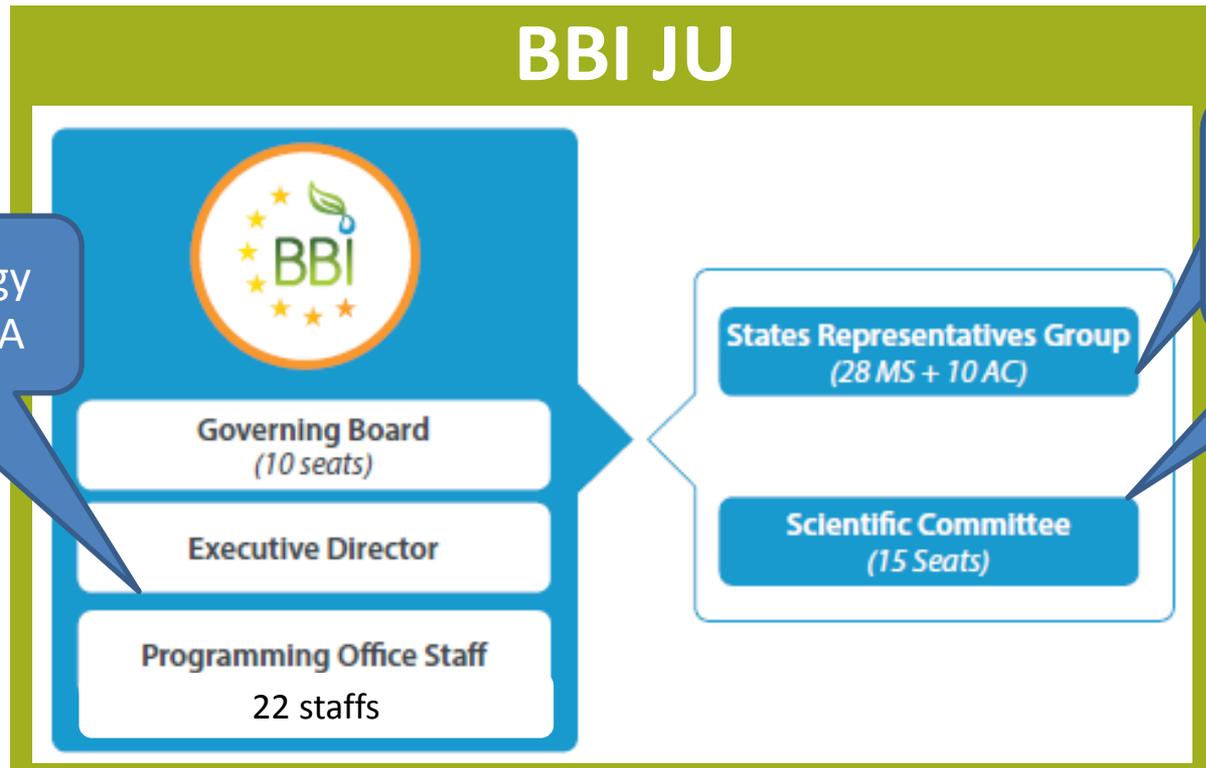
- Independent legal entity since 26 October 2015
- Horizon 2020 rules for participation
- Principles of openness, transparency and excellence



BBi JU - Governance



- SIRA
- Define topics
- Mobilise actors
- Access to finance



- Execute strategy
- Implement SIRA

- Advise on AWP
- Control
- Support BBi actions



BBI JU mission

Implement, under Horizon 2020 rules, the Strategic Innovation and Research Agenda (SIRA) developed by the European Bio-based industry (BIC)

BBI Programme office team is in charge of:

- Coordination of Annual Work Plan building
- Call management
- Proposals evaluation (by independent expert panel)
- Grant Agreement Preparation Process
- Whole project management life cycle
- Communication, dissemination & stakeholder management



BBi JU objectives

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

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



Expected impact for Europe by 2030

- Replace 30% of oil-based chemicals & materials
- Diversify & grow farmers' revenues
- Create 700,000 jobs – 80% in rural areas
- Reduce EU dependency on import of fossil raw materials, protein and P - K
- Develop potential of agriculture waste & forestry residues
- Shift to bio-based economy → average 50% GHG emission reduction

