

A PUBLIC PRIVATE PARTNERSHIP
ON BIO-BASED INDUSTRIES (BBI)

Realising the bio-based economy potential in Europe

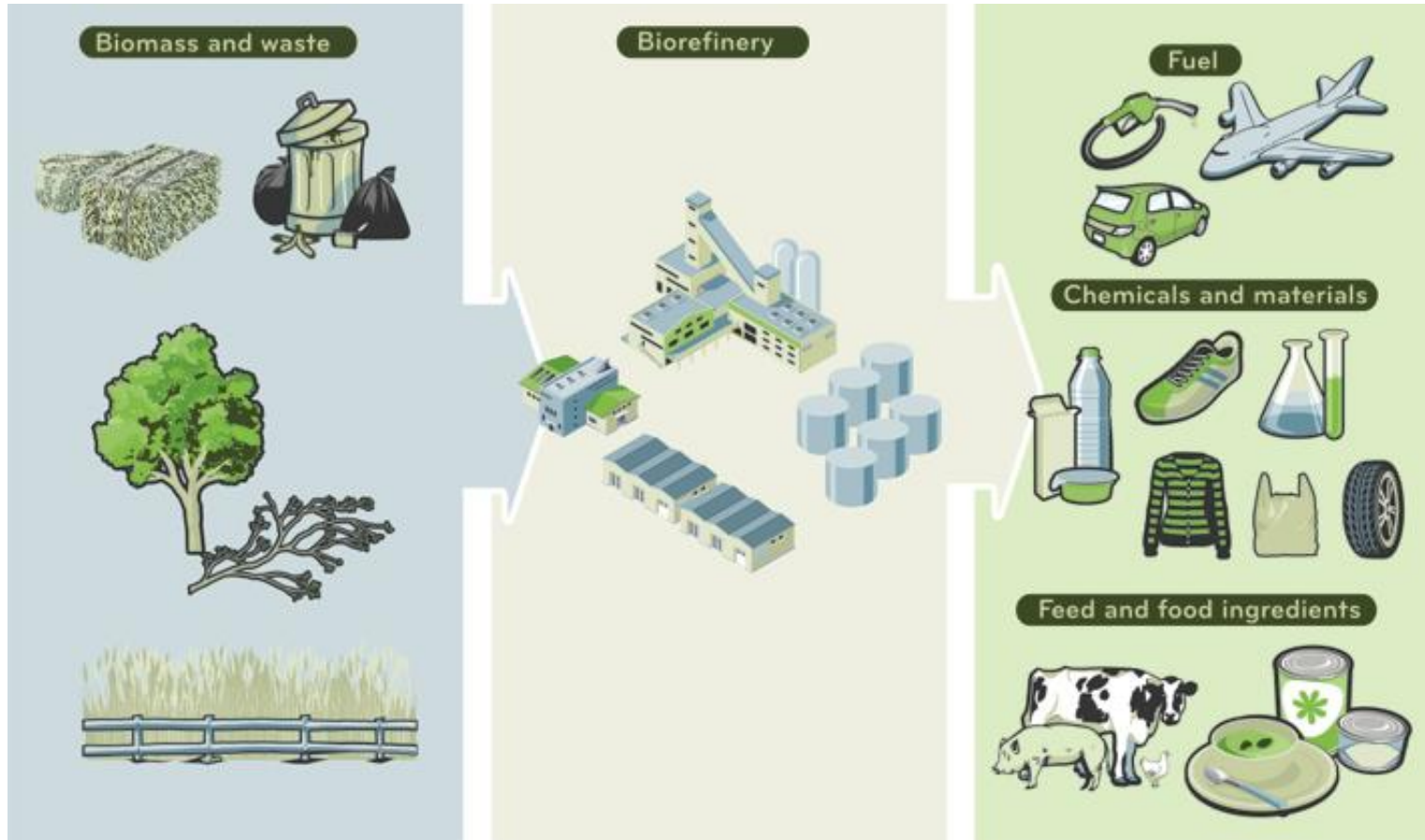
BIO-BASED & RENEWABLE INDUSTRIES FOR DEVELOPMENT & GROWTH IN EUROPE

Annita Westenbroek, Programming Coordinator, Austria, 10 September 2013

Biobased and Renewable Industries
for Development and Growth in Europe

bridge ²⁰/₂₀

The bio-based economy concept



What's in it for Europe?



Growth

- A global bio-based market estimated at €200 billion by 2020*



Jobs

- Create over 1 million jobs between 2010 and 2030 mainly in rural areas**



Energy and Products

- Reduce dependence on imports with locally sourced and produced goods and products***



Climate

- Bio-based Industries PPP derived bio-based products can achieve an average GHG emissions reduction potential of least 50% compared to fossil alternatives****

Sources:

* The Future of Industrial Biorefineries, World Economic Forum, 2010

** Next generation ethanol and biochemicals: what's in it for Europe?, Bloomberg New Energy Finance, 2010

*** Innovating for sustainable growth: a bioeconomy strategy for Europe, European Commission, 2012

**** Strategic Innovation and Research Agenda (SIRA), Biobased Industries Consortium, 2012

Benefits for Europe



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Create value by using resources more efficiently by maximising the potential of **waste**, agriculture and forestry **residues**

Diversify and grow **farmers' incomes**: up to 40% additional margins with existing residues

Bring existing value chains to new levels and build new value chains, thus **revitalising industry in rural environment**

Realise a new generation of bio-based materials and composites produced in **biorefineries**

Create a competitive bio-based infrastructure in Europe, boosting **job creation**, 80% of which will be in rural and underdeveloped areas

