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Review of S&T Cooperation between the European Union and the Republic of Argentina 2006-2010

20 years of Trade & Economic Cooperation Agreement
10 years of S&T Cooperation Agreement

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Table of Contents

1. Executive Summary 4
   1.1. Background 4
   1.2. EU international, and EU-Latin-America RTDI policy developments 4
   1.3. The EU-Argentina S&T cooperation in the larger context of the EU-Argentina cooperation 6
   1.4. The EU-AR S&T Cooperation Road Maps and this 2006-2010 review 7
   1.5. Participation of Argentina in FP6 and FP7 in 2006-2010 7
   1.6. Benefits, bottlenecks, future expectations – feedback from participants 8
   1.7. In a nutshell: SWOT and additional prospects for developing the cooperation further 9
   1.8. The structure of this report: 15
2. Rationale and Methodology of the Expert Review 16
   2.1. EU-Argentina Science & Technology Cooperation Agreement 16
   2.2. Mandate of the expert group 16
   2.3. Approach of the review 17
3. General Context: EU Cooperation Policy Developments in the Evolving Europe 2020 Contexts 19
   3.1. Developing International Cooperation in the context of the emerging European Research Area (ERA) 19
   3.2. The evolving Europe 2020 context 23
   3.3. EU International S&T Cooperation from the perspectives of Research Framework 6 and 7 (FP 6/7) evaluations 25
4. S&T Partner Argentina 28
   4.1. Some basic facts, and Argentina's Regional and international position 28
   4.2. Education in general 29
   4.3. The Universities - a cornerstone of higher education & basic research 30
   4.4. MINCyT - the Ministry responsible for STI: policies, structures, related bodies 32
   4.5. S&T investment in Argentina 35
   4.6. Argentina's RTDI figures in the Latin-American context 36
5. Outline of Argentina's Bilateral S&T Cooperation Programmes with some EU Member States 36
   5.1. France 39
   5.2. Germany 41
   5.3. Italy 43
   5.4. Spain 44

6. Argentina's Multilateral STI Cooperation (non-EU) 46
6.1. Argentina's (Sub) Regional S&T Cooperation - Mercosur 46
6.2. Argentina's S&T Cooperation at the Iberoamerican level 46
6.3. Latin America S&T Cooperation Outlook: The Buenos Aires Declaration "Science, Technology, Innovation and Development for the Solution of Latin America's Global Problems" 50
7. Overview on EU Cooperation Policies with the Countries of Latin America and the Caribbean Region (LAC) 51
7.1. EU – Rio Group and EU-LAC 51
7.2. EU - Mercosur 55
7.3. Current legal framework for EU policy priorities towards LA 55
8. EU-Argentina S&T Cooperation over more than two decades – an overview 56
8.1. Frameworks for EU-Argentina Cooperation in general, since 1990 56
8.2. Overview S&T Cooperation: From STD1 to FP7 participation 57
8.3. Overview of the S&T Cooperation Road Map 59
8.4. The 2005 impact assessment of the S&T Cooperation Agreement 60
9. ABEST - the EU-AR Liaison Bureau, and Argentina's NCP network 62
10. Participation of Argentina in FP6 and FP7, between 2006-2010 63
10.1. Overview FP6 and comparison with other LAC countries 63
10.2. FP6 participation: by themes, by type of organisation, by region 64
10.3. Conclusion FP6: 67
10.4. Overview FP 7 and comparison with other LAC countries 67
10.5. FP7 participation: by themes, by type of organisation 68
10.6. The role of high-level research centres 72
10.7. Conclusion first years of FP7 76
10.8. Overall conclusion 76
11. Argentina's S&T Cooperation – selected projects 78
11.1. Argentina – EU 78
11.2. Mercosur - EU 82
11.3. LAC-EU 83
11.4. Bilateral Projects 85
12. Feedback from stakeholders and project participants 85
12.1. Online survey 85
12.1.1. Who and how many answered? 86
12.1.2. Experiences in FP6 and FP7 projects, S&T Agreement 88

12.1.3. Project profiles 91
12.1.4. Preparing the projects 94
12.1.5. Cooperation Argentina-EU 95
12.1.6. Results and outcomes 98
12.1.7. Bottlenecks and difficulties, suggestions for improvements 99
12.1.8. Awareness of developments in the larger policy background 101
12.1.9. Aspects influencing positively and negatively future S&T cooperation 102
12.1.10. Preferred priorities for future S&T cooperation 103
12.2. Interviews and discussions with researchers and stakeholders 103
12.3. Conclusion: a disconnect between Bilateral Cooperation and FP participation? 104
13. Overall Synthesis: The EU-Argentina S&T Cooperation – prospects for developing the cooperation further 105
14. Annexes 112
14.1. The EU-Argentina S&T Cooperation Roadmap 2010/2011 112
14.2. Online Survey 136
14.3. Interview Guidelines 164
14.4. Argentinean organisations participating in FP6 and FP7 165
14.5. Draft agenda of the Reviewers visit in Buenos Aires 169

1. Executive Summary

'Technical' remarks:
a) As this report makes reference to international as well as intra-EU documentation we use the following differentiation: **Region/Regional (capital R)** when it relates to a number of neighbouring countries, and **region/regional (lower case r)** when it means sub-national.
b) The report is developed in the framework of numerous official documents making it impossible to harmonise the use of the terms S&T, STI, R&D, RTD, **RTDI** - **R**esearch, **T**echnological **D**evelopment and **I**nnovation. If there is no reference document we prefer RTDI following the emerging trend of a holistic policy approach. Otherwise those terms are used as they appear in the original documents.

1.1. Background

This review of the EU-Argentina S&T Cooperation 2006-2010 was commissioned in the context of the renewal, due in 2011, of the S&T Cooperation Agreement[1]. The natural addressees of this report are policy makers and stakeholders involved in the implementation of the current cooperation activities, as well as those involved in the design of future initiatives.

A continuous focus of the EU policies to **open the European Research Area (ERA) to the world** is to increase the awareness of the opportunities offered through the multitude of national/regional and EU/international programmes and their judicious combination. Having this in mind we also see researchers, research managers, and users of research results in society as addressees of this report. As 'knowledge gaps' might be different on the two sides of the Atlantic we have outlined pertinent EU-, Latin-America-, and EU-Latin-America policy developments in more detail for those not so familiar with the relevance of those changes for their own activities. We thus aim to contribute to reflections and actions in a way that this enormous potential could be better tapped in the future.

1.2. EU international, and EU-Latin-America RTDI policy developments

The EU international, and EU-Latin-America RTDI policy developments go back a long way. The international dimension was already part of the first concepts for European S&T cooperation, and – vice versa - S&T were part of the broader EU international development cooperation from very early on. With the series of ERA Communications starting in 2000, both aspects have been strengthened and have become more and more integrated in mainstream EU policies. A specific Communication was dedicated to the International Dimension of the ERA in 2001. The 2007 "ERA-New Perspectives" Communication had 'Opening the ERA to the world' as a pillar, and a Strategic European Framework for International S&T Cooperation was outlined in 2008. A CREST/ERAC[2] group and an ERA

[1] Agreement for scientific and technological cooperation between the European Community and the Argentine Republic – OJ L6, 11.01.2000, p. 32
[2] Committee for Scientific and Technological Research, since 2010 called ERA-Committee, is a policy advisory body with representatives from the Member States and the Commission, whose mission is to provide strategic input to the Council, the European Commission and the EU Member States on research and innovation issues.

Expert group addressed the topic, and the **Strategic Forum for International S&T Cooperation (SFIC)** was set up in 2009 involving representatives of the EU Member States and the European Commission.

In the general EU policy thrust to **better use resources through more coherence and synergies between programmes and through better priority setting**[3], an ERA expert group was set up for this topic in 2008 which, inter alia, envisaged a new legal ERA-Frame which could encompass all types of programme coordination activities – small or big - such as Regions-of-Knowledge, ERA-Nets, INCO-Nets, BILATs, or European Technology Platforms (ETPs) and Joint Technology Initiatives (JTIs). Another instrument to harness synergies between national/regional and EU-level activities, the **European Institute of Innovation and Technology (EIT)** is to stimulate world-leading innovations with a positive impact on economy and society through its highly integrated **Knowledge and Innovation Communities (KICs)**. Moving further on the coherence and prioritising dimensions, the **Joint Programming Initiatives (JPIs)** aim at engaging a broad spectrum of actors at different governance levels to **address major (global) societal challenges**, e.g. Agriculture, Climate Change, A Healthy Life, Neurodegenerative Diseases etc.

"Improving cooperation with international partners" figures also prominently with the latest EU RTDI milestones, highlighted in the Europe 2020 initiative for smart, sustainable and inclusive growth, and its flagship initiatives, e.g. in the "Innovation Union".

In the EU, given the relationship of about 9:1 between national/regional and EU-level RTDI investments, **leveraging national funds** – of EU- and non-EU countries - **for strengthening joint trans-national activities** is a common, and very important focus.

Interdependent with these general EU RTDI policy developments, the cooperation policies with Latin America and the Caribbean evolved, first in the Rio Group dialogue with the EU, and then in relation to the EU-Latin America and Caribbean Summit process (EU-LAC) and the EU-Mercosur relations concerning S&T. Key steps in this respect are the 2002 Brasilia Action Plan for S&T Cooperation, the EU-LAC Knowledge Area launched as a concept in 2004, the 2008 Lima Declaration **relating joint research activities to key policy problems**, and the **EU-LAC Joint Initiative for Research & Innovation** launched 2010.

Another interlinked strand is the development of the **Regional Latin American STI cooperation**, with the **Buenos Aires Declaration** of December 2010 as its latest milestone and policy outlook.

With the risk of oversimplifying, one could see from these different strands of policy developments an emerging convergence on

- Aiming at **synergies**[4] of Policies & Programmes (aligning priorities across governance levels and policy areas)

[3] In EU documents often referred to as "optimising" programmes and priorities

[4] In addition to the **synergies inherent in well designed programmes and projects**, the issue is more and more explicitly addressed at the policy level, and various publications and expert groups focused on it, e.g.

- COM (2010) 2020 "Europe 2020": " Synergies ... not only about levels of funding, but also about different funding instruments ... be devised ... to maximise impact, ensure efficiency and EU value added"
- DG Research & Innovation: Expert group "Synergies between FP7, CIP and the Cohesion Funds" (running)
- European Parliament, Committee on Regional Development: Report on the implementation of the synergies of research and innovation earmarked Funds ..... (2009/2243 (INI)), e.r.2010

- Cooperating early in the policy cycle: strategic policy design through **Joint Priority Setting**, and then **focusing the available resources on those priorities**
- "**Knowledge for Society / Addressing Grand Challenges**" as a RTDI focus.

For this policy convergence to concretise in the form of project results and new trans-border structures, more aligned programme design and rules of implementation would be needed, as well as advice to proposers which focuses on enhancing international cooperation.

1.3. The EU-Argentina S&T cooperation in the larger context of the EU-Argentina cooperation

Compared to other countries in Latin America, and helped by its strong economy in the late 19th and early 20th century, Argentina has invested early and substantially in education and in S&T. Therefore, and despite the disruptions in the wake of the 2001-crises, the country can still rely on a broad spectrum of long-standing bilateral S&T relations. Enriching these networks, Argentina had started to participate in EU research programmes from the 1980s, and was the first Latin American country to formalise its relations with the EU in the form of a third-generation cooperation agreement in 1990 (Framework Trade and Economic Cooperation Agreement). One of the thematic agreements concluded under this framework is the **S&T cooperation agreement** aiming, since 2000, to strengthen the institutional foundations of this cooperation field, and to extend and intensify cooperation activities in areas of mutual interest.

The larger legal frame, under which the EU-Argentina cooperation is covered, is the Regulation of the European Parliament and the Council 1905/2006 of 18 December 2006 establishing a financing instrument for Development Cooperation (DCI).

It was developed in the common framework of objectives, values and principles that the Union – the Member States and the Commission - supports and promotes since 2005, and is characterised by a stronger consensus on the **Millennium Development Goals, the international security context and the increased impact of globalisation**.

