



NL Agency
Ministry of Economic Affairs

Biobased Economy in Europe and India

Copenhagen,
21 EU Biomass conference

19/06/2013

Kees Kwant

» *Focus on sustainability,
innovation and international*



Background

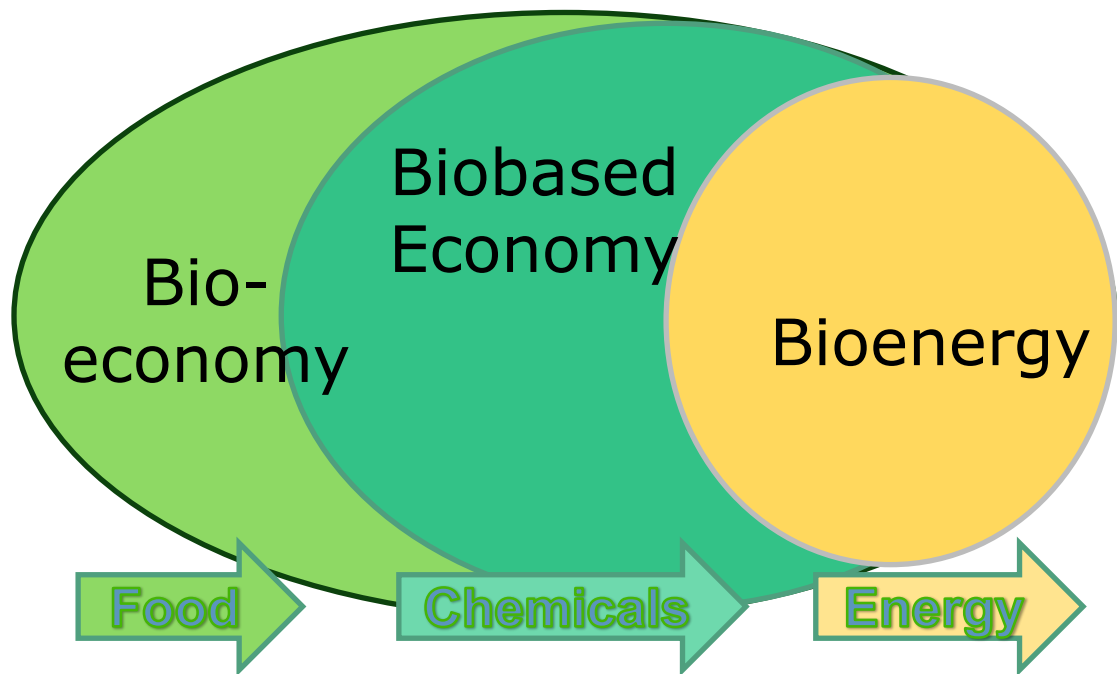
- What is Biobased Economy
- Biobased Research in EC and India
- Biobased Research in Horizon 2020
- Callaboration opportunities





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





Vision Biobased Economy

Sustainable Production and Use of Biomass:

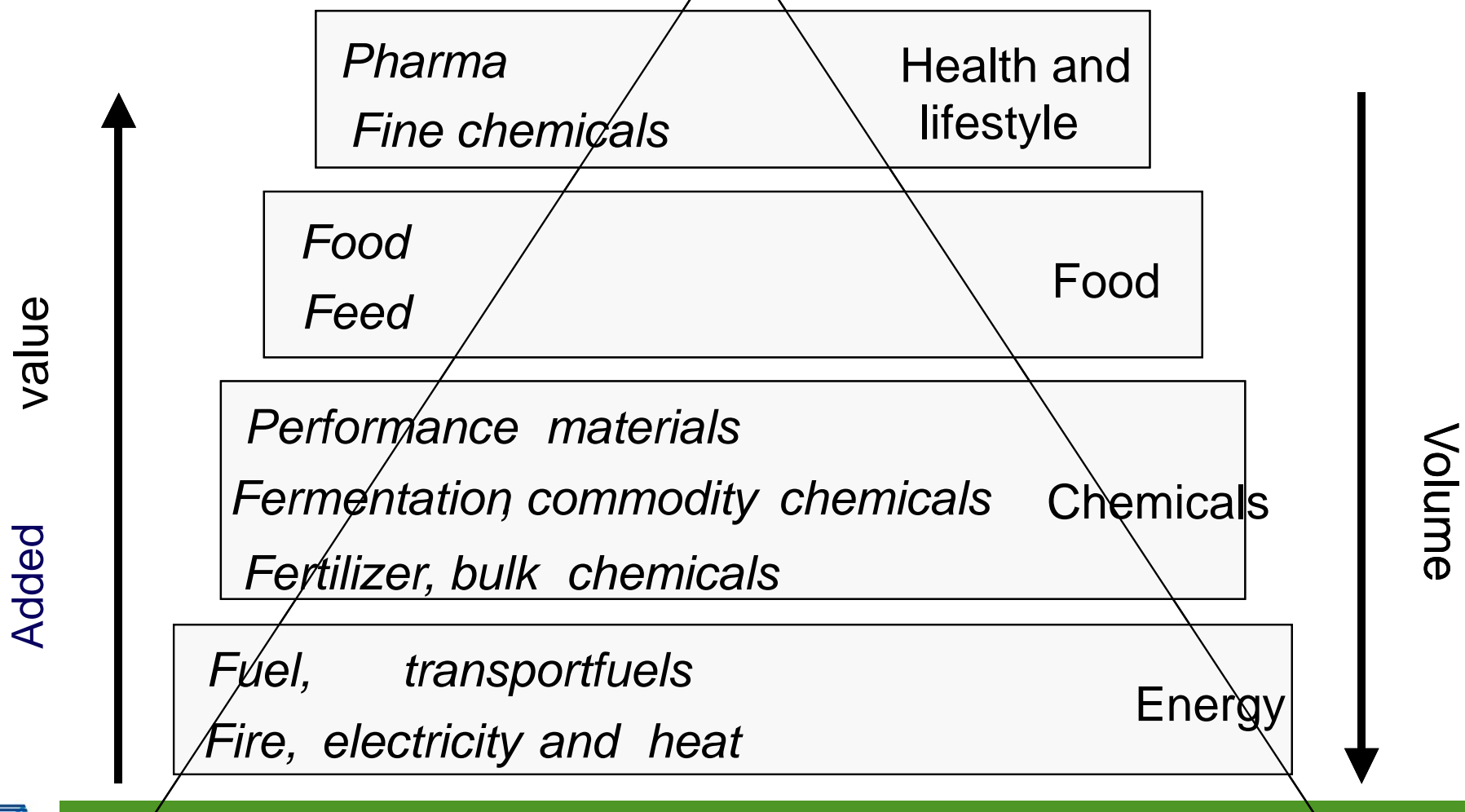
- *People*: food security, land rights, prosperity
- *Planet*: soil, water, air, GHG, biodiversity
- *Profit*: businesscases

