SOM Concept Note

ALCUE NET

Latin America, Caribbean and European Union Network on Research and Innovation

Latin America, Caribbean and European Union

Network on Research and Innovation

Document prepared by the ALCUE NET project

ALCUE NET: Latin America, Caribbean and European Union Network on Research and Innovation

Acknowledgement

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Content

Context: Background information on EU-CELAC Policy Dialogue[1]

Building on the existing cooperation between European Union and the Community of Latin America and Caribbean States (EU-CELAC), the Summit in 2010 adopted the **Madrid Action Plan** in order to develop and reinforce bi-regional cooperation. The Action Plan identifies instruments and activities, which, if properly implemented, should lead to concrete results guaranteeing ownership and capacity building in six specific fields. The first of these fields is **Science, Research, Innovation and Technology.**

The main objective in this area is to develop the "EU-CELAC Knowledge Area" through:

- Improving cooperation in research and innovation;
- Strengthening scientific and technological capacities, and infrastructures;
- Supporting research, innovation and knowledge sharing taking into account the contribution of ancestral and traditional knowledge;
- Boosting the use of new technologies and technology transfer underpinning sustainable socio-economic development and
- Fostering cooperation between both regions with respect to the digital economy and the reduction of the digital divide for improving competitiveness whilst making social inclusion a cross-cutting issue.

A **Joint Initiative for Research and Innovation,** called **JIRI,** was endorsed by the 2010 Madrid Summit Action Plan with the aim among others, to "establish regular bi-regional dialogue on science, research, technology and innovation to consolidate EU-CELAC cooperation and to update common priorities, encourage mutual policy learning and ensure the proper implementation and effectiveness of cooperation instruments".

Senior Official Meetings (SOM) with representatives from both regions were established as a framework to implement the JIRI, according to annual roadmaps and also to play a central role in stimulating and monitoring EU-CELAC Research & Innovation (R&I) cooperation. SOM takes place every year in order to discuss Science, Technology and Innovation (STI) bi-regional cooperation.

Six thematic areas were defined as common priorities and **Senior Officials thematic working groups (SOM WGs)** have been in place since 2011 within the JIRI, co-lead by a country from each region.

SOM WGs have been established to define common objectives, activities to combine national, regional and bi-regional instruments, to identify relevant indicators to help monitor implementation, and to mobilize stakeholders on the six priority areas identified. Each working groups presents at the yearly SOM the results of their activities and possible paths for greater cooperation.

These thematic areas are respectively:

- Bioeconomy – co-led by Argentina and France
- Information and Communication Technologies (ICT) for meeting societal challenges – co led by Chile and Finland
- Biodiversity and Climate Change (CC) – co-led by Colombia and France
- Renewable energies – co-led by Mexico and Spain

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[1] Background documents can be downloaded from: http://alcuenet.eu/policy.php

- Health- co-lead by Brazil and Spain
- Cross-cutting WG "Existing and New Instruments" - co-led by Mexico and Portugal

As a SOM recommendation, several **initiatives and projects** (INCONETs, ERANETs and thematic projects) have been encouraged to support the work implemented by the Thematic SOM WGs.

In this context, the **ALCUE NET project** is the main support platform of SOM Thematic WGs in the areas of Bioeconomy, ICT, Biodiversity & Climate Change and Renewable energies. The WG on Health will be supported by the **EULAC-Health project**. In the framework of **ERANet-LAC project** activities, Joint Calls will be implemented.

The role of the ALCUE NET[2] Project in the Policy Dialogue on R&I

The ALCUE NET project acts as a concrete platform for bi-regional R&I Policy Dialogue according to the recommendations of the SOM process, particularly to support the follow up of successive SOM Working Groups process by:

- Providing active support to the implementation of the Roadmap of the JIRI, by developing a Cooperation Agenda and concrete recommendations.

- Supporting the updating of common priorities, encouraging mutual policy learning and ensuring the correct implementation and effectiveness of cooperation instruments.

