

The EULAC Bioeconomy Working Group of the Senior Official Meeting



Ministerio de
Ciencia, Tecnología
e Innovación Productiva
Presidencia de la Nación

EU-LAC SOM WG on Bioeconomy (inc. food security)

Objectives:

- To contribute to global supplies while improving agricultural environmental performance
- To exploit new opportunities in agricultural/biomass production for equitable growth

Bioeconomy WG Representatives

Co-Leaders:

- Argentina - Ministerio de Ciencia, Tecnología e Innovación Productiva (MINCYT)
- France - Ministry of Higher Education and Research

LAC members:

- Bolivia - Ministerio de Educación
- Mexico - Consejo Nacional de Ciencia y Tecnología (CONACYT)
- Chile - Comisión Nacional de Investigación Científica y Tecnológica (CONICYT)
- Costa Rica - Ministerio Ciencia y Tecnología (MICIT)
- Panama - Secretaría Nacional de Ciencia, Tecnología e Innovación (SENACYT)
- Peru - CONCYTEC
- Guatemala - Secretaría Nacional de Ciencia y Tecnología (CONCYT/SENACYT)
- Nicaragua - Consejo Nicaragüense de Ciencia y Tecnología (CONICYT)
- Uruguay – Ministerio de Educación y Cultura (MEC)
- Colombia (COLCIENCIAS)

EU members:

- France - Ministry of Higher Education and Research
 - Germany - Federal Ministry of Education and Research (BMBF)
 - Spain - Ministerio de Economía y Competitividad (MINECO)
 - Malta - Malta Council for Science and Technology (MCST)
 - Austria - Federal Ministry for Education, Science and Culture
 - European Commission
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- Experts from other EULAC countries have participated in different WG activities

Work Process 1/2

- **1st WG Consultation Meeting:** 22 June 2011. Cali, Colombia. B2B to the Kick-off Meeting of the ALCUE-KBBE Project
 - Objective: Definition of specific issues, objectives and draft action agenda on which Bioeconomy WG group would focus.
- **2nd WG Consultation Meeting:** 27-28 Sept. 2011. Paris, France
 - Objective: Formal meeting to validate the outputs of the preliminary meeting and to elaborate the Implementation Plan of the Bioeconomy Pilot Activity for the next two years defined by the members in order to be communicated to the SOM.
 - Three major areas were identified to be in the focus of the further discussion:
 - Biorefineries, including biomass availability and conversion processes
 - Food security issues
 - Cross-cutting topics (policy and regulatory frameworks, capacity building)
- **3rd WG On line Consultation:** expert consultations on the 3 topics in order to prioritize sub-themes and generate additional detail

- **4th WG Consultation Meeting:** 6 June 2012. Toulouse, France. EULAC Bioeconomy & Renewable Energy SOM WG meeting.
 - Objective: to put in consideration and discuss the formulation of a Joint Call on selected RTD topics regarding Biorefineries, including biomass availability and conversion processes and to exchange highlights on the implementation mechanism.
- **EUCARINET & ENLACE**
 - **Central America & Caribbean Workshop:** April 2012, Curacao.
 - Identify 4 “priority” potential Bioeconomy R&D themes / pathways “sustainable management of marine biodiversity”; “Food Value Chain efficiencies”, “Eco-intensification” and “Eco-services”.
 - **Central America & Caribbean Experts’ Dialogue workshop on Bioeconomy:** October 2012, Brussels, Belgium.
 - Share and validate the first findings of the study and proceed to the establishment of a roadmap per subtheme.
- **5th WG Consultation Meeting:** 5-6 November 2012. Cali, Colombia. (B2B ALCUE KBBE project)
 - 16 priority research topics have been formulated.
- **6th WG Consultation Meeting:** 18 March 2013. Buenos Aires, Argentina. (B2B ALCUE NET/ALCUE KBBE projects & the Bioeconomy Argentinean Symposium)
 - EU LAC Bioeconomy Observatory: a first draft version of the “Conceptual framework for the Observatory on Bioeconomy” was presented and discussed.

I. Proposal for Joint Call on selected RTD topics regarding Biorefineries, including biomass availability and conversion processes

- Synergies between SOM WG on Energy and Bioeconomy were considered.
- The WG agreed to organize a number of **joint calls** on selected research areas.
- A remote **consultation process** was organized to identify a “long list” of possible topics, and to rank these according to bi-regional priorities, as to produce a short list for SOM considerations:

Biomass availability

1. **Resource use efficiency in crops**
2. **Integration of existing data bases on biomass availability**
3. **Biotic stress resistant crops for non-food use**
4. Analysis of land use trends in the LAC region
5. In plant production of bulk chemicals by GMO and non-GMO approaches

