



NL Agency  
*Ministry of Economic Affairs*

# Inventory Biobased Research in Europe and India

Brussel,  
Final project meeting  
Sahyog

03/02/2015

Kees Kwant

*>> Focus on sustainability,  
innovation and international*



# Background

This Inventory of Biobased Economy projects was made within the framework of the EC funded project Sahyog:

[www.sahyog-europe-india.eu](http://www.sahyog-europe-india.eu)



## Goal:

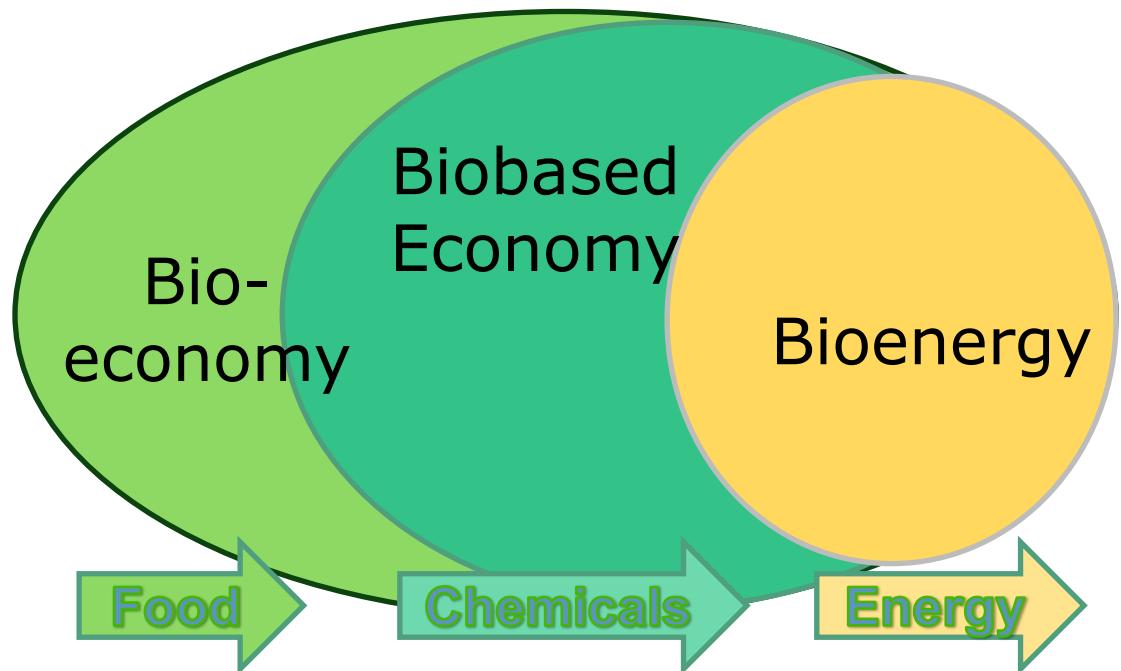
Develop an inventory of EU Biobased projects to enable:

1. Development of twinning between India and the EU
2. Development of a Roadmap and Strategic Research Agenda



## Biobased Economy part of Green Growth Strategy

A Biobased Economy  
is a sustainable  
Economy,  
optimising  
Economic value and  
Natural value of biomass  
by  
Replacing Fossil  
Resources





## Europe versus India

	Europe	India
Population (million)	503	1220
Gross Domestic Product (trillion Euro)	13.000	1.800
GDP per Capita (\$)	32300	3830
Cultivated area (M ha)	420	330
Crops %	25	44
Grass %	13	15
Forestry %	42	21
Others %	20	20



## Data from existing Databases

### EUROPE

Star Colibri

Cordis

Intelligent Energy Europe,

Interreg

In collaboration with the AL-CUE project. (Latin America)



### INDIA

NSTMIS database

personal communication





# Budgets for Biobased Research

projects ending after 2007

projects larger than 0.5 M Euro in EU

Kolom1	projects	Funding
Cordis	605	€ 1.649.795.122
IEE	47	€ 41.833.612
StarColibri	294	€ 716.994.576
<b>Total Europe</b>	<b>946</b>	<b>€ 2.408.623.310</b>
<b>India</b>	<b>280</b>	<b>€ 350.000.000</b>





# Categorisation of Research Projects

*What?*

- A: Biomass Resource;
- B: Agricultural Activity
- C: Conversion Technology;
- D: End Product