- Providing technical and logistical support to the EU- CELAC SOM Presidencies by acting as Technical Secretariat

Main ALCUE NET project activities and contributions:

- **Preparation of the Concept Note for SOM discussions and SOM Action Plan**
- **Preparation of Thematic Reports jointly with the SOM thematic WGs** to be used as guidelines to support decision making progress
- Supporting Bi-regional dialogue on R&I related to thematic agendas
- Definition of common priorities in strategic areas for future funding opportunities, as well as exploring the possibilities of research initiatives and national funding instruments' coordination
- Construction of Observatories and Mappings on relevant key thematic STI
- Development of Capacity Building activities
- Identification of key participants & stakeholders (networking/partnerships)
- Monitoring the impact of joint activities
- Implementation of a Travel Grant scheme to facilitate and increase the participation of stakeholders from all EU- CELAC countries in the project activities (not only ALCUE NET partners)

ALCUE NET organizes bi-regional thematic and policy workshops with the participation of SOM Working Groups representatives. Outcomes and results will be used to further develop the SOM Action Plan to be implemented by the project.

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[2] ALCUE NET - is a four and a half year project funded by the 7th Framework Programme of the European Union, which started in December 2012. The consortium is composed of 8 partners from the European Union and 11 from Latin American and Caribbean countries, representing stakeholders from government and research.

Main **target groups of beneficiaries** are politicians and policy makers, scientific and academic community, private sector, civil society and consumers from both regions.

Other projects contribution to strengthen the coordination with ALCUE NET

❖ ***ERANet-LAC*** (Network of the European Union, Latin America and the Caribbean Countries on Joint Innovation and Research Activities)

In the framework of the ERANet-LAC, it is expected to implement two Joint Calls. The first one will be launched approximately at the end of 2014 and the second one at the end of 2015. The topics for those calls will be proposed by ALCUE NET project and will be defined by the SOM Working Groups.

❖ ***EULAC Health***

EULAC Health will act as supporting project to the EU-CELAC Senior Official Meetings by implementing the activities of the SOM Working Group on Health to improve cooperative health research between Europe and Latin America-Caribbean countries by establishing (as part of the roadmap) new mechanisms (joint research agenda, programmes, funding schemes, etc.) and also facilitating the coordination of policies and funding.

❖ ***Other projects and initiatives contributions****:*

H2020, CYTED, EUCARINET, ENLACE, ENSOCIO-LA, BiodivERsA2, Leadership, CONECTA 2020,ABEST III, B.BICE+, CEST+I, EU-MEX INNOVA, etc.

Overview of each thematic area (Work Progress)[3]

1. Bioeconomy

Four main activities were identified in the Bioeconomy area:

1. Scientific areas/topics identification:

Identification of research topics and preparation of profiles for Joint Calls in ERANet-LAC and H2020 in the following areas: (Relative priority **in red**)

Areas	Topics
BIOTECHNOLOGY	- **Energetic crops: genetic improvement and efficient use of resources** - Artificial seeds for wood production - Design and screening for multipurpose crops
ECO INTENSIFICATION	- **Crops productivity and stability** - Integral crop protection: Agricultural diversity - Biological processing of agricultural and agro-industrial waste
BIODIVERSITY	- **Screening for new bioactive metabolites and enzymes from terrestrial and marine microorganisms for food and cosmetic industry, based on market demand** - Health promoting compounds from plants - Integrated open access LAC databases on native organisms and their functionalities
BIOREFINARY & PRODUCTS	- **Valorization of agro-industrial and urban residues at current biomass processing and consumption sites** - **Lignocellulosic biorefinery platform: production of high-value bio-based products** - Green Biorefinery: Energy intensification and new bio products from wet biomass

2. Latin America and the Caribbean Bioeconomy Observatory (BIO-CELAC):

Establishing an EU-CELAC platform bringing together participants involved in R&I orientation, funding and implementation: I) To support the understanding of the Bioeconomy in the region and provide specific information on it II) To establish a one-point entry to the LAC Bioeconomy III) To provide information for policy making decisions.

