



# BBI JU

# INFO DAY 2019

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**#BBInfoday**





Session 2 | The BBI JU 2019 Work Programme

# BBI JU's Call priorities and novelties

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**#BBInfoday**

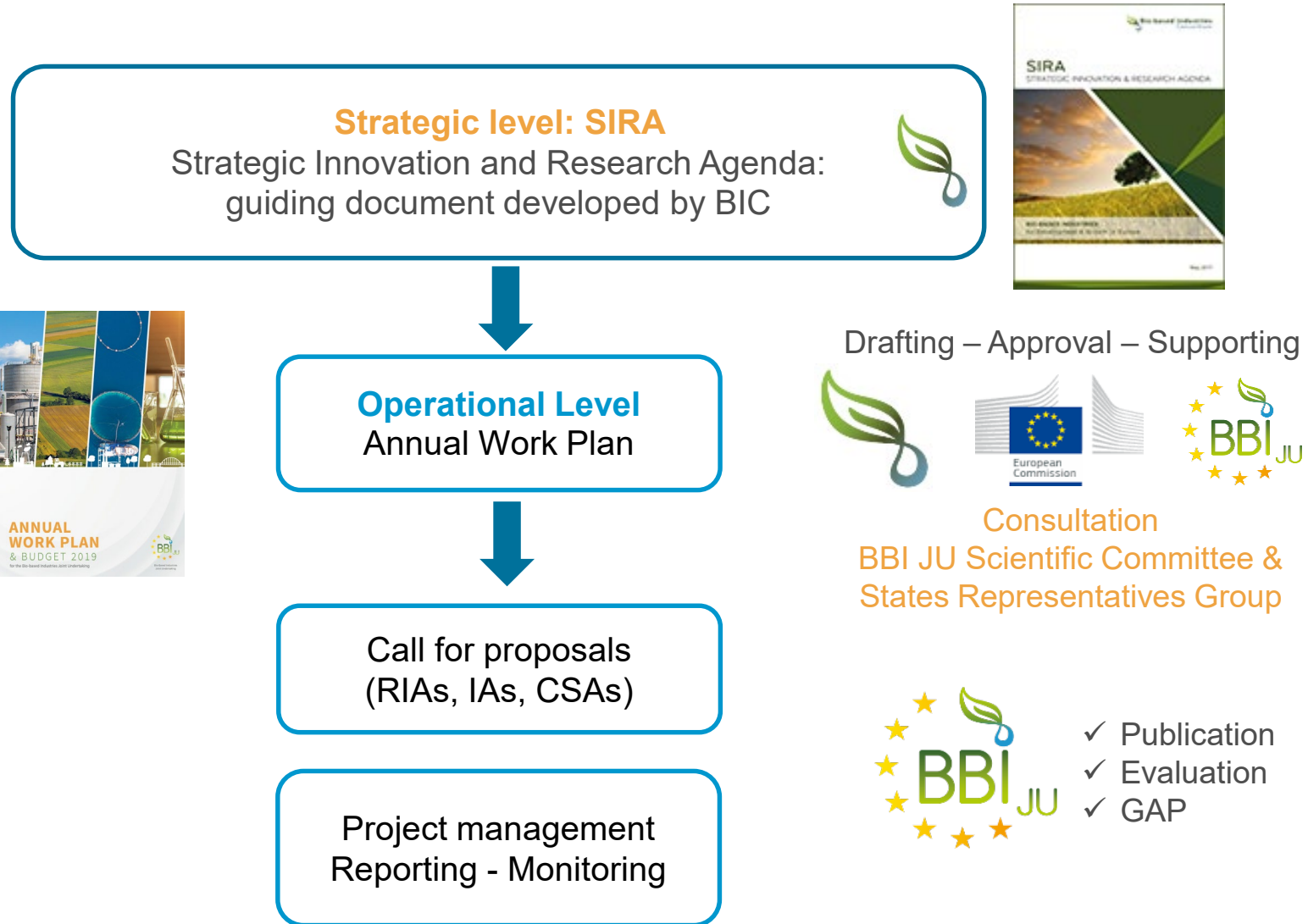




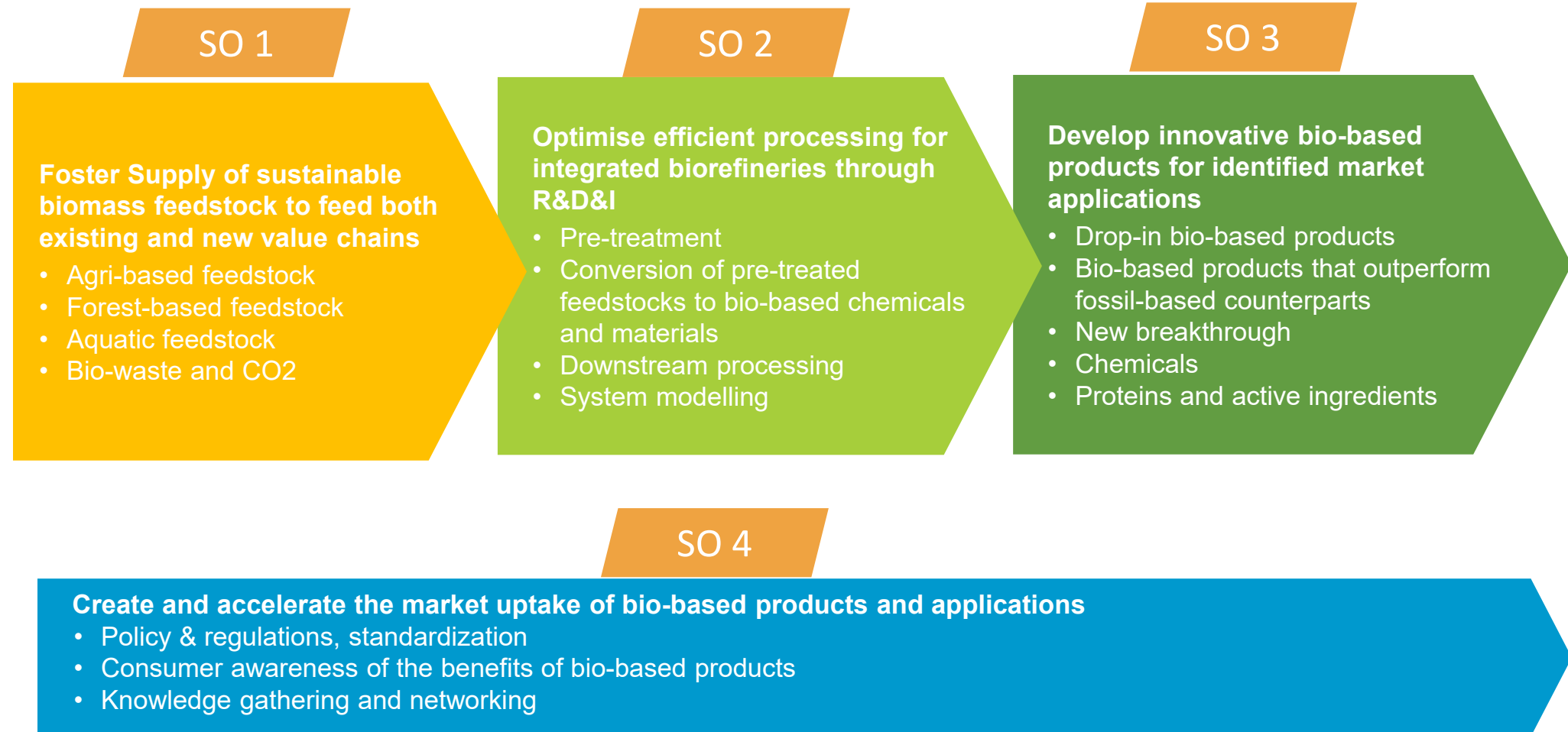
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# From SIRA to Calls

