Public Private Partnership on Biobased Industries - The Research and Innovation Agenda (SIRA)

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Dublin 14 February 2013

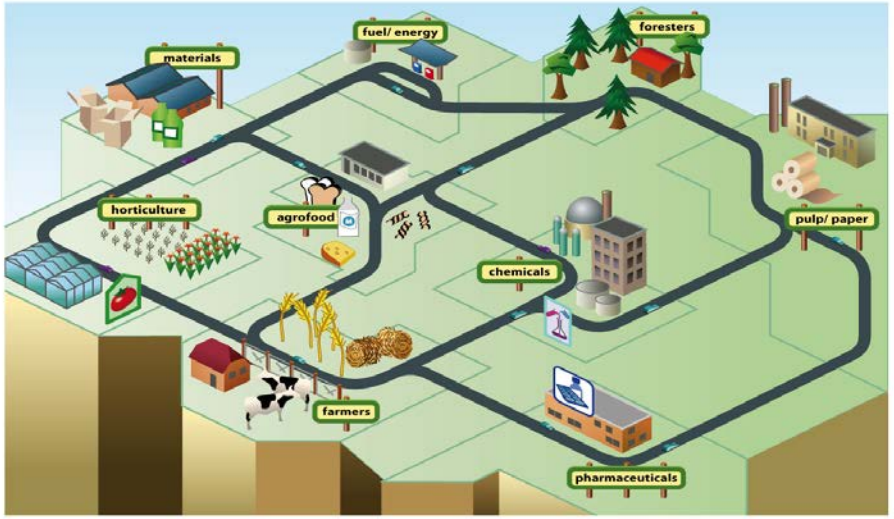
Overall objective of BRIDGE

*"Foster **"radical innovation"**, from R&D and deployment to market pull, to deliver biobased products superior, or at least comparable to, non-biobased products in terms of price, performance and availability, and environmental benefits"*

Feedstock	• Fostering a sustainable biomass supply and building new value chains
Biorefineries	• Optimising efficient processing through R&D and upscaling in pilot, demo/flagship biorefineries
Markets, products and policies	• Developing markets for biobased products and optimising policy frameworks

An integrated value chain approach

- A joint initiative leading to the creation of a platform with involvement of all actors across the value chains
- Focused on development and actual realisation of integrated biobased value chains

