

The EU Bioeconomy Observatory

Symposium on the Bioeconomy in Tropical America

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JRC website: <http://ec.europa.eu/dgs/jrc/index.cfm>



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Policy Context: the EU Bioeconomy Communication

On 13 February 2012, the European Commission adopted a Communication (COM(2012)60) « Innovating for Sustainable Growth : a Bioeconomy for Europe »

The Communication presents a **Bioeconomy Strategy and Action Plan** « *whose goal is to emphasise the importance of the bioeconomy for Europe in addressing major societal and economic challenges and to create a more favourable environment for its realisation* ».



Bioeconomy Observatory - Mandate

See COM(2012)60 – Action No6 :

- ***Establish a Bioeconomy Observatory** in close collaboration with existing information systems that allows the Commission to regularly assess the progress and impact of the bioeconomy and develop forward-looking and modelling tools.*
- **March 2013: month 1 of a 3-year JRC project "to set up a Bioeconomy Observatory"** (up to Q1-2016) (project acronym: **BISO (Bioeconomy Information System Observatory)**)

What is the Bioeconomy (in the EU)?

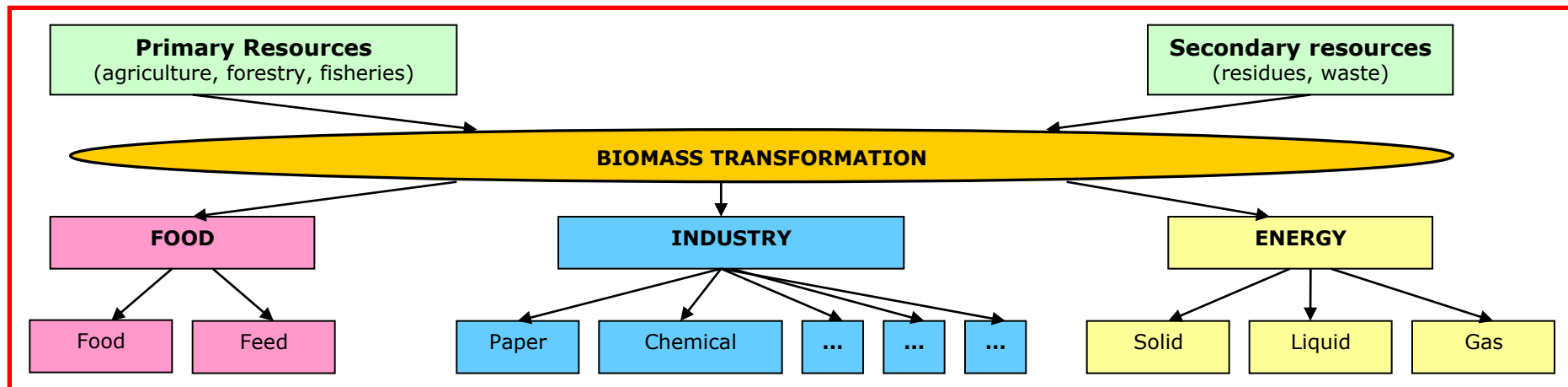
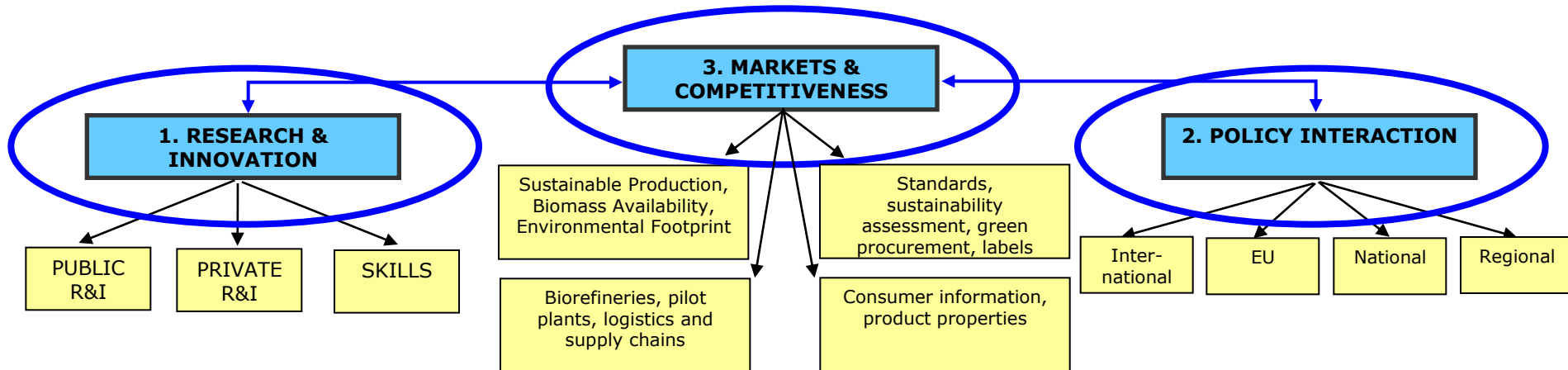
See EU Communication on the Bioeconomy (COM(2012)60)

- The Bioeconomy encompasses the "***production of renewable biological resources and the conversion of these resources and waste streams into value added products such as food, feed, bio-based products and bioenergy***".
- It includes:
 - agriculture, forestry, fisheries, food, pulp and paper production
 - as well as parts of chemical, biotechnological and energy industries.