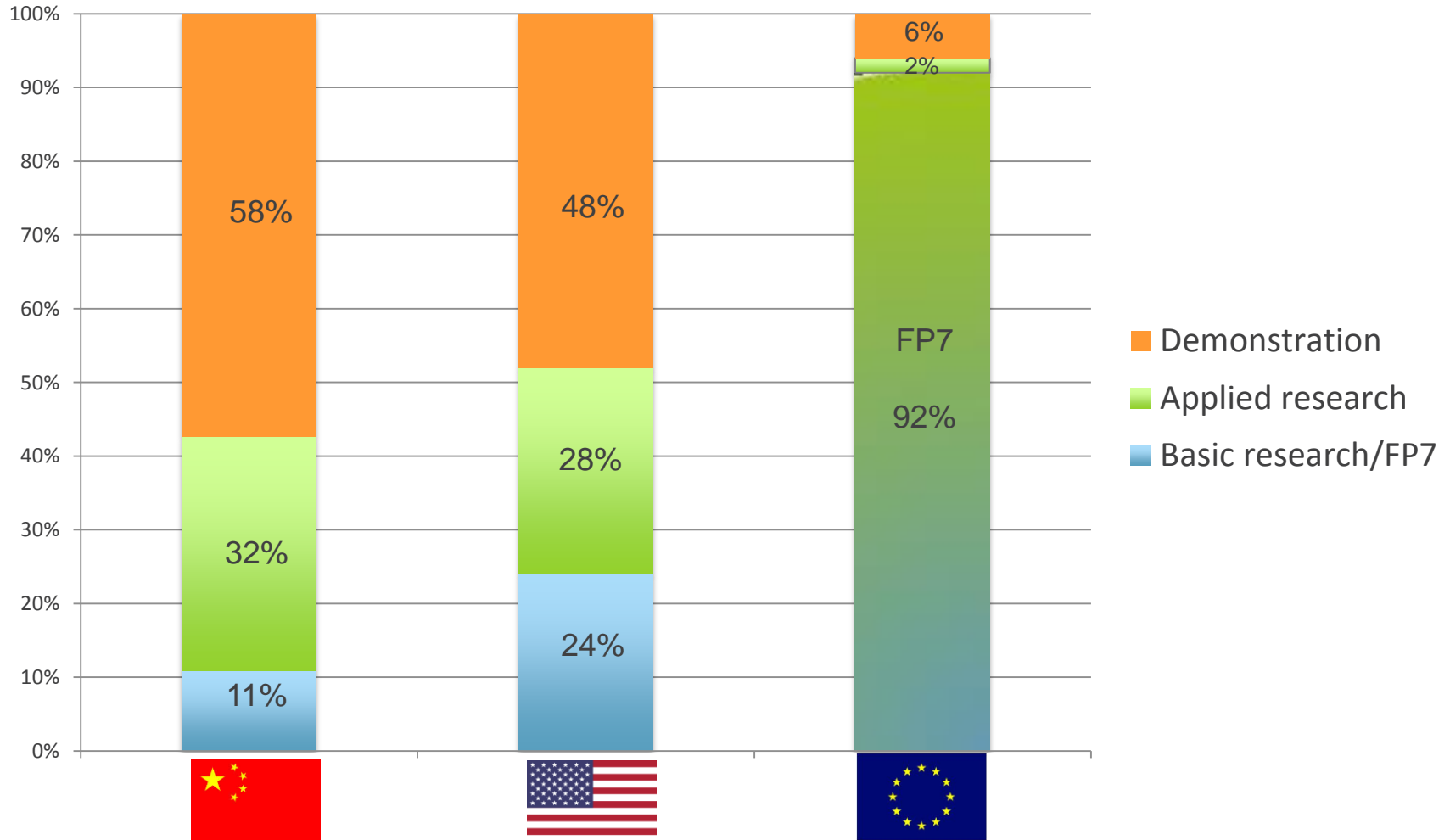
Replace at least **30% of oil-based chemicals** and materials with bio-based and biodegradable ones (2030 target)

Meet **25%** of Europe's transport energy needs with **advanced biofuels** (2030 target)



EU support for demonstration?

International benchmark on the share of basic, applied and development activities



The main EU challenge:
Overcoming the innovation & deployment gap



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Europe's ability to commercialise / produce high value products lies in its ability to reach demonstration scale of advanced biorefineries to mature technologies

BIO-BASED INDUSTRIES INITIATIVE (BBI)

Investing in new and sustainable ways
to organise our economy



- A Public-Private Partnership (PPP) between the Biobased Industries Consortium and the EU
- A **joint** commitment of €3.8 billion over 2014-2020
 - €1 billion (EU)
 - €2.8 billion (Biobased Industries Consortium)
- Multi-annual funding programmes for biobased projects
- Enabling rural development and re-industrialisation in Europe



An **economy** that:

- sources domestic renewable raw materials
- produces food, feed, chemicals, materials and fuels locally
- creates jobs in a broad range of sectors in Europe, triggering rural growth across regions
- places sustainability, smart and efficient use of resources at the heart of industrial, business and social activities

