

# Hacia la Estrategia Española de Bioeconomía.

## La Bioeconomía en Europa.



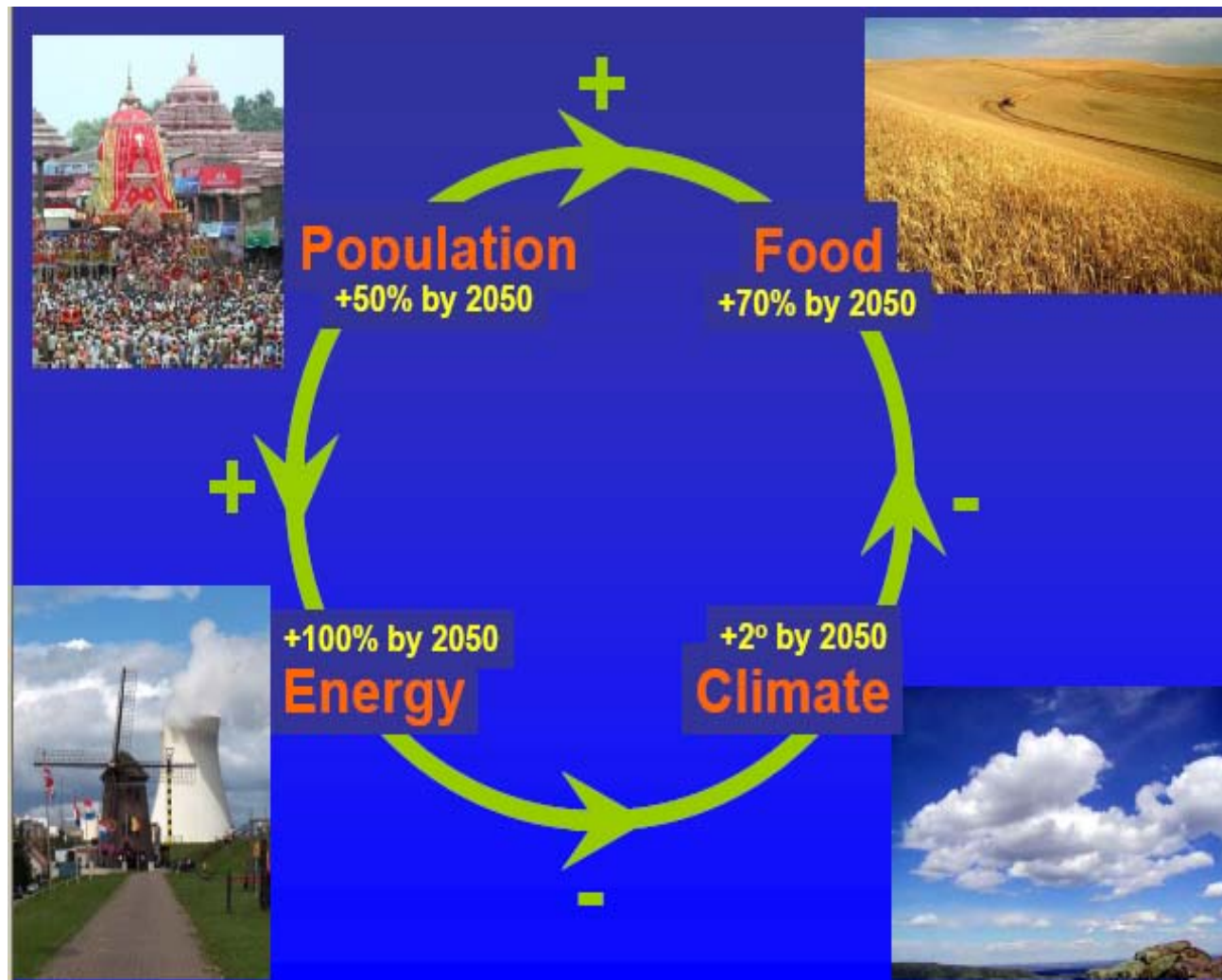
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# Avanzando hacia la Estrategia Española de Bioeconomía. La Bioeconomía en Europa.



Fuente: Patrick Cunningham, KBBE Conference Brussels 14th September 2010  
José María Sumpsi, "Los retos de la agricultura para alimentar al mundo en 2050".