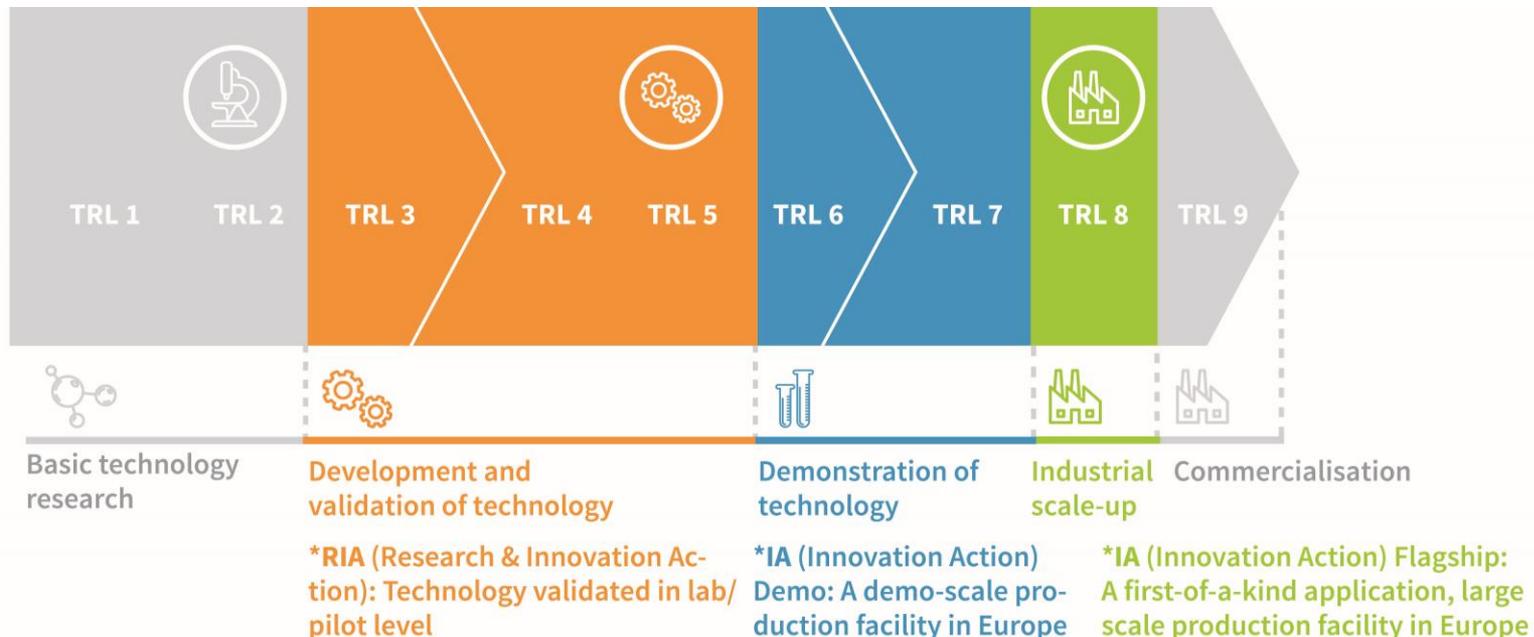


How ?



BBI JU funds collaborative industry driven actions covering 4 value chains

- VC 1: From ***lignocellulosic*** feedstock to advanced biofuels, bio-based chemicals & biomaterials
- VC 2: Next generation ***forest***-based value chains
- VC 3: Next generation ***agro***-based value chains
- VC 4: New value chains from (organic) ***waste***



*CSA (Coordination and Support Actions) – no link to TRLs



Participation & funding rates per action

Type of participant	RIA	IA Demo - Flag	CSA
Large Industries	/	70%	/
SMEs	100%	70%	100%
Universities	100%	100%	100%
RTOs – non profit, legal entities	100%	100%	100%
Duration	3 – 5 years	4 – 5 years	1 – 3 years



Evaluation criteria

- 3 **main** evaluation criteria (= H2020):
 - ***Excellence*** *WHAT?*
 - ***Impact*** *SO WHAT?*
 - Quality and efficiency of the ***implementation*** *HOW?*
- Different **sub**criteria per main criterion
 - All H2020 subcriteria per action are applicable
 - Limited amount of BBI JU-specific subcriteria



BBI JU Calls overview



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

Call 2015.1: 3 Flagship projects

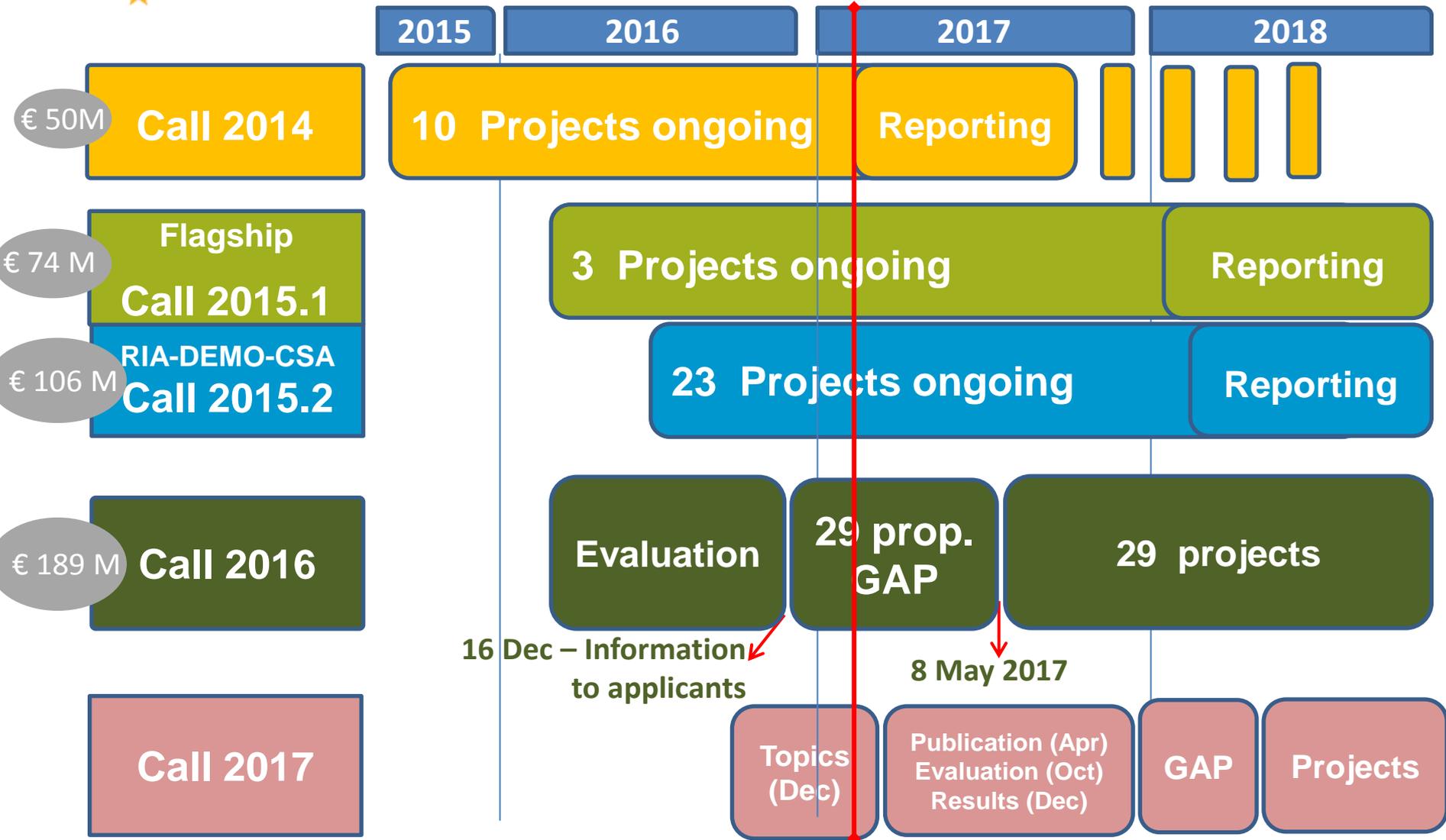
Call 2015.2: 23 running projects: (11 RIA, 9 Demo, 3 CSA)