Our sectors

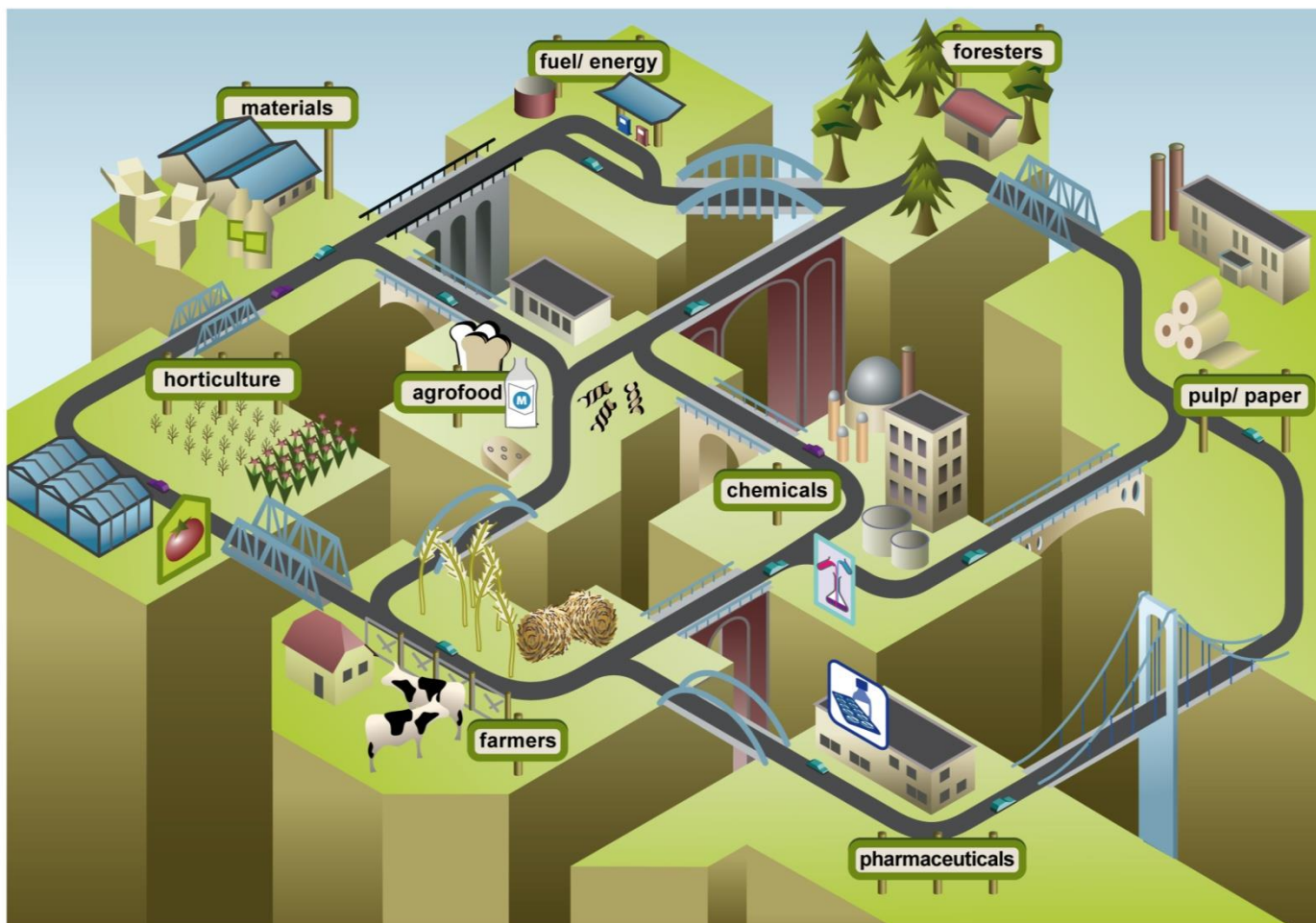


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Stage 1 - Reinforce innovation and extend current infrastructure across the economy

The bridges



Stage 2 - Build and strengthen value chains across industry sectors

The PPP community



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Stage 3 - Realise a connected biobased economy from field to end consumer



- Build new **interconnections** between different sectors
- Build new **bio-based value chains** (from feedstock to products)
- Establish new **co-operations** throughout industry clusters
- Develop **innovative and sustainable bio-based chemicals and materials** with locally sourced biomass and validated at demonstration scale
- At least 5 **flagships** resulting from the PPP producing new bio-based materials, chemicals and fuels which have proven to become cost-competitive to the alternatives based on fossil resources

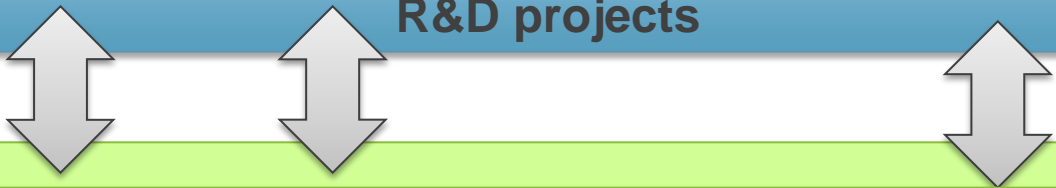
Strategic Innovation and Research Agenda