Proven Sustainable Biomass does not come automatically



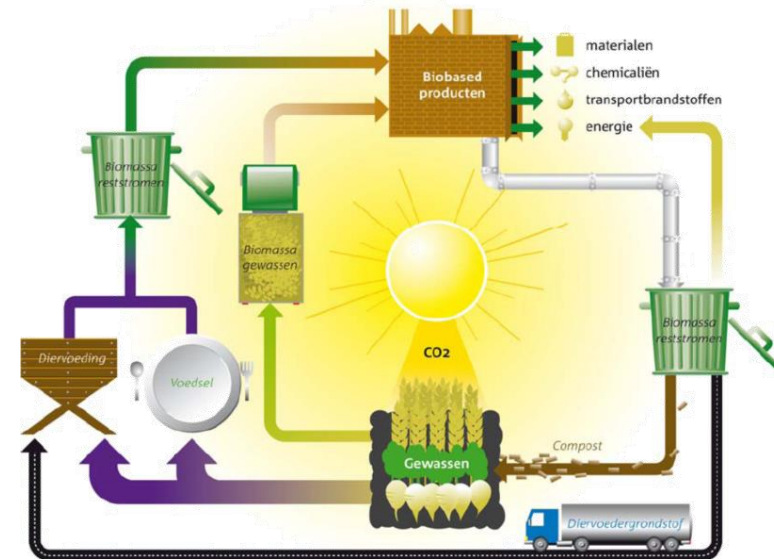


Creating Value:



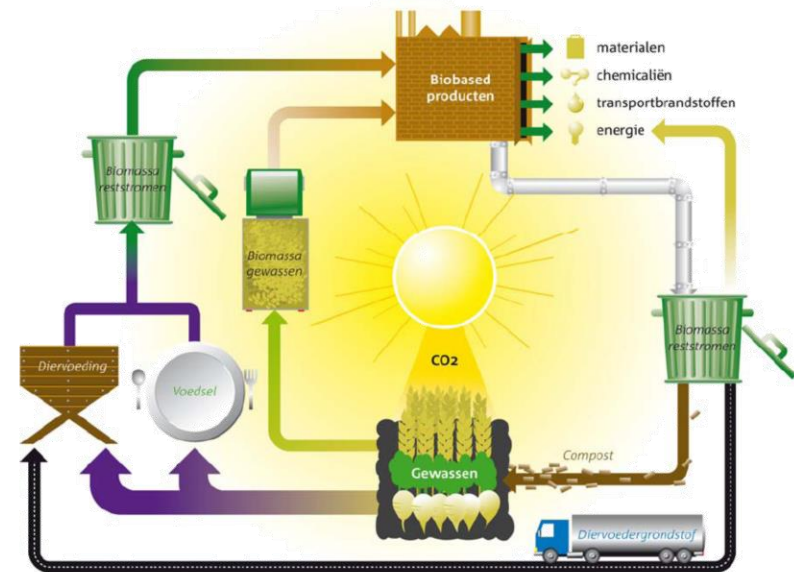
Transition to the use of Renewable Resources

- Biomass replaces fossil resources in energy and chemicals
- Agriculture for food supplies and chemicals
- Circular Economy, utilisation of waste streams
- Bio-sector economic and societal a leading position



Reduction of Foot Print:

- Replace fossil by biomass.
- Efficient use of resources
 - Closing cycles
- biorefineries and nutrient recycling