# Avanzando hacia la Estrategia Española de Bioeconomía. La Bioeconomía en Europa.

## Tackling societal challenges

- Ensuring **food security**
- Managing **natural resources** sustainably
- **Reducing dependence** on non-renewable resources
- Mitigating and adapting to **climate change**
- Creating **jobs** and maintaining European **competitiveness**

## Developing a coherent bioeconomy

- **Coherent policy** (EIP /JPI)
- Investment in **knowledge, innovation** and **skills** (PPP)
- Participative governance & informed dialogue with **society**
- New **infrastructures** and **instruments**



## The Bioeconomy Action Plan

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Sector	Annual turnover (billion €)	Employment (thousands)	Data source
<b>Food</b>	965	4400	CIAA
<b>Agriculture</b>	381	12000	COPA-COGECA, Eurostat
<b>Paper/Pulp</b>	375	1800	CEPI
<b>Forestry/Wood ind.</b>	269	3000	CEI-BOIS
<b>Fisheries and Aquaculture</b>	32	500	EC**
<b>Bio-based industries</b>			
<b>Bio-chemicals and plastics</b>	50 (estimation*)	150 (estimation*)	USDA, Arthur D, Little, Festel, McKinsey, CEFIC
<b>Enzymes</b>	0,8 (estimation*)	5 (estimation*)	Amfep, Novozymes, Danisco/Genencor, DSM
<b>Biofuels</b>	6**	150	EBB, eBio
<b>Total</b>	<b>2078</b>	<b>22005</b>	

\*Estimation for Europe for 2009; \*\*Estimation based on a production of 2.2 million tonnes bioethanol and 7.7 million tonnes of biodiesel at average market price in Europe; \*\*\*EC, Facts and figures on the CFP, Basic Statistics Data, ISSN 1830-9119, 2010 Edition

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SIXTH FRAMEWORK  
PROGRAMME

## FP6 - Food Quality and Safety



SEVENTH FRAMEWORK  
PROGRAMME

## FP7 - Food, Agriculture and Fisheries, and Biotechnology

Building a European **Knowledge Based Bio-Economy (KBBE)** by bringing together science, industry and other stakeholders, to exploit new and emerging research opportunities that address social, environmental and economic challenges.

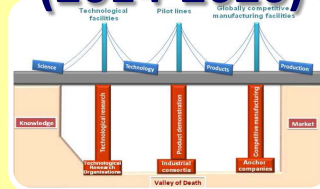
## H2020 - Food security, sustainable Agriculture and Forestry, Marine and Maritime and Inland Water research and the Bioeconomy

The specific objective is to secure sufficient supplies of safe, healthy and high quality **food and other bio-based products**, by developing productive, sustainable and resource-efficient **primary production systems...**



# Avanzando hacia la Estrategia Española de Bioeconomía. La Bioeconomía en Europa. Horizon 2020

## H2020 – Framework Programme for Research & Innovation (2014-2020)



### Excellent Science

### Industrial Leadership

### Societal Challenges

European Research Council (ERC)

Future and Emerging Technologies (FET)

Marie Skłodowska-Curie actions on skills, training and career development

European research infrastructures

ICT

Nanotechnology

**Biotechnology**

Advanced Materials

Advanced Manufacturing & Processing

Space

Access to Risk Finance

Innovation in SMEs

Health, demographic change and wellbeing

**Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the Bioeconomy;**

Secure, clean and efficient energy;