The existence of a framework for financial cooperation is **relevant to the success of the S&T cooperation**. Current orientations are set out in the strategic framework of the Country Strategy Paper (CSP) Argentina 2007-2013. It focuses on a shift from the immediate post-2001-crisis relief measures to initiatives designed to foster medium to long-term economic development and to strengthen social cohesion and employment opportunities. Three **priorities** are outlined:

- ERAC Working Group "Synergies between the various programmes within the Knowledge Triangle and the Cohesion Programmes" (2010)
- DG Regio, DG RTD, DG ENTR: Practical Guide to EU Funding Opportunities for Research & Innovation, 2009
- Report of the ERA-Expert Group "Optimising Research Programmes and Priorities", 2009
- European Parliament, ITRE Committee: Synergies (IP/A/ITRE/ST/2006-16, May 2007)
- CREST Working Group "How to make better coordinated use of Structural Funds and Framework Programme" (2007)
- COM (2007) 161 : Green Paper "ERA – New Perspectives"
- SEC (2007) 1045: Working Document accompanying COM (2007) 474 (Competitive European Regions through R&I) : "RTD, Innovation, Cohesion and Rural Development Policies – Reinforced Synergies"

- Strengthening Argentina's **education, training and human resources development systems**
- Improving the country's economic competitiveness
- Deepening bilateral relations and mutual understanding with two foci :
  - supporting the process of policy dialogue on **key sectors of common interest identified by the EU-Argentina Joint Commission**;
  - **intensifying academic links and exchanges**.

1.4. The EU-AR S&T Cooperation Road Maps and this 2006-2010 review

To give political guidance to the development and implementation of the EU-AR S&T cooperation activities, to mobilise support, and to discuss communication, facilitation and coordinating measures, the **EU-AR S&T Agreement Steering Committee (SC)** has been set up. In 2008, a biannual **S&T Cooperation Road Map** was established with strategic priority activities to be jointly implemented. It is regularly updated in the context of the annual SC meetings with a view to, inter alia, increase Argentina's participation in FP7.

The road map focuses on priorities in the FP7 Thematic Areas and on Mobility & Exchange of Researchers, but also on facilitating cooperation in general, on Capacity Building in S&T, and on Synergies between S&T and other EU Policies and their instruments. Higher level cooperation is also discussed, e.g. linking European and Latin American Technology Platforms (**ETPs and LATPs**).

The latest version (2010/2011) of the Road Map specifically mentions that a review of the S&T Cooperation will be carried out as the S&T Cooperation Agreement is due for renewal for the next five year period in 2011.

1.5. Participation of Argentina in FP6 and FP7 in 2006-2010

With a total of 94 participations in successful projects in FP6, Argentina has been one of the European Union's main Latin American partners. More precisely, Argentina is in second place after Brazil.

The very active thematic sectors are food quality and safety, sustainable development, life sciences, in accordance with the main scientific fields of Argentina research.

An analysis of partnership in projects involving Argentinean groups show UK, Germany, Spain, France and Italy as principal co-workers, in accordance with analysis of bilateral research activities of Argentina.

The Argentinean activity within FP6 is very concentrated in Buenos Aires and Pampas Regions, with a strong participation of research centres (especially CONICET and INTA).

The Argentinean participation has improved in the beginning of FP7, with a very good success rate (26,9%) in the first year. According to the FP7 thematic priorities, the involvement of Argentinean research groups is mainly in food, agriculture and biotechnology

(FAB), ICT, health, environment, then nano sciences, then transport. Marie Curie actions play a very important role also.

The partnership remains focused on the same European countries as in FP6; one can notice an improvement in universities participation (38%). The expansion of the higher education sector participations, especially outside of Buenos Aires and the Pampas regions, has to be related to the role of the Argentine Bureau for Enhancing Cooperation with the European Community in Science, Technology and Innovation (ABEST) and the NCP network.

The role of high level research centres is significant, both in FP6 and FP7. CONICET is, e.g., involved in three quarters of the research projects of the EU with Argentinean participation. INTA, with its focus on food, agriculture and biotechnology, has built a strong network with peer organisations in Mercosur and in Europe, and has consequently good capability to build consortia.

We refer to chapter 10 for a detailed analysis of the Argentina participations in FP6 and FP7.

Some success stories have been briefly described in chapter 11 with respect to research foci of 5 Argentinean regions. With 70% of the population, the Pampas region offers the widest spectrum of projects. The Northeast region has a special focus on the natural resources and related rural and social development. The Northwest region develops research coupling agriculture and health (see **Healthy Market** project). The Cuyo region, with numerous research institutes and the Pierre Auger observatory, develops projects in the field of environment (see **ALARM** project for example). The Patagonia region has a strong focus in physics (Bariloche centre). Some of INTA's experimental stations are located also in this region. Research focuses on energy (see for example **BIOTOP** project dedicated to biofuels).

A special emphasis is given to the biotechnology platform **BIOTECSUR** implemented in the Mercosur-EU framework.

Some EU-LAC projects are also described, e.g. the **EULARINET** project, a valuable information source of about EU- Argentina cooperation (e.g. the analysis of co-publications mentioned in chapter 5, Figure 1, Table 1 and

Table 2).

1.6. Benefits, bottlenecks, future expectations – feedback from participants

Besides quantitative data about Argentinean participations in FP6 and FP7, an online survey was conducted to collect qualitative information especially through open questions. Participants were mostly recruited through the e-mail contacts of participants in projects with Argentinean partners, and additionally through own professional networks.

A good return rate of more than 33% (in total 229 respondents) highlights the interest of the community in the EU-AR cooperation, and provided us with a very broad spectrum of feedback details.

In chapter 12, we analyse in detail the answers to the online survey. First, an analysis of the respondents is carried out regarding their home organisations, thematic interests, countries, EU programme involvement, showing a good sampling of respondents. Next, a more in depth description of the multitude of aspects concerning the project preparation phase is

obtained. In short, coordinators need less information and assistance than partners. FP projects involving Argentinean groups are mainly built on former collaboration. When information is needed it often relates to financial / administrative rules, and evaluation. Usually the project idea originates in Europe and the proposal is mainly developed through teamwork with most project partners. For both Argentinean and European partners, access to complementary expertise is an important reason to get involved in EU-AR projects. Respondents strongly agree or agree (70%) that the cooperation between EU and Argentina was successful. The results and production of knowledge is quoted at a very high level of importance as well as the possibility to address more ambitious research problems.

Bottlenecks and difficulties are pointed out; more than half of the answers deal with administrative difficulties, understood as a difference between Latin American and European cultures. Funding questions are also an important concern. These two items, and likewise the difficulty for SMEs to access EU projects are not completely specific to Argentina.

The S&T agreement is well known by only 20% of respondents. Moreover, the eligibility of Argentina to participate with funding in EU programmes is not sufficiently known by all European partners.

The non-adaptation of the FP priorities to non EU countries, such as Argentina, is also pointed out. Suggestions on how to improve the collaboration are given; most of them deal with simplification in administrative procedures; many answers insist on the necessity to reduce the distance between EU and Argentina by offering more travel support (either from Argentinean organisations or European Commission).

Different aspects influencing positively and negatively the future S&T cooperation have been listed by the respondents. They are summarized in chapter 12 together with preferred priorities for future cooperation.

The interviews and discussions conducted in Buenos Aires added complementary information to the one gained of the respondents to the online survey. The interviews were conducted also with people having established European collaborations, but not necessarily developed through FP6 and FP7. For example, researchers involved in the aforementioned bilateral collaboration indicated sometimes a reluctance to engage with European Commission mechanisms.

1.7. In a nutshell: SWOT and additional prospects for developing the cooperation further

The first part of our recommendation framework for strengthening and improving EU-Argentina cooperation comes in the form of a SWOT analysis summarising the strengths and weaknesses, the threats and opportunities of the cooperation between Argentina and Europe based on the information available and presented to us. From this, the different actors and stakeholders can assess the impacts on their specific situation and capabilities, and work out their most appropriate strategies for improvement - by developing these strengths further, addressing the weaknesses, being aware of the threats and realising the opportunities.

In addition, we present, in the concluding outlook, further recommendations in their respective policy frame.

Strengths

- **Argentina is a country with European history and polarity**, and has long-lasting research relationships with Europe. Argentina and Chile are the only 2 Latin American countries which have more publications (6247) with EU than with third countries (5752). The collaboration of Argentina with the EU represents 21% of the production in Web of Science (WoS), whereas the international collaboration with third countries is slightly lower (19%). [5]
- **Argentina has strong and well-known assets in selected scientific fields** : agronomy and agriculture, health, physics, environment and climate change. The areas with most publications in international collaboration are physics, biomedical research and agriculture, biology & environmental sciences. Physics has the greater number of documents with the EU although the percentage of documents with European centres on the total of the international collaboration is more important in areas such as chemistry and engineering, technology with over 60% of documents.
- **Renowned universities** and **strong public sector-based research centres** (e.g. INTA for agriculture, CNEA for nuclear energy, INTI for industrial technologies) and **excellence** research centres (CONICET, for all areas). Strategic plans of these research organisations are of great help in EU strategy.
- **Well established bilateral research cooperation agreements as well as related budgets and regular calls** with European countries, sometimes evolving to common structures (e.g. International Partner Labs and Joint Research Units with France, Biomedicine Bi-national Institute with Max-Planck Germany, Plant Genomics Bi-national Centre with Spain).
- **A strong research ministry** (MINCyT, since 2007), its highly influential Directorate for International Relations, of which ABEST depends, the well-staffed EU-AR Liaison Bureau with its NCP network.
- **Considerably increased research funding** (not yet surpassing 0,6 % of GDP, however)
- **Traditional role of Argentina** to bring the different Latin American countries together in research consortia.
- **Presence of Argentinean researchers in main research institutions in Europe**. Due to common culture, but also earlier crises, many Argentinean researchers have senior scientific positions in EU Member States, mostly Spain, France, Germany, and Italy. Moreover, younger Argentinean scientists have doctoral or postdoctoral positions in Europe, constituting a strong kernel for future collaboration.

Weaknesses

- The **national research strategy toward international cooperation is more generic than specific**, with real priorities not yet concretely defined (National Plan of STI 2011-2014 under preparation).

[5] See Eularinet deliverable 1.2

- **Weak coordination between Argentinean research actors** namely National Institutes (with strategic plan) and universities.
- **Difficulties to go beyond bilateral projects to form AR-EU consortia:** Due to the complexity of EC project mechanisms, good research teams are often focused on, and stay with their successfully established bilateral collaboration.
- **Difficult coordination** between bilateral, bi-Regional activities on the one hand, and S&T, Financial, Development, and other types of cooperation on the other hand.
- General weakness of cooperation between public research institutions and industry.
- **Still to be improved cooperation** between the two main responsible ministries for research and industry.
- **Still suffering from the very low research investments over the last years**. Low impact of national tools to implement public-private synergies despite dedicated programmes of "La Agencia" (FONCyT, FONTAR, FONARSEC).
- **Weak attractiveness of Argentina for foreign researchers** due to a relative scattering of research teams (large country with low density) and relatively low visibility in EU.
- A **country seemingly still relying more on the past** (3 Argentinean Nobel prizes) than on future perspectives.

Threats

- **Confident and fast growth of S&T in Brazil**, comforted, e.g. by the much larger number of PhD educated in Brazil, and the size and strength of the economy in general.
- **Weakening of the secondary education level, especially in the public sector** (20 % of 18-24 age group neither study nor work / 14 % in Brazil; 43 % successful secondary school leavers / 70 % Chile; 58th PISA position / 44th Chile). This will be a difficult starting point for research a generation later.
- **Loss of a researcher generation:** the emigration in the 90's and the crisis years means a lack of senior researchers able to pass their experience and know-how on to the younger research generation.
- From the side of the Argentinean enterprises, low interest in or knowledge regarding the cooperation, and relatively weak links of relevant parts of the Industry Ministry with ABEST activities.
- **Discrepancies**, on the Argentinean and the EU side, between strategic activities focusing on long-term strategy development & priority setting and an implementation/management focus.
- **Failure**, on the European side, to considerably simplify project implementation procedures.
- Growing EU focus on **BRICS** on the one hand, and, on the other hand, on **developing countries**.

- Increased EU focus on **large and complex, autonomously managed and adapted 'projects'** such as ETSs, JTIs, JPIs, and, most recently, EIPs (European Innovation Partnerships).

Opportunities

- Increased EU focus on **large and complex, autonomously managed and adapted 'projects'** such as ETPs, JTIs, JPIs, and, most recently, the EIPs (European Innovation Partnerships).
- **Converging** of EU-RTDI- and EU-LAC-RTDI-cooperation policies in terms of **priorities** and **approaches**, e.g. relating joint research activities to key policy problems.
- Growing EU and LAC focus on "**Knowledge-Triangle**" (Education, Research, Innovation) approaches
- Growing EU focus on **opening ERA to the world**.
- Increased EU focus on leveraging national funds (of the Member States) – which could give indications (mutatis mutandis) of how to use this mechanism as one approach to opening ERA to the world.
- Increased EU efforts to **better use resources** through more **coherence** and **synergies** between different programmes, and through **better priority setting**.
- Strong focus of the **EU Delegation in Buenos Aires** to concretely work towards synergies and bring the different actors together.
- A growing interest of Europe for **Latin American countries** in general**.**
- **An increased propensity of students and young researchers to be internationally mobile,** and ability to host young European researchers having difficulties to get appropriate positions and conditions in their home countries.
- **The global necessity to share research facilities** to share costs, therefore creation and development of international platforms.
- **Good opportunities for research employment in Argentina**, whereas EU Member States lack more and more this kind of positions. Incentives are, inter alia, the **RAICES**[6] programme, a specific repatriation programme implemented by MINCyT, and the recent increase of 30% in the salary of public researchers and professors.