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
Total Europe	946	€ 2.408.623.310
India	280	€ 350.000.000





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;

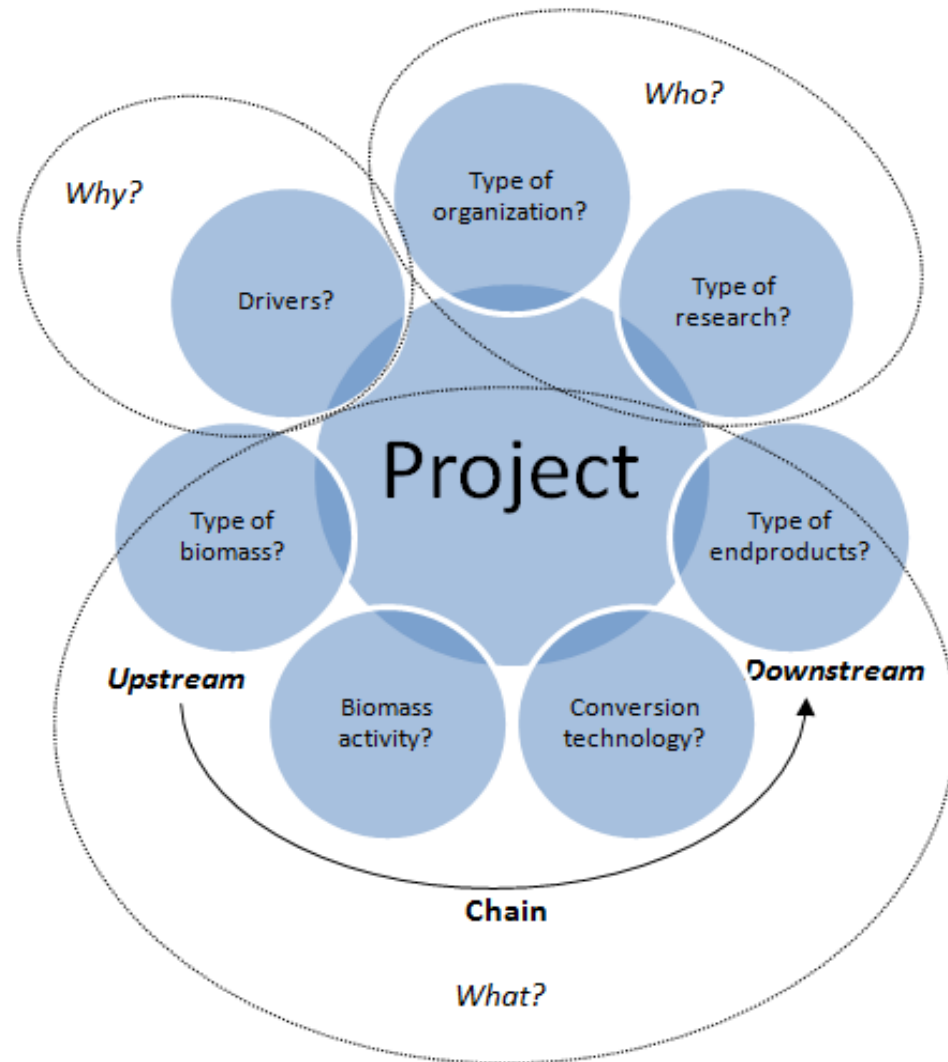
Why?

- G: Drivers for research;

Where?

- H: Focus of Research;

- O 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

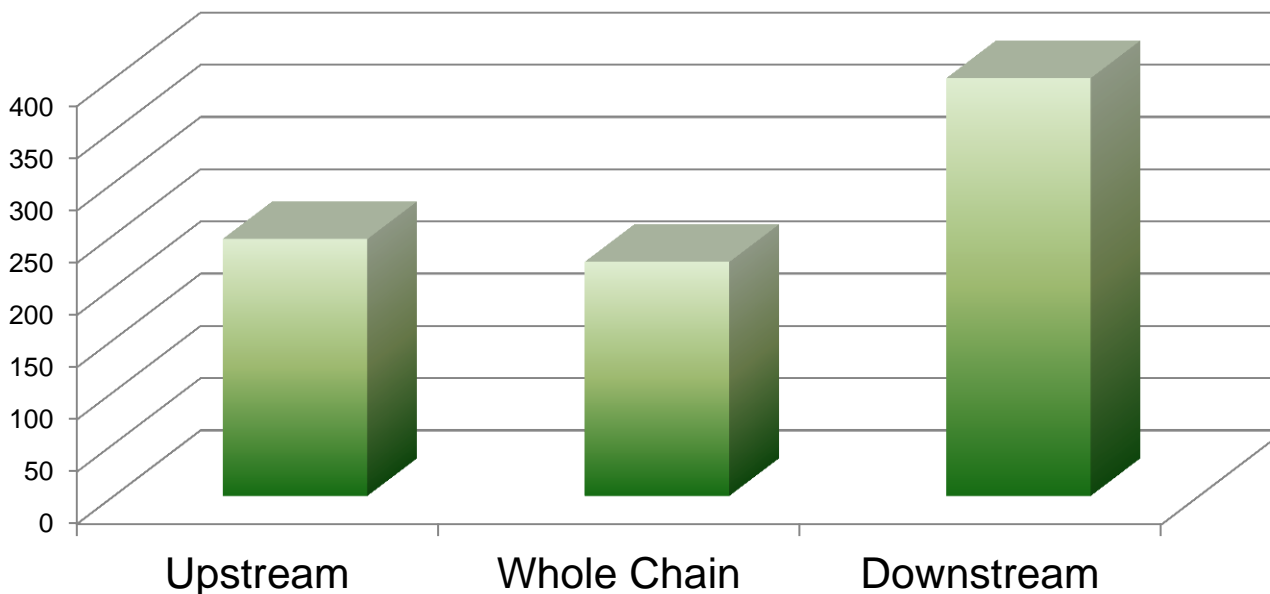
H: Focus of Research;