Proposal of the Observatory project:
Pillar 1 - Research & Innovation: R&D Investment; R&D Personnel and Human Resources skills; Patents; Research and Innovation Programmes. (Suggested collaborators: RICYT, CIAT)
Pillar 2 - Policy: Baseline report on regional policies & monitoring of policies that could possibly have an impact on bioeconomy; Availability of resources at national and regional level; Policy-stakeholder networking (Suggested collaborators: CEPAL, IICA, FAO)
Pillar 3 - Market: define data availability (by sources & specific users); Database management; Bio-based industries and chains. (Suggested collaborators: Buenos Aires Grain Exchange, Consumers International, CIAT, Latin American Exchange Association, UNICA)
Observatory Management: First draft of CELAC Bioeconomy Observatory (BIO-CELAC) action plan will be implemented as part of the ALCUE NET project activities.

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[3] For more details, please refer to the SOM Working Groups Thematic Reports.

3. Capacity Development (including awareness raising)

Increase the awareness on the bioeconomy model in the technology market and societal aspects & the development capacity of the relevant participants.

Proposal of the Capacity Development project:
Pillar 1: Databases on education / training watch / companies / alumni / professors
Pillar 2: Course work materials (some of which already exist, the majority will need to be prepared)
Pillar 3: Brokerages (grant schemes, coaching / angels)
Pillar 4: Awareness raising by target audiences
First draft of Capacity Development action plan will be implemented as part of ALCUE NET project activities

4. Collaboration with the EUCARINET project

Additionally to deliberate on the results of the Bioeconomy SOM Working Group, during the last meeting held in Cali, Colombia on March 2014, EUCARINET project formulated a policy note highlighting Caribbean interest in H2020 participation: "Securing greater impact through EU-Caribbean (EU-CAR) collaboration in Horizon 2020". The essence of this work has been fully integrated in the Bioeconomy WG thematic report.

The EUCARINET policy brief provides Caribbean specific insights to improve H2020 EU-CAR collaborations as well as inputs into the multi-annual road map for the CELAC region of Horizon2020. The paper highlights clear cross-thematic (transversal) Caribbean specific advantages/assets for collaboration within H2020. Five topics for targeted EU-CAR collaboration have been identified for input in the multi-annual EU-LAC roadmap within the focal areas "Blue Growth: unlocking the potential of seas and oceans" and "Sustainable Food Security". Furthermore, six recommendations for H2020 EU-CAR collaboration have been formulated.

2. ICT for meeting societal challenges

Four main activities were identified in the ICT area:

1. Scientific areas/topics identification

Areas	Topics
Smart cities	Smarter, inclusive and sustainable cities
e-Health	Improving wellbeing through inclusive e-Health

2. Mapping of current and recent bi-regional ICT projects

Mapping of researchers with experience in bi-regional ICT projects. This includes:

- Bi-regional and bilateral projects
- Researchers and stakeholders
- Collection of national policy papers on ICT and Digital Agendas
- Collection of reports on ICT-LAC cooperation on ICT from past FP7 CSA projects

Contact was made with all ALCUE-Net partner funding agencies and more than 200 projects have been mapped. More than 1600 researchers and stakeholders from both regions have been identified and the main Digital Agendas and other reports have been collected.

The mapping still lacks several projects from international agencies, such as IDB, World Bank, UN, ECLAC etc., as well as large scale national projects that can be twinned among each other.

3. Capacity Building

- Enhance international career development of early-stage researchers in both academia and industry.
- Promote EU-LAC mobility and exchange of doctoral candidates, early stage researchers, including access to specific research infrastructures, test beds and pilot initiatives.
- Enhance cooperation between entrepreneurship programmes such as Start-Ups, focusing on opportunities for ICT projects.

The WG has made an initial mapping of LAC schemes for researcher career development, Start-Up schemes in both Latin America and Europe, as well as international scholarship and mobility schemes across both regions.

4. Innovation

Innovation and technology transfer between both regions is central and inherent to theme of ICT for societal challenges and have been included transversally in the different SOM ICT WG activities and in the abovementioned suggestions for topics. The group focuses on pursuing the enhanced involvement of companies, industry associations and networks of industrial actors in the SOM ICT WG and in the different activities. Information on mobility and entrepreneurship programmes has been disseminated in the ICT scientific community.

There is a specific focus on LA Technology Platforms, enhancing coordination of the five LATPs at the regional level, specifically regarding the thematic working groups, and link the LATPs with the European TPs. The work in this area has been centered on mapping the state of the art of the five LATPs, as well as contact to the CONECTA2020 project.