*Who?*

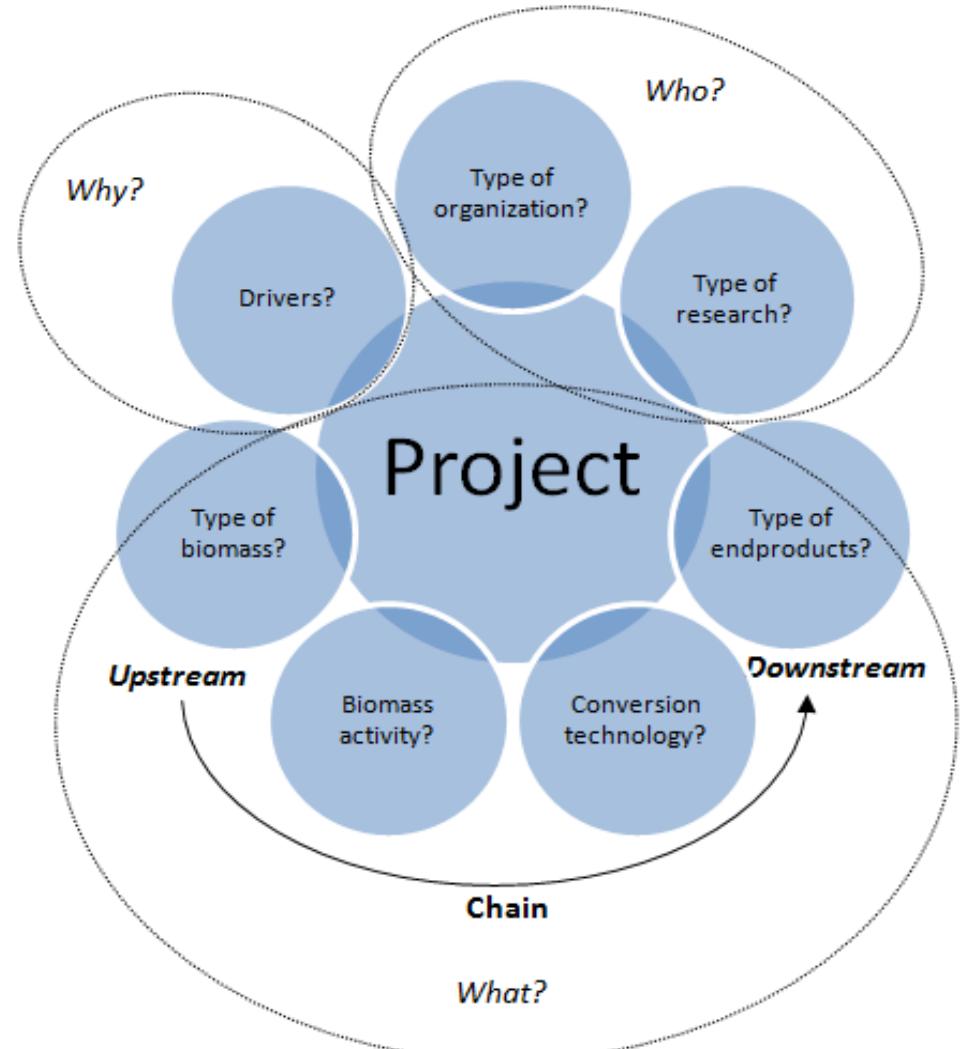
- E: Type or Research;
- F: Type of Organisation;

*Why?*

- G: Drivers for research;

*Where?*

- H: Focus of Resarch;
- I: Chain;





## Categorisation of projects on different aspects

- A: Biomass Resource; Agriculture, Forestry -> Waste
- B: Agricultural Activity; Crop improvement -> Logistics
- C: Conversion Technology; Fermentation, -> Combustion
- D: Product; Food, Chemicals, Energy
  
- E: Type or Research; Fundamental -> Demonstration
- F: Type of Organisation; University -> Industry
  