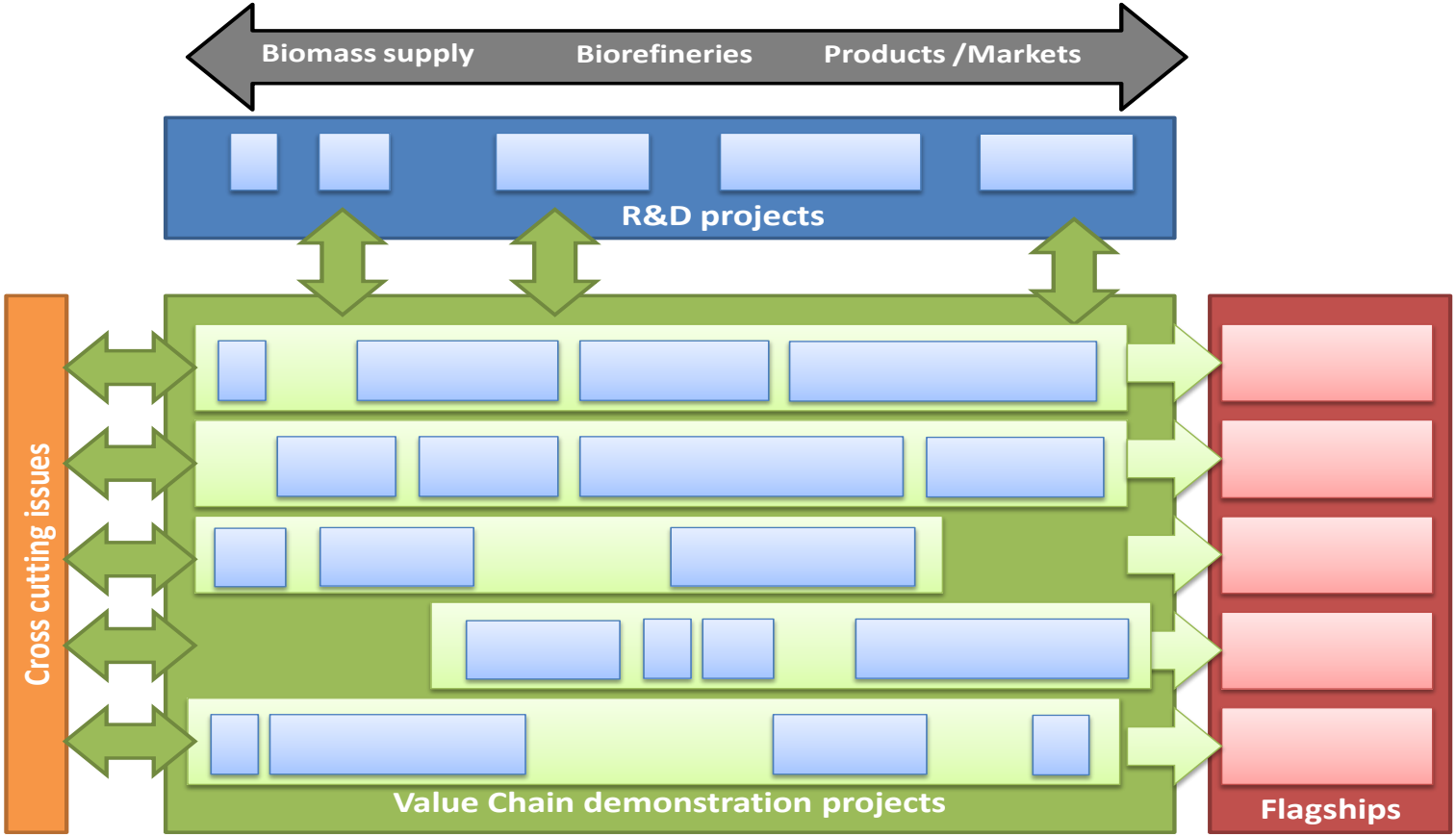


The SIRA: Translating ambitions into actions

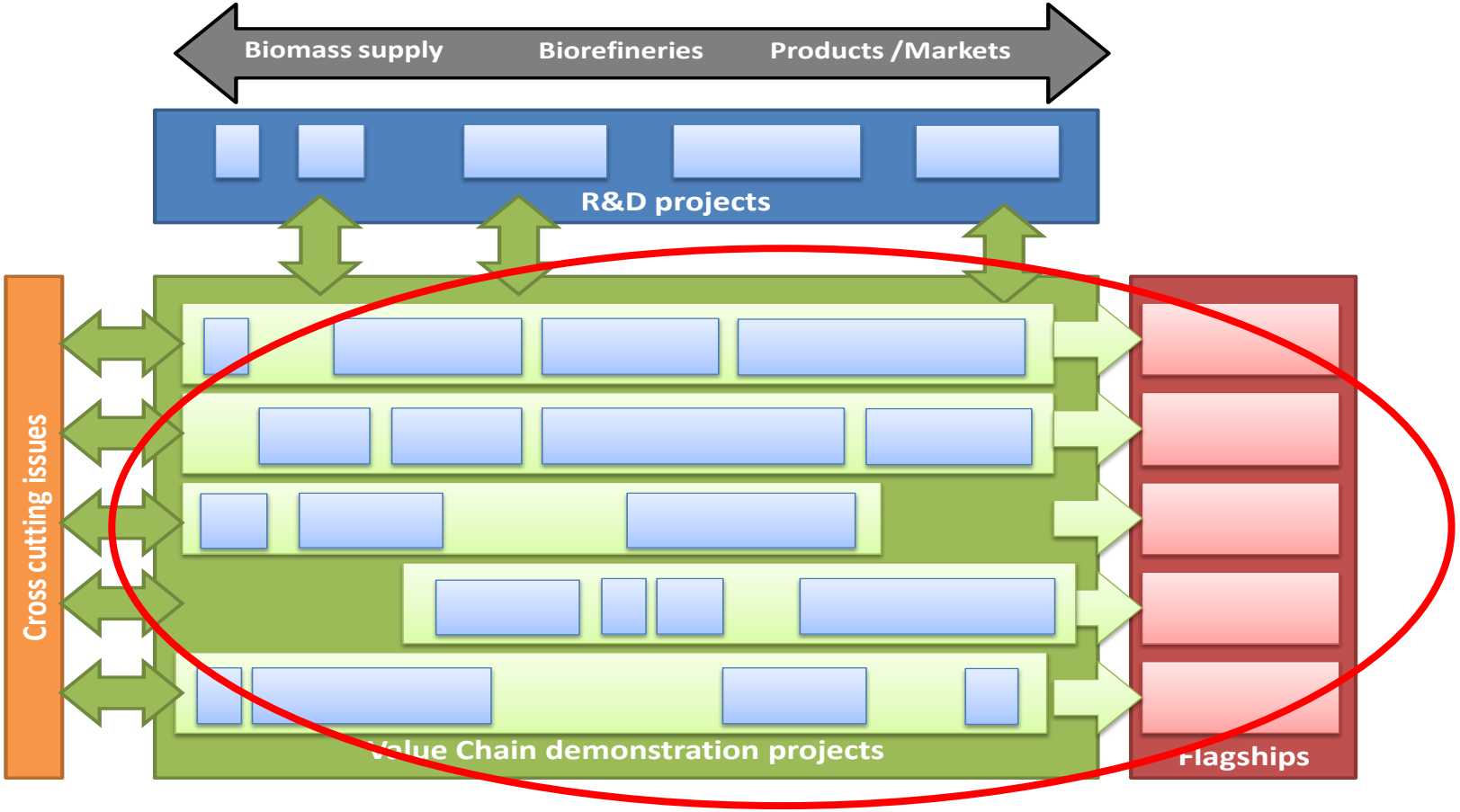
PPP Key Objectives

- New cross-sector interconnections in biobased economy clusters (new bridges creating cooperation between the 9 different sectors)
- New biobased value chains (new products and feedstock)
- New cooperation projects through cross-industry clusters
- New innovative building blocks based on biomass of European origin validated at demonstration scale
- New biobased materials (eg. such as specialty fibres, plastics, composites and packaging solutions)
- New demonstrated products based on biobased chemicals and materials
- At least 5 flagships resulting from the PPP producing new biobased materials, chemicals and fuels which have proven to become cost-competitive to the alternatives based on fossil resources (at least 1 per value chain)

Projects Structure of the SIRA: Responding to Key Challenges in an integrated way



Value Chain Demonstration Projects



Value Chain Demonstration Projects

- Accelerate creation of new value chains through cooperation across all actors
- Demonstration activities will prove viability of the new value chain thus contributing to overcome investment barriers
- Technological challenges identified in the demonstration projects will be the basis for the R&D projects
- 5 main innovative biobased value chains selected in which demonstration projects will be carried out