Additional prospects for developing the cooperation further

The EU S&T Cooperation Agreements with third countries[7] are set up with the aim to "establish a formal basis for cooperation". In that sense, their existence is an asset in itself. In addition, they could be further developed into strategic instruments to more systematically open ERA to the world – not only bilaterally with the countries with S&T agreements, but also by developing a network of such countries, through which additional

[6] Red de Argentinos Investigadores y Científicos en el Exterior : http://www.raices.mincyt.gov.ar

[7] Although there is much controversy regarding the term "third countries", the European Commission has stated repeatedly, e.g. in reactions to earlier evaluations of International Cooperation, not to abandon it.

countries could be more and better integrated. (This was suggested, e.g., by the ERA-Expert-Group "Opening to the World: International Cooperation in S&T".) With Argentina's strong international focus, and already playing a facilitator and multiplier role, e.g. with her NCPs, the S&T cooperation agreement with Argentina could be a frontrunner in this respect.

Regarding Argentina's S&T agreement, the last five years have definitively seen considerable progress, especially on the political side. One of the key topics of the Agreement, the setting up of a "RTD Cooperation Steering Committee" (SC) has been well implemented and is bearing fruit. The regular SC meetings with high-level participation give credibility to the overall frame and maintain the political momentum. Continuously updated roadmaps add substance and give guidance to all cooperation areas and instruments.

Nevertheless, more priority setting and focusing resources, which then is being clearly manifested in the annual roadmaps, could improve the cooperation. The (then) fewer areas could be exploited with increased resources more effectively, and possibly more efficiently. In addition, more systematically addressing the impacts of relevant developments or pilots – regarding policies, institutions (e.g. SFIC, EIT[8]) or instruments - could add an attractive and appropriate dimension to the work of the Steering Committee.

To harness synergies more broadly, a generally better integration of the EU S&T cooperation in the overall Argentina S&T cooperation, as well as in the broader (EU and other) cooperation would be greatly beneficial. Declarations in this respect can be found everywhere, also in the SC minutes, but implementation seems difficult. More could be done even with regard to the bilateral S&T cooperation of the EU Member States, let alone with regard to other important players (e.g. the US), or with regard to the EU development and financial cooperation, or with regard to across governance-level cooperation (regional/national/Regional/international,) etc.

One reason for the EU focus on synergies lies in the need for a **better use of the resources available for RTDI** and **more impact of RTDI investments**. Therefore, in addition to aiming at the aforementioned programme synergies, the synergies inherent in well designed, and well implemented projects should not be neglected. Those of course depend on the quality of the participants and their cooperation, but also, and not to a small degree, on better **positioning** the concrete RTDI actions in the **overall programme contexts**, and on systematically aiming at **increased impacts concerning the higher programme, and also the broader cooperation policy objectives**. This is mentioned not only in annual work programmes, but also in calls and general evaluation guidelines. Nevertheless, we did not find, in our discussions with Argentinean researchers including research managers, a high awareness of the relevance of this subject, even in the cases where the broader context was known. (Unfortunately, the same is often true also with European researchers.) We strongly recommend that more emphasis is given to this issue, in all aspects of the work of national and institutional contact points (see below) with potential proposers, in proposer guides, in evaluator training and concertation meetings, kick-off meetings, through the feedback on project reports, in all other contacts of EC Scientific Officers with project coordinators, and in general information and dissemination events to name but a few.

ABEST, the EU-AR Liaison Office is very well staffed both quantitatively and competently, and has the highest political backing. It is actively involved in political work on the one hand, and dissemination activities on the other, the latter via 10 National Contact Points (NCP).

[8] European Institute of Innovation & Technology

Nevertheless, Argentina is a big country, and the best-staffed Liaison Office can't reach out to the large number of individual researchers, in their many RTDI organisations and locations, in a way that could substantially boost Argentina's participation. ABEST reports to have established a network of 44 NIPs (Institutional Contact Points) called ABEST-NET, but the participation figures don't allow immediate conclusions regarding the strength and institutional embeddedness of these NIPs. We assume, that the EU-AR cooperation support network could be substantially strengthened by setting up or improving – from the side of the institutions - '**institutional liaison offices**' and integrate them in a harmonious way in **ABEST-NET, thus giving it a solid institutional, bottom-up built base**. Strong offices, responsible for managing external resources from EU and others and knowledgeable in dealing with the different administration requirements, exist in some cases already, e.g. in the Universities of Buenos Aires and Cordoba, or in INTA and INTI. Special support from the Argentinean side to establish such offices as well as **twinning with successful institutional offices in the Member States** (e.g. of big universities or large research organisations) might be a good investment given the considerable difficulties of individual researchers and research groups with the Brussels bureaucracy or their dependence on foreign consultants.

As far as **participation in general** is concerned, the strong research organisations continue to be reliable and competent cooperation partners, as well as researchers which are well integrated in the international networks of their scientific disciplines. Research organisations are, for example, able to use their international thematic network (see the PROCISUR project for INTA's international strategy) to build EU consortia. However, there is still a long way to go towards harnessing more fully the large untapped potential of competent - and attractive for the EU - Argentinean researchers and research groups.

Regarding **enterprise participation**, we got the feedback that the situation is much to be improved. This issue might not see considerable progress without a stronger cooperation of the Science and the Industry Ministries. CICyT, the Inter-institutional Council for Science and Technology, could play a role in this.

Not surprisingly, this outlook cannot be concluded without a reference to the main obstacle to opening ERA to the world – procedures, administration, and payment in EU projects. Already difficult for European participants, this could become a nightmare for researchers from 'over the oceans'. If there is no dramatic progress on this front it seems illusionary to expect step-changes in 'real' participation. By real participation we mean researcher- or stakeholder-driven consortia, not consortia initiated by foreign consultants, where sometimes the distribution of resources seems to reflect more the overhead-interests of the consultants than the research or policy coordinating interests of the EU and Argentina. Besides simplification of procedures, more training of administrators at Universities and research institutions should be a good way to accompany researchers in consortia building. Following the same idea, increased supports to NCPs, in order to have better connections to Brussels would be an efficient investment. The participation of Argentinean researchers in EU project evaluation should also be encouraged; this experience would allow future FP participants to know the success factors of projects from the inside. An efficient way to build consortia is also to address the relative disconnection between bilateral cooperation projects with EU member states and other countries, strongly established in the Argentina S&T landscape, and FP projects with Argentinean participants. Relating better these two ways of collaboration could be driven by MINCyT and/or the EC delegation in Buenos Aires. A national programme of the National Agency for S&T Promotion ("La Agencia") to

accompany the preparation of European project proposals could be an interesting tool also. Moreover any activity to facilitate and support efficient procedures to disseminate the information about opportunities for collaboration between Argentina and EU should be taken up in order to increase the number of Argentinean beneficiaries of EC funding. Within the reciprocity principle of the S&T agreement, dedicated thematic programmes between EU and Argentina could be developed building on the areas of excellence of Argentinean research (see physics for example) as well as adapting to Latin American Region policies.

The EU Commissioner for Research, Innovation and Science is putting simplification high on her agenda[9]. Therefore, it might be advisable to ensure, in all related working groups and procedures, that the specific barriers for more International Cooperation are adequately addressed, and that rules and regulations conducive to more, and a broader range of cooperation activities are put in place.

1.8. The structure of this report:

After this Executive Summary and the rationale and methodology of the review, the general background of EU International cooperation in the evolving Europe 2020 development and its new instruments is outlined. This serves as a policy frame for the subsequent chapter on S&T partner Argentina and her bilateral and Regional (Mercosur, LAC, Iberoamerican) RTDI cooperation. Taking this perspective up, key developments in the EU-LAC and EU-Mercosur policy context are summarised.

An overview on EU-Argentina S&T cooperation is the starting point for a detailed analysis of the 2006-2010 activities in all its facets, benefits, bottlenecks and success stories. To conclude, we summarise the feedback received from stakeholders and project participants, and synthesise our main findings.

[9] - COM (2010) 187 : SIMPLIFYING THE IMPLEMENTATION OF THE RESEARCH FRAMEWORK PROGRAMMES
- http://ec.europa.eu/research/consultations/fp-simplification/consultation_en.htm . Consultation « Ideas for simplifying the implementation of the EU Framework Programmes »

2. Rationale and Methodology of the Expert Review[10]

2.1. EU-Argentina Science & Technology Cooperation Agreement

Several Science & Technology Cooperation Agreements are in force between the European Union and third countries. They offer a political, legal and administrative framework for coordinating and facilitating S&T cooperative activities between European legal entities and international partners, thereby strengthening the international dimension of the European Research Area – opening ERA to the world for mutual benefit. Specific provisions regarding the funding of cooperative research activities are not per se included. Funding remains subject to the applicable laws and regulations, policies and programmes of the respective parties involved.

The S&T Cooperation Agreement[11] between the Argentine Republic and the EU (EU-AR S&T Agreement) was signed on 20 September 1999 and entered into force on 28 May 2001 for a 5-year period. Article 11b provides that "This Agreement shall be concluded for an initial period of five years and may be tacitly renewed after full evaluation, based on the results, during the penultimate year of each successive five-year period."

After a first review in 2005, this agreement was tacitly renewed in 2006, and is now due for a second renewal in 2011. The present review is being carried out in this context.

2.2. Mandate of the expert group

The general objective is to review the EU-AR S&T cooperation 2006-2010 providing an overview of the achievements and assessing implementation and impact. Areas for further improvement are to be identified and, where appropriate, recommendations made for addressing those issues.

In particular, the expert group was tasked to undertake the following activities:

- To analyse the S&T cooperative activities 2006-2010 in relation to different specific programmes/thematic priorities of the EU Research Framework Programmes (FP) so as to draw up a **pattern** both in terms of areas/topics and types of research (science led, technology led, trade led, global issues led), provided the number of participations permits such an analysis;
- To identify **success factors** as well as **bottlenecks and obstacles** for on-going activities or their further development;

[10] **Nota Bene**:
a) As this report makes reference to international as well as intra-EU documentation we use the following differentiation: **Region/Regional (capital R)** when it relates to a number of neighbouring countries, and **region/regional (lower case r)** when it means sub-national.
b) Because numerous official documents constitute the framework for this review it was not possible to harmonise the use of the terms S&T, STI, R&D, **RTDI** - **R**esearch, **T**echnological **D**evelopment and **I**nnovation. If there is no reference document we prefer RTDI following the emerging trend of a holistic policy approach. Otherwise, those terms are used as they were in the original documents.

[11] Agreement for scientific and technological cooperation between the European Community and the Argentine Republic – OJ L6, 11.01.2000, p. 32

- To broadly review **EU Member States' bilateral activities with Argentina** to the extent possible during the Argentina mission, and, based on available documentation, assess their relative contribution and added-value in the wider EU-AR S&T cooperation;
- To assess **complementarities/synergies** and **overlaps between different EU-AR activities** (of the EC and MS), and highlight areas for further optimisation where appropriate;
- To analyse the **extent to which the EU-AR S&T cooperation is mutually beneficial;**
- To identify S&T areas/actors/instruments for which there are promising **prospects for developing the cooperation further**.

2.3. Approach of the review

When positioning the outcomes of the 2006-2010 EU-Argentina S&T cooperation, the reviewers paid specific attention to the converging policy developments mentioned in chapter 1 : joint priority setting & focusing resources, Knowledge for Society / Grand Challenges, synergies/optimising. Optimising programmes refers to the overall macro structuring (across borders, governance levels, policy areas) of S&T support - which is beyond the reach of this report - and to the **design of the individual programmes.** It also concerns the **use of the available resources by the different RTDI actors**, and this is strongly influenced by the quality of the proposals received and of the implemented projects. In the area of multi-country cooperation covered by this review, the consortia have to make work a complex system of institutional, national/regional and international funding. Here, better proposal quality includes **better positioning of the concrete RTDI actions in the overall programme contexts**, and aiming at **increased impacts concerning the higher cooperation policy objectives**.