- G: Drivers for research; Economic -> Environmental
  
- H: Focus of Resarch;
- I: Chain; Upstream -> Downstream





## Biobased R&D Europe, 924 projects between 2008 – 2012

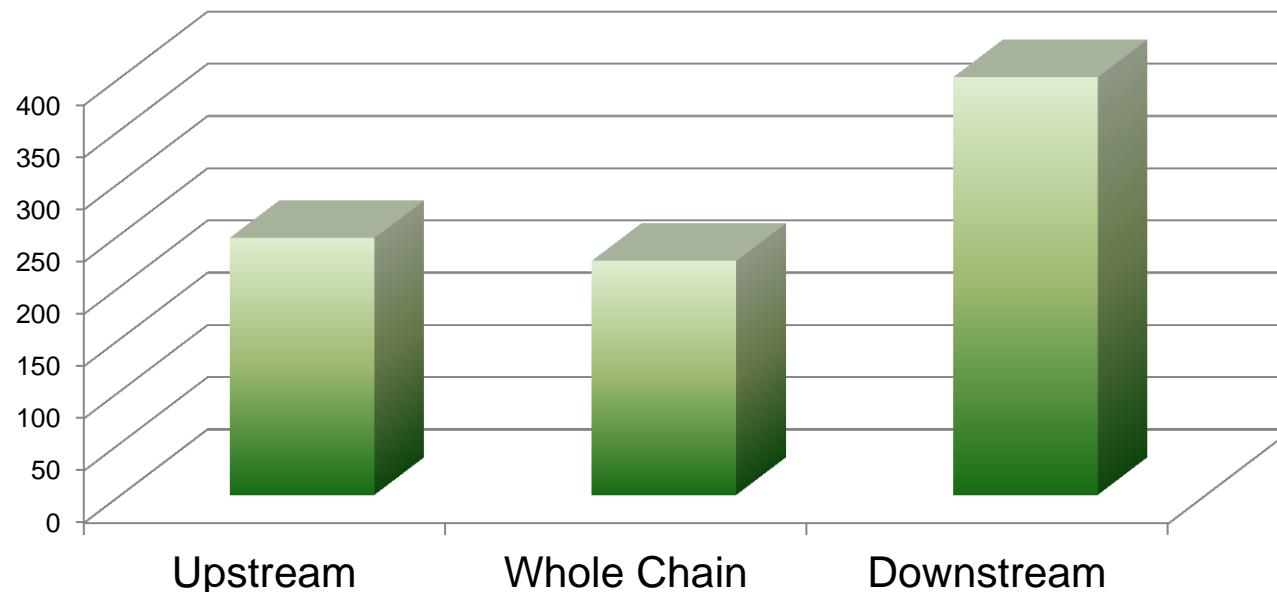
Upstream



Chain

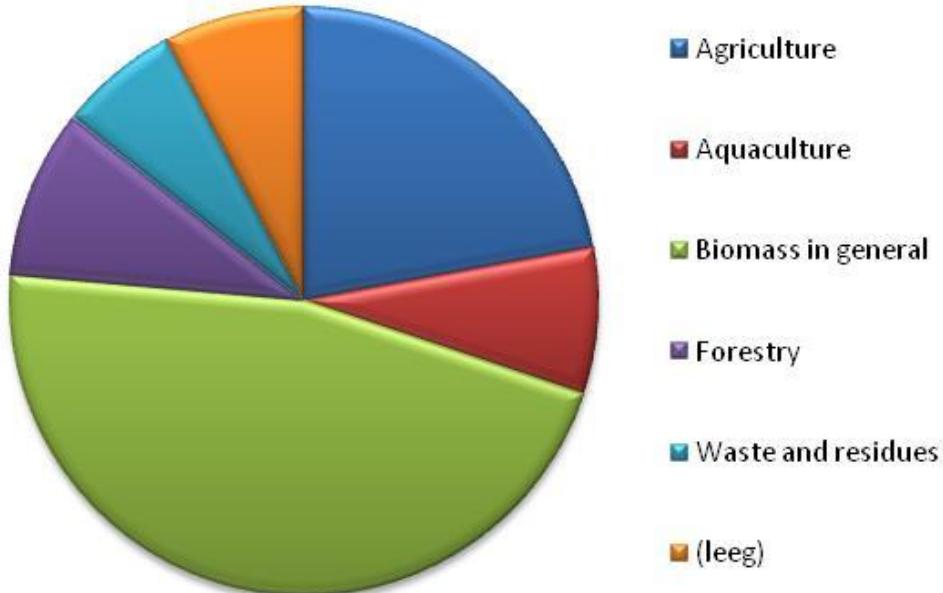


Downstream

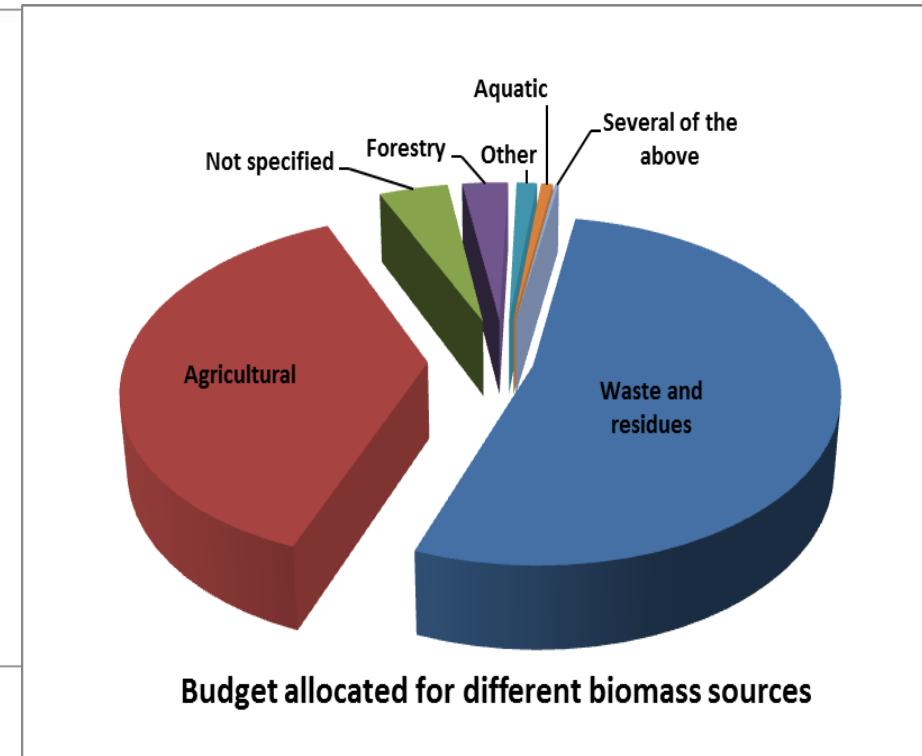


## Research projects by biomass resource

Europe (#)