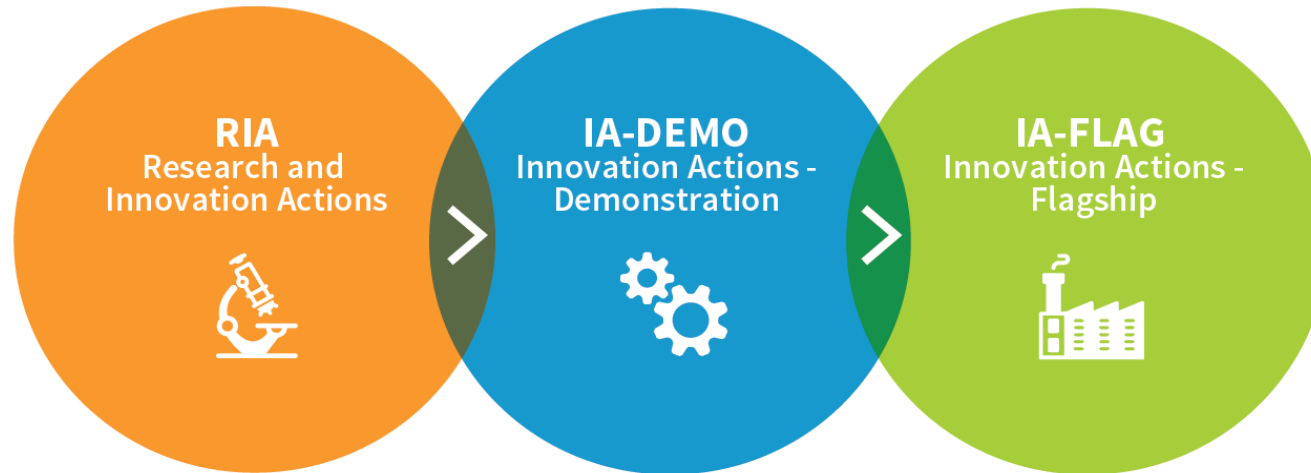


# SIRA Strategic Orientations (2017)



# BBI JU - Types of Actions

RIAs fill specific gaps in Value Chains (VCs)



IAs address the whole VC from feedstock sourcing to market applications



Development and validation of technology

Demo-scale production facility in Europe

A first-of-a-kind application, large-scale production facility in Europe



**CSA** Coordination and Support Actions - no link to TRLs\*

\*TRL = Technology Readiness Levels

CSAs address non-technological challenges of VCs



# End Technology Readiness Levels (TRL)

**TRL: Method of estimating technology maturity using a scale from 1 to 9**

Proposals should clearly state the starting TRL



TRL 1 – basic principles observed

TRL 2 – technology concept formulated

TRL 3 – experimental proof of concept

**RIA**

TRL 4 – technology validated in lab

TRL 5 – technology validated in relevant environment

**DEMO**

TRL 6 – technology demonstrated in relevant environment

TRL 7 – system prototype demonstration in operational environment

**FLAG**

TRL 8 – system complete and qualified

TRL 9 – actual system proven in operational environment



# How to measure outcomes and impact

- KPI 1 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

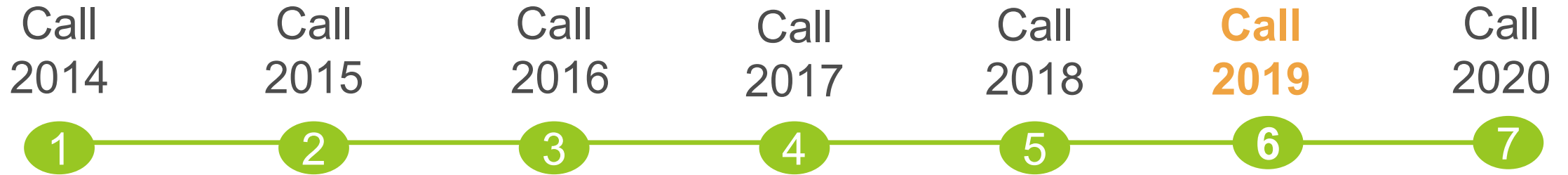
- All topics address KPI 3 and socio-economic and environmental impact
- KPIs specific to
  - RIAs: KPI 8
  - IAs: KPI 6
  - FLAGs: KPI 7
- KPIs 1, 2, 4 and 5 are present in all type of actions

