

GEO THERMAL ENERGY WORKSHOP

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

Latin America, Caribbean
and European Union

Network on Research and Innovation

December 9, 10 & 11 - 2014

Salta, Argentina

Venue: Gran Hotel Presidente
Av. Belgrano N° 353
Salón Don Alfredo

Organizer: MINCYT





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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 eight countries from the European Union and eleven from Latin American and Caribbean countries, representing stakeholders from government and research. Its main goal is to strengthen bi-regional sustainable dialogue on Science and Technology between European (EU), Latin American and Caribbean (LAC) countries.

Scope and objectives

ALCUE NET main objective is to establish an EU-LAC platform bringing together actors involved in research and innovation orientation, funding and implementation, as well as other relevant stakeholders from the public and private sectors and the civil society, in an effort to support the development of more strategic and result-oriented partnerships in the context of bi-regional research policy cooperation frameworks.

In pursuing this general objective ALCUE NET seeks common visions on specific issues, coordinate activities and identify priorities of shared interest. Following the conclusions and recommendations from the Senior Officials Meetings (SOM) on Science and Technology, since Brussels in 2011 to Santiago in 2013 and in agreement with the activities mentioned in the Roadmap for the implementation of the EU-LAC Joint Initiative for Research and Innovation (JIRI), the project focus on achieving progress towards joint improvement of key aspects of societal challenges related to assuring high quality affordable food, energy, and climate change.

Background information on EU-CELAC Policy Dialogue¹

As a result of the European Union, Latin America and Caribbean (EU-CELAC) Senior Officials Meeting (SOM) hold on March 28-29, 2011 in Brussels, the working mechanism and roadmap to go forward the implementation of the EU-LAC Joint Initiative for Research and Innovation (JIRI) were approved.

During the Senior Officials Meeting the renewable energies area was one of the specific areas² selected for defining and develop bi-regional activities on which the enhanced bi-regional cooperation will be developed within the framework of the Joint Initiative.

¹ Background documents can be downloaded from: IV EU-LAC SUMMIT, Madrid, 18 May 2010 "Towards a new stage in the bi-regional partnership: innovation and technology for sustainable development and social inclusion"

JOINT INITIATIVE FOR RESEARCH AND INNOVATION:

http://eeas.europa.eu/lac/madrid2010/events/science/docs/20100226_st_som_final_doc_en.pdf

MADRID ACTION PLAN 2010-2012: http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/er/114540.pdf

MADRID DECLARATION: http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/er/114535.pdf

² Bio-economy, Biodiversity and Climate Change, ICT and Renewable Energies.



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The overall definition of the bi-regional pilot activities includes the definition of precise and result oriented issues and objectives in order to deliver measurable results in the medium term; the identification of relevant on-going or planned national, regional and bi-regional activities; and an implementation plan covering research as well as innovation.

The Renewable Energies SOM Working Group co-lead by CONACYT Mexico and MINECO Spain, has worked in a series of recommendations for pilot activities that have been presented to EU-LAC Senior Officials.

- Coordinated activities funded through specific projects, joint/coordinated calls and 'twinning'.
- Actions to promote and support networking and exchanges between research organisations in on-going or planned projects, and for the establishment of thematic networks and strengthening capacity building and regulatory framework.
- The development of long term strategic proposals in order 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.

In order to achieve the above objectives the ALCUENET Project is acting as a concrete support mechanism for bi-regional S&T policy dialogue according to the recommendations of the Summit Process and SOM meetings.

ALCUENET activities in Renewable Energies

To advance in the objectives of the project the implementation process has been organized around different thematic areas, one of them addressing Societal Challenges through action in the Energy thematic priority of the Joint Initiative for Research and Innovation components.

The activities within ALCUE NET in the Energy thematic area, and more specifically in Renewable Energies, are aimed to lead up to the implementation of specific activities expecting to eventually evolve into a full bi-regional cooperation platform or net involving all relevant stakeholders and undertaking support activities ranging from foresight to agenda setting and actual joint instrument implementation in the energy theme.