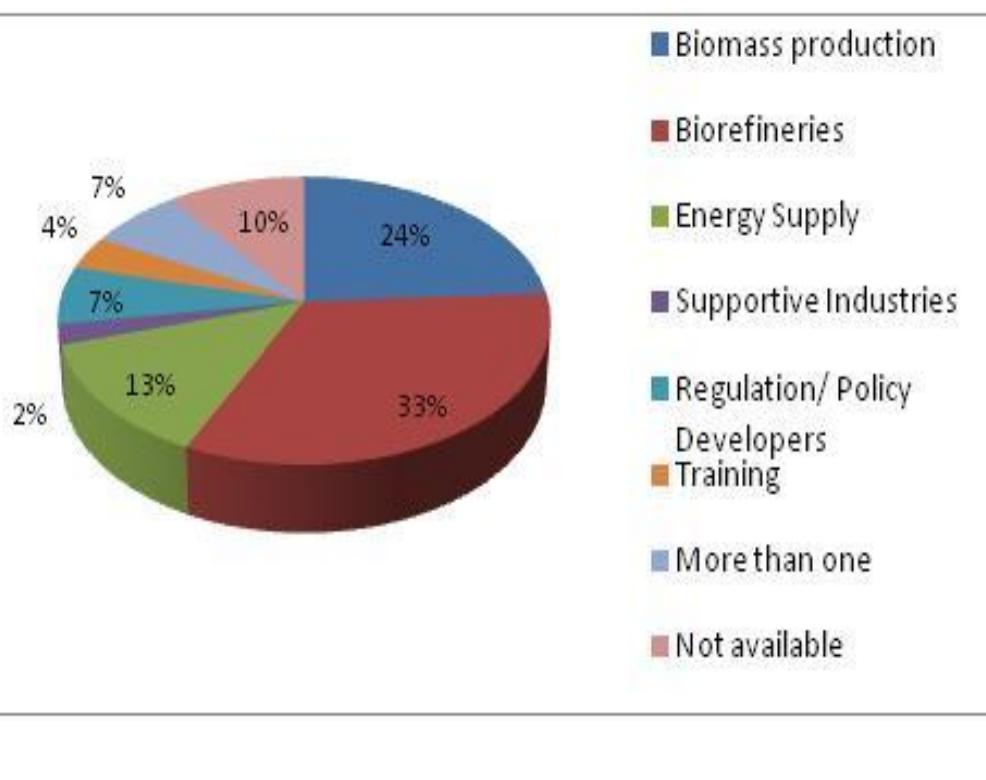
India



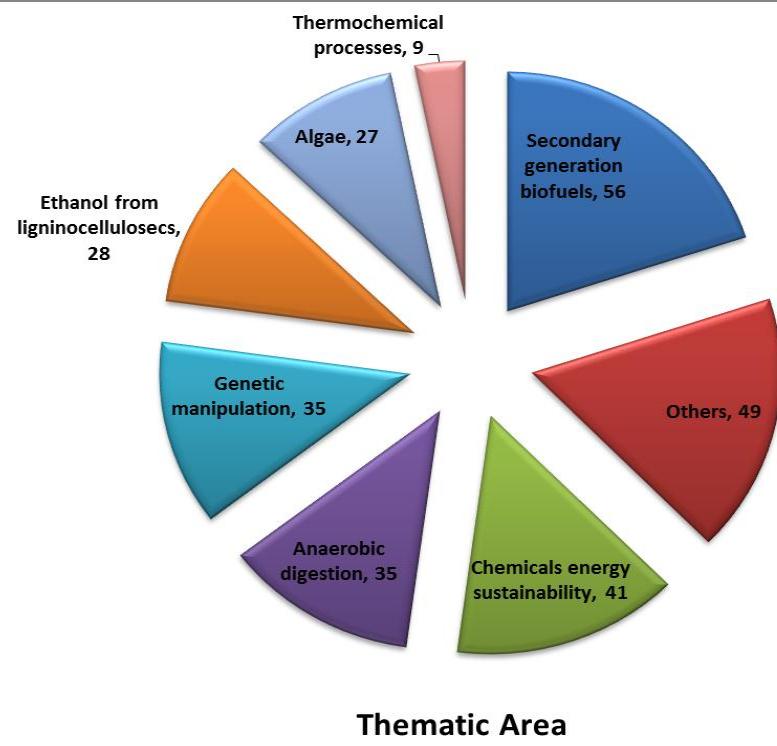


## By Research Focus

### Europe, # projects



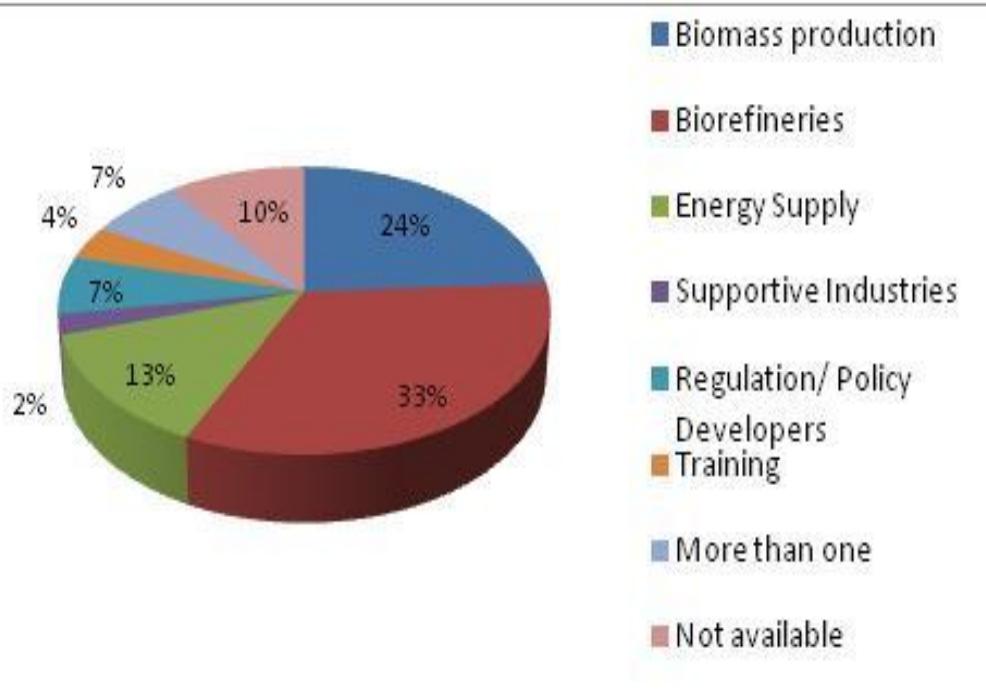