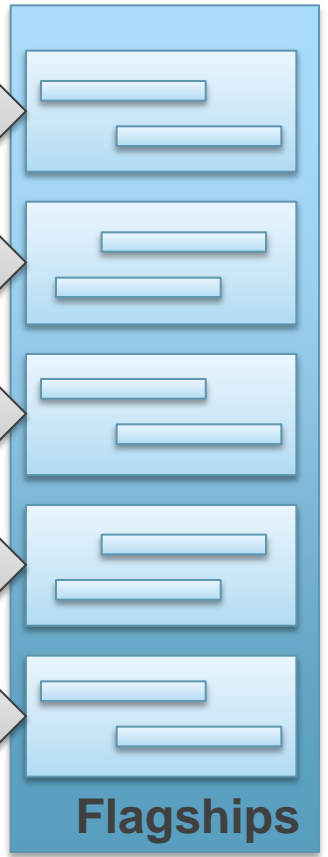
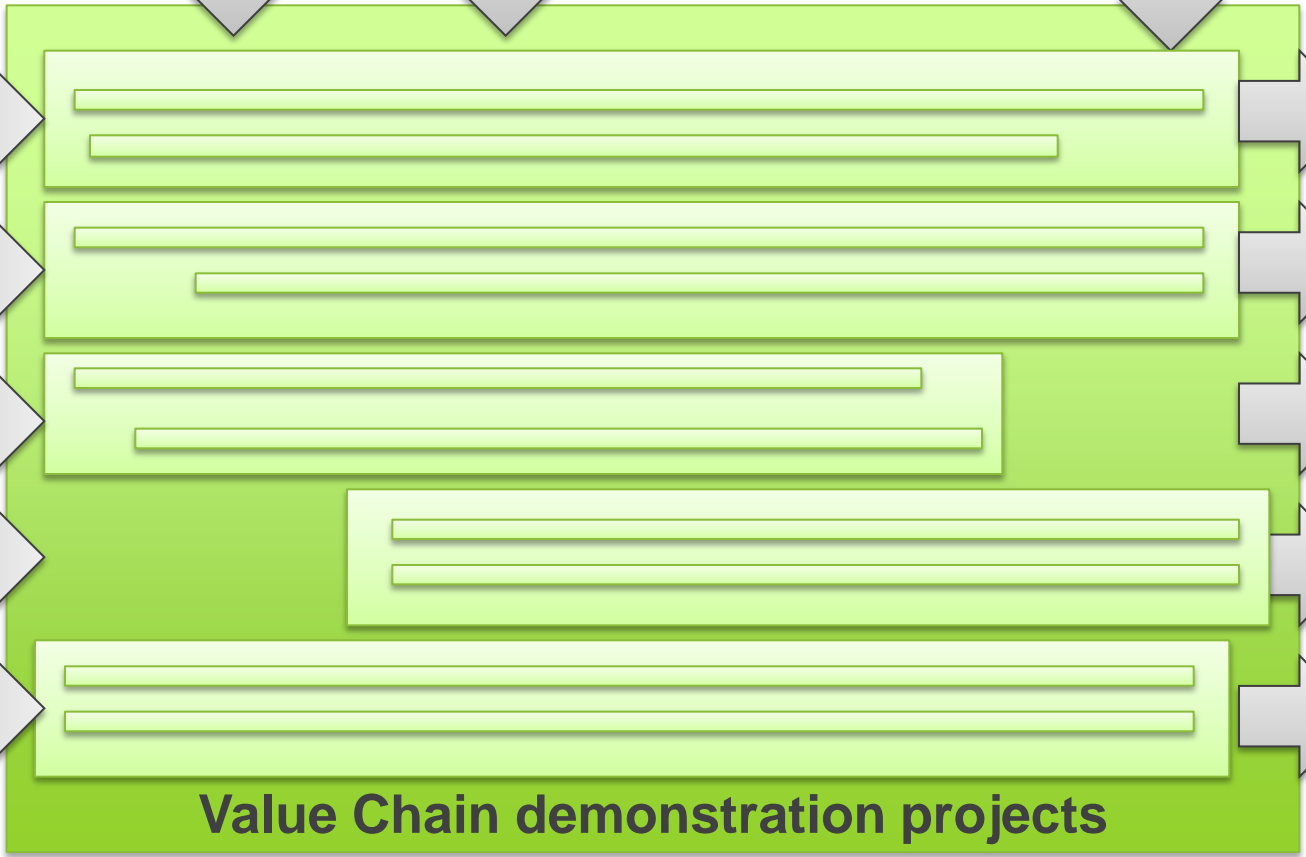
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Supporting Projects





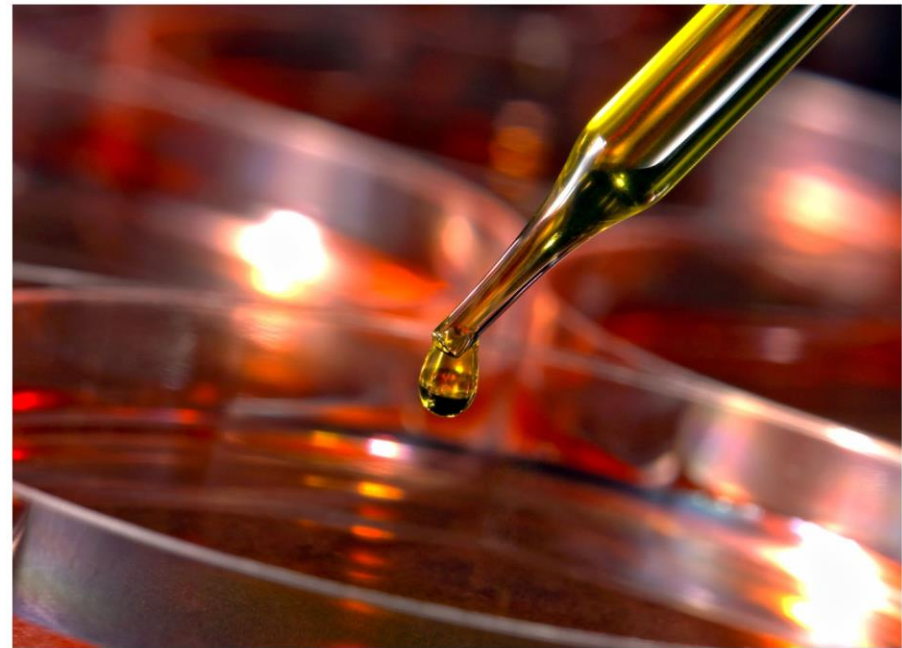
Integrated value chain demonstrations

- **Value Chain 1:** From **lignocellulosic feedstock to advanced biofuels, biobased chemicals and biomaterials:** realising the feedstock and technology base for the next generation of fuels, chemicals and materials
- **Value Chain 2:** The **next generation forest-based value chains:** utilisation of the full potential of forestry biomass by improved mobilisation and realisation of new added value products and markets
- **Value Chain 3:** The **next generation agro-based value chains:** realising the highest sustainability and added value by improved agricultural production, and new added value products and markets
- **Value Chain 4:** Emergence of **new value chains from (organic) waste:** from waste problems to economic opportunities by realising sustainable technologies to convert waste into valuable products
- **Value Chain 5:** The **integrated energy, pulp and chemicals biorefineries:** realising sustainable bio-energy production, by backwards integration with biorefinery operations isolating higher added value components



Flagship projects

- The developments in the demonstrated value chains will lead to **investments in flagship projects**.
- Flagship projects will be realised to **optimise technology for biomass conversion and ensure price-competitiveness**: both by building of new operations and upgrading existing and abandoned industrial sites to be converted into biorefinery operations (reindustrialisation).
- **Each value chain area will lead to at least one flagship project**.
- Flagship projects cover the **full value chain**: including programmes realising feedstock supply, ensuring the market uptake, and integrating in the existing rural and industrial infrastructures.