In this respect, the EU's own (general and RTDI) policies and their instruments are relevant for this review, as well as the (general and with Latin America) International Cooperation policies. As shown below, they evolved interdependently and in similar timeframes. For the sake of clarity, however, and to relate the EU-Argentina S&T Cooperation accordingly, we structured these key policy development lines in separate background chapters:

- Chapter 3: General Context: Developments in EU International Cooperation and the evolving Europe 2020 context
- Chapter 7: Regional Context: Developments in EU Cooperation with the Countries of Latin America and the Caribbean Region

In terms of operationalisation, the review was implemented as follows:

- Information exchange with EC Scientific Officers at the kick-off meeting on 13 December 2010, as well as at subsequent meetings and tele-conferences along the review process;
- Analysis of documents provided by EC services and retrieved from other sources;
- Synthesis of relevant EU- and Latin American policy framework developments, and focussing the results of the review in this context;

- Development and implementation of an online survey focusing on FP6/FP7 projects, areas and instruments as well as on future cooperation options; idem for interview guidelines with policy makers and stakeholders;
- Analysis and synthesis of the feedback gained from survey and interviews;
- Preparation and implementation of a fact-finding mission to Buenos Aires for interviews with the responsible Ministry for Science, Technology and Productive Innovation (MINCyT), Argentinean stakeholders and researchers, as well as with the EC Delegation in Buenos Aires and S&T Councillors of EU Member States;
- Feedback meeting with EC Scientific Officers on 1 April to discuss a draft version of the report with participation data;
- Draft final Report delivered on 20 April
- Final Report delivered on 25 May.

3. General Context: EU Cooperation Policy Developments in the Evolving Europe 2020 Contexts

3.1. Developing International Cooperation in the context of the emerging European Research Area (ERA)

By its very nature, Science has always been universal, and Higher Education in Europe has developed, at least in its first centuries, in a totally international mode. Scientists traditionally share their results, and governments in countries with a strong science base have supported them to do so.

Not surprisingly, therefore, that international S&T cooperation was a dimension to be considered from the very beginning when EU policies for S&T development in Europe were designed. Vice-versa, S&T were part of the EU international development cooperation programmes from very early on[12].

With the ever increasing globalisation of technology development, and the policy focus on making scientific knowledge available for innovative solutions for society, both transnational RTDI cooperation, and the integration of RTDI topics in transnational cooperation in general are high on the policy agenda worldwide.

These two aspects started to be seen from a more and more similar perspective, and since 2000 have become integrated in mainstream EU policies within the series of European Research Area (ERA) Communications.

Already in the first two Communications "*Towards a European Research Area*" and "*Making a reality of the European Research Area: Guidelines for EU Research Activities 2002-2006*"[13] the international dimension was highlighted, and the need was stressed to open the EU to the world and make it attractive for researchers internationally.

The International Dimension of the ERA[14]

In 2001, the Communication specifically dedicated to this subject outlined the broad guidelines for a new policy of international S&T cooperation fulfilling the strategic objective of opening the European Research Area to the world. The following key areas for achieving this objective were highlighted:

- making the European Research Area more attractive to the best scientists and making it a world class reference centre;
- enabling European researchers and industrialists to access the knowledge and technology produced outside Europe, and also the experimental fields needed for European research;

[12] E.g: A Community Research Policy for Development (1983); COM (90) 256 : Cooperation in S&T with Third Countries; COM (95) 489 : Perspectives for International Cooperation in Research and Technological Development; COM (97) 126 : S&T Research – a Strategic Part of the EU's Development Cooperation.
[13] COM (200) 6; COM (2000) 612
[14] COM (2001) 346: The International Dimension of the European Research Area.

- developing S&T activities useful to the implementation of EU foreign policy and development aid;
- enlisting the S&T resources of the EU and of third countries in initiatives that provide a response to significant worldwide challenges such as food safety, environmental safety (greenhouse effects, desertification, biodiversity and natural resources, seismic risks, etc.) or health and major diseases connected with poverty.

In terms of action, suggestions include:

- **stepping up consistency and coordination** between international S&T cooperation activities undertaken in Europe at every level (national, trans-national, regional, trans-regional);
- **focusing** EU efforts on specific thematic areas and foreign partners of major importance;
- Stepping up international **forward looking activities** as a strategic tool for the ERA;
- **Aligning** EU S&T cooperation policies with EU foreign policy and development aid programmes.

The Green Paper "ERA : New Perspectives"[15]

After some years into the ERA discussions it became evident that not enough progress had been made on a core objective of the ERA, i.e. ensuring the coherence of European, national and regional research programmes and priorities.

In 2007, the Green Paper reiterated that better generation and use of knowledge is crucial if the EU is to achieve its economic, social and environmental ambitions. To make the most of Europe's knowledge potential it is essential to provide the freedom for people, infrastructures, organisations, funding and knowledge circulation, and global co-operation to operate effectively, securing knowledge firmly at the heart of society. The Green Paper recognises the challenges posed to Europe by underinvestment in and fragmentation of research and the growing globalisation of S&T. It is structured along six principal dimensions of the ERA:

- **Adequate flow of competent researchers**, with high levels of mobility between institutions, disciplines, sectors & countries;
- **World class research infrastructures**, integrated, networked & accessible to research teams from across **Europe & the world**;
- **Excellent research institutions**, engaged in effective public-private co-operation, forming the core of research and innovation clusters including virtual research communities;
- **Effective knowledge-sharing** between public research & industry, as well as with the public;
- **Well-coordinated research programmes & priorities**, including significant jointly-programmed public research investment at European level with **common priorities**

[15] COM (2007) 161

(arrived at by **joint priority setting** processes – see below), coordinated implementation & **joint evaluation**;

- **Opening the European Research Area to the world** and a strong commitment to addressing global challenges with Europe's partners.

ERA Expert Groups were set up for each of the six dimensions, and one on the overall vision and rationales for ERA. The overall objective was to identify and define possible measures and actions concerning the relevant dimension, taking into account existing expertise, available evidence and the major elements stemming from the consultations launched by the Green Paper. Three of those reports are mentioned below as they highlight key issues relating to the background of this report.

Strategic European Framework for International S&T Cooperation[16]

Against the backdrop of rapidly increasing international S&T cooperation activities, it became evident that the absence of a common EU level strategy in this area is one reason for sub-optimal use of resources and a reduced impact of activities, and that a more coordinated approach would benefit both Europe and its international partners.

The Commission therefore came forward with this Communication identifying general principles and specific orientations for action:

- strengthen the international dimension of the European Research Area;
- improve the framework conditions for international S&T cooperation;
- promote European technologies in the world.

This Communication outlines different approaches to cooperation depending on the geographic and thematic targets, and calls for long term commitment of the Member States and the European Community thus providing an important impetus for action. Workshops on key issues of international S&T policies and a conference on Drivers of International Collaboration in Research were organised to help design the strategy.

Also in 2008, an OMC (Open-Method-of-Coordination) Working Group of CREST[17] focused on the internationalisation of R&D, and on exploring synergies by coordinating national and EU policy measures. It delivered its recommendations for approaches to a proactive and better coordinated international S&T policy[18], as well as three studies analysing S&T cooperation of the EU with Brazil, India and Russia.

[16] COM (2008) 588

[17] Since 2010 called ERAC (European Research Area Committee): ERAC is a strategic policy advisory body whose main mission is to provide timely strategic input to the European Council, the European Commission and the EU Member States on any research and innovation issue relevant to the development of the ERA. Together with the new name, a new mandate was established in order to better align its role with the new emphasis given to the ERA by the Treaty on the functioning of the European Union. The new mandate also reflects better the shared competence between the Member States and the EU and its strategic policy mission. The Committee consists of two high level representatives responsible for research and innovation policies from each Member State, and the Commission.

[18] Internationalisation of R&D – Facing the Challenge of Globalisation: Approaches to a Proactive International Policy in S&T. EUR 23330

ERA Expert Group "Opening to the World: International Cooperation in Science & Technology"[19]

Relating their work to the aforementioned OMC Working Group, this expert group presented their final report also in 2008. It took up the message of the Green Paper and considered the international dimension an integral component in the making of a genuine European Research Area.

Assessing realistically the potential for near-future change in ERA governance, where most of the RTDI investments are allocated by national/regional bodies, it sees the following option for further progress: increasing the coordination within the wealth of initiatives taken by the EU member countries as well as with the manifold EU sponsored activities. Increasing coordination successfully, however, cannot mean to centralise all bilateral and multilateral S&T activities in Brussels. What has rather to be ensured is that the knowledge generated and the benefits are not be restricted to the countries involved, but are disseminated across countries & Regions in order to make both international cooperation more effective and the EU presence more visible.

The experts' key recommendations are grouped in the areas : EU instruments in general; **S&T Cooperation Agreements (STAs) as important instruments to contribute to further strengthening the international dimension of ERA**; The nature of the cooperation (e.g. along the common principles of reciprocity, free mobility of scientists, mutual benefit and **joint agenda setting)**; **Priority setting** and coordination in S&T cooperation.

The Competitiveness Council in December 2008 welcomed these activities and invited the EU Member States and the Commission to form a **European Partnership** in the field of international S&T cooperation in order to **identify common priorities** which could give rise to coordinated or joint initiatives and positions vis-à-vis non-European countries and within international fora. The Council also supported the suggestion to establish a Strategic Forum for International S&T Cooperation (SFIC) to drive forward the European Partnership for S&T cooperation.

The Strategic Forum for International S&T Cooperation (SFIC)

This Forum, which met for the first time in February 2009, was established as a dedicated configuration of CREST/ERAC with the objective to facilitate the further development, implementation and monitoring of the international dimension of ERA. In practice, this means sharing information and consultation between the partners (Member States and the Commission) with a view to identifying **common priorities** which could lead to coordinated or joint initiatives.

SFIC, composed of high-level representatives of the Member States and the European Commission, started with a geographic and a thematic pilot initiative on "EU/Member States S&T cooperation with and vis-à-vis India" and on "Energy Research" (in close coordination

Exploring synergies through coordinating policy measures between the EU MS, Associated Countries and the EC. EUR 24028

[19] "Opening to the world: International cooperation in Science and Technology". Report of the ERA Expert Group. European Commission. Directorate-General for Research. EUR 23325 EN. 2008

with the SET-PLAN[20]) i.e. in areas where cooperation within the Partnership could provide high added-value. These pilots enable SFIC to analyse how **a more coordinated approach with other countries and country groupings** could shape up, and serve as starting point for developing a **future partnership-based EU international S&T cooperation strategy**.

SFIC adopted its first Annual Report in 2010. The following Competitiveness Council acknowledged SFIC's work and invited Member States and the Commission to build upon initiatives proposed by SFIC when elaborating the European strategy for international S&T cooperation.

3.2. The evolving Europe 2020 context

In order to position the outcomes of this review - **results of the 2006-2010 activities** as well as outlook and **suggestions for future cooperation** – appropriately in the evolving Europe 2020 context we mention shortly conceptual developments, related advances in RTDI policy instruments, and key publications. Overall, a general policy thrust emerges for ensuring **more and broader impact of RTDI investments**, and **leveraging more national/regional resources for** (trans-governance-level supported) **transnational activities**.

More impact from RTDI investments – evaluation and priority setting in the general context of policy design and implementation :

As highlighted throughout chapters 3 and 7, priority setting and focussing resources has increased in importance both in EU policy and in EU-LAC cooperation policy developments over the years. As a key element in any policy process, priority setting can be meaningfully improved only if the evaluation/review of the past, the analysis of the current situation, and the suggestions for future options take into consideration the related policy rationales as well as the whole policy cycles of which they form part. Exploring and explicitly addressing these relationships is important to arrive at optimised programmes. Therefore, this aspect has become one focus of the ERA-expert group "Optimising Research Programmes and Priorities" (see reference below), it is a topic in different OECD working groups, and it has been taken up again recently by the **CREST/ERAC High Level Group on Joint Programming (GPC)** in their suggestions for a Framework for Joint Programming Initiatives (JPIs, see below).

Priority setting has become an especially burning issue since the increasing demands and needs for, e.g., more social benefits, or higher health and retirement payments have not been matched by correspondingly enlarged public budgets. As a consequence, the fight for 'appropriate' allocations to the different budget lines has become harder, and the need to justify public expenditure has amplified. To secure their share was never an easy task for RTDI policy makers, as the benefits of related investments are difficult to quantify and often can be expected only in the medium-to-long term. In the current situation, where calls for quick-impact stimulus measures to allay economic difficulties dominate the scene, the pledge for more RTDI investments has certainly not become any easier.

Therefore, making better use of what is already available seems the best RTDI policy makers can do in such a situation aiming at a higher level of efficiency and effectiveness : **Improving**

[20] COM (2009) 519: Investing in the Development of Low Carbon Technologies (SET-Plan)

priority setting processes with the aim to arrive at domestically and internationally optimised priorities and, from this basis, design and implement **optimised programmes**. This certainly means optimised from the points of view of the individual countries or regions, but also from the perspective of the evolving ERA, incl. the Europe2020 policy developments and the related priorities. If priority setting processes are harmonised it can be expected that more joint programming will develop, notwithstanding the fact that complementary and competitive programming will also play their positive roles in strengthening the global impact of the EU RTDI investments.