→ 36 running projects + 29 from call 2016 (GAP) = 65 projects



BBI JU Calls overview

9 March 2017





Call 2017 – budget (lines)

- Competition *within* each budget line

Action	# topics	Budget (line)
CSA	2	€ 2 million
RIA	7	€ 36 million
IA-DEMO	5	€ 22 million
IA-Flagship	2	€ 21 million



2017 Call for Proposals

2016

- Publication topic texts (December 2016)

Apr

Call opens (11 April 2017)

Sept

- Call closes (8 September 2017)

Oct-
Nov

- Proposal evaluation

2018

- Evaluation results (10 February 2018)

→ GA signature at the latest 10 May 2018

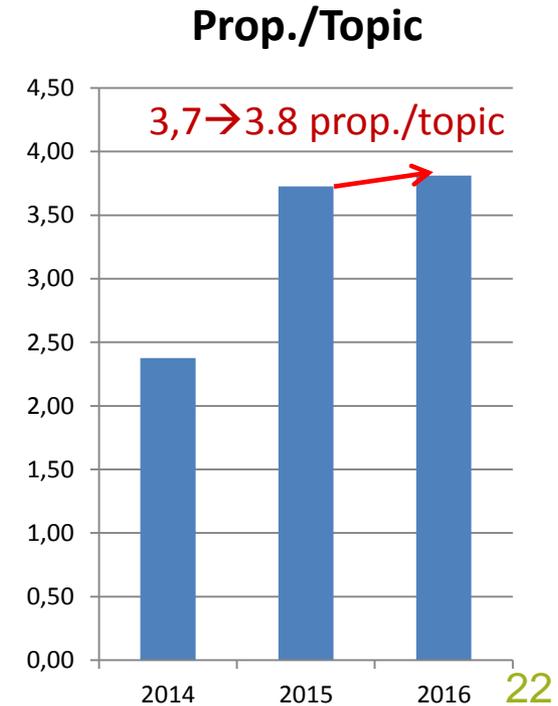
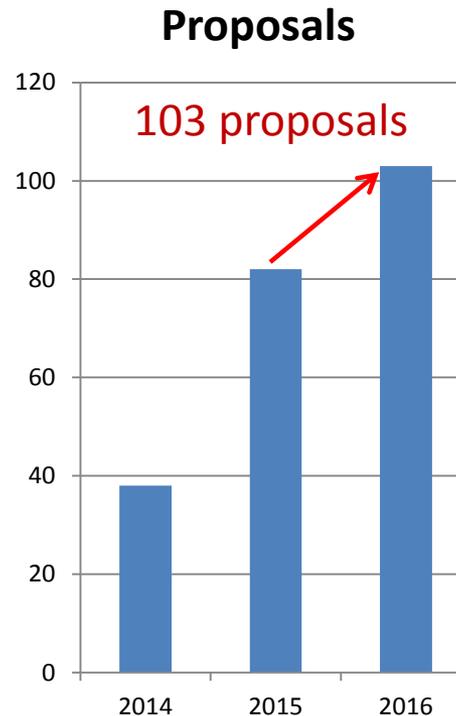
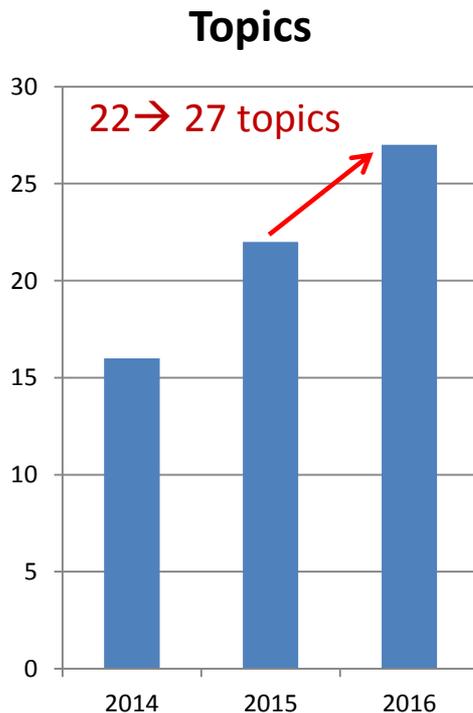


Call 2016 submission statistics



BBI JU Calls - Submission Statistics

The mobilisation of the sector is confirmed with 103 proposals and 3,8 proposals in average per topic