R&D projects

- R&D projects will **address the specific research and innovation challenges** arising from the value chain demonstration projects
- Research and innovation activities **will cover the whole value chain**: biomass supply, biorefineries and products and markets
- Each R&D project **will support specific activities developed by the 5 value chains**





Supporting projects

- **Clustering and Networking**
 - Key role in the creation of new value chains by connecting agriculture, industry and research network across Europe
- **SME engagement**
 - Supportive measures for SMEs to facilitate active involvement and participation
- **Standards and Regulations**
 - Actively contribute to the development of new standards (CEN)
- **Feedstock sustainability and LCA**
 - Assessment of methodologies for addressing sustainability criteria of the projects and the environmental footprint of the products developed

THE BIOBASED INDUSTRIES CONSORTIUM

To date (10 September 2013):

48 Industrial members

52 Associate Members - RTOs/universities

11 Associate Members - Associations+ETPs



ABENGOA BIOENERGIA



ainia
centro tecnológico

ENEA
Italian National Agency for New Technologies,
Energy and Sustainable Economic Development

RE-CORD

dbA
centre de desenvolupaments
biotecnològics i
agroalimentaris

Ciemat
Centro de Investigaciones
Energéticas, Medioambientales
y Tecnológicas

aitiip
centro tecnológico

Fraunhofer
IGB

SINTEF



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Y COMBUSTIBLES ENERGÉTICOS

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POLISH ACADEMY OF SCIENCES

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PARQUE CIENTÍFICO TECNOLÓGICO

ifp *Energies
nouvelles*



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PABLO DE
OLAVIDE
SEVILLA**

acib *austrian
centre of
industrial
biotechnology*

IRTA
RECERCA I TECNOLOGIA
AGROALIMENTARIES

cea

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y Tecnología Agraria y Alimentaria

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WAGENINGUR
For quality of life

CENER



INNVENTIA

TNO *innovation
for life*

Universidad de Valladolid

TU Delft
Delft University of Technology

tecnalia *Inspiring
Business*

certech
CENTRO DE INVESTIGACIONES TECNOLÓGICAS EN CERAMICA

LEITAT *Technological
Center*



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Zaragoza**

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KAISERSLAUTERN**

**university of
 groningen**

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MateriaNova
MATERIALS R&D CENTRE

Universitat de Girona

**INSTITUTO
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DEL EMBALAJE,
TRANSPORTE
Y LOGÍSTICA**
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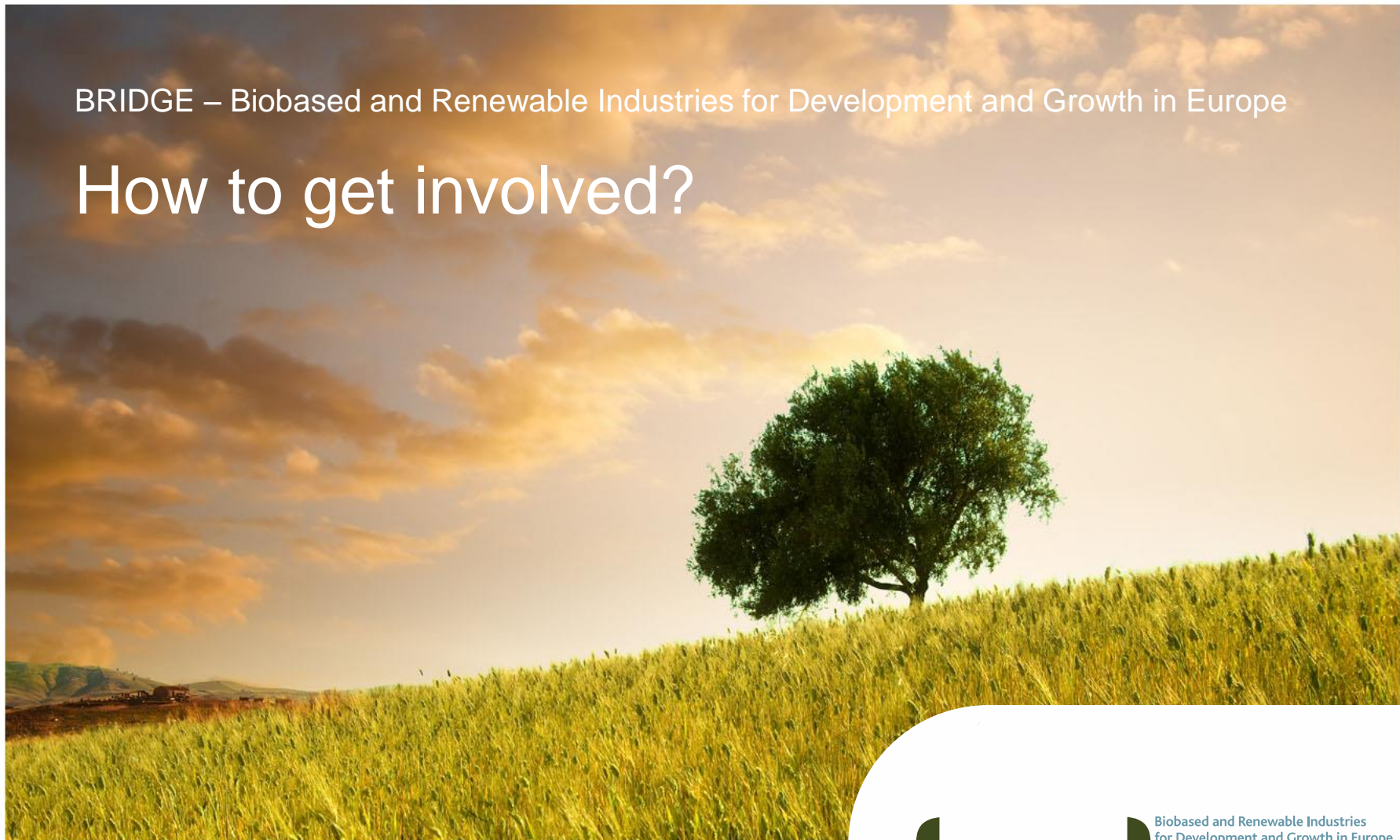
PTS
FIBRE based solutions