As mentioned above, **priority setting can be meaningfully improved only if the related policy rationales as well as the whole policy cycles** are appropriately considered. In RTDI, this is not a trivial task given the increased uncertainty and complexities in the field, possible and necessary trade-offs with other public policy goals, and the balance between local, regional, national and international activities. Therefore, we relate to a stylised policy cycle, more recently taken up by the ERA Green Paper and the High-Level Expert Group for Joint Programming (see below), as well as to the 'Strategic Policy Intelligence' (SPI) tools[21] that are more and more systematically applied worldwide[22].

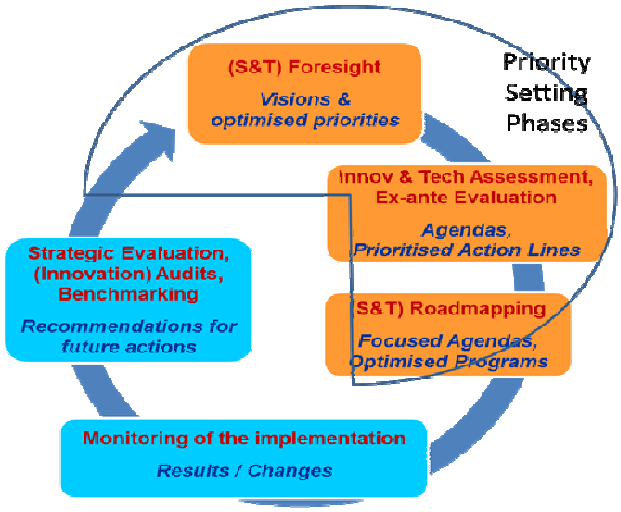

Figure 1 : From Vision to Action to new Futures

[21] Methodologies used to provide decisions-makers with comprehensive and objective information. Related to RTDI issues, SPI tools include S&T and territorial foresight, technology assessment and roadmaps, innovation analyses, but also evaluation, benchmarking and audits.

[22] - Clar, G., Acheson, H. et al: Enabling Better RTDI Policy-making in Europe's Regions, Strategic Policy Intelligence Tools - a Guide (ISBN 978-3-938062-64-7, Berlin, 2008). For more details on methodology and case studies cf to the related Compendium (same title, 2008)
- "Optimising Research Programmes and Priorities – New Perspectives for the European Research Area". Report of the ERA-Expert Group, European Commission, Directorate-General for Research, EUR 23324 EN, ISBN 978-92-79-05125-8, 2008
- Cunningham, P: Horizontal analysis of country reviews: R&D investment policies (PREST, synthesis report of the CREST Policy Mix project, 2007)
- OECD work, i.a. Workshops and deliberations of the OECD Working Parties "Technology & Innovation Policy" and "Research Institutions & Human Resources"
- Joint Programming in Research 2008-2010 and beyond. Report of the High Level Group on Joint Programming to the Council. November 2010. ERAC-GPC 1311/2010.

In order to provide a solid base for an improved new cycle, the review/ evaluation phase should systematically be used to provide new inputs for the future formulation of visions and priority setting, and thus also include **policy learning between countries and Regions**. This refers to gaining knowledge and understanding in decision-making processes through feedback regarding the underlying causes and preconditions for policies and their impacts. This often happens informally, but could provide more benefits in deliberate settings as, e.g. in the form of an ERA-NET or BILAT project, or CREST/ERAC-, Commission-, or EU-LAC working- or expert- or advisory-group. To be successful in today's multi-level and multi-actor innovation arenas, an assessment of the situations in other territories and at other governance levels is crucial. Therefore, **mutually optimising priorities and programmes** is seen as an important part of the policy cycles at all governance levels, and can bring **benefits especially in and from international cooperation**.

Important reports, publications and institutional developments include:

- **ERA Expert Group Optimising Research Programmes & Priorities**[23]
- **ERA Expert Group Rationales for the ERA: Challenging Europe's Research**[24]
- **Towards Joint Programming in Research : working together to tackle common challenges more effectively**[25]
- **The European Institute of Innovation & Technology (EIT)**[26] **and its Knowledge and Innovation Communities (KICs)**
- **Europe 2020**[27]
- **The Europe 2020 flagship initiative Innovation Union**[28]

3.3. EU International S&T Cooperation from the perspectives of Research Framework 6 and 7 (FP 6/7) evaluations

FP 6 Ex-post Evaluation, Expert Group Report, February 2009[29]

Regarding international cooperation, the experts made the following key recommendations:

The 'Third country' terminology must be abandoned as it stands in the way for strategic thinking. It should be replaced by three strategies:

- one for EU FP collaboration with the developing countries;

[23] "Optimising Research Programmes and Priorities - New Perspectives for the European Research Area". Report of an ERA Expert Group. European Commission, Directorate-General for Research. EUR 23324 EN, ISBN 978-92-79-05125-8, 2008

[24] "Challenging Europe's Research: Rationales for the European Research Area (ERA)". Report of an ERA Expert Group. European Commission, Directorate-General for Research. EUR 23326 EN. 2008

[25] COM (2008) 468

[26] http://eit.europa.eu/

[27] COM (2010) 2020: Europe 2020 – a strategy for smart, sustainable and inclusive growth

[28] COM (2010) 546. Europe 2020 Flagship Initiative Innovation Union

[29] Evaluation of the Sixth Framework Programmes for Research and Technological Development 2002-2006.

- one for collaboration with growth economies; and
- one for collaboration with industrialised countries outside the EU.

The budget for cooperation with the major existing (such as US and Japan) and emerging economies (including India, China and Brazil) should be increased dramatically and strategies tailored to reinforce mobility with these countries and to engage them as partners in the mainstream of the FP, thereby strengthening both the quality and purpose of ERA. FP activities for collaborating with developing countries should concentrate on topics and technologies of relevance for development and where EU scientists are globally in the lead.

The Commission responded:[30]

The term 'third country' covers those countries which are not full members of the Framework Programme, including non-EU and non Associated Countries.

The Commission acknowledges even though the term might have some disadvantages it has not been an obstacle to more targeted and nuanced thinking on strategic research partnerships with the three types of country specified[31]. To replace the term using further classification would not necessarily be in the interests of clarity or simplification. The Commission would also emphasise the importance of maintaining the focus on excellence in international cooperation through the FPs, whilst paying attention to the particular research needs identified by partner countries and also encouraging support for capacity building for research through other funding sources.

The Commission agrees with the need to provide a clearer focus to research collaboration with 'third countries', as was stated in the recent Communication on a Strategic European Framework for International Science and Technology Cooperation.[32]

The Commission is very supportive of the need to see an increase in the level of funding going to research partnerships with developed countries thus strengthening the link with the best global science. Practical hurdles need to be overcome before this will be achieved.

Several developments in FP7 point the way forward:

- the Specific International Cooperation Actions (SICAs) have proven effective in supporting partnership on shared challenges;
- building a strategic partnership with the Member States, notably 'Fostering strategic cooperation with key third countries through geographic and thematic targeting';
- mutual opening of programmes, e.g. in the area of 'health' between the EU and US.

FP 7 Mid-term Evaluation, Expert Group Report, November 2010[33]

In the context of the FP 7 mid-term evaluation, it was reported that the International Cooperation has strengthened European research by promoting cooperation with leading

[30] COM (2009) 210: On the Response to the Reports of the Expert Groups on the Ex Post Evaluation of the Sixth Framework Programmes.

[31] 'associated countries'; 'neighbourhood policy countries' (Mediterranean, and Eastern); and 'strategic countries', the later with thematic focus, including global challenges, development goals, etc.

[32] COM (2008) 558: A Strategic European Framework for International Science and Technology Cooperation

[33] Interim Evaluation of Seventh Framework Programme

researchers outside Europe and by linking the ERA to strategic Regions, markets and research agendas in other parts of the world. It was also stressed that further efforts are needed, as the ability to meet global needs for innovative solutions to grand challenges becomes increasingly important.

In order to further strengthen the international dimension of European research, instruments for the implementation should be improved. In the INCO self-assessment it is observed that the SICAs have been useful in strengthening cooperation with countries outside Europe, particularly through their ability to target priorities of high mutual interest. Researchers from countries outside Europe also appear to have shifted their participation away from general openings towards SICAs and targeted opening. In the future, it might be envisaged to strengthen specific calls or even specific programmes and targeted openings.

Moving international cooperation from the 'Capacities Programme' to the 'Cooperation Programme' could also be considered, since international cooperation should be about working with strategic partners, rather than strengthening or building capacities.

While it is useful to promote third country participation in the Framework Programme, the future focus of international cooperation in the FP could be more on engaging on equal terms and in programmes and activities of high mutual interest. This might require tailoring initiatives and programmes to specific themes, Regions or partners rather than seeking to accommodate 'third countries' (a term which should be abandoned anyhow) in, or make them conform to, the existing FP structures and mechanisms, which might not suit their needs or interests.

Overall conclusion of the experts is that the international perspective must be integrated in all programmes and instruments, and that a review based upon a **thorough analysis of the current strategy towards international cooperation is needed**.

The Commission responded[34]:

FP7 is already very open to international collaboration and involves participants from more than 160 countries. But both in finance and total numbers of participants the scale of this collaboration is relatively small, notably with the leading and emerging research nations. This is a serious missed opportunity which must be addressed.

Therefore, there is an **urgent need for a more strategic approach**, building on the experience of existing initiatives such as **EU bilateral S&T agreements** and coordinated calls. To this end the Commission will carry out a **major review** - to report by the end of 2011 – of its strategy for international collaboration. This will examine how to build critical mass and specialisation, in areas of European need and comparative advantage, taking into account the proposal for a **future focus on major challenges**. In this context, it will also be essential to better define the common and respective roles of Member States and the Framework Programme as well as the means, such as through the **Strategic Forum for International S&T Cooperation**, to identify areas of common interest and approaches.

[34] COM(2011) 52

4. S&T Partner Argentina

Nota bene: If not stated otherwise, the RTDI related data in this and the following chapters were obtained from related official sources, or provided by ABEST. They were discussed with ABEST, and if necessary adapted.

The STI relationship between the EU and Argentina in general is considered from two perspectives. One of them is the strategic, where Argentina prioritises the relationship with Europe beyond the specific cooperation activities - projects, participation in training programmes – and aims at developing a more comprehensive and long-term relationship, targeting the implementation of a common area of knowledge, science, technology and innovation that includes the countries of both – EU and LAC - Regions. In this context, Argentina has been continuing its participation in the ALCUE[35] process[36] and intends to consolidate it, which will eventually result in the development of political institutions and instruments directly linked to such process, e.g. the formalisation of the SOM (Senior Officials Meetings), with its own working schedule, and the implementation of the Road Map and the "Joint Initiative" (cf. chapter 7).

From the operational perspective, the relationship is reflected in the initiative taken by Argentina in the development of new innovative cooperation approaches devised to advance in

- extending cooperation beyond the "traditional" projects - consortia, etc.
- providing a supra national or Regional dimension, e.g. the Regional platform for biotechnology BIOTECSUR[37] or the "Twinnings" initiative[38].

Before going into this with more detail, we highlight some general facts regarding Argentina, as developing international S&T cooperation activities is not only dependent on the possibilities of the national S&T and innovation systems. It is based on the different levels and specifics of the education systems, and strongly shaped by the state of the society as a whole.

4.1. Some basic facts, and Argentina's Regional and international position

Argentina is the second biggest country of Latin America in terms of **area** (8th in the world), with a relatively small **population** of about 40 million (32nd in the world). It has the second-highest Human Development Index (UNDP) and **GDP per capita** (ppp) in Latin America (which relates to 52nd in the world), and ranks worldwide as 23rd in terms of **GDP**.

Argentina has a market-oriented economy with abundant natural resources, a well-educated population (see below) and relatively advanced transport infrastructure, an export-oriented

[35] ALC-UE: Cumbre de Jefes de Estado y de Gobierno de América Latina, el Caribe y la Unión Europea
[36] Including the ALCUE Common Area of Higher Education
[37] Chapter 11
[38] Chapter 11

agricultural sector and a diversified industrial base. Domestic instability and global trends, however, contributed to Argentina's decline from its position as the world's 10th wealthiest nation per capita in 1913 to that of an upper-middle income economy today (52nd). Though no consensus exists regarding the reasons for this development, systemic problems often cited include burdensome debt, uncertainty over the monetary system, excessive regulation, barriers to free trade, and a weak rule of law coupled with a bloated bureaucracy. Nevertheless, even during its era of decline between 1930 and 1980, the Argentine economy created Latin America's **proportionally largest middle class**. In the following years, however, this segment of the population has heavily suffered from a series of economic crises between 1981 and 2002, with long-lasting and deep-going negative impacts also on S&T capacities and infrastructures.