***KPIs assessed during the evaluation!***





# BBI JU Call 2019 highlights



- Strong focus on **impact & KPIs**
- Diversify the **feedstock** portfolio by the use of existing and new sources (e.g. Flagship topic for bio-waste or utilisation of new tree species)
- Innovative technologies and **processes** pre-treatment, conversion and downstream processing and modelling; **new products outperforming fossil-based counterparts** (e.g. bio-stimulants, fibres for textile products)
- Special focus on **SMEs clusters, participatory approach**, and assisting **brand owners** to turn bio-based



# Novelties of AWP 2019

- In addition to topic-specific requirements:
  - **Call introductory pages**
  - **Standard requirements** for each type of actions are indicated in a table
- 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, **each flagship topic has its own dedicated budget**



# Strategic Orientations against topics in Call 2019

## ORIENTATIONS

## AREAS

## TOPICS

### FEEDSTOCK

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

- Improve utilization of existing feedstock
- Exploitation of under-utilised or new feedstock



D1, D2  
R1, F1

### PROCESS

Optimising efficient processing for integrated biorefineries

- Pre-treatment of feedstock
- Conversion to chemicals and materials
- Downstream processing
- System modelling



R2,  
R3,R4,R5,F2  
R6,  
R7

### PRODUCTS

Developing innovative bio-based products for specific market applications

- Bio-based products that outperform fossil-based counterparts



R8,R9,R10  
D3,D4,F3

### MARKET UPTAKE

Creating and accelerating the market uptake of bio-based products and applications

- Assist brand-owners to turn bio-based
- Bio-based content of products
- Participatory approach
- Empowerment of SME clusters



S1  
S2  
S3  
S4



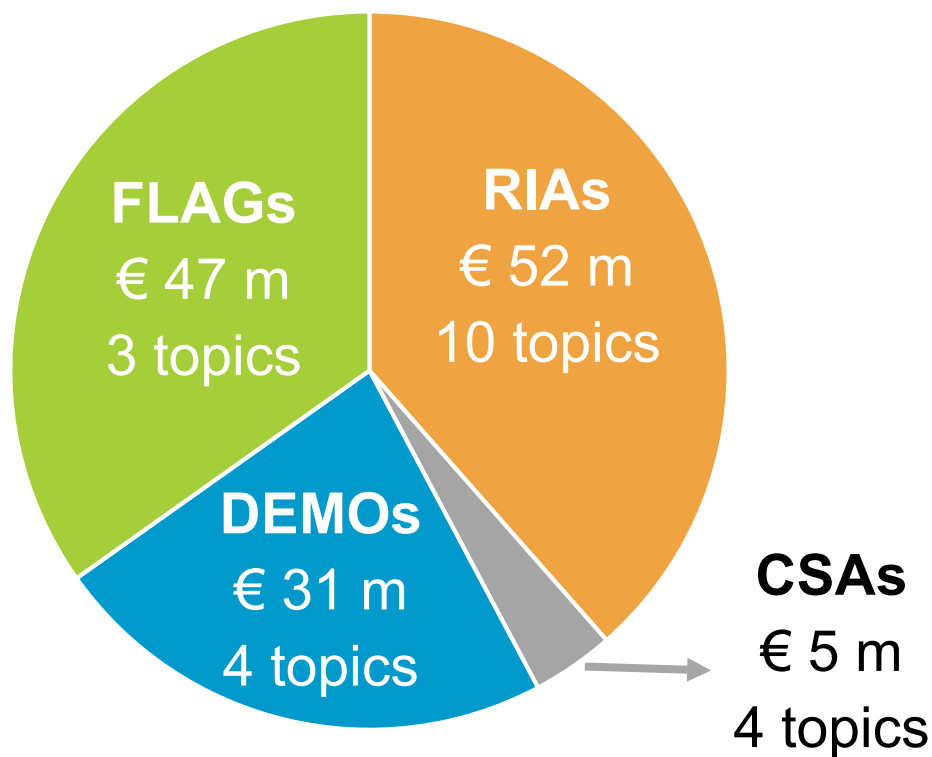
# Budget distribution in Call 2019 per type of action

Each Flagship topic has  
its own budget line!