BISO project : key dates

- **26th November 2013:** stakeholder workshop No1 (on methodology)
- **February 2014: pilot website V1 (incl. first data set)**
- **September 2014:** stakeholder workshop No2
- **February 2015:** upgraded website V2 (incl. updated data set)
- **September 2015:** stakeholder workshop No3
- **Q1-2016: Bioeconomy Observatory fully operational**
- **In short:**
 - **Year 1 (Q2-2013-Q1-2014): preparation (methodology definition)**
 - **Years 2-3 (Q2-2014-Q1-2016): implementation (data collection)**

Bioeconomy Observatory – 3-pillar structure



1. RESEARCH PILLAR

a) *Quantitative Data on "bioeconomy research"*

(EU and MS level)

1. R&D investment (public and private)
2. R&D personnel
3. Patents
4. Skills

Approach: use existing statistics (e.g. Eurostat data) for "bioeconomy-relevant" economic sectors

b) *Qualitative Info on "bioeconomy research"*

(EU and MS level)

Approach: use existing databases of "bioeconomy-relevant" research projects, including EU-LAC projects

Data suppliers: mainly EU Commission and Member States



2. POLICY PILLAR

***Qualitative* information on "bioeconomy policy" initiatives, mainly at EU and Member States level**



Also "some" collection of "bioeconomy policy" information for:

- Selected key/bioeconomy leading EU Regions
- **Selected key/bioeconomy leading non-EU Countries (e.g. LAC)**

Approach: interaction with policy-makers (EU + Member States + selected non-EU) active in "bioeconomy areas" (incl. a broad range of policies like research, agriculture, fisheries, industry, environment, energy...)
+ automated web monitoring (selected key words and links)

Data suppliers: mainly EU Commission and Member States
(also key EU regions + key non-EU countries)

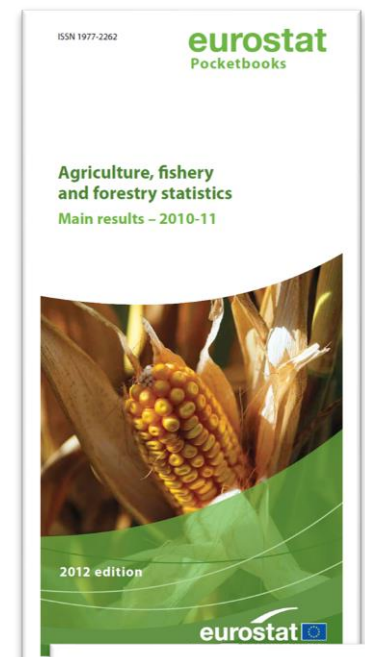
3. MARKET PILLAR

1. **First key objective** : quantify" the size of the bioeconomy and collect **quantitative data on bioeconomy markets** like:
 - a) **Biomass supply (input data)** e.g. volumes of primary and secondary resources used and available in the various bioeconomy sectors
 - b) **Bio-based production (output data)** e.g. production volumes + annual turnover + employment in the various bioeconomy sectors

Approach: use **existing databases** (but all market data not available e.g. "hybrid" (partly bio-based) sectors)

Data suppliers: in addition to **official statistics**, additional market data also needed from industry (**industry surveys**)

2. **Second key objective** : contribute to **knowledge-base on environmental sustainability** (indicators, assessment tools)



Bioeconomy Observatory project : Actors

- **JRC BISO Project Team**

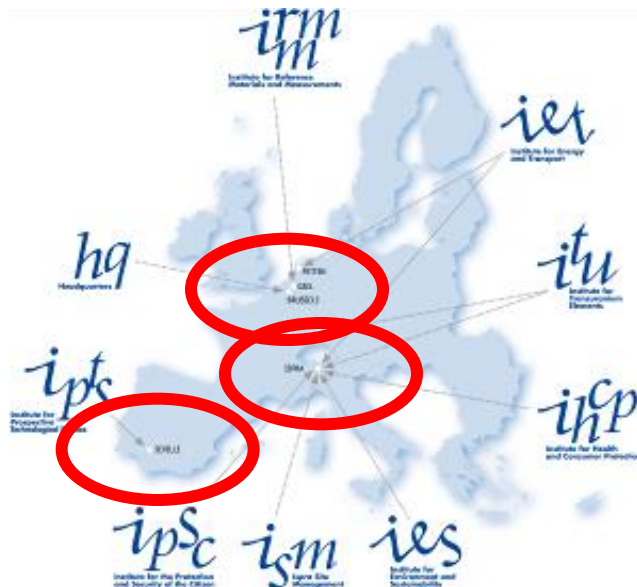
1. JRC Headquarters (Unit A.2, Brussels)
2. JRC Institute for Prospective Technological Studies (Unit J.4, Sevilla)
3. JRC Institute for Environment and Sustainability (Unit H.8, Ispra)

- **"Partners" of the Bioeconomy Observatory**

1. **EU Commission** (EU info, eg on bioeconomy research and policy)
2. **EU Member States** (national info, eg on bioeconomy research and policy)
3. **International organisations** (e.g. OECD, FAO)
4. **(selected) non-EU countries** (e.g. LAC)
5. **Stakeholders** (academia, industry, civil society...)

