

White paper for the preparation of the EU-LAC Senior Officials Meeting on Science and Technology (SOM)

Buenos Aires, Argentina, 25-26 February 2010

The present document has been jointly prepared by the Spanish Ministry of Science and Innovation and the Argentinean Ministry for Science, Technology and Innovative Production. The goal is to facilitate the discussion amongst senior officers from EU-LAC countries on the political, thematic and instrumental priorities necessary to boost the cooperation on S&T in the context of the next EU-LAC Summit to be held during the Spanish Presidency of the EU on 18-19 May 2010.

The basic ideas were previously presented by Spain and Argentina to EU Members and LAC countries respectively in separate documents. This paper is the result of the merge of the comments received.

1. Main objectives and context

Science and Innovation will be specifically addressed in a Ministerial Conference prior to the EU-LAC Summit to be held next in May 2010 in Madrid with the objective of examining the proposal arising from the SOM in relation to the development of an EU-LAC knowledge and innovation initiative, hereafter named as ***Joint Initiative for Research and Innovation***. The ministerial conference/forum will be invited to consider transmitting its decisions to this effect to the EU-LAC Summit on 18th – 19th of May 2010 to seek endorsement and political support for its implementation over the long term.

In order to prepare the Ministerial Conference and to ensure its success, an EU-LAC Senior Officials Meeting (SOM) has been scheduled on 25th-26th of February 2010 in Buenos Aires (Argentina).

The present white-paper is based on the bi-regional declarations, conclusions and reports adopted in previous Summits, Ministerial meetings and SOMs. Further, it shall lay out the political and thematic priorities and instruments necessary to boost the cooperation in science, technology and innovation between the EU and Latin America in preparation of the forthcoming EU-LAC Summit to be held during the Spanish Presidency of the EU on 18th-19th of May 2010.

2. Political challenges and background

“Towards a new phase in the bi-regional partnership: Innovation and Technology for sustainable development and social inclusion”

The promotion of the “EU-LAC Knowledge Area”, first mentioned in the Guadalajara Declaration of 2004 and the present global challenges for the cooperation on science, technology and innovation, with focus on sustainable development and social inclusion, will be addressed in the EU-LAC Summit in 2010. This bi-regional partnership concerns all countries of the European Union and the Commission on the one hand and all Latin American and Caribbean countries on the other.

Both regions recognize that “science and technology, innovation and higher education are vital for all societies regardless the size of the country or the income level of their inhabitants”. Advances in these three elements of the so-called “knowledge triangle” are also deeply related to the issues addressed in the last EU-LAC Summit in Lima on 16th-17th of May 2008, both from the poverty, social inclusion and sustainable development perspectives. The next Summit in 2010 offers the opportunity to address these topics again taking into account the socio-economic differences of regions, countries and productive sectors.

With the entry into force of the Lisbon Treaty, the European Research Area (ERA) becomes a major political objective. In this new context, the strategy of the EU for 2020, identifies science, technology and innovation, along with education, as key areas to develop Europe into a knowledge based society, greener, smarter and more inclusive in the future. In order to achieve these objectives, international S&T cooperation is a pre-requisite ;in this respect, it raises as an important tool the third country participation in the EU 7th Framework Programme for RTD (7FP), the most important funding instrument at Community level.

Besides, a number of bilateral cooperation agreements have been signed (or are under negotiation) between the EU and third countries to stimulate better and more stable cooperation in science, technology and innovation (S&T).

In addition to the FP7, regional cooperation schemes provide funding, such as the programme ALFA based on the co-operation between higher education institutions of the European Union and Latin America, and @LIS2, which promotes the Information Society, boosting the interconnections between research networks and communities in the EU and Latin American countries, e.g. RedClara .It also promotes bi-regional collaborative research and supports the Latin American Forum of Telecommunications Regulating Authorities.

Since the Rio Summit of 1999, continuous efforts have been undertaken to define and implement joint S&T programmes. The Guadalajara Declaration in 2004, explicitly referred for the first time to the desirability of building the “EU-LAC Knowledge Area”.

This Knowledge Area was a further step to facilitate the exchange of knowledge, technology transfer and mobility of students, professors and researchers. In practical terms, the implementation has been more difficult and slower than initially foreseen by

both parties. Time is right to mobilize political will to significantly strengthen the links between political declarations and follow-up actions, developing S&T cooperation further, both quantitatively and qualitatively.

In parallel, there is a growing interest and a common need of consolidating institutional S&T links between both regions. More specifically, it is important to ensure continuity in the implementation and follow-up of decisions taken at ministerial conferences or EU-LAC Summits and enhance the efficiency and quality of the bi-regional cooperation taking into account the heterogeneity of the existing capacities in Latin America and Caribbean. Thus, there is a need to improve the regional and bilateral dialogue with the support of the appropriate operational structures and to adapt and diversify the cooperation instruments to the different realities.