The 5 Value Chains: Areas of focus of Demonstration Projects

- **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

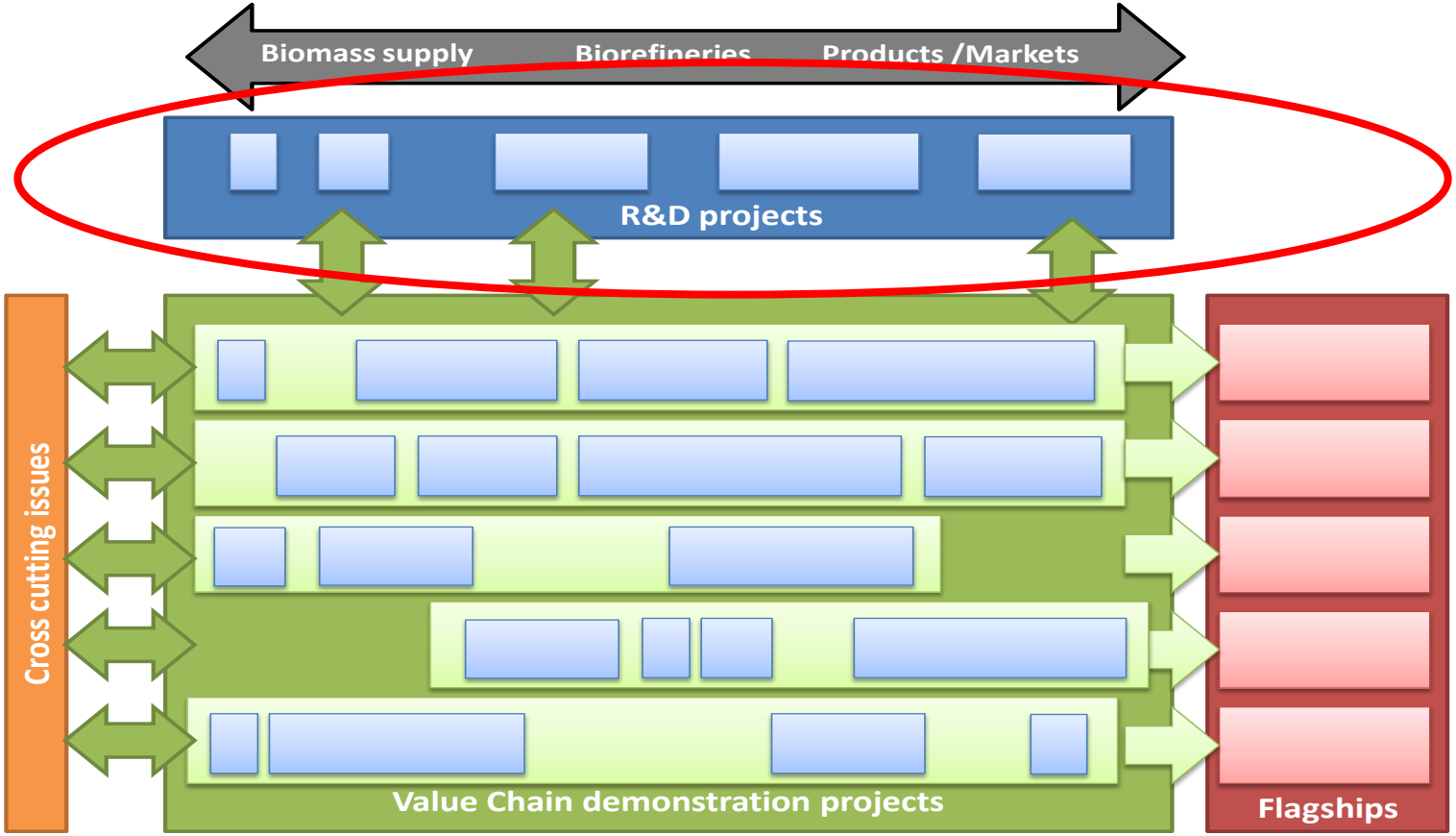
- **Value Chain 2**: The **next generation forest-based value chains**: utilisation of the full potential of forestry biomass by improved mobilisation and realisation of new added value products and markets

- **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

R&D Projects


Biomass supply
Biorefineries
Products /Markets
R&D projects
Cross cutting issues
Value Chain demonstration projects
Flagships

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 chain**
- **Respect local biodiversity and different local specificities**