vito
vision on technology



BRIDGE – Biobased and Renewable Industries for Development and Growth in Europe

How to get involved?



A PUBLIC-PRIVATE PARTNERSHIP ON BIOBASED INDUSTRIES

Annita Westenbroek – Düsseldorf – 15 July 2013

Biobased and Renewable Industries
for Development and Growth in Europe

bridge 20/20



How to get involved in the BBI PPP?

- Participating in project proposals in the annual PPP open calls
- Support in the development of the annual working program



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PPP principles

- **OPENNESS:** Applications for financial support will be made following open competitive calls for proposals
- External and independent evaluation of the projects on the basis of **EXCELLENCE**
- Strong participation of **ACADEMIA, RESEARCH ORGANISATIONS AND SMEs**
 - EU Funding in R&D projects only to academia, RTOs and SMEs
 - Additional industry funding will go to academia, RTOs and SMEs through their participation in industry-driven demonstration activities
- **MEMBER STATES** will play a key role in the deployment of projects

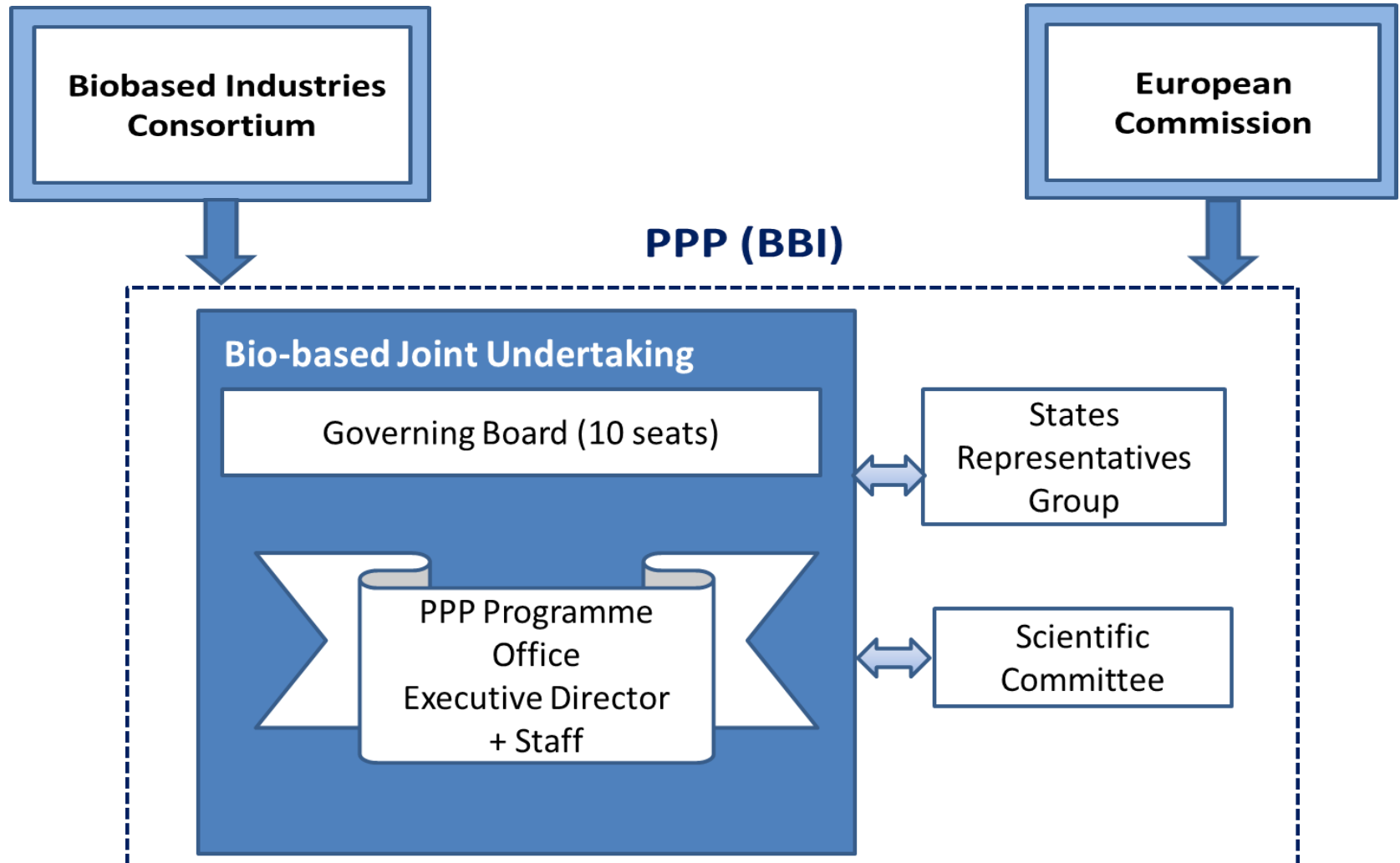


- 5 projects types with different purposes and rules
 - R&D projects
 - Demo projects
 - Flagship projects
 - Supporting projects
- All project funding is conditioned to the publication of an open call and the competitive selection of the best consortium (consortia) based on a set of predefined selection criteria (selection done by independent BBI PPP evaluation committees).
- Call texts and selection criteria are determined by BIC and validated with EC.