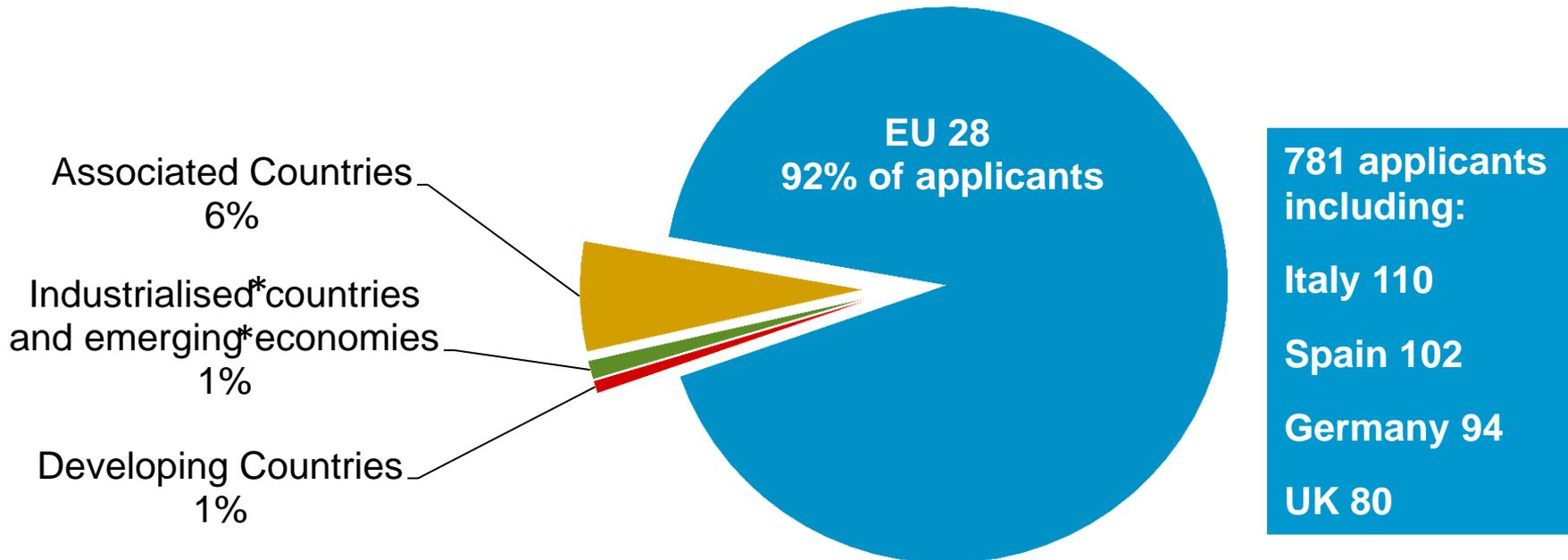




Call 2016: Submission statistics

Groups of Countries

Total 820 applicants in 103 submitted proposals



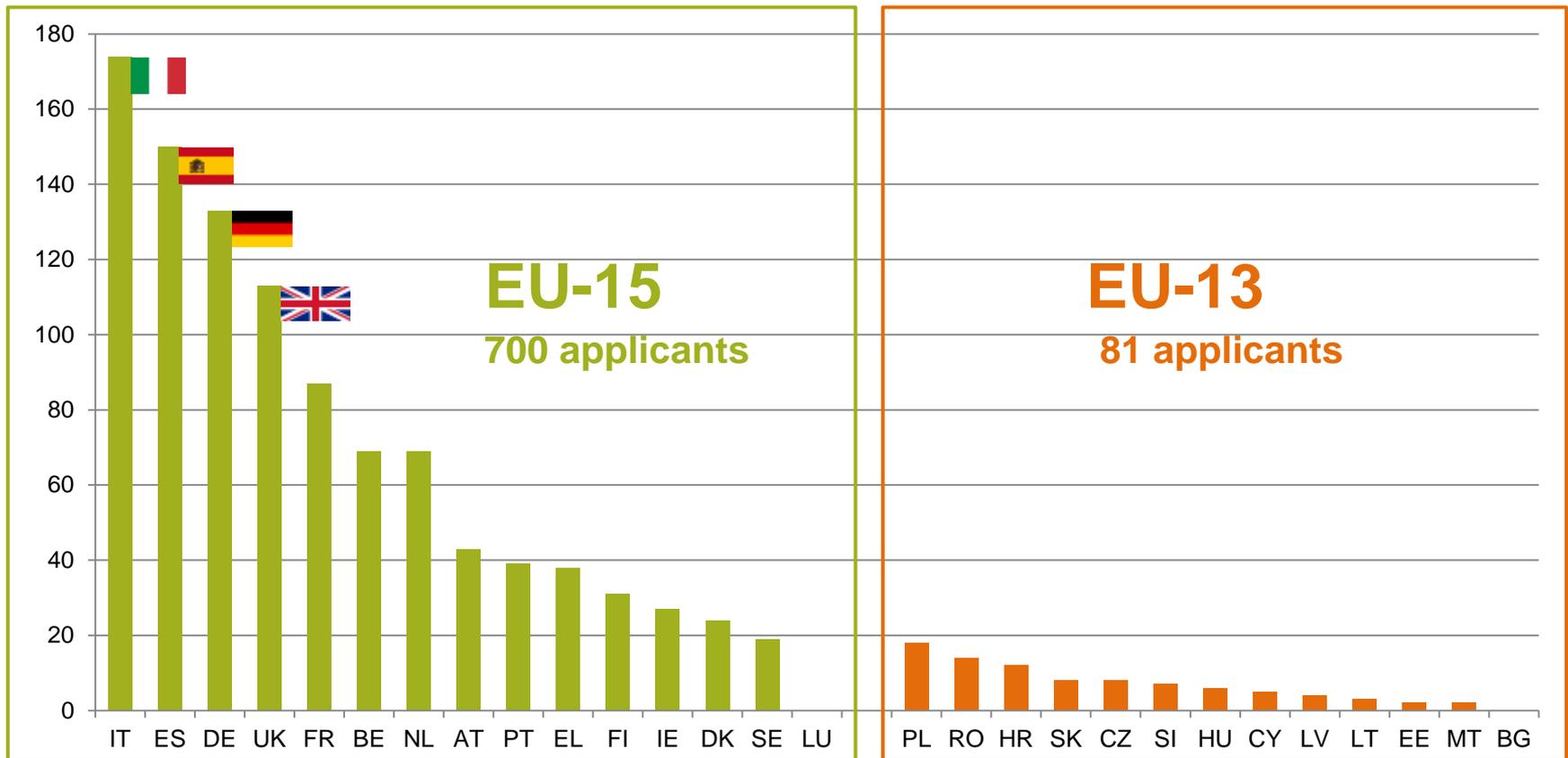
* H2020 classification



Call 2016: Submission statistics:

EU 28: Number of applicants per country

781 applicants from the EU 28 with 10% from EU 13
Among EU 13: Poland (18), Romania (14), Croatia (12)





Call 2016 outcome

-

Project portfolio



Call 2016 Overview of evaluation

The outcome of the evaluation confirms a significant mobilisation of the BBI sector with good proposals and an optimal topic coverage

- **High quality:**

In total, from **103 proposals** submitted, **55 were above threshold**.
53% of proposals above threshold: 51% of RIA, 66% of CSA, 50% of DEMO and 67 % FLAG

- **High success rate:**

In total 29 proposals out of 103 retained for funding, showing **28% success rate**, consuming 98.4 % of the 188.65 M€ budget

- **Optimal coverage**

New projects from call 2016 contribute to the better coverage of VC4 organic waste and aquatic biomass and CSA



BBI on-going projects

Calls 2014 + 2015 + call 2016 (GAP)