It is for some time now that the European Union and Latin America and the Caribbean have started to move towards the development of joint actions addressed to ensure a better use of the existing capacities in science and technology as a basis of cooperation and competitiveness, a new source of employment and guarantee for long term sustainable economic growth.

Likewise, LAC countries have made progress, albeit more modestly, in a similar direction, through science and technology programmes and networks supported by international organizations such as the OAS, IICA, UNESCO, FAO and MERCOSUR, and by countries themselves such as the CYTED, CABBIO, PROCISUR, PROCIANDINO, CATIE, CARDI, and CARISCIENCE.

Within this context, the EU and LAC regions share three main priorities for the forthcoming 2010 Ministerial Conference:

1. To reinforce the role of the EU-LAC Ministerial Conference as part of the ongoing process of opening ERA to the rest of the world, with a particular focus on the Latin America and Caribbean region.
2. To frame the activities within the context of “knowledge triangle” where research policy should have the maximum synergy with higher education and innovation policies, promoting at the same time a closer relationship with other sectorial policies (like environment, health, energy, transports, including infrastructures, etc.) benefiting from strengthened human resources and advances in innovation
3. To consolidate the necessary structures in order to ensure a permanent bi-lateral dialogue for periodical up-dating of joint priorities, topics and instruments.

Within this framework, the SOM on Science and Technology should recommend to the Ministerial Conference to be held in Spain in May 2010 to examine and make progress on the definition and principles of a new **“Joint Initiative for Research and Innovation”** based on a set of principles and strategic issues.

3. Priorities of the EU-LAC collaboration

Cooperation for the strengthening of successful previous experiences.

There has been much progress in this sense, both in the individual and group relations. At a specific level, the participation of LAC research groups in the 7th Framework Programme (FP7) has increased considerably compared to previous FPs. Noteworthy, both regions participate in joint and specific FP7 projects aiming to facilitate priority setting and policy dialogue, such as EULARINET, - EU-LA research and Innovation Networks between LAC and EU, PRO-IDEAL- on information and communication technologies, ALCUE-FOOD - on Food, Agriculture and Biotechnology, whose activities aim to bring common visions on specific issues, coordinate activities and identify priorities of shared interest.

Currently new initiatives are underway for co-financing activities and projects between the EU and LAC countries such as Argentina, Brazil and Mexico.

The EU-LAC Summit of Heads of State and Government held in May 2008 in Lima agreed to develop the communication infrastructure needed to reduce the digital divide, under such programmes as @lis, and widen the interconnectivity between research networks CLARA, GEANT and CKLN.

Also, the Iberoamerican Programme in Science and Technology for Development "CYTED" should be mentioned here. Since its start in 1986, it has demonstrated high added value in S&T cooperation.

Based on the accumulated experience, other funding instruments could be launched to enhance the cooperation level. The use of "*coordinated calls*" in topics of common interest or the "*twinning*" of funded projects, as explored in the past, could be promoted again. Here, multi-lateral and bi-lateral actions should complement each other.

The majority of past experiences was focused on public entities and programmes. Private sector participation has received lower attention and/or success until now. In this context, innovation should be considered as a major driving force through the definition and development of a specific cooperation programme in this area.

The future role of the Competitiveness and Innovation Programme (CIP) and the experience of Joint Technology Initiatives (JTI) with industrial leadership and public-private-partnerships ("PPP") on the European side should be re-analyzed in relation to the role they could play in for the context of EU-LAC. The fruitful experience within EUREKA programme and Biotec-SUR with stronger involvement of industrial partners and the use of a bottom-up approach in selected topics combined with national commitments for funding deserves specific attention.

Here and anticipating the possible effects of the current international financial crisis, progress in setting up an "EU-LAC Knowledge Area" becomes even more important. It is necessary to recognize that concept goes beyond project based cooperation and exchange of ideas as the core strategies. A "common space" will develop through shared vision with joint priorities, the right instruments and the committing resources from both regions to implement them effectively.

Political priorities

- a. To reinforce the effective role of EU-LAC Summits as a part of the “*opening ERA to the rest of the world*” and strengthen the bi-regional dialogue structures.
- b. To frame the R&D action plans in close coordination with higher education and innovation actions to promote constructive relationships with other thematic and cross cutting strategies like infrastructures, telecommunications, environment, health and energy.
- c. To further strengthen the cooperation of EU and LAC researchers and reinforce the reciprocal access to resources through the development of ICT infrastructures, widening the interconnectivity between existing academic networks.
- d. To support measures to attain brain circulation and knowledge dissemination
- e. To increase synergies with other EU policies and instruments, especially those managed by the European Commission (e.g. FP, CIP, external cooperation programmes...).