3. Renewable Energies

Four main activities were identified in the Energy area:

1. Scientific areas/topics identification

Specific research and innovation areas identified as priorities of common interest:
- Bioenergy: Biomass availability and supply; Conversion processes; Markets and regulatory framework; Sustainability.
- Photovoltaic: Solar resources prediction and monitoring; Quality Assurance Procedures; Stand alone systems; Advanced grid integration & large integration of PV in building areas.
- Solar thermal: Quality Assurance Procedures oriented to the use of certified equipment and its certification, certifications integration, installers harmonization, equipments and installers; Thermal energy storage mainly in distributed generation
- Wind energy: Wind Resource Assessment and short term forecasting; Wind Turbines: technology for regional manufacturing; Removing barriers and promoting deployment and acceptance of wind energy: market obstacles, environmental issues, capacities

- Energy efficiency focus areas: Increasing energy efficiency in buildings; Heating and cooling; Increasing energy efficiency in industry and SMEs; Increasing energy efficiency of energy-related products; Innovative financing for energy efficiency; Citizen Engagement, capacity building, governance and communication for energy efficiency main energy.

Two strategic approaches to energy efficiency:
i) the "Integrated Road Map" by the EC - basis for private investments in energy research and innovation. In this approach energy efficiency is horizontal to solar thermal, solar photovoltaic, wind and bioenergy;
ii) based on the EU energy efficiency policy, full potential of energy efficiency, focus on end use consumption is prioritized. Areas related to buildings: heating & cooling, industry aspects and products development.

Topics identification:

Energy Research Areas	Topics
WIND ENERGY	- Advancement of small/medium-scale wind turbines in EULAC countries - Integration of wind generation into existing electricity grids
BIOENERGY	- Development of cost-effective and sustainable advanced bioenergy technologies with biomass feedstock flexibility - Cost-effective biomass availability, supply and storage systems optimization to reduce feedstock uncertainty for bioenergy production. - Assessing and monitoring the four dimensions of sustainability (economic, environmental, social and institutional) for bioenergy to ensure governance and compliance with biomass value chains sustainability goals.
SOLAR THERMAL	- Solar technology development for industrial process heat - Solar resource assessment - Energy Storage technologies
SOLAR PHOTOVOLTAIC	- Novel concept in cost-effective constructive systems based on solar technology in buildings and urban areas
ENERGY EFFICIENCY	- Novel concept in cost-effective constructive systems based on solar technology for the built environment

- The formulation of recommendations, activities and narrowing down of areas has taken into consideration the SET Plan as centre-piece of the EU research and innovation policy in the field of energy.
- Two workshops in Mexico City (October 2013 and March 2014) focused on Renewable Energies.
- Additional expert meetings focused in identifying and designing further joint initiatives for cooperation and promoting innovation.

2. **Mapping**
- Collection, processing and centralization of key information focused on the renewable energies in LAC and European Union (*1st phase*)
- Analysis of country potential -critical mass of researchers and research organizations from private and public sectors; current cooperation with EU counterparts -irrespective of whether funded by the Framework Programme (exhaustive list of on-going relevant -national, regional and EU-LAC- STI programs, projects platforms (ETPs) with relevance to the thematic areas) (*2nd phase*)
- Strategic analysis for STI cooperation in the energy field.
- Follow up of the activities of existing "Observatories"- OLADE, observatories on energy for energy indicators, new sectoral regulations, etc.

- Development of a strategy for cooperation in STI in energy issues between both regions.

3. Networking and exchanges

- Actions to promote and support networking and exchanges between research organisations in on-going or planned projects (INCONets and other projects like ACCESS to MEXCYT, INCONTAC,etc.)
- Further linkage with regional thematic nets (Rembio, Mesomaerican nets and CYTED) reinforced through an on-line tool through ALCUENet web.
- Synergies between ALCUENET, ERANet LAC projects and CYTED. First steps done through the 1st ALCUENET-CYTED Thematic Meeting on October 23rd, 2013. Draft proposals for joint working plan.
- Capacity building: Mobility programmes available for the exchange of EU-LAC scientists is being promoted seeking synergy with bilat-project activities as well as through other projects.
- Policy dialogue meetings and regulatory frameworks: The priority objective is to promote policy convergence between EU and LAC countries.