O: Chain; Upstream -> Downstream



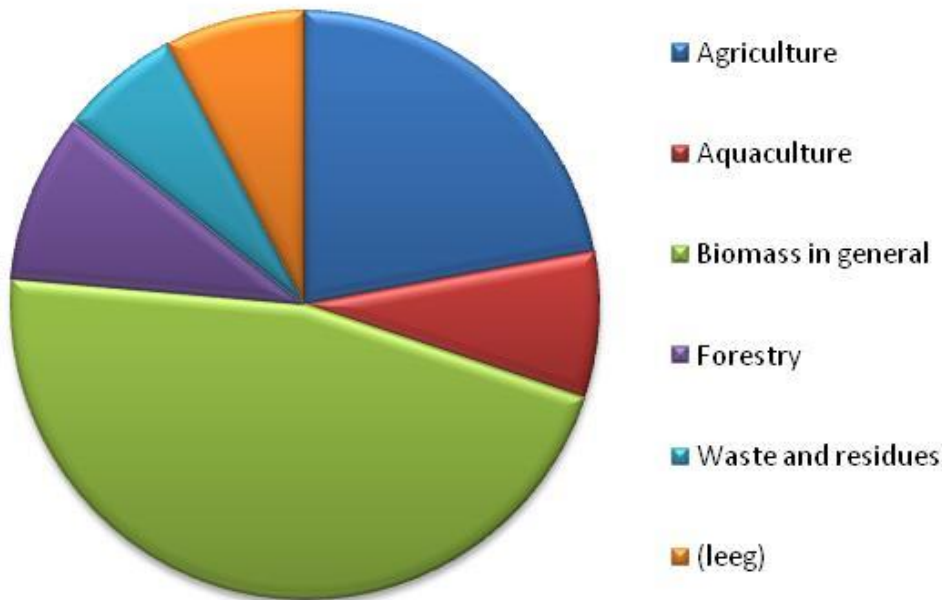


Biobased R&D Europe, 924 projects between 2008 – 2012

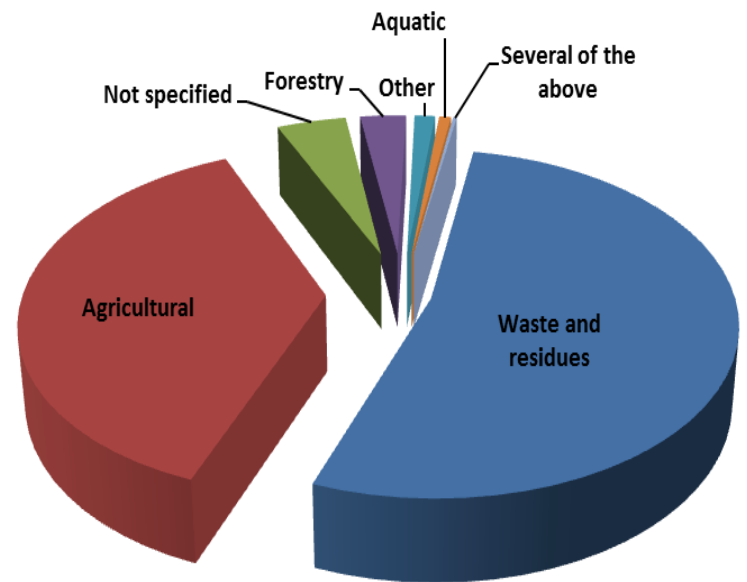


Research projects by biomass resource

Europe (#)