### India, #projects



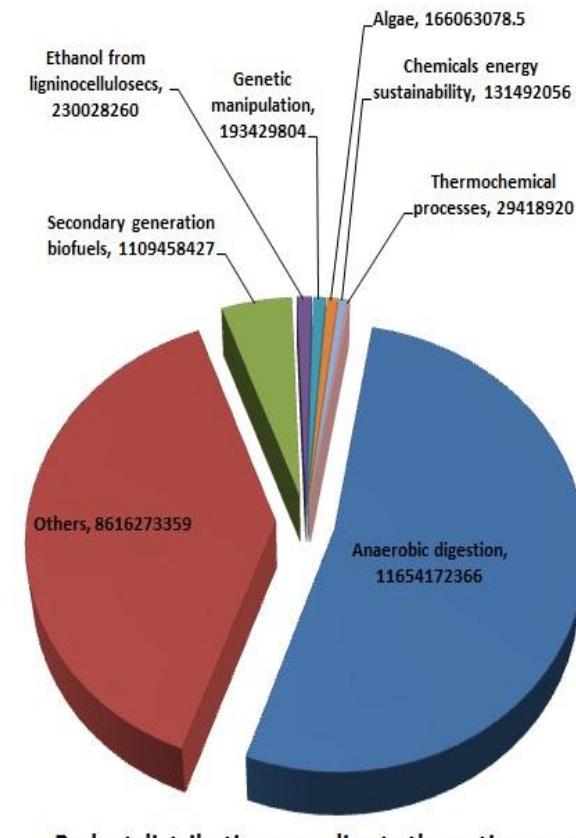


## By Research Focus

### Europe (#)



### India



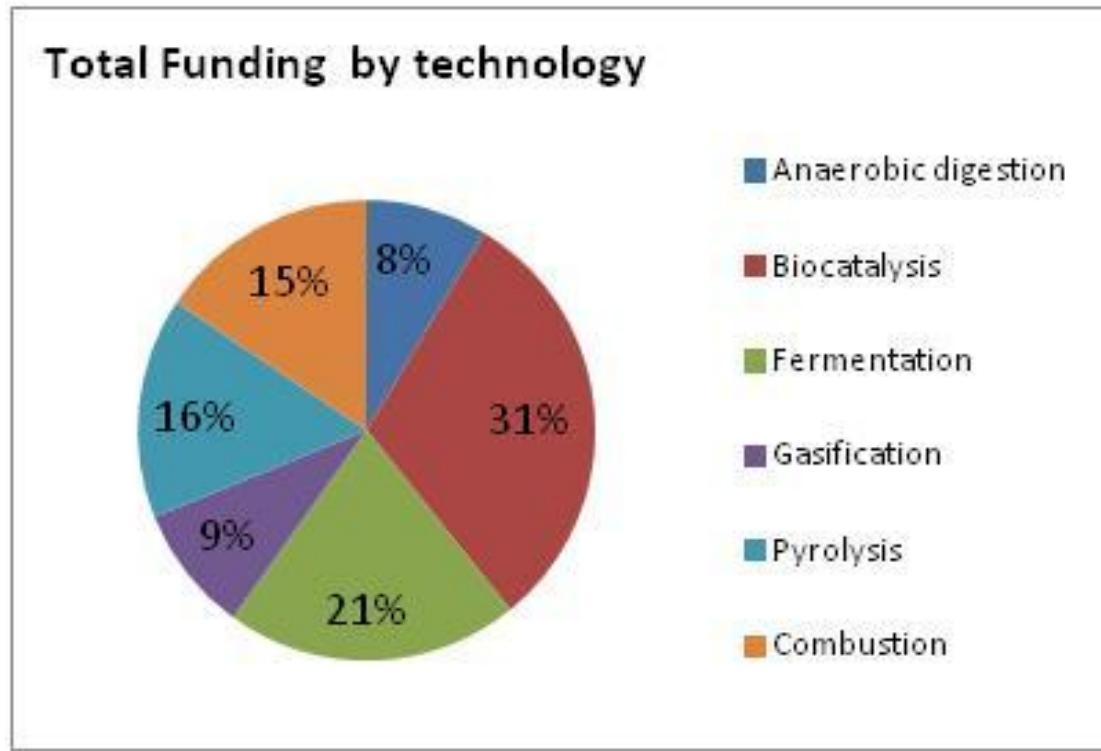
Budget distribution according to thematic areas