F1: € 15 m

F2: € 20 m

F3: € 12 m



**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



# 10 RIA topics Call 2019 (1/2)

**Objective:** Filling specific gaps in the value chain through utilization of feedstock supplies, development of building blocks, products, technologies or processes. **End TRL 4 to 5**

BBI JU budget: € 52 million // € 2-5 million per proposal (indicative)

<b>Feedstock (SO1)</b>	<ul style="list-style-type: none"><li>• Use <b>tree species</b> and/or varieties to create new bio-based value chains (R1)</li></ul>
<b>Process (SO2)</b>	<ul style="list-style-type: none"><li>• Develop breakthrough technologies to improve the cost-effectiveness and sustainability of <b>pre-treatment steps</b> within bio-refining operations (R2)</li><li>• Apply <b>microorganisms and/or enzymes</b> to resolve end-of-life issues of plastics (R3)</li><li>• Develop <b>surface</b> or <b>bulk treatments</b> for improved wood-based materials (R4)</li><li>• Convert plant oils and fats into safe <b>high-added-value products</b> for various applications including food and personal care (R5)</li><li>• Improve biorefinery operations through <b>process intensification</b> and new end products (R6)</li><li>• <b>Model</b> the composition of bio-based residual streams and its evolution to optimise its management and processing (R7)</li></ul>



# 10 RIA topics Call 2019 (2/2)

**Objective:** Filling specific gaps in the value chain through utilization of feedstock supplies, development of building blocks, products, technologies or processes. **End TRL 4 to 5**

BBI JU budget: € 52 million // € 2-5 million per proposal (indicative)

<p><b>Products (SO3)</b></p>	<ul style="list-style-type: none"><li>• Develop sustainable bio-based <b>materials for high-volume consumer products</b> (R8)</li><li>• Develop bio-based <b>fibres</b> and/or <b>functional molecules</b> to improve the performance of textile products (R9)</li><li>• Develop bio-based <b>high-performance materials</b> for various and demanding applications (R10)</li></ul>
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# 4 Demo topics Call 2019

**Objective:** Demonstration of the technical and economic viability of a new or improved technology, process, product or service or value chain. **End TRL 6 to 7**

BBI JU Budget: € 31 million // up to € 7 million / proposal (indicative)

<b>Feedstock (SO1)</b>	<ul style="list-style-type: none"><li>• Scale up conversion of <b>lignin</b> into valuable compounds for application in specific market sectors (D1)</li><li>• Produce components for various materials, including for food and feed, from <b>microalgae</b> (D2)</li></ul>
<b>Products (SO3)</b>	<ul style="list-style-type: none"><li>• Produce bio-based <b>functional ingredients</b> and <b>additives</b> for high-end markets (D3)</li><li>• Demonstrate bio-based <b>pesticides</b> and/or <b>bio-stimulant agents</b> for sustainable increase in agricultural productivity (D4)</li></ul>



# 3 Flagship topics Call 2019

**Objective:** deployment of a technology which has been already demonstrated, leading to a system which is complete and qualified for successful commercial operation (large-scale production facility in Europe). **End TRL 8**

Total BBI JU budget: € 47 million. *Novelty: each Flagship topic has its dedicated budget!*

<b>Feedstock (SO1)</b>	<ul style="list-style-type: none"><li>Valorise the <b>organic fraction of municipal solid waste</b> through an integrated biorefinery at commercial level (F1). BBI JU budget: € 15 million</li></ul>
<b>Process (SO2)</b>	<ul style="list-style-type: none"><li>Apply <b>technological combinations</b> to valorise all components of biomass feedstock (F2). BBI JU budget: € 20 million</li></ul>
<b>Products (SO3)</b>	<ul style="list-style-type: none"><li>Produce <b>high-performance bio-based alternatives to harmful products</b> or processes to protect and enhance human health and the environment (F3) BBI JU budget: € 12 million</li></ul>