India



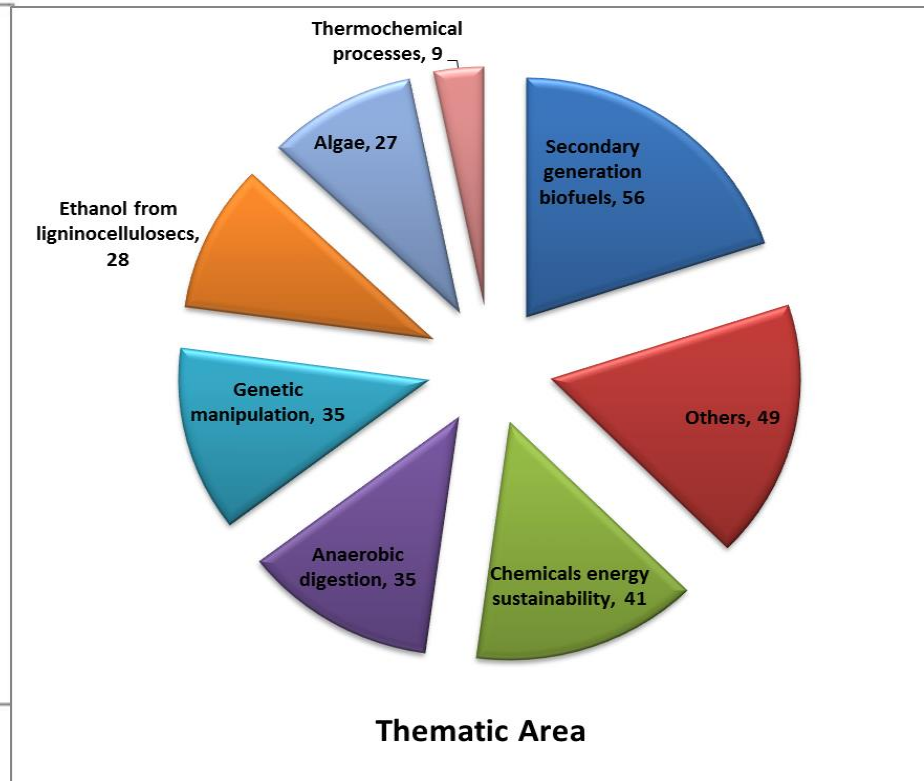
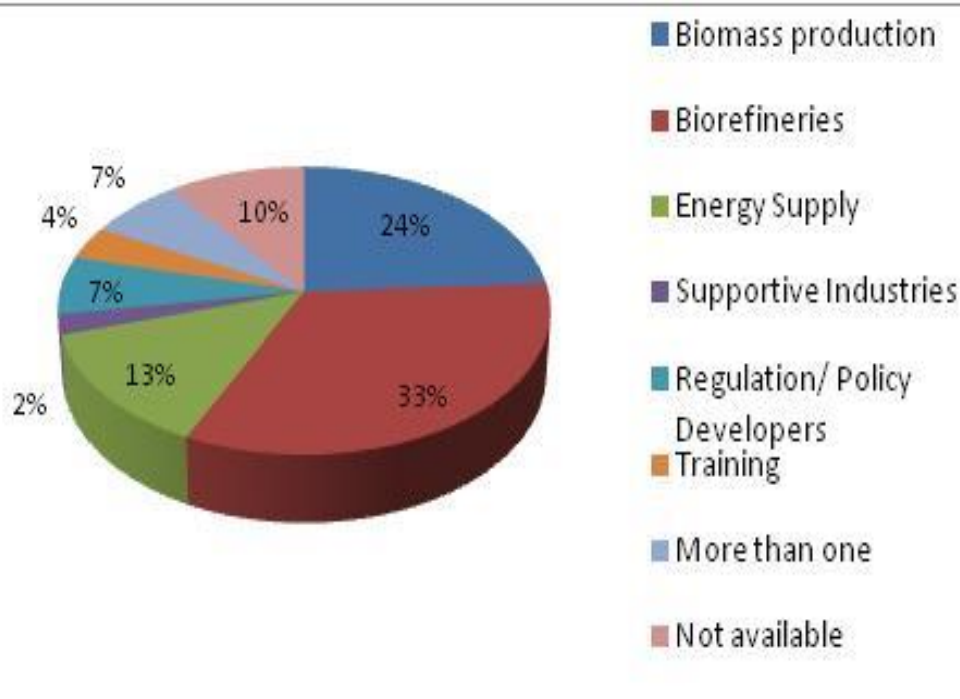
Budget allocated for different biomass sources



