

The Bioeconomy Observatory

Working Meeting of the LAC BE Observatory

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Leticia LANDA

JRC Unit A2

Scientific support to Innovation Union

[**leticia.landa@ec.europa.eu**](mailto:leticia.landa@ec.europa.eu)

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- **Overview Bioeconomy Observatory**
- Synergies between the Bioeconomy Observatory and the LAC BE Observatory

The role of the JRC



José Manuel Barroso: strong commitment to **research** and **innovation**

"... acting as a bridge between policy making, science, society and economy is an invaluable asset of the JRC, given its outreach to so many bodies and organisation inside and outside Europe."



Máire Geoghegan-Quinn: JRC **at the heart of the EU policy process**

"The JRC... delivers scientific excellence, sound advice and key anticipation services, making the JRC the real 'brain' of the European Commission [...]."



Vladimír Šucha: the European Commission's in-house **science service**

"The JRC supports EU policymakers in the conception, development, implementation and monitoring of policies."

JRC Overview

- Established 1957
- Only Commission Directorate General carrying out direct research
- 7 institutes in 5 countries
- 3,068 staff (35% short-term)
- Budget 2013: €393.29 million, plus €73.9 million earned income
- Bioeconomy Observatory project:
 1. **JRC Headquarters**, Brussels, Belgium
 2. **JRC Institute Environment Sustainability IES**, Ispra, Italy
 3. **JRC Institute Prospective Technological Studies IPTS**, Sevilla, Spain



Policy Context: the EU Bioeconomy Communication

February 2012 : European Commission **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...



EU bioeconomy definition: 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**".*

Bioeconomy Observatory - Mandate

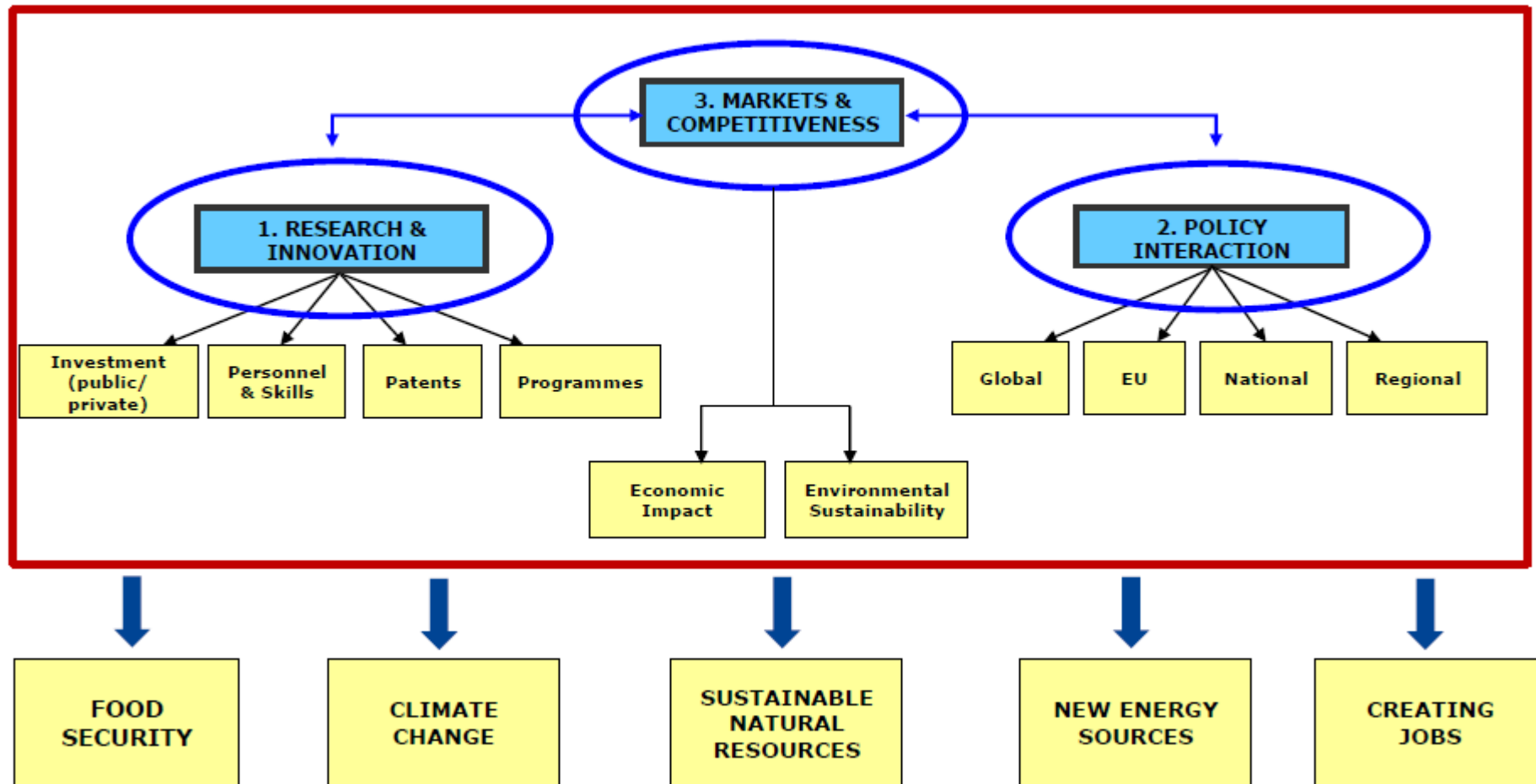
- **Action No 6: Establish a Bioeconomy Observatory** in close collaboration with existing information systems **that allows the Commission to regularly assess the progress and impact of the bioeconomy** and develop forward-looking and modelling tools.
- **March 2013: month 1 of a 3-year JRC project "to set up a Bioeconomy Observatory"** : up to Q1-2016 to have a fully operational Bioeconomy Observatory in place