Established 1957

- 7 institutes in 5 countries: Italy, Belgium, Germany, The Netherlands, Spain
- 2,845 permanent and temporary staff
- Over 1400 scientific publications per year
- 125 instances of support to the EU policy-maker annually
- Budget: €356 million annually, plus €62 million earned income



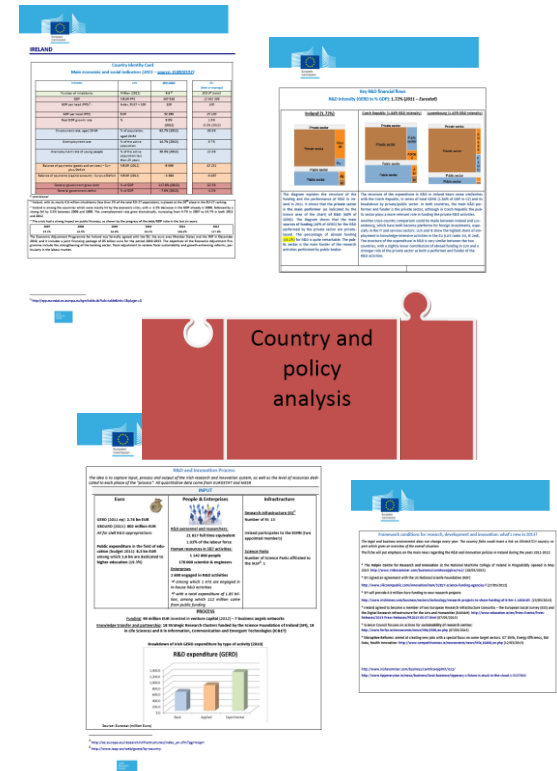
Where you can find us

- **Headquarters** - *Brussels*
- **IRMM** - *Geel, Belgium*
Institute for Reference Materials and Measurements
- **ITU** - *Karlsruhe, Germany and Ispra, Italy*
Institute for Transuranium Elements
- **IET** - *Petten, The Netherlands and Ispra, Italy*
Institute for Energy and Transport
- **IPSC** - *Ispra, Italy*
Institute for the Protection and Security of the Citizen
- **IES** - *Ispra, Italy*
Institute for Environment and Sustainability
- **IHCP** - *Ispra, Italy*
Institute for Health and Consumer Protection
- **IPTS** - *Seville, Spain*
Institute for Prospective Technological Studies

Bioeconomy Observatory Actors : JRC

1. JRC Headquarters (Unit A.2, Brussels)

- Responsible for whole BISO **Project Management**
- Responsible for **Research and Policy Pillars**
- **Synergy with another Observatory** from JRC, the Research and Innovation Observatory, which will include:
 - Information system, incl. secure data warehouse
 - Quantitative data collection on R&I (eg BERD, GBAORD)
 - Qualitative data collection on R&I (policy monitoring in particular towards ERA)
 - Country and policy analysis



Bioeconomy Observatory Actors : JRC

2. JRC IPTS (Unit J.4, Sevilla)

- Responsible for **Market Pillar – socio-economic analysis**
- Experience in **data management and modelling**:
 - Data M: one single interface to access main agricultural and trade databases (EUROSTAT, FAO, FAPRI, USDA, OECD, GTAP...)
 - MAGNET (Modular Applied GeNeral Equilibrium Tool) : simulating different pathways of the bioeconomy
 - AgroSAM (Social Accounting Matrices with disaggregated agricultural sector): mapping of the bioeconomy at Member States level
- **Bio-based Industries Survey** (planned in 2014) to collect "missing" market data



JRC SCIENTIFIC AND POLICY REPORTS

An approach to describe the agri-food and other bio-based sectors in the European Union
Focus on Spain

M. A. Cadorette, P. Boduget, M. C. Delgado, E. Fenucci, R. M. Bock

2012



Bioeconomy Observatory – international partners

To address the **"international dimension"** of the bioeconomy, the Bioeconomy Observatory welcomes **cooperation with "international partners"** like:

- International organisations like OECD or FAO
- **Selected/key non-EU countries like LAC region and/or individual LAC countries**



Regional Bioeconomy Observatories

Possible EU-LAC cooperation

- **Step 1 (2013): Exchange of information** on set-up of respective Regional Bioeconomy Observatories (see EU-LAC meetings of April and October 2013)
- **Step 2 (mid-2014?): Possible supply of data/info** on "LAC bioeconomy" to EU Bioeconomy Observatory?
- **Mapping of "bioeconomy policy" initiatives** in LAC countries may be a starting point for supply of information?
- **Mapping of "bioeconomy research" projects** in LAC countries may be a follow-up?
- **TO BE DISCUSSED**

Follow-up contact:

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