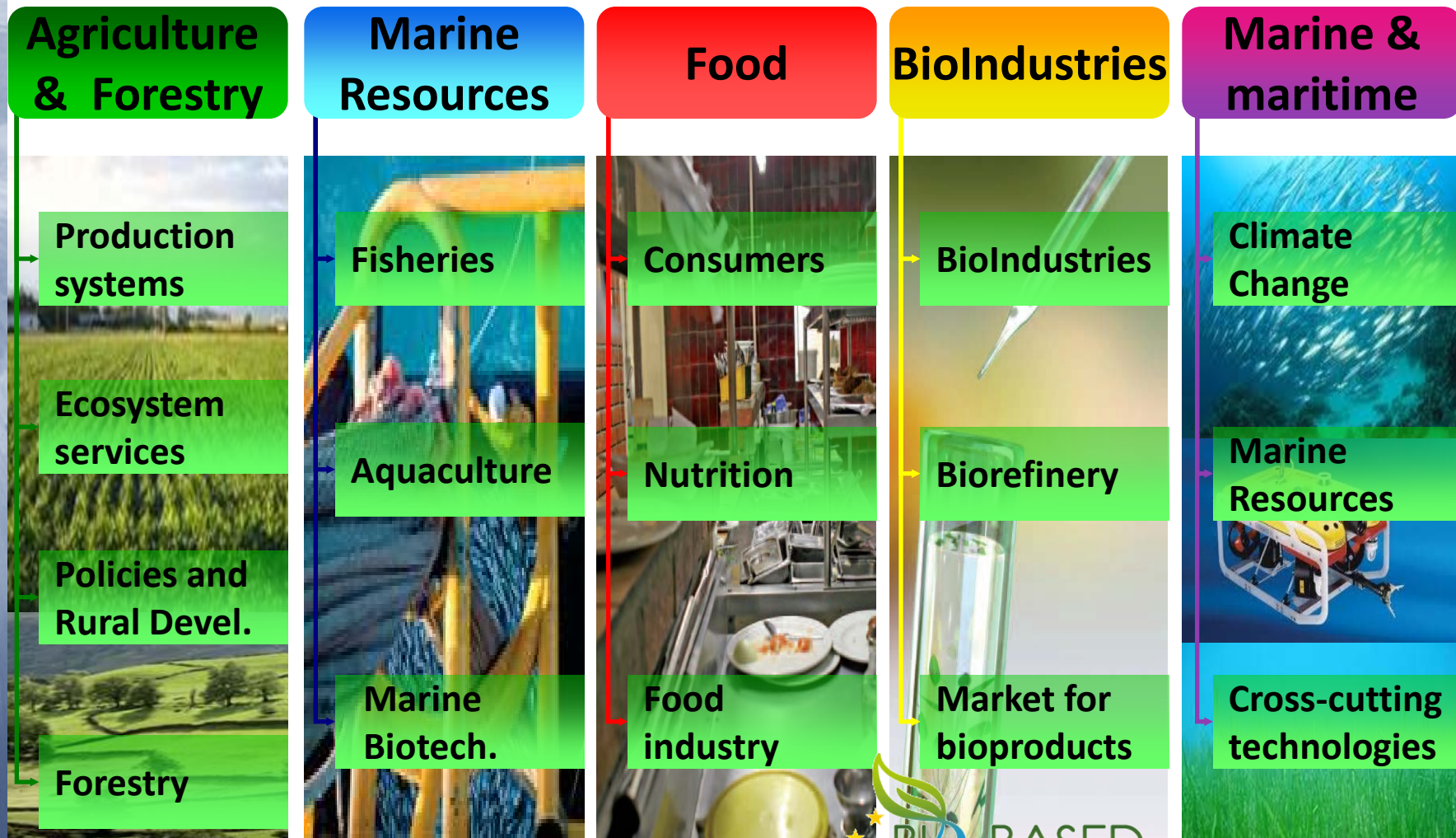
Smart, green and integrated transport;

Climate action, environment, resource efficiency and raw materials

Europe in a changing world-Inclusive, innovative and reflexive societies

Secure Societies: Protecting freedom and security of Europe and its citizens

# Avanzando hacia la Estrategia Española de Bioeconomía. La Bioeconomía en Europa. H2020 – Societal Challenge 2.





# Avanzando hacia la Estrategia Española de Bioeconomía. La Bioeconomía en Europa. JTI on BioBased Industries.

## 74 Full Members

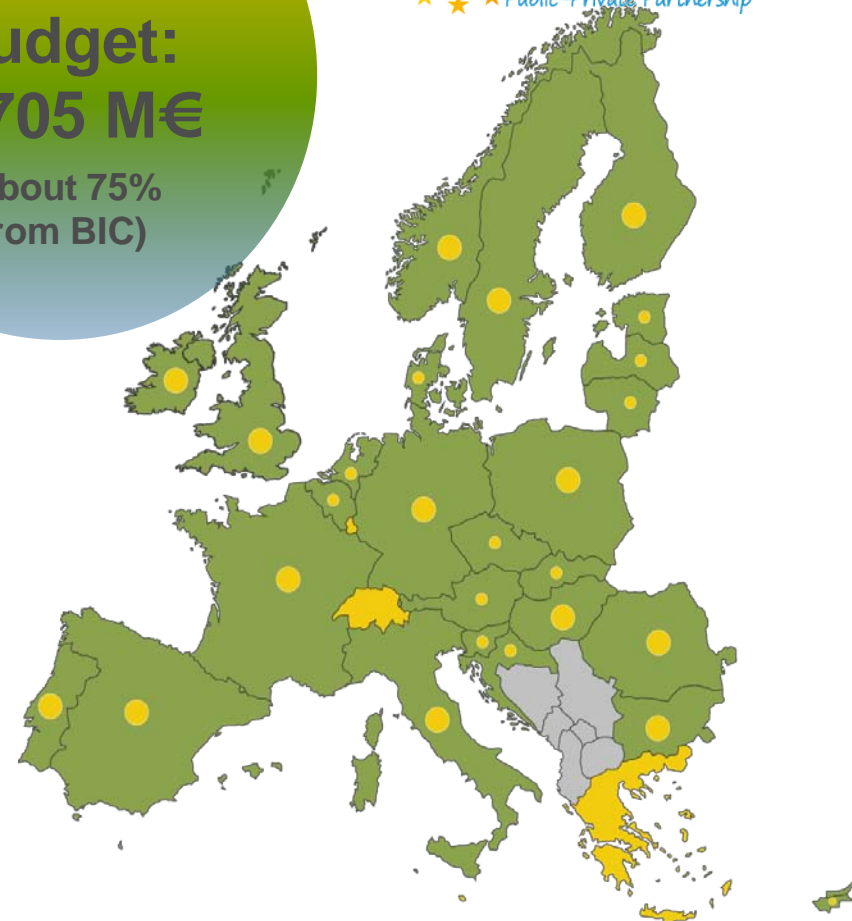
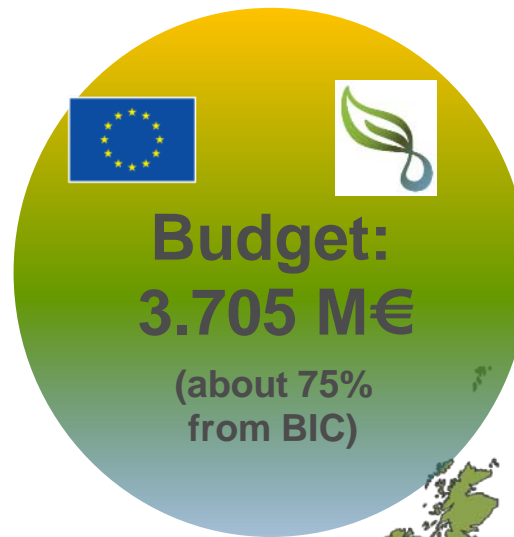
- 42 Large industries
- 18 SMEs
- 14 regional SME Clusters