Value Chains	RIA	DEMO	Flagship	CSA
VC1 (lignocellulose)	US2GREENCHEM Zelcor LIBRE HYPERBIOCOAT	ValChem GreenSolRes BIOFOREVER	BIOSKOH LIGNOFLAG	-
VC2 (forest-based)	SmartLi Greenlight PROVIDES NeoCel TECH4EFFECT EFFORTE	PULPACKTION FRESH	EXILVA	
VC3 (agro-based)	Carbosurf PROMINENT LIBBIO	Pulp2Value AgriMax Funguschain GreenProtein LIPES	FIRST2RUN	
VC4 (organic waste)	NewFert			
Across VCs	EnzOx2 InDIRECT BIOrescue	DEMETER		BioCannDo BIOCOM STAR4BBI
Aquatic Biomass	MACROCASCADE			

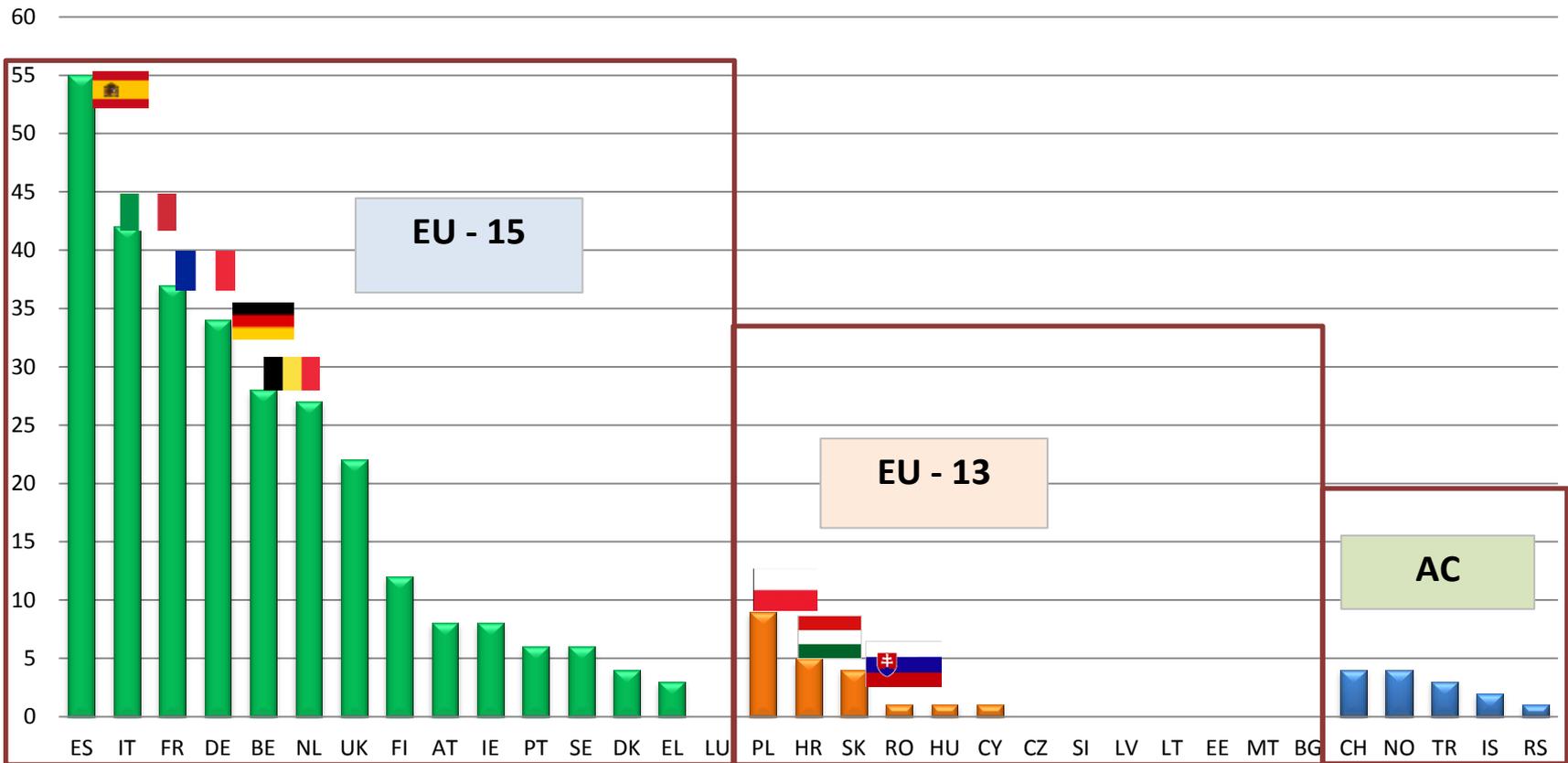
Standards
Regulations
Communication
Awareness



Call 2016

Proposals invited to GAP (16 Dec. 2016)