» Focus on sustainability,  
innovation and international



## By Technology

Europe

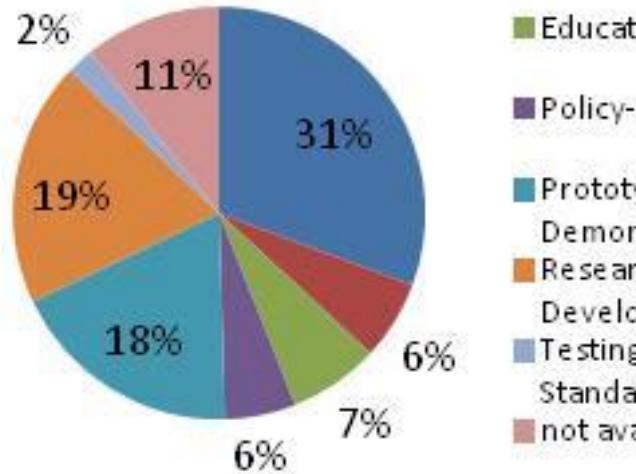




## Type of Research

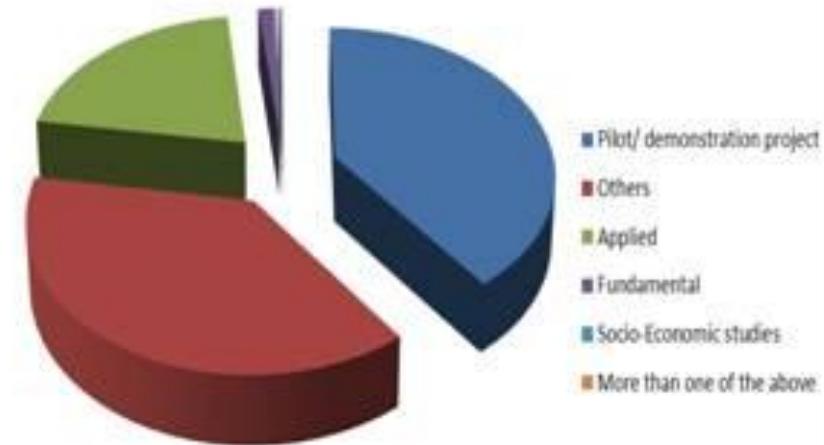
### Europe

Type of Research



### India

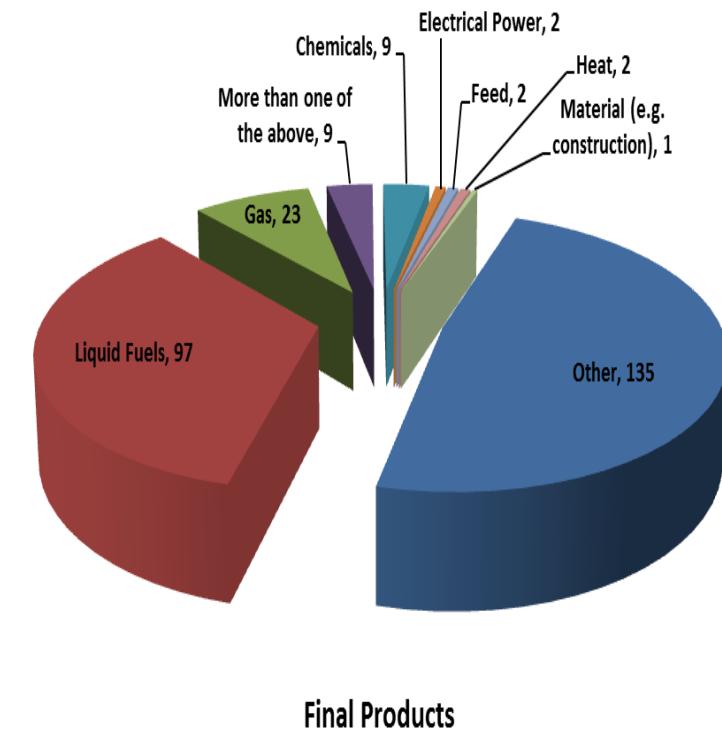
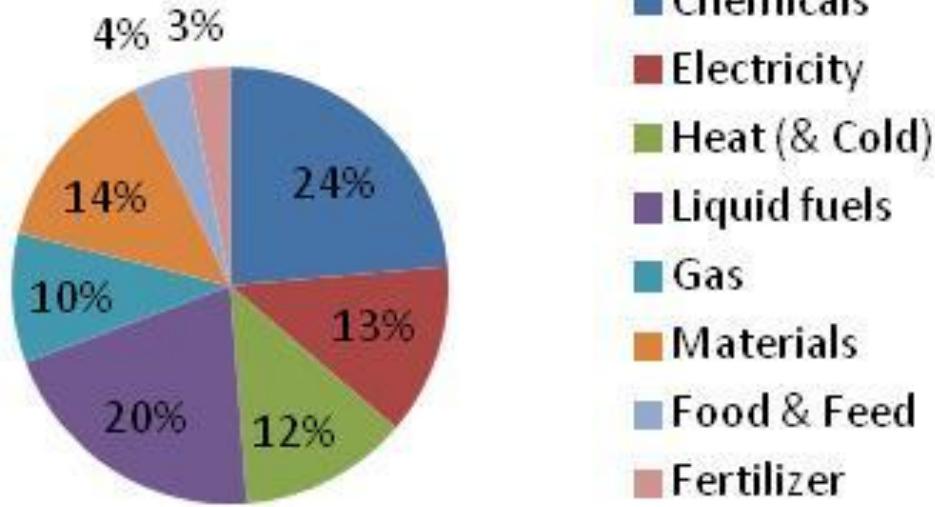
Budget allocated for different type of Research