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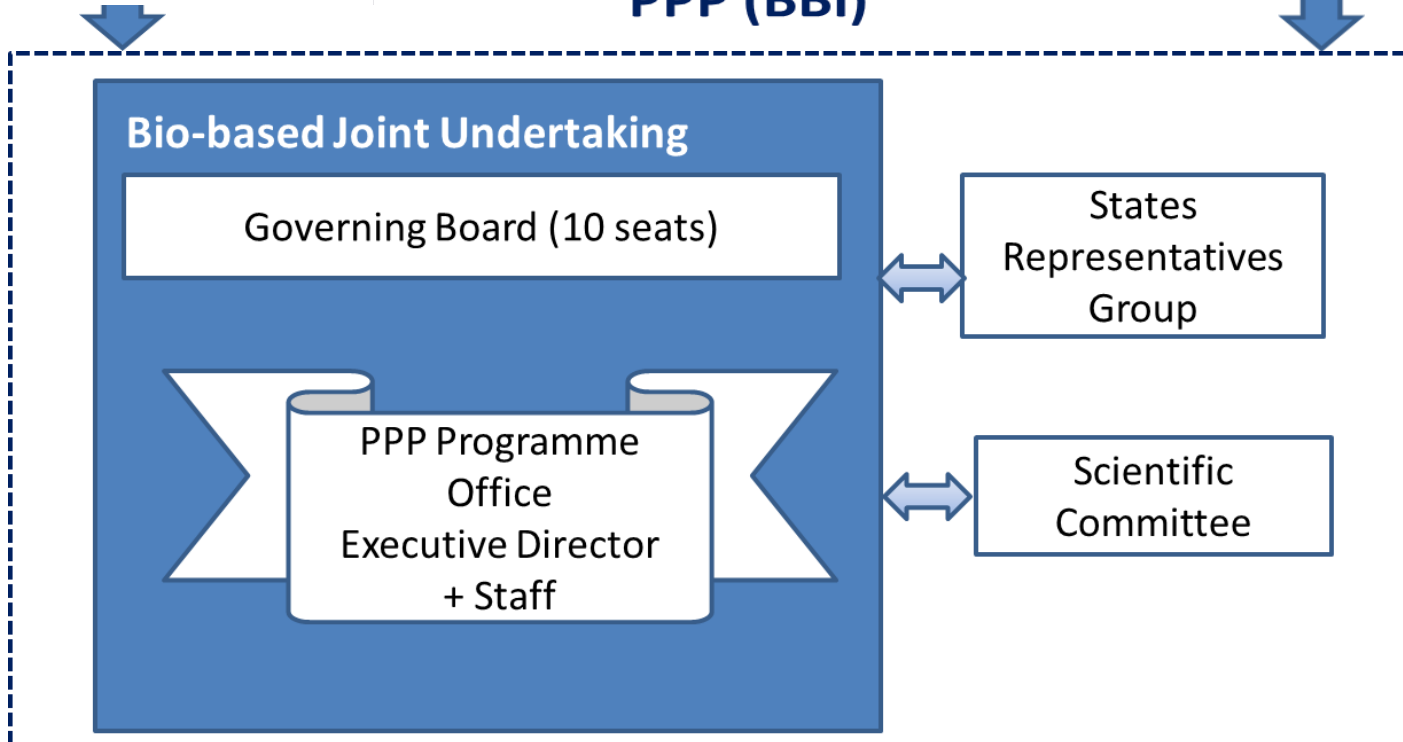




and you?



PPP (BBI)





BBI: call procedure

Biobased Industries Consortium

*Per value chain taskforces
are composed by BIC
partners from different
sectors*

Bio-based Industries PPP

Scientific Committee
Member State Committee

1. BIC Programming WG
(and Task Forces)
prepares multi-annual
roadmaps



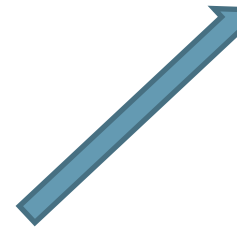
2. BIC Programming WG
prepares annual call texts



3. **BBI**: first discussion
with scientific committee
and Member State
committee



4. **BBI** publishes the
(**open**) calls



5. **BBI** organises
evaluation by
independent experts
(based on **excellence**)



6. **BBI** negotiates and
signs contract with
winning consortia
(consortium agreement
and grant agreement)