Thematic priorities

- a. A joint approach through a so-called “*Joint Initiative for Research and Innovation*” should be agreed between both regions in a stepwise refinement process. Thematic priorities should be addressed in a flexible manner to facilitate its periodical update.
- b. At this moment, the following broad thematic priority areas have been identified:
 1. Energy
 2. Environment and climate change
 3. Agro-food
 4. Health
 5. Information and Communications technology
 6. Horizontal activities on S&T policy with emphasis on human and institutional capacity building

Special focus should be given to the ICT-based Research Infrastructures (e-Infrastructures for short) along two main axes:

1. Connectivity between EU and LAC in order to enable science and R&D cooperation through the improvement of the interconnection of academic networks and the enhancement of transatlantic links.
2. e-Infrastructures supporting collaboration in specific research/application domains (energy, environment and climate

change, agro-food and health services) by enhancing the access to and use of simulation and supercomputing facilities.

Specific priorities within these broad thematic areas will be identified by both regions in a later stage through the appropriate mechanisms to be defined by the Ministerial Conference. In this process, special consideration will be given to the priorities defined in previous Summits regarding food security, renewable energies and climate change.

Fight against poverty and social inclusion will become a transversal activity to be considered in all thematic priorities. A real impact on citizens should be assured.

4. Instruments for cooperation

The thematic priorities should be implemented in the framework of a "*Joint Initiative for Research and Innovation*" to be discussed at the Ministerial Conference upon proposals from the SOM. The general principles of the "*Joint Initiative for Research and Innovation (hereafter called "The Initiative" for endorsement*" to the EU-LAC Summit.

The Initiative will be based on a set of pre-existing and new actions which combine targeted and horizontal instruments (cross cutting ones). Different objectives may require different instruments or a combination of these to be achieved. The principal ones are as follows:

- a. The creation of a "*Joint Cooperation Fund*" (JCF) is proposed as a new instrument for EU-LAC cooperation under *the Initiative*. This fund can be based on political and funding commitments from interested associates of the bi-regional partnership to contribute for specific S&T actions.
 - i. It would permit the launching of variable geometry-based actions within the thematic priorities agreed by countries of both regions.
 - ii. It will support a broad range of activities and, apart from research, innovation and research infrastructures should be also considered. This option should be further clarified.
- b. Instruments aiming to the following complementary objectives:
 - i. To improve the coordination and cooperation of national research activities. The Era-Net scheme of the EU could be used as an example.
 - ii. To facilitate the participation in the Framework Programmes (FPs) or multilateral programmes of LAC countries with low involvement by providing cooperation and support to science and technology capacity building.
 - iii. To publish calls for proposals targeting the LAC region and focused in areas of common interest previously agreed.
 - iv. To continue the "twinning" of projects already in course in order to coordinate activities and exploit results.
 - v. To support measures aimed to strengthening scientific capabilities and facilitating access to cooperation opportunities.

- vi. To create conditions for better interaction and cooperation between public and private research performers in joint proposals and technology transfer activities in order to increase the participation of industry with emphasis on SMEs.
- vii. To establish networks of "knowledge and innovation centres" to facilitate technology transfer.
- viii. To support initiatives to promote LAC research potential and a more balanced mobility of researchers by a combination of instruments including ERASMUS mundus and Marie Curie Actions.

The EU RTD Framework Programme should be envisaged as one of the key instruments to facilitate the participation of LAC countries. The strengthening of FP7 contact points and raising visibility of LAC researchers and their institutions in Europe is a useful mechanism to increase the participation and success rate. Promoting targeted calls in future Work Programmes should be a priority.

5. Funding commitments

Shared financing taking into account mutual interests and capacities between LAC and EU countries should be the basis for launching new actions under variable geometry schemes in addition to the European Union support when appropriate.

- a. The use of schemes such as the Inco-nets for identifying priorities seems especially attractive to identify those areas in which EU and LAC countries wish to commit additional national resources, complementing the Joint Cooperation Fund.
- b. At the present moment, the new financial instrument under discussion, LAIF (Latin America Investment Facility), seems particularly attractive. The future use of this new instrument to support research infrastructures in the region could be explored by extending its current scope of physical infrastructures.

6. Bi-regional Policy dialogue

In order to underpin the implementation process and to assure the continuity of approved agreements, a technical support and follow up scheme seems necessary. This scheme could be based on two complementary levels: a permanent Senior Officers Meeting (SOM) with LAC and EU representatives meetings annually and a more technical support structure. The system has been fruitfully used in other geographical areas.

The specific SOM for EU-LAC should support the exchange of information and good practices; identification of common priorities and means for future cooperation. It should work on a permanent basis and it could be supported by a more technical structure to provide statistical information, impact assessments and organizational work in order to facilitate the launching of joint activities. The creation of a new ad hoc structure or the use of existing ones could be explored for this purpose.