Recovering from the 2001-crisis, Argentina is **reasserting itself in the international arena**, e.g. becoming a **member of the G-20** and applying for **observer states to the OECD Committee for S&T Policy** and its working parties. Argentina plays an **active role in the Latin American and Ibero-American contexts** through numerous inter-American organisations. Regarding Regional policies, the increasing integration of the **Mercosur/Mercosul**[39] area has virtually eliminated the security disputes with its neighbours, and considerably eased economic and trade tensions. This has also greatly benefitted S&T cooperation activities, and the S&T area as a whole.

The country has a long tradition of **European immigration** (about 85 % of the population is of European origin) and strong S&T, economic, social and cultural transatlantic links. The EU as a whole is its first partner in cooperation, first investor, and second trade partner after Brazil.

4.2. Education in general

Already during the independence processes in the beginning of the 19th century, Argentina focused on building an advanced national public education system, placing the country high in the global rankings of literacy (today a rate of 97%). In programmes to diminish illiteracy even further, students of both high school and college level cooperate as volunteers to transmit reading and writing skills. The Ministry of Education supports the volunteers with small stipends and training materials. The same principles apply to a National Tutoring Scheme ("Aprender Enseñando" - Programa Nacional Educación Solidaria): undergraduate students from educational universities and colleges are tutoring high school students at risk of school failure and dropping out. The project is part of the national service-learning programme, "Educación Solidaria".

Argentina is also very active in the CLAYSS (Centro Latinoamericano de Aprendizaje y Servicio Solidario/Latin American Centre for Service-learning), inter alia training teachers in Chile and Bolivia, and Uruguay. Presidential Awards ensure social recognition and high standing for education and learning.

[39] Common Market of the South (Members: Argentina, Brazil, Paraguay, Uruguay; associated Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela)

Argentina also ranks high in education achievement (about 40 % of adults over age 20 have completed secondary school studies or higher, and 20 % tertiary education[40]).

Overall, about 12 million Argentineans are enrolled in formal education. This includes more than 1.5 million in the public and private universities. (for details on universities see below)

The school system consists of an elementary or lower school level of six or seven years, and a secondary or high school level of five or six years. School attendance is compulsory between the age of 5 and 17.

Public education in Argentina is tuition-free from the elementary to the university levels. Demand for education facilities, however, has more and more outstripped budgets. As a consequence, Argentina's schools, once among the best in the world, have considerably declined. This is shown, e.g., by the results of the 4th PISA[41] study, released in December 2010, which showed that students from Argentina (aged 15) performed, in comparison to other Latin American countries, worse than Chile, Mexico, Uruguay, Colombia and Brazil, and just better than Peru and Panama.

As a consequence of these developments in the public sector, private education flourishes at all levels. About one in four primary and secondary students, and one in six university students attend private institutions.

While cutbacks of resources in the 1980s, 1990s and the beginning of the Millennium were severe, education has received increased priority from the government during the last years.

In 2009, public investment in education has been the largest in history, thus reflecting the improvements in infrastructure of universities and schools all around the country.

4.3. The Universities - a cornerstone of higher education & basic research

The Argentinean higher education system is divided in three levels:

- Tertiary Education level: 1- to 3-years degrees related to education or technical professions like Teachers, Technicians.
- University level: 4- to 6-years professional education taught at Universities offering different degrees such as Licentiate, Engineering Title, Accountant, Medic Title, Attorney Title, and Architect Title.
- Post-graduate level: This is a specialised education level and mainly oriented to research. It is roughly divided in a first sub-level where a Specialist degree or Master degree can be obtained and a higher sub-level where a Doctorate degree could be achieved.

The higher education system in Argentina falls under the aegis of the Ministry of Education[42] and is coordinated by the Consejo Interuniversitario Nacional (CIN)[43] which administers policies for national universities on issues including public-private partnerships, national

[40] Hansen *et al.*, The evolution of science and technology: Latin America and the Caribbean in Comparative Perspective, World Bank, LCSHD Paper Series 80, December 2002
[41] The OECD's Programme for International Student Assessment
[42] http://www.me.gov.ar/
[43] http://www.cin.edu.ar

recognition of degrees and diplomas and national validation of foreign qualifications, among others. The National Commission for University Evaluation and Accreditation Argentina (Consejo Nacional de Evaluación y Acreditación Universitaria - CONEAU), established in 1997, oversees (in collaboration with other authorities) external evaluation of all universities, provides authorisation of new universities; and accredits all graduate and undergraduate programmes.[44]

There are 47 National Universities (public), 46 private Universities, 7 State University Institutes (public), 12 private University Institutes, 1 Province University, 1 Foreign University, and 1 International University.

The National Universities, Public Law Legal Entities funded by the State through the annual budget, account for 80 percent of the undergraduates, and 50 percent of the scientific research.

In the ranking based on the Science Citation Index for 2006, the University of Buenos Aires ranked first in terms of total production, followed by CONICET, University of La Plata, University of Cordoba and the National Atomic Energy Commission.

Regarding thematic areas, about 50 % of the bachelors and masters degrees are obtained in Social Sciences and Humanities, about 20 % Medical Sciences, 10 % Engineering & Technology, and less than 10 % in Natural & Exact Sciences. About 40 % of doctoral degrees, come from Natural & Exact Sciences, just under 40 % Social Sciences & Humanities, approximately 30 % Medical Sciences, 10 % Engineering & Technology, 4 % Medical Sciences and 4 % Agriculture & Fisheries.

Regarding university-industry linkages, these are fostered and coordinated at

- high political level, by the Secretariat for S&T Articulation, MINCyT (cf below),
- institutional level, through a cooperation agreement between the National Inter-university Council and the Industrial Union of Argentina),
- operational level, through the Network for Technology Linkage – RedVT, aimed to coordinate the efforts of technology-related areas for promoting knowledge contribution and cooperation between Argentinean universities and the social, productive and government sectors.

The principal national bodies responsible for dealing with international cooperation and exchanges in higher education are located at the Ministry of Education:

- Dirección Nacional de Cooperación Internacional[45];
- Programma de Internacionalización de la Educación Superior y Cooperación Internacional[46];
- Secretaría de Políticas Universitarias[47].

[44] http://gse.buffalo.edu/org/inthigheredfinance/files/Country_Profiles/Latin_America/Argentina.pdf
[45] http://www.me.gov.ar/dnci/
[46] WWW: http://www.me.gov.ar/spu/enciu
[47] WWW: http://www.me.gov.ar/spu

4.4. MINCyT - the Ministry responsible for STI: policies, structures, related bodies

The S&T competencies of the Argentine Government lie at the federal and provincial levels, with the main policy making, management, promotion and coordination entities around the National government. The most relevant one is the Ministry of Science, Technology and Productive Innovation (MINCyT). The National Congress, the House of Senators and the House of Representatives have S&T commissions, whose role is to assess the performance of the sector and to promote the legislative actions deemed necessary for its development. At the level of the provinces, some governments have agencies for the promotion and coordination of S&T activities, such as the S&T Ministry of the Province of Cordoba, or the Scientific Research Commission of the Buenos Aires Province (CIC).

In 2005, the former Secretary for Science, Technology and Innovation of Production (SECyT), then part of the Ministry of Education, and the related Observatory, developed the "Bases for a STI Strategic Plan 2005-2015 containing the core guidelines for the policies and planning of these activities. They include a series of strategic objectives and goals, inter alia:

- Increasing consistency and social equality, aim RTD towards the improvement of quality of life and social development.
- Promoting sustainable development, adopt environmentally friendly technologies for the exploitation of natural resources and the improvement in the related techniques.
- Moving towards a new productive specialisation profile, with further incorporation of knowledge.
- Fostering access to a knowledge-based society and economy, increase public and especially private RTDI investment, and the number of researchers and technologists.

In 2007, SECyT launched its **Strategic Plan on Science, Technology and Innovation "Bicentenario"** (2006-2010). The Plan takes some inspiration, e.g. from European foresight studies and projections, and has four major components and foci:

- Global scenarios,
- Agro-Food,
- the Industrial Sector,
- Higher Education.

Upgrading SECyT, in 2007, to MinCyT shows the recognition of the key role of RTDI for achieving a prosperous, equitable society. In order to contribute to meeting priority economic and social objectives, the clear policy is to position Argentina in the high-value added segment of the global economy, and thus to invest heavily into developing its S&T system while at the same time connecting it more strongly to productive and service sectors. Regarding those sectors, innovation support is tilting the balance from stimulating enterprises to engage in innovative activities at all, to encouraging them to cumulative and interactive learning and innovative processes tightly linked to their ability to increase competitiveness and market shares.

Three key thrusts are:

- Setting up **horizontal (thematic) high tech funds** seeking to generate high impact. Priorities are initially in Nanotechnology, Biotechnology and ICTs. The first investments went into the creation of technology based firms in these three areas (incubator model).
- A second **Fund**, with more resources, is intended to address **structural problems of the Argentinean economy**. Focal sectors will initially be **energy, health, knowledge-intensive agro-industry and social development**.
- **Human resource development** is a central concern, not only in conventional S&T areas, but also in applied areas, such as technology managers, able to operationalise the necessary links between science and private sector assimilation and use for innovation.

Structure of the Ministry (MINCyT):

- The Science and Technology Cabinet (Gabinete Científico-Technológico - GACTEC) has, among others, far-reaching responsibilities in relation to updating strategic plans and defining public S&T investments;
- Directorate for International Relations (Dirección Nacional de Relaciones Internationales).
- The Secretariat of S&T&I Planning and Policies (Secretaría de Planeamiento y Políticas en Ciencia, Tecnología e Innovación Productiva), with its subsecretariats for **Survey & Prospective Studies**, and for STI Policies, oversees planning, forward and prospective studies and policy development in these areas;
- The Secretariat of Scientifico-Technological Articulation (Secretaría de Articulación Científico Technológica) oversees institutional coordination and evaluation, aimed at fostering the linkages between academic agencies, universities and R&D institutions towards **greater synergies** of research activities.
- The Federal Council for Science and Technology (Consejo Federal de Ciencia, Tecnologia e Innovation - **COFECyT**), a major advisory body, aims at the formulation, consulting, and strategic articulation of policies and national and regional **priorities** that foster the harmonic development of STI activities throughout the country.
- The Inter-institutional Council for Science and Technology (Consejo Interinstitucional de Ciencia y Tecnología - **CICyT**), the main concertation and advisory body where key institutions in the Argentine S&T landscape develop orientations and advice for national policy and its implementation as well as links to civil society and innovation processes and institutions.
- Other advisory bodies:
  - National Committee for Ethics in S&T
  - Advisory Commission for Cell Therapies and Regenerative Medicine
  - Advisory Commission for Biodiversity and Sustainability
  - Advisory Commission for the national genetic data base

Institutions linked to the Ministry

- The National Agency for S&T Promotion, "**La Agencia**" (Agencia Nacional de Promocíon Científica y Tecnológica - ANPCyT), a major funding agency concentrating the implementation of S&T research, and innovation instruments, with the main programmes:
  - **FONCyT** (*Fondo para la Investigacion Cientifica y Tecnologica* – Fund for Scientific and Technological Research) to promote the generation of new scientific and technological knowledge. Specific instruments exist to support different types of research, and the different foci of support (researcher mobility, SME, etc.)
  - **FONTAR** (*Fondo Tecnológico Argentino* – Argentinean Technology Fund) to improve productivity in the private sector through technological innovation;
  - **FONSOFT** (*Fondo Fiduciario de Promoción de la Industria del Software*), to promote the software industry;
  - **FONARSEC** (*Fondo Argentino Sectorial* – Argentinean Sector Fund) to develop critical capacities in high-impact areas and transfer research results to the productive sector.
- **The National Research Council** (Consejo Federal de Ciencia Tecnología e Innovación - **CONICET**), promotes and performs S&T activities at the national level in the different areas of expertise, based on the general policies set forth by the Government, and the priorities and guidelines established in the S& National Plans. It is the leading entity in charge of the execution of RTD activities, together with National Universities. CONICET focuses its activities in four main thematic areas:
  - Ciencias Agrarias, Ingeniería de materiale (agricultural sciences, material sciences)
  - Ciencias Biológicas y de la salud (biological and health sciences)
  - Ciencias Exactas y Naturales (natural sciences)
  - Ciencias Sociales y Humanidades (social sciences and humanities)

The following important actors in the Argentinean S&T system are also key components of the past and future S&T relationship with the EU:

- **National Institute of Agriculture Technology (INTA)**

  Main objective of INTA is to contribute to the competitiveness of the agricultural, forest, and agroindustrial sectors, with ecological and social sustainability as guiding lines. One focus is to generate information and technologies for these large sectors, and making them available for the rural producer through its extension system.