By Research Focus

Europe, # projects

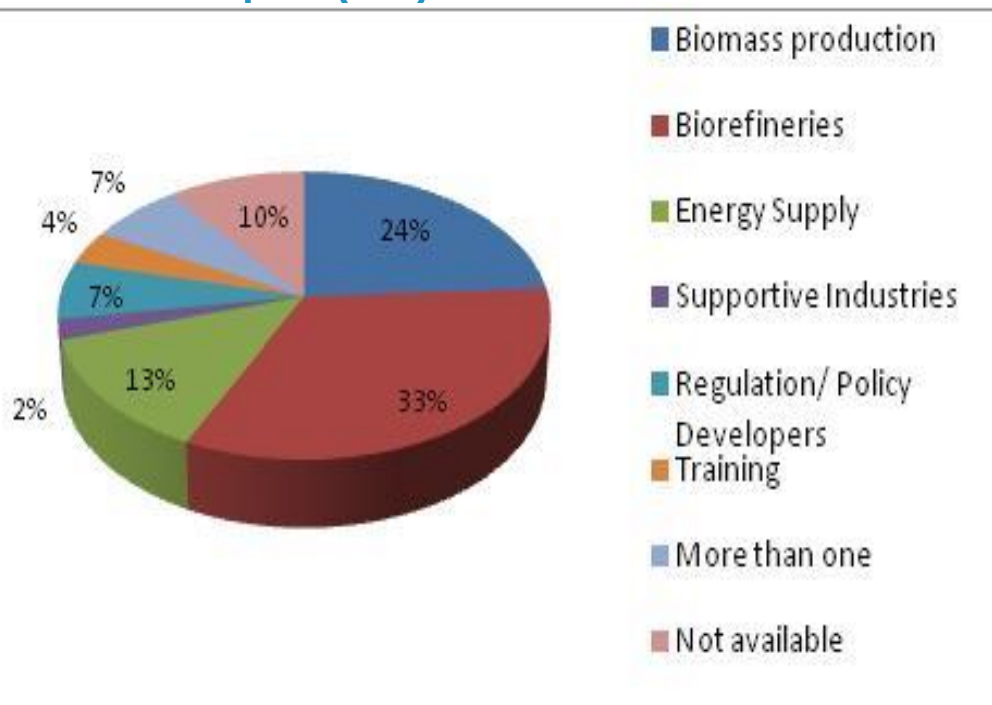
India, #projects



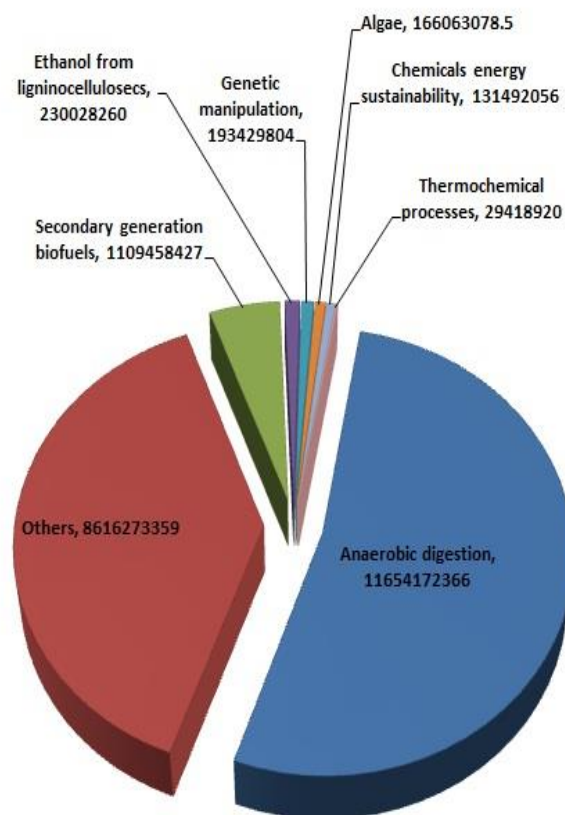


By Research Focus

Europe (#)



India



Budget distribution according to thematic areas

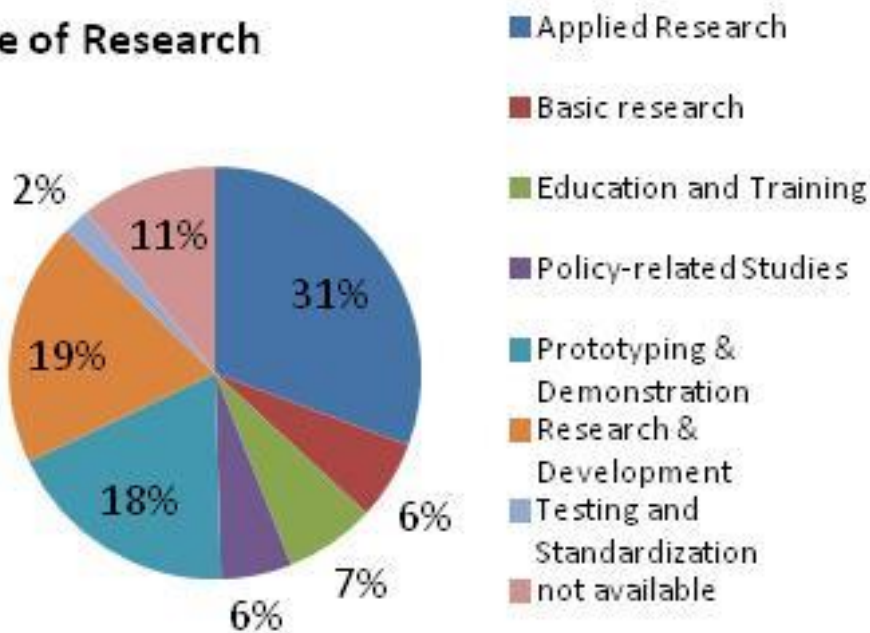
» Focus on sustainability, innovation and international