EU 28 Beneficiaries: 313 + 14 AC

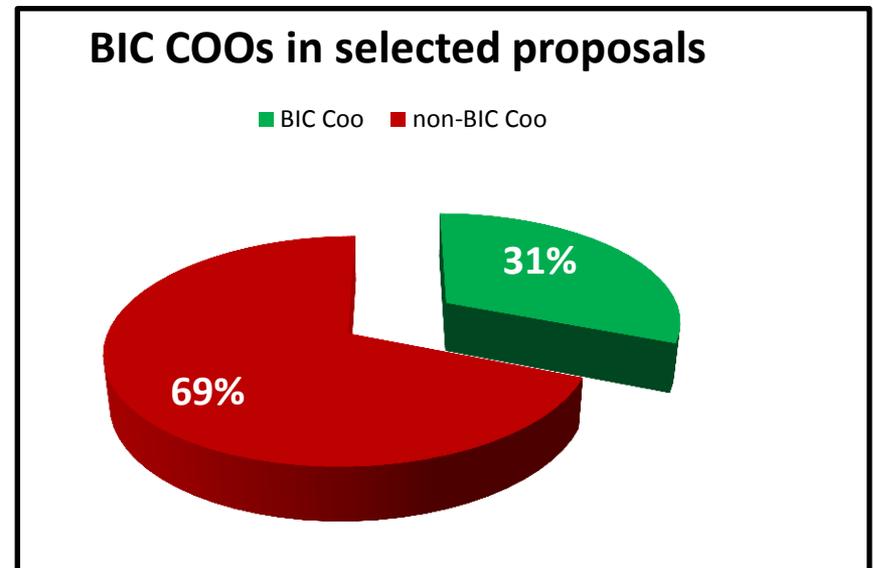
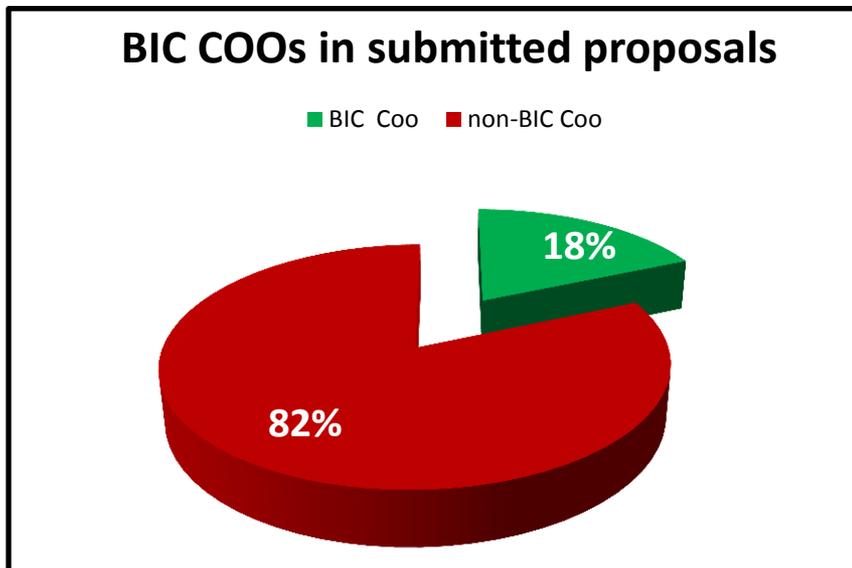




BIC Coordinators in submitted vs selected proposals

Success rate of proposals having a **BIC Coo** : 47.4 %

Success rate of proposals having a **non-BIC Coo** : 23.8 %



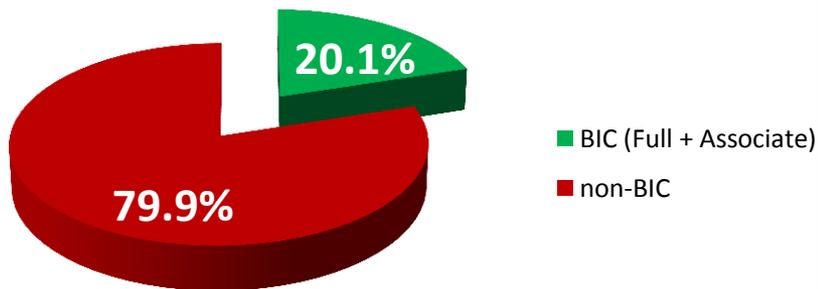


BIC members in submitted vs selected proposals

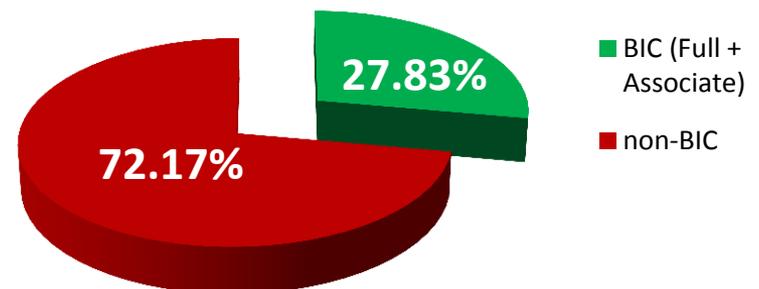
BIC members : 38.1 % success rate in selected proposals

Non-BIC members : 24.8 % success rate in selected proposals

BIC membership in submitted proposals (participation)



BIC membership in selected proposals



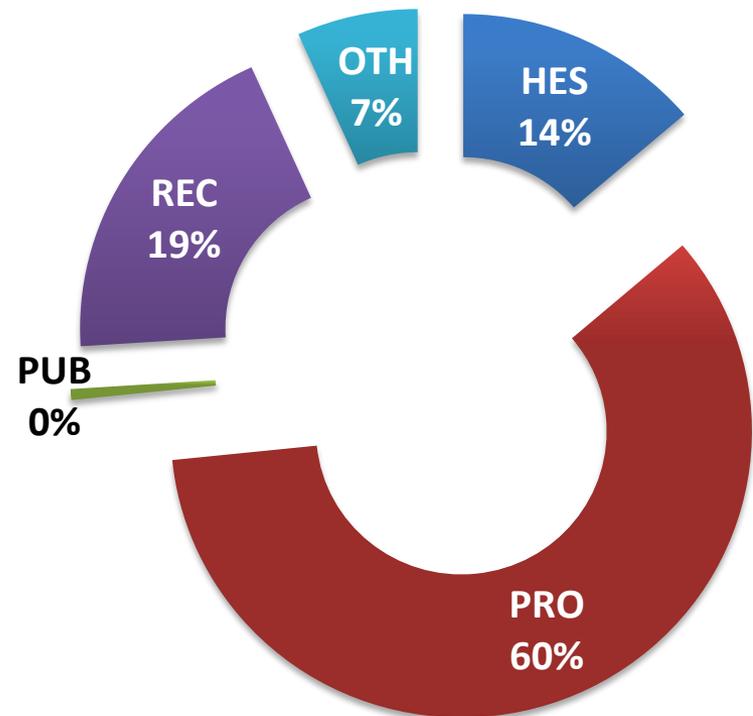


Call 2016

Type of organisations in selected proposals

It is an industry driven programme

PRO	Private for-profit entities
OTH	Other <ul style="list-style-type: none"> • private not for profit entities • international organisation (or international organisation of European interest) • natural person • entities without legal personality
REC	Research Organisations
HES	Higher or Secondary Education Establishments
PUB	Public Organisation