# 4 CSA topics in Call 2019

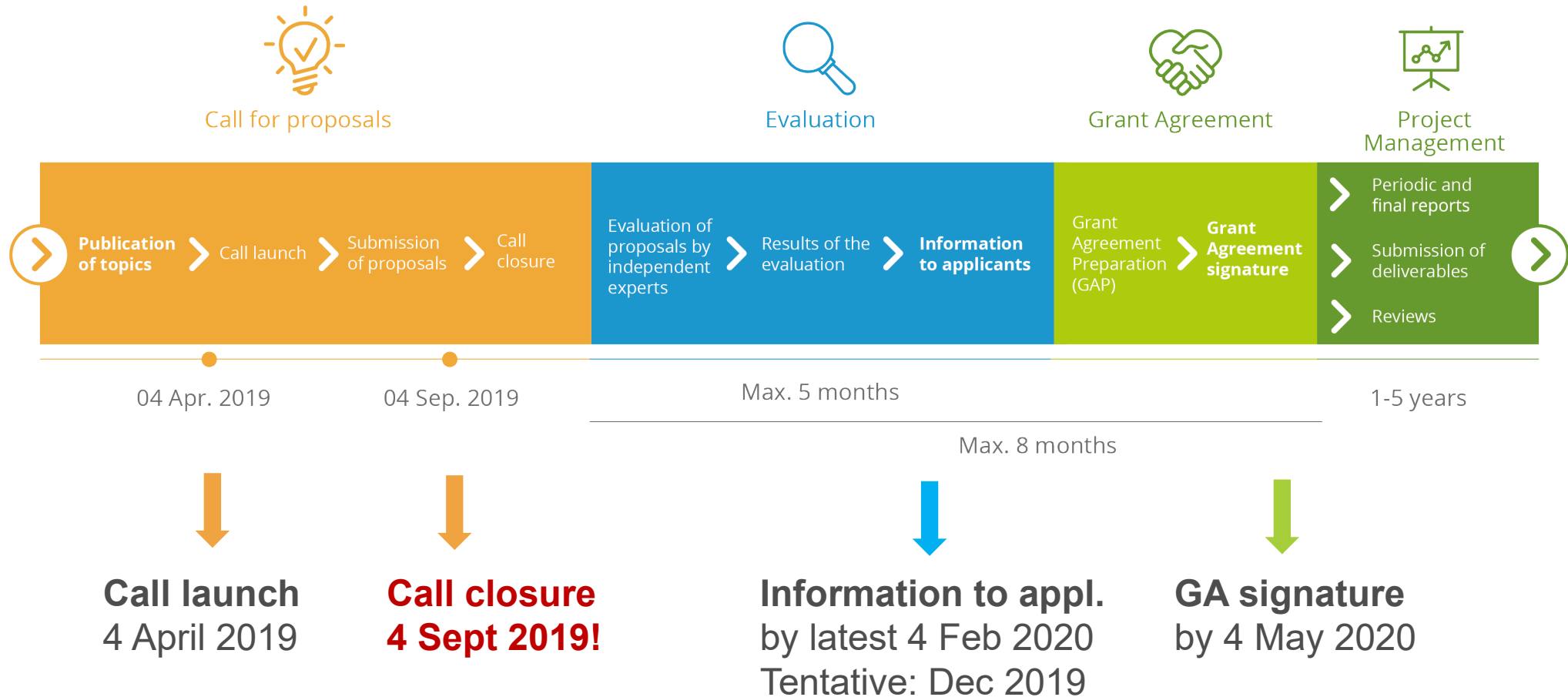
**Objective:** non-technological actions supporting value chains development through various means. **No TRL**

BBI JU Budget: € 5 million

<b>Market uptake</b>	<ul style="list-style-type: none"><li>• Assist <b>brand owners</b> to ‘switch to bio-based’</li><li>• Establish methods and communication for applying <b>mass balance principles</b> to attribute biomass co-feedstock to products</li><li>• Shaping the bio-based economy through a <b>participatory approach</b></li><li>• Empower <b>SME clusters</b> to bring SMEs ‘across the valley of death’</li></ul>
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# Call 2019 Indicative Timetable



For more information (topics, timing FAQs), visit BBI JU website (i.g. [BBI JU AWP](#) & [Guide for Applicants 2019](#))



# Final remarks

- **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**
  - Special focus on SMEs clusters, participatory approach, and assisting brand owners to turn bio-based
- **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**

# Thank you!

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WI-FI

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