At the operational specific level ALCUE NET is contributing to support the S&T bi-regional dialogue throughout the organization of the ALCUE NET- Latin America, Caribbean - European Union workshop that will take place in Salta, Argentina on December 9th – 11th, 2014 which will be focused in **Geothermal Energy**.



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Objectives of the Meeting

"Endogenous fluids" are caused by the internal heat of the planet Earth, and are responsible for providing the so-called "Geothermal Energy" associated especially with volcanic activity. This non-conventional energy resource, is common to almost all countries in Latin America and the Caribbean and many EC countries, thus constituting a huge energy potential still undeveloped. The Andes, the backbone of the Americas, especially of the so called "Andean" countries - with more than 1500 volcanoes, is one of the most important "target" of the world in terms of exploration and discovery possibility of geothermal energy. This energy resource especially in synergy and combination with other alternative energies (especially wind and solar) sources, is a major possibility (if not the only!), especially in remote areas (i.e. Highland Plateaus - Altiplano and Puna area) where there are no other sources of energy, which could allow the development of the mining industry in particular and improving the quality of life for residents.

In order to enlarge the scope of Within the SOM political agenda in Science and Technology geothermal energy is the only non-conventional energy still not now included with the aim of further explore and increase the opportunities for bi-regional cooperation in the area of energy. In subsequent activities and meetings of the ALCUENET Project in the area of non-conventional Energy as well as in several output reports (IE "State of the Art in Science Technology and innovation related to the renewable energy in LAC countries"), Geothermics often appeared as an "unfinished business" that is of interest to be developed at the bi-regional level, as well as capacity building and training of human resources in the area as a common priority to both regions.

In view of the above mentioned reason, the following guidelines have been proposed for this workshop:

- Include Geothermic in the biregional political agenda in science and technology.
- Develop mutually beneficial exchange of know-how between both regions.
- Discuss the possibility of developing a proposal for "capacity building" to train subject-oriented specialists at the biregional level.
- Submit and discuss the development of research development and innovation projects, in the area and explore the possibilities for biregional cooperation in Horizon 2020



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Meeting Agenda

Tuesday 9 th December, 2014	
8.30 - 09.00	• Registration
09.00 – 09.15	• Welcome on behalf of the Host organizers and authorities <u>Miguel Angel Condorí</u> – <i>Director del CCT Salta CONICET - instituto de Investigaciones en Energía no Convencional – INENCO. –UNSa- CONICET</i> <u>Monica Silenzi</u> – <i>ALCUE NET Coordination - MINCYT</i>
09.00 – 11.00	• Workshop objectives and expected outcomes <u>José Viramonte</u> (Argentinean ENERGY NCP) <i>Instituto de Investigaciones en Energía no Convencional INENCO – UNSa-CONICET</i> • Outcomes and perspectives in Horizon 2020 <u>Indridi Benediktsson</u>, <i>Project Officer DG RTD, European Commission.</i> • The EU-CELAC Bi-regional International Cooperation in ST&I ○ Background implementation process: the Joint Initiative for Research & Innovation, EU-CELAC Senior Officials Meetings, ALCUE NET & ERANet-LAC: objectives, structures, action lines - <u>Mónica Silenzi (MINCYT)</u> • The SOM Energy working group & ALCUE NET Energy Work Package <u>Maira Karosuo (CONACYT)</u>
11.00 – 11.15	VIDEOCONFERENCE - <u>Susanna GALLONI</u>, European Commission DG- Energy Research and Innovation, Belgium • Discussion
11.15 – 11.30	<i>Coffee Break</i> <i>Presentation of the state of the art on Geothermal - LAC & EU experiences (Experts 10 minutes each)</i>