Project acronym: BISO (Bioeconomy Information System Observatory)

- **Same focus as EU Bioeconomy Strategy on three pillars :**
 1. **"Research"** (Investments in Research, Innovation and Skills)
 2. **"Policy"** (Reinforced policy interaction and stakeholder engagement)
 3. **"Markets"** (Enhancement of markets and competitiveness in bioeconomy)



Bioeconomy Observatory -3- pillar structure



RESEARCH and INNOVATION

INVESTMENT

*Eurostat
STI Datasets
(+ Surveys)*

INDICATORS:

Private R&D Inv. (€):
BERD
(+ Industry Info)

Public R&D Inv. €:
GBOARD
(+ MS Info)

HUMAN CAPACITY

*Eurostat
STI Datasets*

INDICATORS:

R&D staff (number)

Ter. Graduates
(number)

PATENTS

*Eurostat
STI Datasets*

INDICATORS:

EPO Applications
(number)

Biotechnology Patents
(number)

PROGRAMMES

*EU Commission
Databases
(+ Surveys)*

INDICATORS:

List of EU-funded
projects

List of national-
funded projects

BIOECONOMY STI INDICATORS

POLICIES

EU

- *Commission DGs (ISG)*
- *European Institutions*
- *EU Stakeholders Groups*

OBJECTIVE:

Collection of EU Bioeconomy Policy initiatives

OUTPUT:

Doc. Library on-line

MEMBER STATES

- *EU Committees (e.g. SCAR)*
- *Individual Member States*

OBJECTIVE:

Collection of National Bioeconomy Policy Initiatives

OUTPUT:

National bioeconomy profiles for EU-28 MS

REGIONS

- *Committee of Regions*
- *Bioeconomy Regions*
- *Regional Stakeholders*

OBJECTIVE:

Collection of Regional Bioeconomy Policy Initiatives

OUTPUT:

Regional bioeconomy profiles for (selected) regions

INTER-NATIONAL

- *International Organisations*
- *(key) non-EU Countries*

OBJECTIVE:

Collection of International Bioeconomy Policy initiatives

OUTPUT:

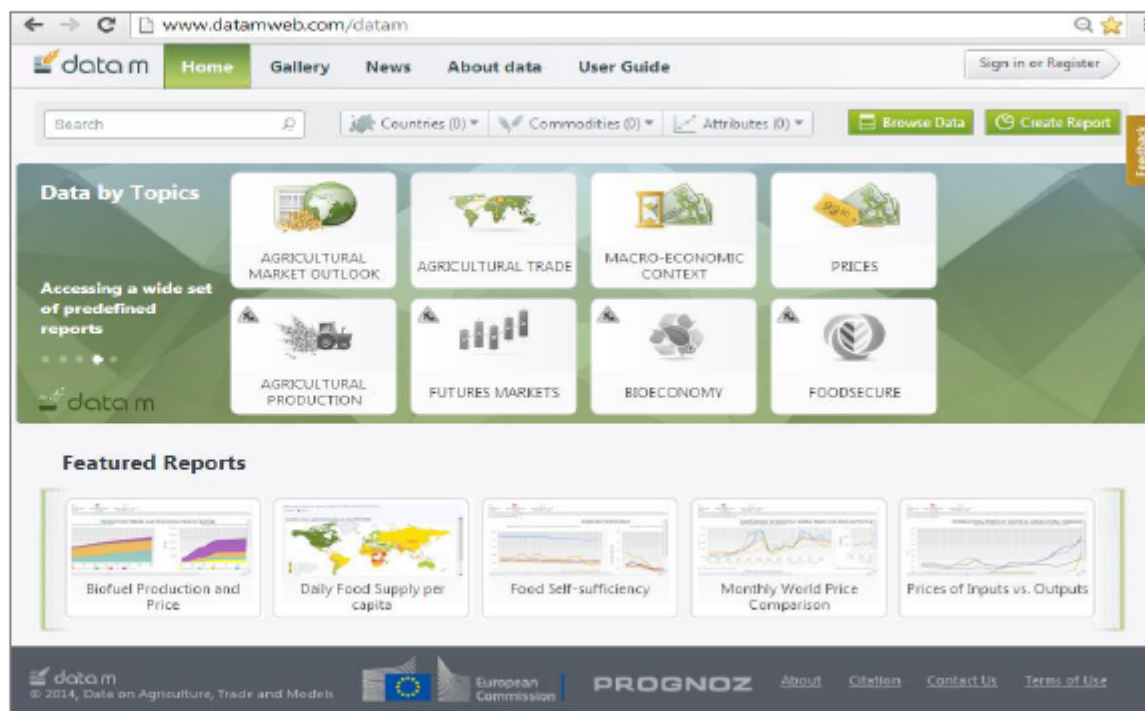
National bioeconomy profiles for (selected) non-EU countries + Doc. Library on-line

BIOECONOMY POLICY MAPPING

MARKETS

Data Management and Visualisation

- Providing access to different existing datasets regularly updated
- Dynamic visualisation tools and reports related to challenges defined in the bioeconomy strategy: food security, new energy sources, jobs/economic growth
- "Bioeconomy section" in DataM coming up in 2014



Web-version of DataM online
<http://www.datamweb.com/>

MARKETS

Bio-Based Industries Survey

Survey of EU sectors using renewable material for industrial purposes

Objective: to collect new data and information on bio-based industries (in addition to info available from existing databases) in order to understand the present impact of the EU bio-based industries on the EU Economy as well as its evolution

Scope: EU-produced bio-based "industrial" products (bio-based chemicals incl. building blocks, bio-based polymers, bio-based lubricants, surfactants, solvents, composites and enzymes).

Timelines: survey to be run in Q2-Q3 2014

MARKETS

Environmental Sustainability Assessment

- Application of a **comprehensive life-cycle based methodology** to any bio-based product system
- Allowing **assessment of the environmental benefits** arising from relevant End-of-Life processes **for bio-based products**, such as recycling and energy recovery
- Based on **Product Environmental Footprint (PEF) methodology** – see Communication *"Building the single market for green products – Facilitating better information on the environmental performance of products and organisations"* [COM(2013)196]