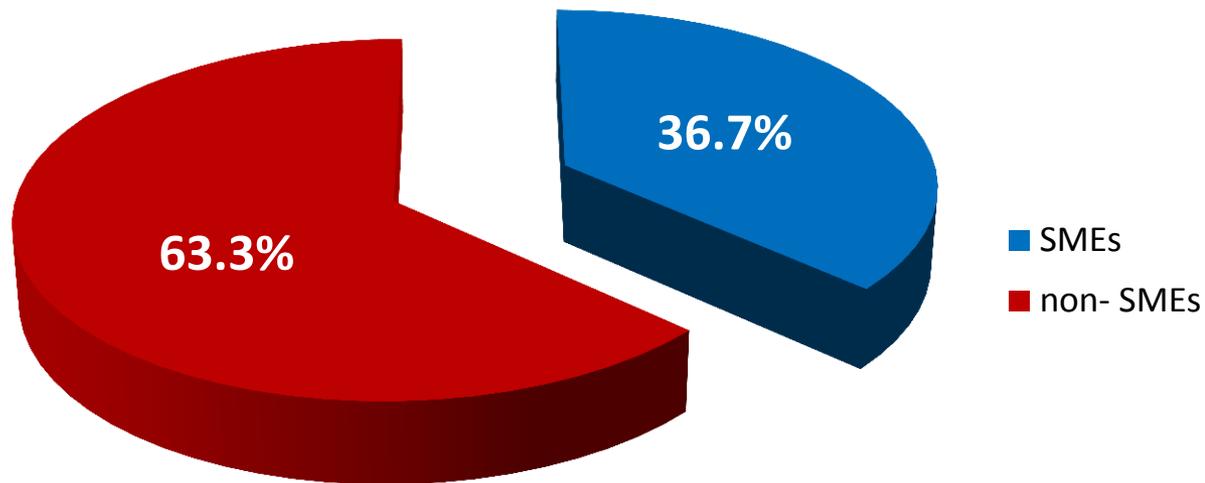




Call 2016 % SME participation

- Share of self declared SMEs in the total number of participants in proposals retained for funding

SMEs in selected proposals



H2020 objective: min 20%



Succesful?



BBI JU monitoring

- BBI JU efficiency KPI monitoring according to H2020 and common to all JU:
TTI – TTG - TTP- ...
 - Leverage effect of financial contribution from private sector vs EU contribution
 - KPI level 1 & 2 from SIRA
 - KPI level 1= socio economic and environment impact: survey
 - KPI level 2 = outcome of the BBI project portfolio:
Definition – Target – Process - Questionar through SIRA
- Reporting received end January 2017

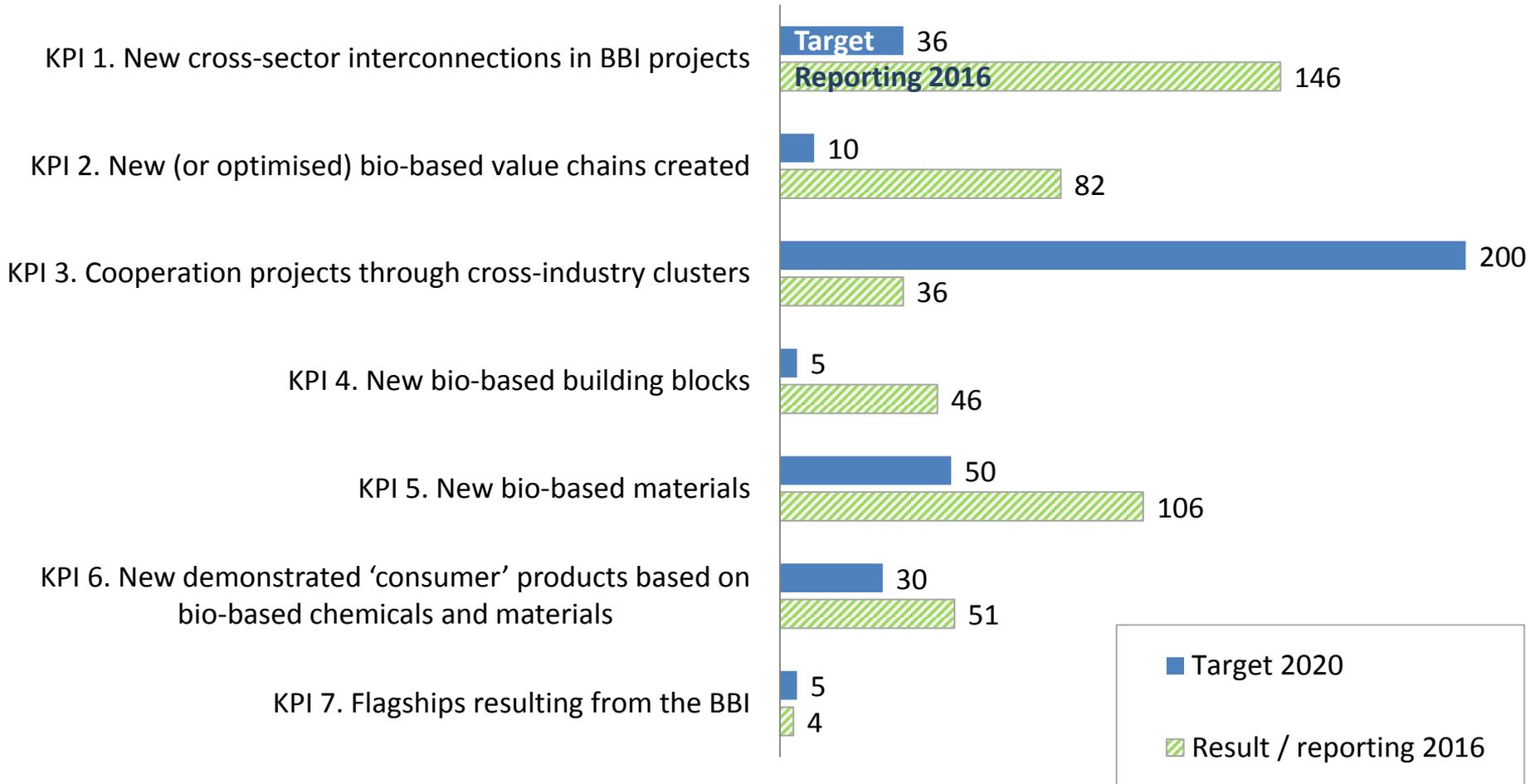


BBI projects outcome 7 KPI (level 2) from SIRA

1. New cross sectorial interconnections
2. New bio-based Value Chains
3. BBI cooperation projects
4. New bio-based chemical building blocks
5. New bio-based materials
6. New bio-based consumer products
7. BBI Flagship projects