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11.30 – 12.30	• European Overview on Geothermal Energy <u>Isabella Nardini</u> - <i>National Research Council–Institute of Geosciences and Earth Resources (CNR-IGG) - Representing also European Energy Research Alliance-Joint Programme on Geothermal Energy (EERA-JPGE)</i> <i>Specific EU experiences</i> • Italy <u>Isabella Nardini</u> - <i>National Research Council–Institute of Geosciences and Earth Resources (CNR-IGG)</i> <u>Guido Giordano</u> - <i>Università Roma TRE</i> • Iceland <u>Hafsteinn HELGASON</u> – <i>EFLA Consulting engineers</i> <i>Caribbean Experiences</i> • <u>Dr. Dale Morgan</u> - <i>Caribbean Science Foundation (Barbados) & Massachusetts Institute Of Technology (MIT)</i>
12.30 – 14.00	Lunch
14.00 – 17.00	<i>Specific LAC experiences</i> • Argentina <u>Abel Pesce</u> - <i>SEGEMAR - Servicio Geológico Minero Argentino</i> <u>Beatriz Coira</u> - <i>Instituto de Geología y Minería – Universidad Nacional de Jujuy</i> <u>Alberto Caselli</u> - <i>Universidad Nacional de Rio Negro</i> • Mexico <u>Eduardo Iglesias</u> –<i>Instituto de Investigaciones Eléctricas y CeMIE-Geo.</i> • Brazil/Uruguay <u>Enio Bueno Pereira</u> - <i>INPE - Instituto Nacional de Pesquisas Espaciais</i> <u>Ethel Morales</u> – <i>Universidad de la República</i>



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- **Colombia/Ecuador/Costa Rica**

Germán Oliveros – *Universidad Autónoma de Bucaramanga*

Matilde Urquiza – *CELEC EP - CORPORACIÓN ELÉCTRICA DEL ECUADOR*

Eddy Sánchez Rivera – *ICE - Instituto Costarricense de Electricidad*

Bilateral cooperation

- **Germany/Chile**

Ingrid Stober - *Karlsruhe Institute for Technology (KIT)*

Diego Morata - *Centro de Excelencia en Geotermia de Los Andes (CEGA)*

Review and identification of common interest on calls in H2020

Judith Franco - *Directora de Maestría en Energías Renovables - UNSa*

- **Intend to draw up a "proposition paper" including issues related to geothermal and potential bi-regional topics/projects**

Moderator : Bernardo Beate

Reportteur : Eduardo Iglesias/ Diego Morata

- Discussion

SIDE EVENT CONFERENCE: Dr- Gerardo Carrasco Nuñez. UNAM Sede Querétaro: "El campo geotérmico de Los Humeros, México"

Wednesday 10th December, 2014

9.00– 11.00

- **Capacity Building:** Presentation of a proposal for a biregional Master's Course- PhD
- Successful cases and Pilot ctions:
 - Halla Hrund Logadóttir - *Iceland School of Energy (ISE) (Iceland)*
 - Guido Giordano - *Università Roma TRE (Italy)*
 - Rosa Maria Proí - *Universidad Nacional Autónoma de México –*



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	<i>CeMIE-Geo (Mexico)</i> <u>Moderator:</u> ▪ <u>Beatriz Coira</u> - <i>Instituto de Geología y Minería – Universidad Nacional de Jujuy</i> / <u>Lucio Alejo Espinoza</u> - <i>Agro industrial Technology Center, San Simon University Cochabamba (Bolivia)</i> ▪ <u>Reportteur</u> <u>Judith Franco</u> - <i>Instituto de Investigaciones en Energía no Convencional INENCO (Argentina)-</i>
11.00– 11.15	<i>Coffee Break</i>
11.15 – 12.30	• Discussion
12.30 – 14.00	Lunch
14.00 – 18.00	• Discussion (cont...) • ABEST III Project and main activities - Mónica Silenzi, MINCyT. • Brokerage event on energy <i>Bilateral meetings</i> <i>SIDE EVENT CONFERENCE: Dr. Guido Giordano, Universita di Roma Tre, Italia: Cooperacion Biregional Italia-Argentina “Rosario de La frontera and El Tuzgle-Tocomar Geothermal Fields”</i>
Thursday 11 th December, 2014	
08.00 – 17.00	Visit to Industrial and Commercial Facilities at “<i>Termas de Rosario de la Frontera</i>” (Geothermal spot) Note: those wishing to take a <i>thermal bath</i> in a beautiful swimming pool, please bring a bathing suit • Departure: from downtown



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