4. Long-term strategic proposals

- Development of long term strategic proposals to better linking research and technological cooperation structures and nets as a first step towards what, in the medium or long term, could become LAC Technological Platforms on renewable energies. Coordination of national research institutions and organizations from both the private and public sectors organizations is in the core of these initiatives.
- Networks working in renewable energies in LAC, including CYTED nets related to energy, already in the ALCUE NET list of stakeholders to build future structures of technological and research cooperation.
- Synergies between CYTED, ALCUENET and ERANet LAC projects. Draft proposals as the basis for a complementary joint working plan.

4. Biodiversity and Climate Change

Four main activities were identified in the Biodiversity & CC area:

1. Scientific areas/topics identification

The following 3 topics of common interest and subtopics were identified to the ERA NET-LAC, which aims at launching bi-regional joint calls:

The 3 topics are interlinked and articulated

Topics	Sub topics/Scope
Biodiversity assessment and monitoring – Improving baseline distribution data and compatibility with climate datasets	- Innovation for biodiversity inventorying (from DNA to remote sensing) to allow better raw field data collection on species distribution - Ecosystem approach to exotic and alien species - Biodiversity values and ecosystem services assessment and definition among academics, politicians and stakeholders
Observatories network – Alignment of existing infrastructures and information platforms	- Homogenization of data collection design, methodologies and sharing - Integrated research between earth, life and social sciences for improving model computing across scales and disciplines to understand extreme events
Ecosystem-based adaptation and	- The characterization of landscape attributes (connectivity, multi-functionality, sustainable use)

resilience	- The role and valuation of biodiversity in ecosystem resilience, to contribute to socio-ecological trade-offs
	- The development of the interface between science and society to introduce dialogue and to facilitate transfer of knowledge

A consultation of experts from both regions involved in biodiversity and climate change fields has been launched to further define and adapt the topics.

2. Mapping: Bi-regional research cooperation study on Biodiversity & Climate Change

- Analysis of strengths and weaknesses in the bi-regional cooperation landscape in biodiversity and climate change research to establish a state of the art including niches and gaps(bibliometric analysis and survey of ALCUENET partners)
- Identification of key players, initiatives and networks (funding agencies, thematic projects, research programmes, trans-national projects…)
  Identification of existing innovative programming approach in bi-regional cooperation

3. Capacity Building: Bi Regional platform of scientific and technological cooperation

- Creation of a bi-regional group of experts to follow up and synthesize the biodiversity and climate change working group's progress, in particular on the development of joint activities and bi-regional events.Communication with technology platforms, Environmental NGOs, research groups, and funding agencies interested in joining bi-regional projects on biodiversity and climate change
- Organisation of workshops and events to highlight successful initiatives in education, training and partnership fields: observatories network (CESAB), public-private partnership, trans-national consortia…

4. Networking

- Synergies with other strategic trans-national initiatives involved in biodiversity and climate change and in the bi-regional JIRI (ERANet-LAC, EUCARINET, ENSOCIO-LA, BiodivERsA...)
- Enhancing networking opportunities, share of good practices and knowledge transfer between EU and LAC scientists and program managers communities, through the organization of workshops and participation to other events

5. Innovation

- Analysis of regional innovation framework conditions in the field of biodiversity and climate change, and possible approach to foster public-private partnerships

5. Health

Four main activities were identified in the Health area:

1. Mapping/ Scientific areas

- Selection of scientific areas of interest:

Health Research Area	Topic
Chronic diseases	Evaluation of low-threshold interventions to tackle obesity, diabetes and other metabolic disorders in EU and LAC countries

Cancer	Improving the quality of care and quality of life of dying cancer patients
Neurological diseases and stroke	Healthy aging to combat neuro degeneration
Infection	Research into the prevention of infectious diseases and promotion of well-being
Prevention of diseases and promotion of well-being	Management support health using mobile devices
Health and social care services research	Equity in the access to effective health and social care

- Assembly of a Scientific Working Group (as an interim Scientific Advisory Board) per area
- Preparation of Draft Scientific documents on each selected area
- Selection of topics for ERANet-LAC
- Definition and prioritization of topics