Conversion processes

1. **Small scale biorefinery of rapeseed/ Jatropha/oil crops/ sugar cane residuals in rural areas for the production of biodiesel and protein as animal feed**
2. **Small-scale production of ethanol from starchy crops**
3. **Demonstration projects in biorefineries**
4. The use of soybean residues (agricultural and factory) for the production of protein for feed application and the production of bulk chemicals and compound feed
5. Low capital and operational cost fermentation of sugar to bulk chemicals
6. Protein hydrolysates as raw material for the production of chemicals

II. Proposal for a EU LAC Observatory on Bioeconomy

Objective: The Bioeconomy observatory is defined as an instrument (i) to serve all the stakeholders involved in research and innovation of bi-regional cooperation (members of the research and development community, policy makers, private sector, mainly but not exclusively), (ii) in support of the monitoring (collecting, updating) of relevant indicators and trends (policies, capacities, programs, projects, investments, impacts) and help anticipate new and emerging issues delineating future opportunities.

EU LAC Observatory tasks:

- Establish mechanisms to facilitate rapid and efficient access and up-dating of information of strategic value to the bioeconomy in general and specific pathways in particular
- Link to already established sources of qualitative-quantitative knowledge resources on selected topics
- Inventory of Bioeconomy related EC co-funded RTD bi-regional projects
- Access to Bioeconomy “success-stories” in the EU and LA regions
- Access to LAC and EU key Bioeconomy stakeholder profiles
- Whenever necessary or opportune, to generate new information on themes identified as of strategic value for the improvement of bi-regional cooperation in their specific fields.

The specific products of the observatory will be in terms of:

- Establishing a one-point entry to the LAC bioeconomy and Bi-regional cooperation in the related areas
- Information support for decision making in policy development and identification of R&D, investment and trade opportunities
- Serving as a promotion tool for generating increased levels of social acceptance of bioeconomy based development strategies, and
- Offering and information exchange platform for ALCUE bioeconomy stakeholders.

III. Proposal for Capacity Building: Bi-regional Master program in Bioeconomy

Capacity building, human resources development, through:

- Program of mobility to facilitate training of EULAC scientists in EU and LAC universities and research organizations targeting Bioeconomy related disciplines
- Construction of a EULAC bi-regional Master (and PhD) in Bioeconomy

Goal: Improve human resources capacities in bio-economy management

- Following the model of the bioeconomy
- Create capacity to design/development/mgt of key bioeconomy components: policies, sector markets, processes, platforms/hubs
- Includes a methodology of case studies of concrete Bioeconomy experiences

Public/ students: public sector, government, private sector, researchers, civil society, NGOs, ...

Disciplines included:

- Bioeconomy principles & processes
- IPR law & management, regulations (national international)
- Market economics, trade and consumption issues
- Public policies economics
- Management, administration, business
- Engineering/process

Three different formulas are proposed:

1. Post-graduate and under graduate formal modules on the bioeconomy that can be inserted by LAC Universities in existing programs in agronomy, bio sciences, business, law, engineering, economics etc.
2. Short-term tailor made courses on key bioeconomy aspects to cater to selected mixed audiences of policy makers, business managers, research managers, NGOs, government agencies, etc.
3. Formal, full-fledged bi-regional Master of Bioeconomy, including exchanges of students and professors, and student internships, whereby distance learning forms an integral part.

Operational plan: Funding instruments

- Proposal for Joint Call on Biorefineries:
 - Joint Call / ERA-NET Scheme
- Proposal for EULAC-based Observatory on Bioeconomy:
 - Joint Call/ Possible EC initial seed money, complemented by national funding
- Proposal for Capacity Building:
 - Bi-regional Master program in Bioeconomy: ALFA/ Erasmus Mundus/Private sponsors
- **Senior Representatives of Research Funding Agencies Meeting (November 2012):** discussion on how best to mobilise, coordinate and combine existing funding schemes to collaborate in the 4 areas identified.

Next steps

- ALCUE NET KOM- 18/19 April 2013: presentation of the Bioeconomy Activities (action plan)
- Workshops on Bioeconomy (*to be confirmed*):
 - Science Industry EULAC matchmaking in Europe in parallel of RRB9 5- 7 June, 2013 in Antwerp, Belgium (ALCUE KBBE/ALCUE NET)
 - Event on Bioeconomy and Biodiversity, end of October 2013, in Costa Rica. (ALCUE NET/ ALCUE KBBE)
 - Multitematic Event (BE, BD, TIC, EN). 23 & 24 October, 2013 in Mexico (ALCUE NET/CYTED)
 - Workshop on Innovation in Bioeconomy, November, 2014, Brussels - Partnership Initiative Arg-UE (BILAT + ALCUENET)
- Implementation of the Bioeconomy Observatory: Definition of information fields and their specific contents (ALCUE NET)
- Development of detailed work plans for each joint activity (in coordination/assistance ALCUENET/ ERANET LAC)
- Future implementation of Joint Calls and other activities

Thank you for your attention

We welcome your questions suggestions
&
comments