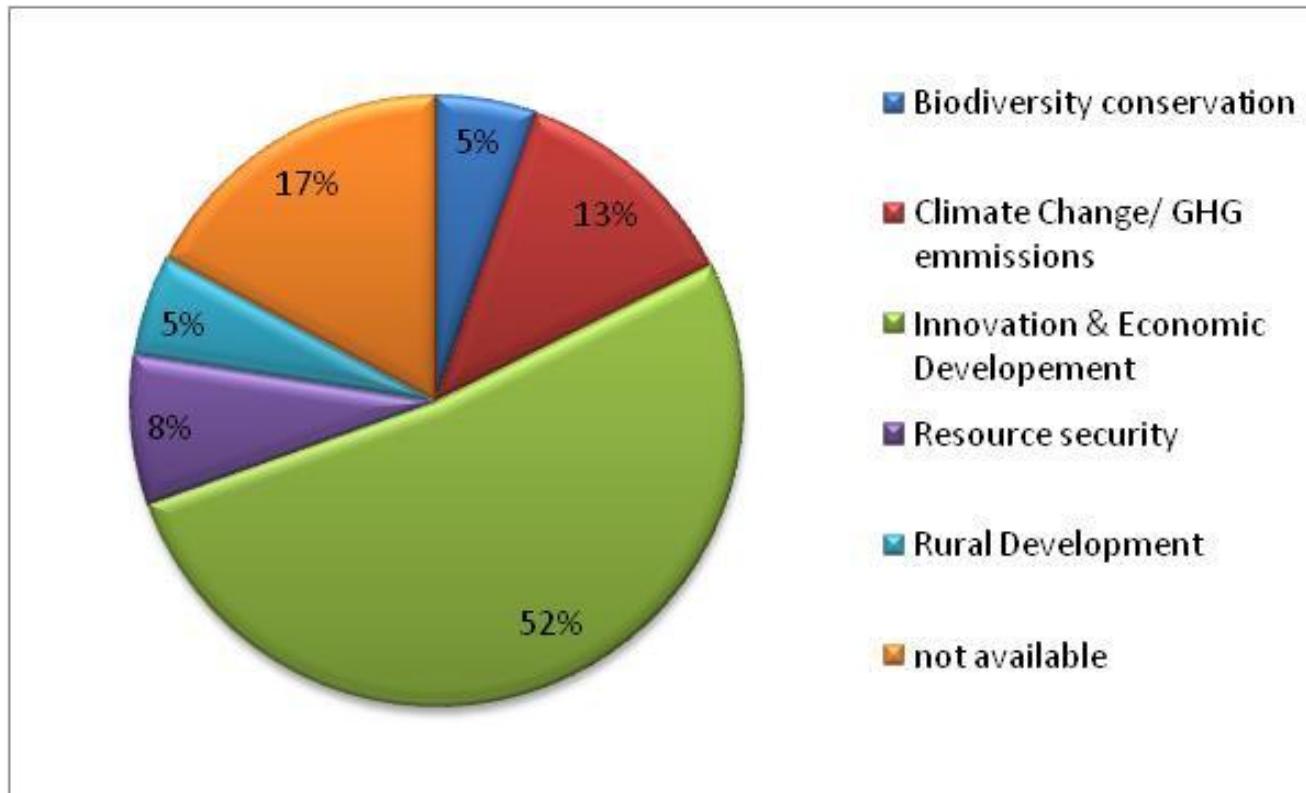


## End products, Budget and # of projects

Total funding by product

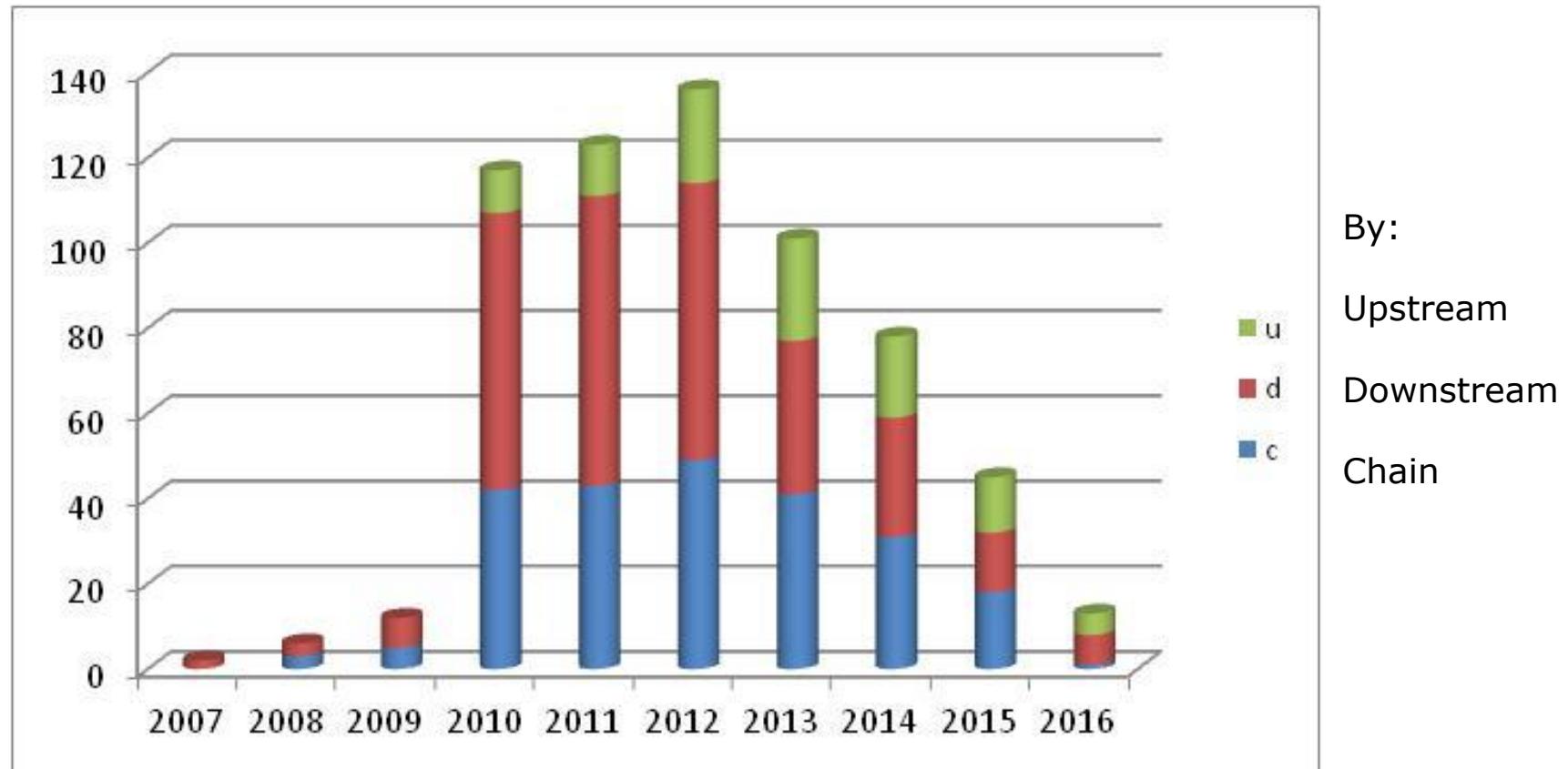


# Drivers for Biobased Research in Europe





## Support Budget M Euro in Europe to be spent in final project year





# Projects in Agricultural and Sustainability

AMIGA	Assessing and Monitoring the Impacts of Genetically modified plants on Agro-ecosystems
SMARTSOIL	Sustainable farm Management Aimed at Reducing Threats to SOILs under climate change
REFERTIL	Improvement of comprehensive bio-waste transformation and nutrient recovery treatment processes for production of combined natural products
ADVOCATE	Advancing Sustainable In Situ Remediation for Contaminated Land and Groundwater
BIODIVERSA2	Cooperation and shared strategies for biodiversity research programmes in Europe
SALSA	Knowledge-based Sustainable vAlue-added food chains: innovative tooLs for monitoring ethical, environmental and Socio-economical impActS and implementing Eu-Latin America shared strategies
WATERBIOTECH	Biotechnology for Africa's sustainable water supply
EUROCHAR	Biochar for Carbon sequestration and large-scale removal of greenhouse gases (GHG) from the atmosphere
AGREE	Agriculture and Energy Efficiency
BIOCONSUS	Research potential in conservation and sustainable management of biodiversity
BIOBIO	Indicators for biodiversity in organic and low-input farming systems
HIGHNOON	HighNoon: adaptation to changing water resources availability in northern India with Himalayan glacier retreat and changing monsoon pattern
SOILSERVICE	Conflicting demands of land use, soil biodiversity and the sustainable delivery of ecosystem goods and services in Europe



<http://www.sahyog-projects-database.eu/index.php>



Welcome to the SAHYOG Project Inventories website.



The objective of the project **SAHYOG** (*Strengthening Networking on Biomass Research and Biowaste Conversion – Biotechnology for Europe India Integration*) is to actively and effectively link research activities implemented within EU research programmes and related programmes by Indian national institutions.