Type of Research

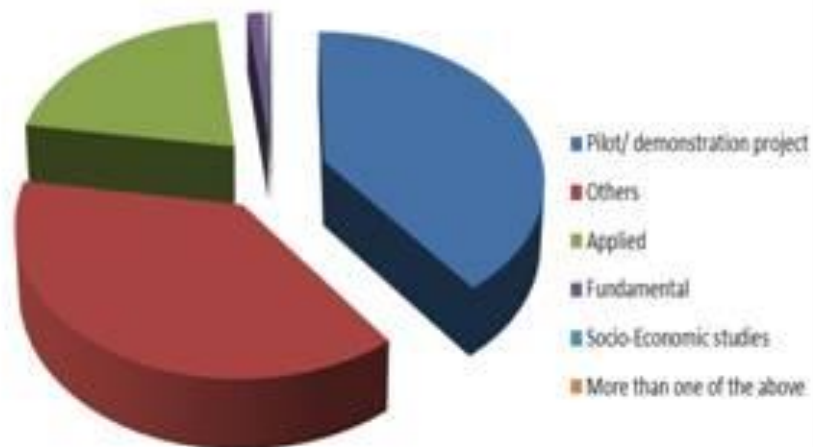
Europe

Type of Research



India

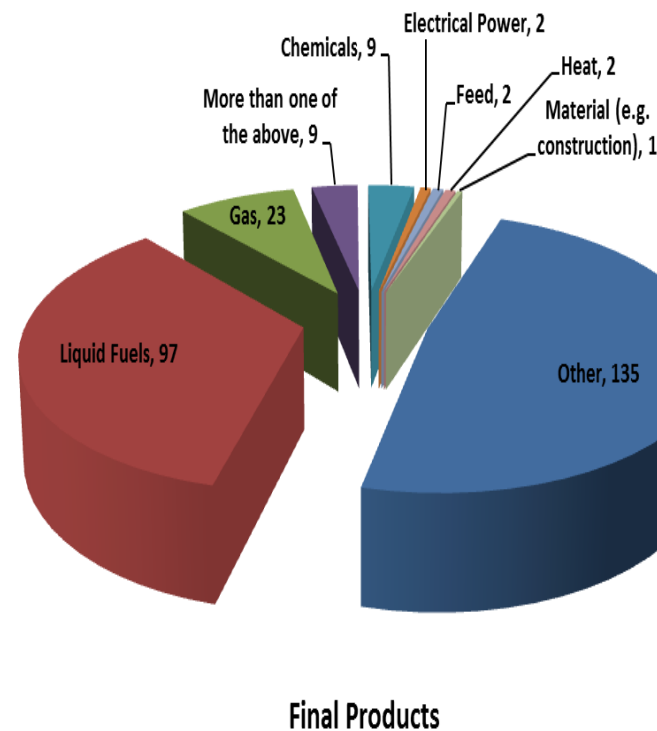
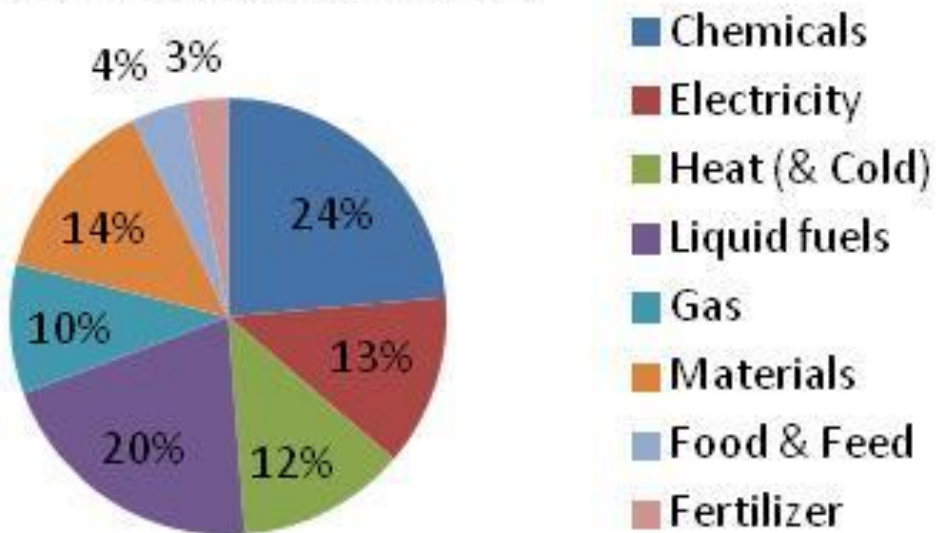
Budget allocated for different type of Research