- **National Institute of Industrial Technology (INTI)**

  INTI is responsible for the application of the quality and characterisation regulations for industrial products, and is the public support organisation for the competitiveness of the companies and services in the industrial sectors.

- **National Commission on Space Activities (CONAE)**

CONAE is responsible for designing, implementing, controlling and managing projects and activities related to space. As a specialised agency, CONAE suggests and implements the National Space Plan with the objective to make use of space S&T for pacific aims.

- **National Commission on Atomic Energy (CNEA)**

  CNEA focuses, for more than 60 years, on researching, developing and applying all aspects related to the pacific use of nuclear energy.

- **Argentinean Nanotechnology Foundation (FAN)**

  FAN aims at developing the necessary base for the support and promotion of the human and technical infrastructure in the areas of micro- and nanotechnologies. FAN is responsible for supporting the generation of added value of the national production, both for the domestic market and for the integration of the local industry in the international markets.

- In addition, 40 Foundations with scientific objectives are registered with the MINCyT.

A S&T Pole shall soon be inaugurated to host the MINCyT headquarters, CONICET, La Agencia, and Binational Research facilities, e.g. the First Max-Planck-Society Institute in South America (Biomedical and Biotechnological Sciences), the Modelling and Simulation Centre with France, the Industrial Design Centre with Italy.

4.5. S&T investment in Argentina

Global expenditure for R&D (GERD) increased in the 1990s to reach 0.45% of GDP in 1999, but decreased to 0.39 % of GDP in the crisis years. Since 2004 (0,44 %), there is a continuous growth (0.51 % in 2007, 0,60 % in 2009) due mostly to the contribution of the national government. The government's aim is to reach its objective of 1% in the near future.

Of the 2009 GERD of 6.817 million Argentinean Pesos (today about 1.239 MEUR) about 75 % came from the public sector (National and Provincial Governments and public universities), about 24 % from the private sector (companies, non-profit organisations, private universities) and less than 1 % from external sources. From this amount about 74 % was implemented in the public, and 26 % in the private sector.

The breakdown by type of activities of the S&T budget has been quite constant over the years, approximately 30 % for basic research, above 40 % for applied research and below 30% for experimental development.

The breakdown by field of science also shows few changes since 2006, with a clear dominance of engineering and technological sciences (around 37 %), while natural and exact sciences receive 17 %, agricultural sciences 16 %, medical sciences 13 %, social sciences 9 %, and liberal arts 6 %. This breakdown is not reflected in the distribution of researchers by field of science where a large majority works in natural sciences (almost 30%) and a minority works in engineering and technological applications (around 18%).

GERD distribution according to the government's socioeconomic objectives results in 26,5 % for the area "Industrial Technology and Production", 18,2 % for "Agricultural Technology and Production", 13,7 % for "Protection and Improvement of Health".

The relative contribution to the national S&T budget from public and private sectors also shows in the distribution of researchers: only between 11 and 12% were employed by companies. It is believed that the SME with low S&T content, characterising the private sector landscape in Argentina, account to a large extent for the low absorption level of researchers in the private sector. That compares with between 25 and 30 % in Brazil and 20 to 30 % in Mexico according to S&T indicators published by MINCyT in 2007.

In February 2008, a new plan for research infrastructure was launched with a view to upgrade or create 50 installations in 20 institutions all over the country. $450 million are allocated to this plan for execution over four years.

The government is also developing a new system of risk capital for science, technology and innovation, the Risk Capital Investment System, **SICAR** (Sistema de Inversión de Capital a Riesgo) to stimulate innovation and uptake of science and technology, e.g. in productive processes and service companies.

4.6. Argentina's RTDI figures in the Latin-American context

A comparison between Latin American countries in terms of total S&T investment as a percentage of GDP shows Argentina in 2nd place in 2008 with 0.61% after Brazil (1.21%).

Similarly, in 2007 Argentina holds that position in expenditure per thousands of population at $67.6 ($108 for Brazil). In terms of number of researchers for every 1,000 economically active people Argentina is the best performer (year 2007: Argentina 5.68, Brazil 2.02; Chile 2.78 (year 2004), Mexico 1.08). Moreover, the qualification of Argentina's researchers is good by regional standards, approximately 25% with PhD.

The presence of women researchers increases constantly and now exceeds the number of male researchers: 41.5% in 1995, 48.1% in 2000, and 50.03% in 2007. Similar to Europe, there is no discrimination at the entry and first career levels, but a large majority of management positions is still occupied by men.

The world share of Argentinean cited literature increased during last years: from 0.15% in 1990 up to 0.21% in 1999, and 0.49% in 2007. On a population basis Argentina produces more articles per 100,000 inhabitants than Brazil and is second only to Chile in Latin America (in year 2000: Argentina 14.3, Chile 15.5, Brazil 7.8 and US 116, Spain 64). In 2007, some 6,479 Argentinean publications were registered in Sci Search.

5. Outline of Argentina's Bilateral S&T Cooperation Programmes with some EU Member States

MINCyT implements S&T cooperation activities with more than 40 countries from all continents, inter alia considerable activities with Brazil, Chile, Mexico, USA and Canada in the Americas, France, Germany, Italy, Spain, England, Belgium and the Netherlands in Europe, Israel, China and Japan in Asia, and South Africa in Africa. The broad objective is to

strengthen the links of the national scientific community with their partners abroad in developing research and exchanging knowledge. In general, these activities are implemented in the form of common research projects, the organisation of different types of events, the establishment of bi-lateral centres and grants for capacity building measures.

Co-publication figures show the following big lines: Among an analysis of 11999 documents of collaboration (Eularinet report, February 2009), the following figure shows the main international collaborations of Argentina. The distance between nodes is proportional to the number of documents in collaboration.

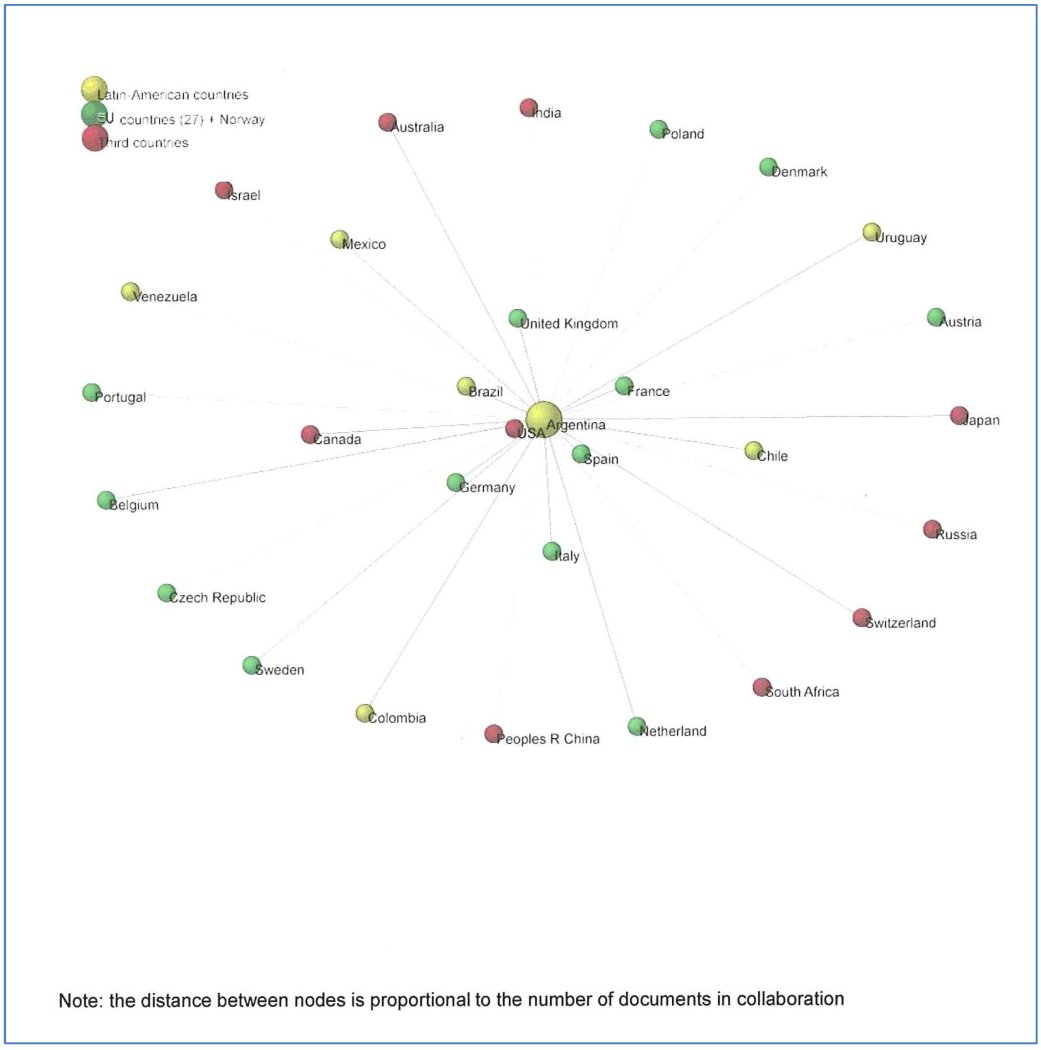

Figure 2 : International collaboration of Argentina

The areas with more publications in international collaboration are physics, biomedical research and agriculture, biology & environmental sciences. Physics is also the most relevant when considering percentage of documents in international collaboration on the total publications of the area (55%). Physics has the greater number of documents with the EU although the percentage of documents with European centres on the total of the international collaboration is more important in areas such as chemistry, engineering, technology over 60%. See Table 1 below for the thematic areas of collaboration.

Table 1 : Collaboration profile by thematic area in Argentina

Area	Total Doc	N Doc internat. collab	% internat collab/ total doc	N doc collab EU	% collab.EU/ internat.collab
Agricult., Biology & Environ. Science	6959	2607	37.41	1162	44.57
Biomedical Research	7543	2993	39.68	1448	48.38
Chemistry	3647	1501	41.16	926	61.69
Clinical Medicine	6734	2055	30.52	967	47.06
Engineering, Technology	3584	1529	42.66	918	60.04
Humanities	434	43	9.91	13	30.23
Mathematics	784	358	45.66	197	55.03
Multidisciplinary Sciences	324	164	50.62	72	43.90
Physics	5895	3253	55.18	1887	58.01
Social Sciences	958	345	36.01	161	46.67

The collaboration with the EU represents 21% of the production in WoS, whereas the international collaboration with third countries is slightly lower (19%). Co-publication figures (see

Table 2 below) show that the principal European partner of Argentina is Spain (34,85%), followed by France (20,86%) and Germany (20,38%).

Table 2 : Co-publication of Argentina with EU countries

Country	2002	2003	2004	2005	2006	Total	%
Spain	350	393	463	474	497	2177	34.85
France	215	233	289	263	303	1303	20.86
Germany	219	222	259	269	284	1273	20.38
United Kingdom	162	172	205	224	240	1003	16.06
Italy	131	156	180	175	201	843	13.49
Netherlands	54	53	71	88	96	362	5.79
Belgium	40	42	58	55	60	255	4.08
Sweden	30	38	54	50	78	250	4.00
Austria	35	32	39	27	45	178	2.85
Portugal	17	36	36	37	44	170	2.72
Denmark	15	26	32	29	43	145	2.32
Czech Republic	20	18	23	39	43	143	2.29
Poland	28	24	24	24	42	142	2.27
Hungary	21	21	13	26	15	96	1.54
Ireland	4	6	14	33	38	95	1.52
Finland	8	14	12	19	24	77	1.23
Norway	4	9	11	11	14	49	0.78
Greece	5	8	5	9	19	46	0.74
Romania	3	9	9	7	10	38	0.61
Slovenia	0	7	9	11	10	37	0.59
Bulgaria	2	4	4	2	7	19	0.30
Slovakia	1	2	3	3	8	17	0.27
Estonia	1	2	3	3	3	12	0.19
Lithuania	0	2	1	2	2	7	0.11
Malta	0	1	1	1	1	4	0.06
Cyprus	0	1	1	0	1	3	0.05
Latvia	0	1	1	0	1	3	0.05
Luxembourg	0	0	1	0	0	1	0.02
Addition	1365	1532	1821	1901	2129	8748	140.04
Collab AR-EU+Norway	1077	1149	1329	1298	1394	6247	100.00
Total doc Argentina	5727	5818	5828	5957	6471	29799	
% collab EU/total doc AR	18.80	19.75	22.81	21.79	21.54	20.96	

Note: percentages in las column calculated over total Argentina-EU+Norway collaboration

The following country overviews are based on the list of MINCyT. During our visit it became evident that numerous additional joint S&T activities are carried out between organisations as well as individual researchers of the respective countries.