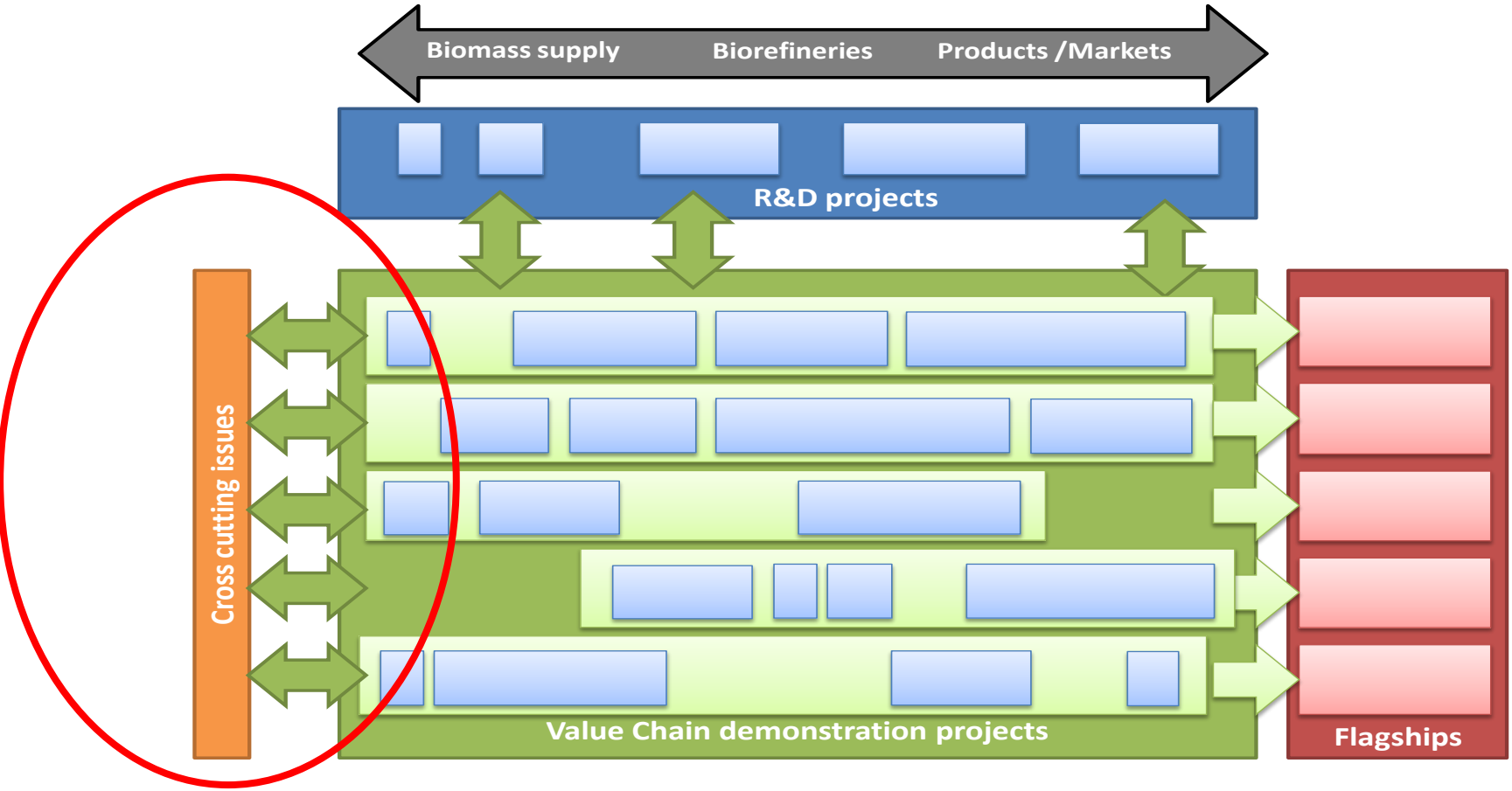
R&D Projects: areas covered in support of the 5 value chains