BBI: call procedure

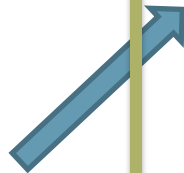
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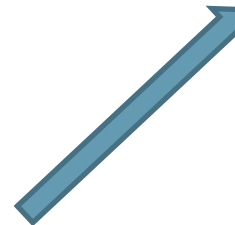
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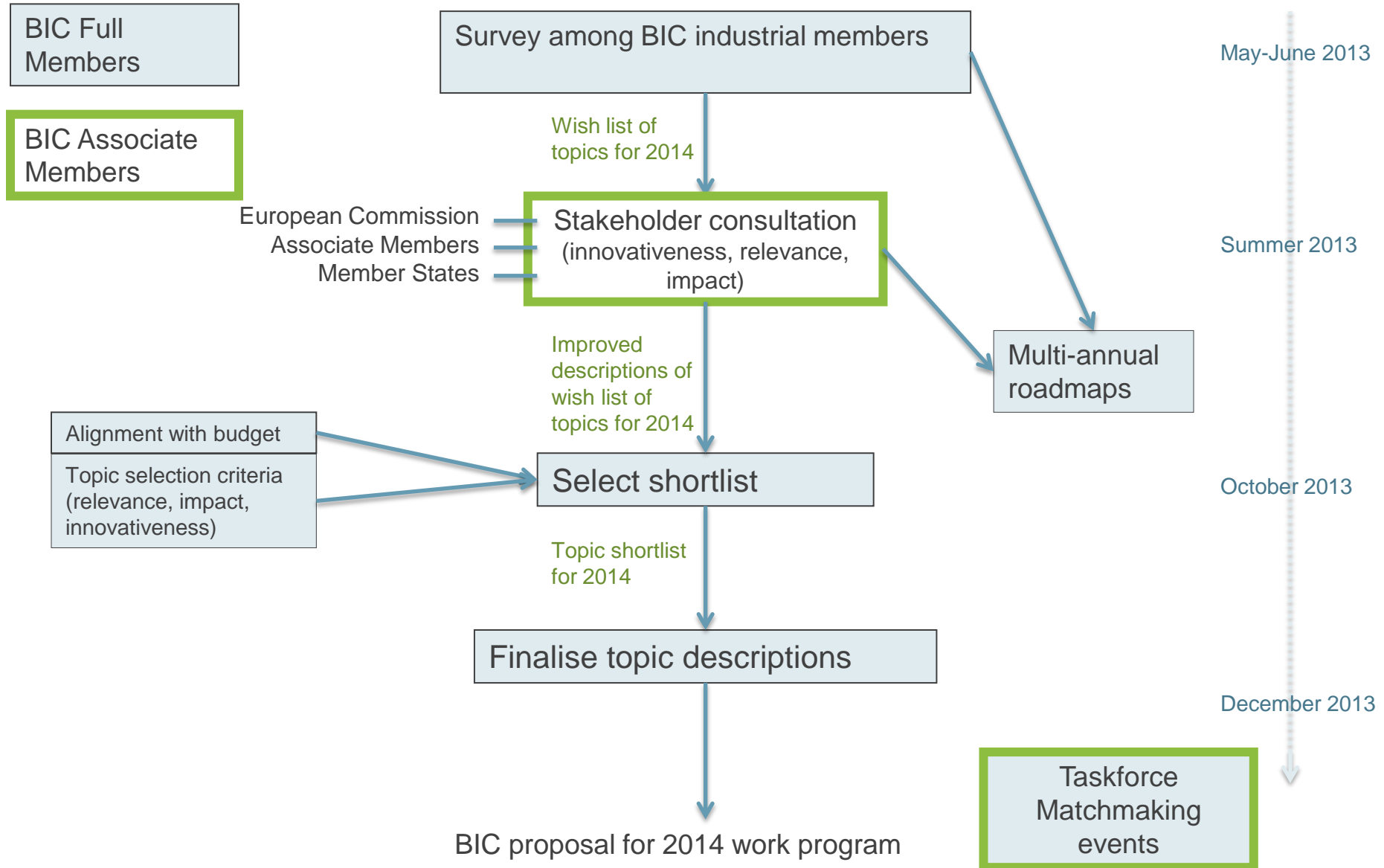


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Bio-based Industries PPP

Scientific Committee
Member State Committee

Programming procedure





- Full membership: Biobased Industries
- Associate membership: supporting organisations



Full Membership is open to industrial and commercial companies, or any other kind of legal entity representing industrial and commercial companies, which are active in the field of biobased industries

Active in the field of biobased industries means:

In general: active through either research, innovation or demonstration along the value chain and actively involved in building businesses and business cases to contribute to a more competitive, efficient and sustainable Europe.

More specific: Active in the field of the production, logistics, or transformation and/or processing of biomass, including waste/residues (e.g. via biorefineries) with existing and new processes into a spectrum of innovative marketable products and energy and as such actively taking part or building new innovative bio-based value chains.

How to become a Full member?



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Consortium

- The application consists of:
 - Organisation profile
 - A signed commitment form
 - For SME-clusters, mandate letters of the representing SMEs are included
- Annual fee (2013)
 - Category A-member (bigger industries): 30 kEuro
 - Category B-member (SMEs and SME clusters): 5 kEuro
- Application to be send to: info@bridge2020.eu
- Application will be checked internally and proposed to the BIC board and General Assembly for approval
- After approval the Full member will become active in BIC and it's Working Groups (Programming, Governance, Finance, PA/Communication)
- **Procedure and forms on:** <http://bridge2020.eu/about/how-to-get-involved-in-the-development-of-the-biobased-industries-ppp/>



Associate members are legal entities representing industries or having core research activities/expertise within the field of biomass, agriculture, forestry, biotechnology and biobased industries but are not companies active in the field of biobased industries

Categories:

- C: Supporting organisations (European industry associations and technology platforms)
- D: Clusters and associations
- E: Research Organisations (e.g. Universities and Research Institutes)
- F: Other relevant stakeholders (Other types of organisations which have been recognized by the GA as contributing to the objectives of BIC)

How to become an Associate member?



- The application consists of:
 - Organisation profile
 - A signed commitment form
- Annual fee (2013)
 - Category DEF-members: 1 kEuro
- Application to be send to: info@bridge2020.eu
- Application will be checked internally and proposed to the BIC board and General Assembly for approval
- After approval the Associate member will be included in the stakeholder consultations for the working program, and invited for the Matchmaking events
- **Procedure and forms on:** <http://bridge2020.eu/about/how-to-get-involved-in-the-development-of-the-biobased-industries-ppp/>



Join us!

annita.westenbroek@bridge2020.eu

www.bridge2020.eu