## 147 Associate Members

- 50 Universities
- 73 RTOs
- 10 European Associations
- 7 Associations
- 5 Technology platforms
- 1 Public institution
- 1 Bank

## Sectors covered to date

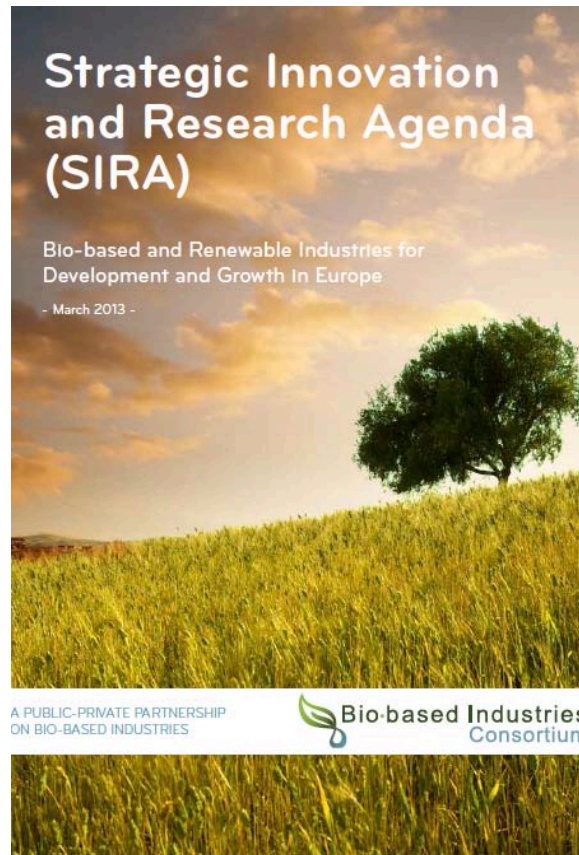
- Agriculture and Agro-food
- Forestry / Pulp and Paper
- Technology providers
- Chemicals
- Energy



# Avanzando hacia la Estrategia Española de Bioeconomía. La Bioeconomía en Europa. JTI on BioBased Industries.

## Strategic Innovation & Research Agenda

- **Value Chain 1:** From **lignocellulosic** feedstock to advanced biofuels, bio-based chemicals & biomaterials realising the feedstock and technology base for the next generation of fuels, chemicals and materials
- **Value Chain 2:** Next generation **forest-based** value chains utilisation of the full potential of forestry biomass by improved mobilisation & realisation of new added value products & markets
- **Value Chain 3:** Next generation **agro-based** value chains realising the highest sustainability and added value by improved agricultural production, & new added value products and markets
- **Value Chain 4:** 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:** Integrated **energy, pulp and chemicals biorefineries** realising sustainable bio-energy production, by backwards integration with biorefinery operations isolating higher added value components



## The Bioeconomy starts here!

<https://www.youtube.com/watch?v=2xvXkOMRTs4>

# Muchas gracias por su atención

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