2. Capacity Building
Promotion of capacity building activities such as:
- Scientific training, Exchange, Secondments
- Training about international projects (Horizon 2020)

3. Innovation
- Creation of Stakeholders forum as a consultant body
- Innovation in the health care sector
- Definition of clear Intellectual Property Rights policies for the Joint Initiative

4. Other actions
- Relationships with other SOM Working Groups
- Definition of Open Access Policies
- Definition of EU-CELAC Joint Initiative on Health Research and Innovation (JIHRI) Governance

Recommendations for SOM

It is envisaged that the Senior Officials Meeting review and give suggestions on the following points:

Bioeconomy

- Joint Calls proposal analysed and prioritized for the financing and implementation.
- Interested countries contributed to joint call budget.
- Bioeconomy Observatory proposal analysed and approved for additional funding according to specific interest by countries. Senior Officials support to the scaling up phase and funding requirements
- Capacity Development proposal analysed and approved for additional funding according to specific interest by countries.
- Identification of funding instruments + EU and CELAC funding agencies (national, international) that could possibly contribute to the funding of the activities

ICT for meeting societal challenges

- 2 Thematic topics suggested for the first and the second Joint Call
- Inclusion of innovation actors and entrepreneurs in the cooperation: possibilities to strengthen the participation of innovation actors in the ICT field will be an asset to further develop the mechanisms in this area.

Energy

- Joint Calls proposal analyzed
- Appropriate instruments analyzed for coordinating and financing joint research, technology development and innovation activities.
- Dedicated coordinated support action in renewables/energy efficiency in support to the implementation of the EU-CELAC JIRI.

Biodiversity and Climate Change

- Thematic topics suggested for the first Joint Call of the ERA NET-LAC
    - o Biodiversity assessment and monitoring
    - o Observatories network
    - o Ecosystem-based adaptation and resilience
- Validation of Future Activities Schedule and objectives (Roadmap) 2014-2015
- Elaboration of a Bi-regional Agenda on Biodiversity and Climate Change to be discussed in next Workshop in Marseille

Health

- Thematic topics suggested to the SOM by the SOM WG on Health for the first and the second ERANet-LAC Joint Call
- Draft Roadmap for the Joint Initiative on Health Research and Innovation proposed by EU-LAC Health
    - Draft Scientific Agenda
    - Governance outline
    - Outline of Roadmap
- Formalization of SOM WG in Health and proposal of widening country participation.

Acronyms and abbreviations

ABEST	Argentina Bureau for Enhancing Science and Technology Cooperation between Argentina and the European Union
BBICE+	Brazilian Bureau for Enhancing the International Cooperation with the European Union
CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour le Développement (France)
CEST+I	Chile-European Union STI Initiative
CC	Climate Chanage
CSA	Coordination & Support Action projects
ENLACE	Enhancing Scientific Cooperation between European Union and Latin America.
EU-CELAC	European Union and the Community of Latin America and Caribbean States
EULAC	European Union, Latin America and the Caribbean
EU-CAR	European Union-Caribbean
H2020	Horizon 2020
CYTED	Ibero- American Programme for Science, Technology and Development
ICT	Information and Communication Technology
JIRI	Joint Initiative for Research and Innovation
LAC	Latin America and the Caribbean
LATPS	Latin America Technological Platforms
ALCUE NET	Latin America, Caribbean and European Union Network on Research and Innovation
EU-LAC Helath	Linking EU and Latin American policy making institutions in the field of health research
MINCYT	Ministerio de Ciencia, Tecnología e Innovación Productiva (Argentina)
ERANet- LAC	Network of the European Union, Latin America and the Caribbean Countries on Joint Innovation and Research Activities
EU-MEX Innova	Oficina de Enlace para la promoción de la Cooperación entre México y la Unión Europea en Ciencia y Tecnología
R&I	Reasearch and Innovation
RICYT	Red de Indicadores de Ciencia y Tecnología
STI	Science Technology and Innovation
SOM	Senior Officials Meetings
ENSOCIO-LA	Strategic, Sustainable R&I Cooperation with Latin America (Climate Action, Resource Efficiency and Raw Materials)
EUCARINET	Strengthening the Sustainable Scientific Cooperation between Europe and the Caribbean
WG	Working Groups