Bioeconomy Country Profile Template

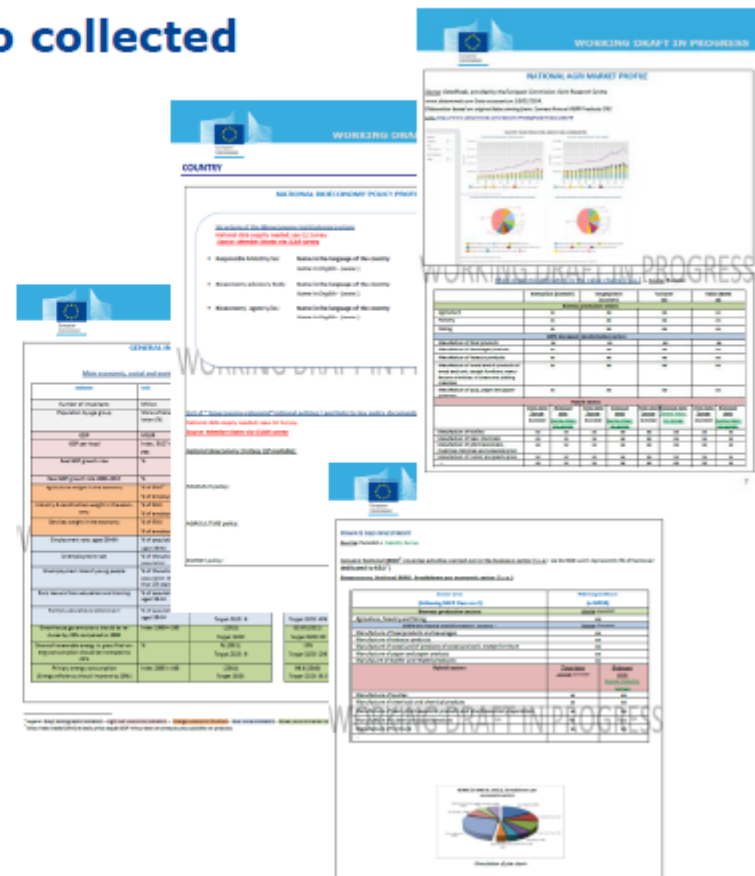
Summary of national bioeconomy info collected

4 Main Sections:

1. National Bioeconomy Policy
2. National Bioeconomy Research
3. National Bioeconomy Markets
4. General Information Profile

Info Sources:

- European Commission
- Member States
- Industry



Bioeconomy Observatory: timelines

- **In short:**
 - **Year 1 (Q2-2013-Q1-2014): preparation** (methodology definition)
 - **Years 2-3 (Q2-2014-Q1-2016): implementation** (data collection, data analysis, data dissemination)
 - **Q1-2016: Bioeconomy Observatory fully operational**
- **Today (Q1-2014):**
 - **Methodology report** updated based on stakeholders comments
 - **Prototype "test" website V1** incl. first data sets
 - **Work in Progress:**
 - **Questionnaire** for JRC Bio-Based Industries Survey
 - **Questionnaire** for JRC-SCAR Member States Survey
 - **Template** for national "bioeconomy country profiles"

Bioeconomy Observatory: timelines

➤ Q2-Q3 2014:

- **Test phase for "prototype" website V1**
- **JRC-SCAR Member States Survey** (focus on research and policy)
- **JRC Bio-based Industries Survey** (focus on markets)

➤ Q4-2014:

- **Upgraded website V2** - based on "test phase" results + including new data sets and first set of national "bioeconomy country profiles"
- **2nd Bioeconomy Observatory Stakeholders Roundtable** (October, Torino, Italy)

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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...)

Bioeconomy Observatory - International Level

The Bioeconomy Strategy confirms the importance of international policy dialogues and strategic partnerships:

1. **Cooperation with (selected) non-EU countries** active in bioeconomy (eg having adopted a national bioeconomy strategy)  Example: LAC region and/or individual LAC countries
2. **Cooperation with international organisations** active in bioeconomy (eg having collected statistics on bioeconomy sectors or information on bioeconomy policy initiatives)



Note: possible limitations due to different definitions of bioeconomy

Follow-up contact:

Damien PLAN (JRC Unit A2)

damien.plan@ec.europa.eu

JRC Functional Mail Box:

JRC-Bioeconomy-Obs@ec.europa.eu