End products, Budget and # of projects

Total funding by product





Projects in Agricultural and Sustainability

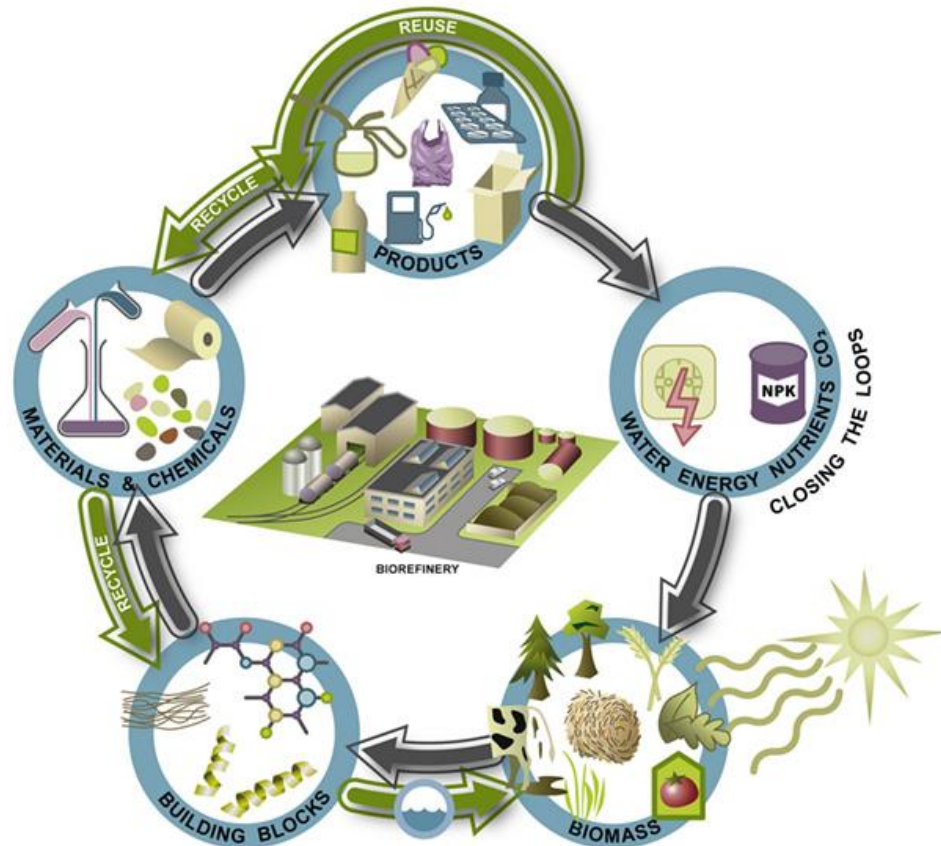
AMIGA	Assessing and Monitoring the Impacts of Genetically modified plants on Agro-ecosystems
SMARTSOIL	Sustainable farm Management Aimed at Reducing Threats to SOILs under climate change
REFERTIL	Improvement of comprehensive bio-waste transformation and nutrient recovery treatment processes for production 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

Public Private Partnership: Bridge

Proposal for Horizon 2020

- More than 50 Eu industries cooperate
- Budget 3.8 G€
- EC support: 1 G€

-2014 – 2020

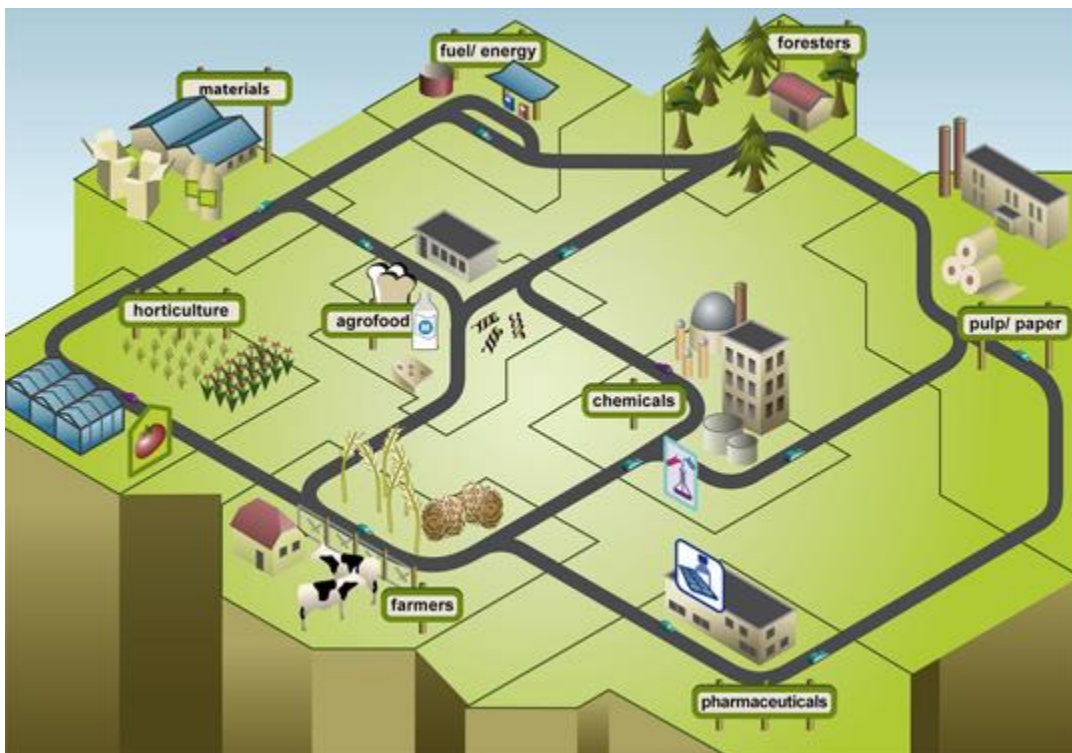


From separated sectors to integration



- Present sectors separated
- Agro
- Chemicals
- Energy
- Need for Biorefinery
- Industry driven research

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- Present sectors separated
 - Agro
 - Chemicals
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- Need for Biorefinery
- Industry driven research
- Proposal for JTI
- To EC and EP
- Decision by end 2013



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

- Combine with requests for Twinning
- Biobased Economy in Horizon 2020
- Cooperation with India to realise a sustainable economy



Questions?