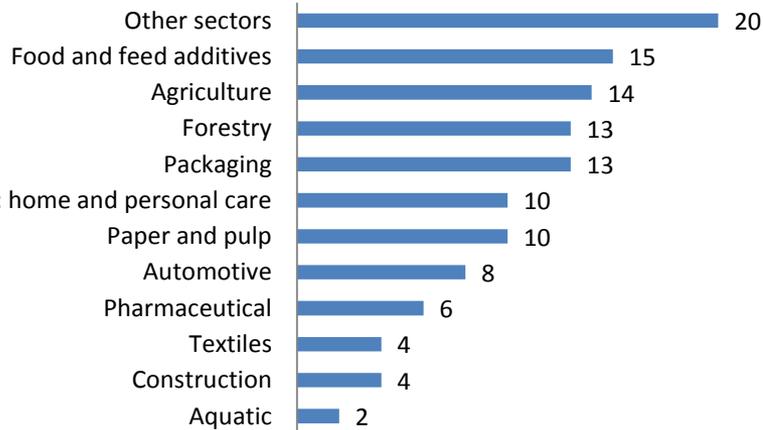
Progress of the 7 KPIs BBI projects outcome by end 2016 vs targets by 2020



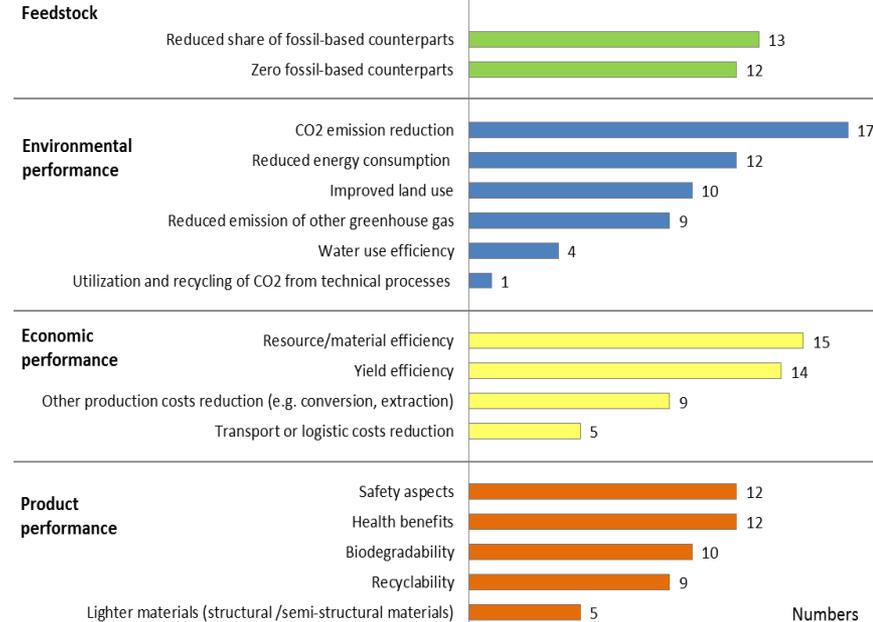


Analysis per sector, per type of benefit and per application

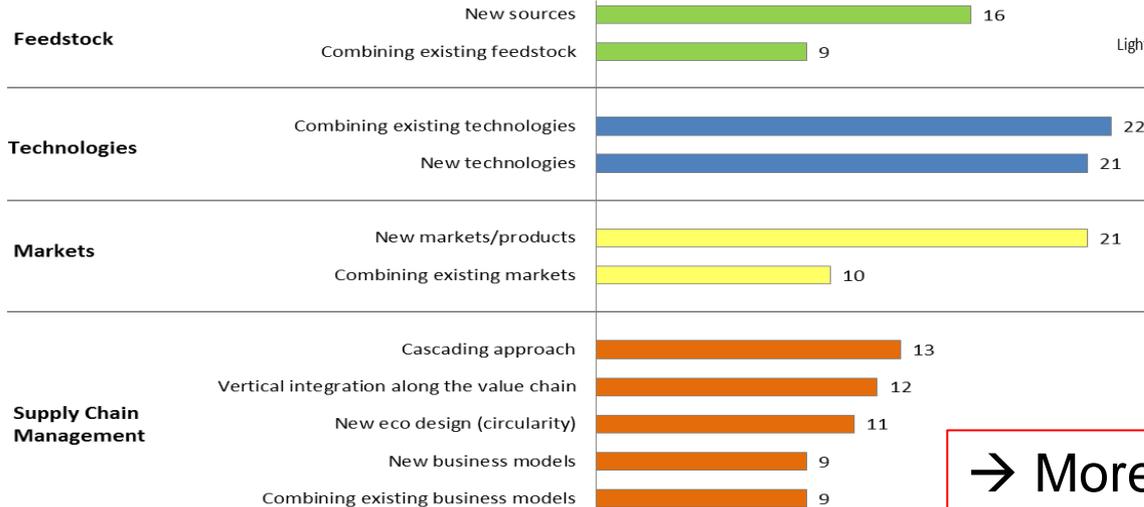
Number of projects reporting new interconnections in those industry sectors



Main aspects of novelty in the new bio-based building blocks



Main aspects of novelty in the new value chains



→ More details in BBI JU AAR2016



Conclusion

Next steps



Some lessons learnt

- Increasing mobilisation in BBI calls
- Optimal Value Chains coverage
- New types of collaboration
- High % of SME participation
- Increasing interest from Regions
- Increasing participation of EU13
- Growing BBI JU awareness
- First result of widening participation strategy
- Europe is back on the map
- ...



Always room for improvement

- Farmer organisations participation
- Municipal bio-waste
- BBI widening participation strategy
- More emphasis on aquatic biomass
- Increase « brand owners » participation
- Engage towards priority stakeholders

- ... New SIRA



Follow BBI JU

- BBI JU Open Info Day Brussels 28 April 2017
- First BBI JU Stakeholder Forum Brussels December 2017

→ Join us on BBI partnering platform

www.bbi-europe.eu



Thank you



www.bbi-europe.eu

Philippe Mengal
Executive Director



Horizon 2020
European Union funding
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