- **Foster a sustainable biomass supply to feed both existing and new value chains**
  - ✓ Increase biomass production by improving agricultural practices and taking advantage from local biodiversity (complementary to the European Innovation Partnership on “Agricultural Productivity and Sustainability”
  - ✓ Mobilising an increasing supply (harvesting collection, storage)

- **Optimise efficient processing through R&D and pilot biorefineries**
  - ✓ Primary conversion processes
  - ✓ Secondary conversion processes

- **Developing innovative products and accelerating market pull for bio based products**
  - ✓ New materials & products
  - ✓ New application and market development

Supporting Projects

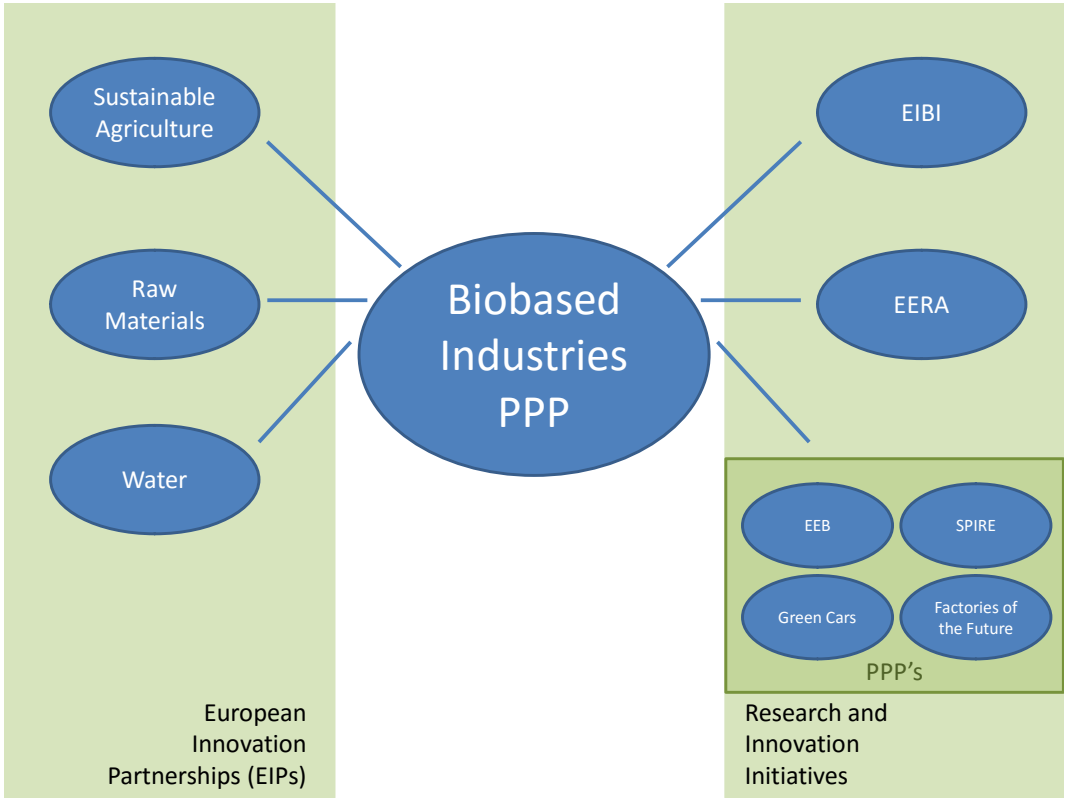


Supporting Projects

The following cross cutting issues will be considered:

- **Clustering and Networking**
  - ✓ Key role in the creation of new value chain 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

Complementarity and Synergies with main EU initiatives



- Synergy, optimal alignment, cooperation and exchange with all main running initiatives in EU (ie other PPPs, European Innovation Partnerships, European Bioenergy Initiative)

- LMI: The PPP embraces the Recommendation of the Ad Hoc Group on Bio Based Products and will contribute to ensure the maximum level of synergy of the initiatives


rethink.
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