This **SAHYOG Inventory on Research Programs and Projects** presents an overview of existing programs and research projects in Europe and India, searchable with respect to the categories Upstream/Downstream, Type of Biomass, Production and pre-treatment, Biomass conversion technology, Product, Type of research, Organisation type, Drivers, and Sector. [SEE INSTRUCTIONS](#)

This is a preliminary version with projects up till March 2012, and will be updated by End of April with more projects.

Your comments on this website, the content, categorisation can be sent to us and will be used to improve the website.

Please send it to: [Michiel.Evers@Agentschapnl.nl](mailto:Michiel.Evers@Agentschapnl.nl)

#### Search database

 submit

#### Browse topics

Upstream/Downstream/Whole Chain	Type Of Biomass
Agricultural Activity	Biomass conversion technology
Product	Type of Research
Organisation type	Drivers
Focus of project	Country

[browse topics](#)

ToPics  
->  
Select  
->  
Analyse  
->  
Combine



## 2014: Horizon 2020, calls & Cooperation

[\*\*http://ec.europa.eu/programmes/horizon2020/en/find-your-area\*\*](http://ec.europa.eu/programmes/horizon2020/en/find-your-area)

[\*\*http://biconsortium.eu/\*\*](http://biconsortium.eu/)

### **BIOTECHNOLOGY**

**H2020-LEIT-BIO-2015-1** Sub call of: [\*\*H2020-BIOTEC-2014-2015\*\*](#)

**Deadline Date** 26-03-2015 17:00:00 (Brussels local time)

**Stage 2** 08-09-2015 17:00:00 (Brussels local time)

**Budget** €28,840,000 **Main Pillar** Industrial Leadership



## Conclusion



### Database enables selection

- Appropriate criteria for selection
- Selection of projects for knowledge domains



### Recommendations

- Update with new projects
- Integrate with Biobased Observatory in EU



### Utilise database

- Combined with requests for Twinning
- Available on website



[www.sahyog-europa-india.eu](http://www.sahyog-europa-india.eu)

*>> Focus on sustainability,  
innovation and international*