5.1. France

The bilateral relations between France and Argentina are managed through the Agreement on Cultural, Scientific and Technical Cooperation between the Government of Republic of Argentina and the Government of the French Republic, signed on October 3, 1964. Cooperation with France has had a very important development in 2008, and its implementation is focused on the relationship with the following institutions:

a) **Programme-ECOS MINCyT :**

The programme covers all areas of knowledge, and is a supplementary Agreement to the first one signed between the Government of Argentina and the Government of the French Republic in the Field of Training for Scientific Research and Technology, on February 4, 1997.

b) **ARFITEC**

This programme promotes training for engineers through partnership projects between higher education institutions of both countries (universities, schools and research centres) involved in engineers' training, and aims at contributing towards the strengthening of existing ties and structuring new actions. The goal is to promote knowledge and mutual recognition of engineers' training of both countries based on the mobility of the participants (students and teacher-researchers)

- students' mobility (two semesters)
- teacher-researchers' mobility (one to six months)

This exchange is based on the principle of reciprocity, tending to balance the respective exchanges between the both countries.

c) **Agreement MINCyT-INRIA-CNRS. Cooperation in ICT**

This bilateral cooperation was signed in March 2005, between the MinCyT (former SECyT), the INRIA and CNRS with the aim to promote cooperation between Argentine and French research groups on topics related to information technology, automation and applied mathematics, with the possibility of extending this cooperation to other MERCOSUR countries.

d) **Regional cooperation programmes STIC Amsud and MATH Amsud**

STIC Amsud was launched at the Franco-Latin American Regional Workshop on ICT Amsud (2005 Santiago de Chile) at the Centre for Mathematical Modelling, UMR CNRS - University of Chile.

AMSUD MATH was launched in Montevideo (2007) with Argentina, Brazil, Chile, France, Peru, Uruguay and Paraguay. It aims, first, at strengthening the regional skills in South America and, secondly, at strengthening cooperation with France in the area of mathematics. For its execution, the programme implements research projects with regional

outreach and understanding of the participation of researchers' teams from at least three different countries, among which one of them must be French.

e) **Binational Centers**

Bi-national centers have been developed in the form of UMIs (joint research units) and LIAs (international partner laboratories)

- UMI Climate Centre (CNRS-UBA-CONICET-MINCYT), based in the School of Exact Sciences, UBA, signed in March 2010. It will structure the existing cooperation between France and Argentina in the field of environmental science: Trying to understand, observe and predict the time evolution of the climate system, natural or manmade evolution.
- LIA Nanoscience (LIFAN) recently opened, involves the CNRS, the University of Paris VI, the University Paris-Sud and the Atomic Energy Commission (CEA). It strengthens the links between the Institute of Nanosciences of Paris and the laboratories of the CNEA in Buenos Aires and Bariloche cooperating since many years in the field of nanoscience, under three main subjects: hybrid systems, ultra-thin layers, nanophonics.
- LIA DEVENIR, created in 2010, caps a partnership of nearly 10 years between the Laboratory of Neuroplasticity and neurotoxins (IBCN, UBA-CONICET), School of Medicine, University Buenos Aires and the Laboratory of Fundamental and Applied Virology, the CGMC (UMR5534), CNRS-Université Claude Bernard from Lyon. Part of the funds will be dedicated to the construction of a production platform of viral vectors in Buenos Aires
- LIA FMF: The LIA in physics and fluid mechanics caps a partnership of almost 25 years in the domain between the following institutions: CNRS, UBA, CONICET. It is located in the FIUBA (http://laboratorios.fi.uba.ar/lia).
- LIA Associated Equipment links the University of Buenos Aires and the Fluminance INRIA research group. This collaboration is implemented within the associate team INRIA cooperation programme. The HURACAN associated team is centered on the analysis and the control of fluid flows from image sequences.

Other UMIs and LIAs are under negotiation:

- UMI Modelling and Simulation at former Giol Wineries (CONICET-CNRS)
- LIA Computing (FCEyN-UBA-, University Paris VII, CNRS)
- LIA Infection and Immunology (UBA, Universidad Católica de Córdoba, National Institute of Health and Medical Research-INSERM-CNRS)

f) **Houssay Programme**

A Letter of Intent to Create a Franco-Argentine Programme for Post-Doctoral mobilities (Bernardo Houssay) Scholarship)s was signed on May 20, 2009 between MINCyT and CONICET, of Argentina, and the French Ministries of Higher Education and Research (MESR) and of Foreign and European Affairs (MAEE) on the French side. The programme aims to promote the mobility of postdocs between both countries and to support joint research projects existing or under development. The programme is based upon the principle of reciprocity. The duration of each mobility is between 3 months and one year.

g) **ANR (Agence Nationale de la Recherche)**

An Agreement for the Promotion of Scientific and Technological Activity has been signed between the ANR (National Research Agency of France) and the Agency for National of Scientific and Technological Promotion of Argentina in 2008. The future programme will involve the co-funding of joint scientific and technological research projects between research groups in both countries, in areas to be specified in each call.

h) **Soleil Synchrotron**

During 2009, it was decided to sign an agreement in April 2011 together with a kick-off meeting to inform the Argentinean scientific community about this agreement and the advantages of the use of SOLEIL. This agreement will consist in the participation in two annual calls opened by SYNCROTRON SOLEIL at the international level. MINCyT will fund the airfares of the Argentinean side and SYNCROTRON SOLEIL will cover the accommodation expenses and the use of facilities.

5.2. Germany

The relationships of Germany with the LAC-Region have a specific place in the international relations arena. Common values and interests as well as historically strong cultural links create a unique base for the design and implementation of the cooperation – bilaterally for mutual benefit, and multilaterally in a common responsibility.

The LAC-Region has become an important STI location and is progressing steadily on this front. This and the common history and culture of science between Germany and LAC make the Region a prime partner to network and exchange knowledge and expertise. Therefore, the key components of Germany's Education and Research Policy constitute the very base for the cooperation: the High-Tech Strategy[48] (with the Excellency Cluster Competition[49]), the Research & Innovation Union[50], the Excellency Initiative[51] for Research at Universities.

a) **The S&T Mixed Commission**

Regarding Argentina, the Intergovernmental S&T Cooperation Agreement was already signed in 1969, is regularly discussed at the highest level, and priority cooperation areas are defined in the form of the S&T Mixed Commission meetings.

b) **Co-Publications**

The intense and broad-based S&T cooperation with Argentina is highlighted by the following figures obtained from CONICET: between 2000 and 2008, the total number of co-publications is 1386, of which 31 % in Physics, 25 % Biological Sciences, 14 % Chemistry, 11 % Medicine and 8 % Earth Sciences.

[48] High-Tech Strategie: http://www.hightech-strategie.de
[49] Spitzencluster Wettbewerb: http://www.bmbf.de/de/10726.php
[50] Pakt für Forschung und Innovation: http://www.bmbf.de/de/3215.php
[51] Exzellenz-Initiative für Spitzenforschung an Hochschulen: http://www.bmbf.de/de/1321.php

c) **Regular MINCyT–BMBF calls for bilateral research projects**

According to the last MINCyT figures, 14 projects of the 2008 call, 8 projects of the 2009 call, are just to be finalised in implementation and 10 (out of 22 proposals) of the 2010 call are approved.

The 2011 call will be open from March – July in the following priority fields: Medicine; Biotechnology; Polar & Marine Research; Environmental Research and Technologies incl. Renewable Energies; Nanotechnology; ICT; Social Sciences, Solid State Research; Physics- and Chemical Technologies.

d) **German-Argentine University Centre (MINCyT, ME, DAAD, Argentine-German S&T Association)**

This far-reaching project aims at a thorough integration of a broad spectrum of higher education and research activities between the countries. According to the Letter of Intent, the Ministry of Education and the DAAD contribute initially with 380.000 EUR each, the Association gives financial support, and MINCyT finances research and post-doc training, and gives logistical support.

The first call closed in April 2011.

e) **MINCyT-BMBF Bi-national Virtual Environmental Centre**

At this point in time, this proposal is discussed with the aim to come to a formal agreement in 2011.

f) **PROALAR : the cooperation programme ANPCyT - DAAD (German Academic Exchange Service)**

Based on the Agreement signed in 1999, there are regular calls open to all scientific areas for research projects where exchange of scientists and human resource development is financed.

Of the 2008 call, 12 projects are finalised, 10 projects of the 2009 call are in implementation, and of the 27 proposals received after the 2010 call 7 have been selected for implementation in 2011-2012.

The 2011 call is open until May.

g) **Max Planck – ANPCyT/FONCyT International S&T Research Projects (PICT [52] Internacional)**

Under this scheme, joint research projects in Biosciences, Nanosciences/Nanotechnology und Humanities can be carried out, over a period of 3 years, and receiving annually about 100.000 US$.

[52] PICT - Proyecto de Investigacion Cientifica y Technologica – S&T research project

After the first call in 2007, 10 projects have been selected, and 9 projects are currently evaluated of the 2010 call.

h) **Max Planck – CONICET Bi-national Biomedicine Institute**

In this first Max Planck Institute in South America, the research focus is on Neurosciences, cancer and stem cells.

i) **Max Planck – Volkswagen Foundation - CONICET – MINCyT programme for young scientists career development**

Supported are post-doctoral studies in molecular biology, genetics, biophysics or biomedicine in Germany with the aim that the researcher afterwards takes up a full time academic post in a research centre in Argentina.

j) **FhG, Fraunhofer Society**

An agreement has been signed in 2007, and, at the time of writing, a proposal is under discussion that finances researcher mobility in the area of non-destructive testing.

k) **DFG – German Research Society**

Various official contacts are underway with the objective to formalise the cooperation.

l) **MINCyT – Leibniz Society**

An agreement has been signed in 2009 between MINCyT and the Leibniz institute of Material Sciences in Dresden, and a first call issued in 2010.

5.3. Italy

In the meeting with the Member States in Buenos Aires we couldn't get any specific information regarding the bilateral cooperation with Italy. In the following, we've summarised the information received from MINCyT:

The S&T Cooperation Agreement was signed in 1997, and took effect in 2001.

MINCyT – MAE calls for bilateral projects

144 projects were presented to the 2010 call, of which 10 were selected for 2011-2012 implementation in the areas Nanotechnology; Life Sciences; Earth Sciences; Environment & Energy.

ICES – ANPCyT/FONCyT International S&T Research Projects (PICT Internacional)

The Agreement was signed in 2007. At the time of writing, 4 projects are carried out in the areas Earth Sciences, Humanities.

Bi-national Industrial Design Centre

A Letter of Intent has been signed for the establishment with the aim to incentivate innovation in this area for harnessing cultural, scientific and productive benefits.

Cooperation Agreement in the area of industrial, scientific and technological R&D&I

Specific emphasis will be given to the following sectors:

- Biotechnology applied to Health and Food
- ICT
- Renewable Energies
- Industrial Design
- Other sectors of common interest

No further information was available in the context of this review.

5.4. Spain

Spain is the first European country partner for Argentina in terms of publications and there is an almost 40 years old agreement between Argentina and Spain (General Agreement on Scientific and Technological Cooperation between Argentina and the Spanish State was signed on December 12, 1972). Many tools (binational centres, joint programmes, thematic research programmes, promotion of joint participation of Spanish and Argentinean industries in technological projects)

a) Spanish-Argentinean Binational Centre for Plant Genomics (CEBIGEVE) / Rosario Agrobiotechnology Institute (INDEAR)

The constitution of the Foundation of the Argentinean-Spanish Binational Centre for Plant Genomics Research (CEBIGEVE Foundation) was signed in December 2010. CEBIGEVE is a centre of biotechnology research and development created under the Basic Agreement on Scientific and Technical Cooperation. It fosters-through international cooperation- the development of national capacities, thus increasing the added value in production.

CEBIGEVE is the first binational research centre implemented with the participation of a country outside MERCOSUR focused on: search for resistance to biotic and abiotic stress in plants, molecular farming (medicine production in plants), projects on food fortification and genomics, research related to forestry and animal biology. CEBIGEVE works jointly with CONICET -CEFOBI[53]- and the Institute of Molecular and Cellular Biology of Rosario and

[53] Centro de Estudios Fotosintéticos y Bioquímicos

dedicates more than 400 people to biotechnology research and development in plant research area.

b) Cooperation Programme-MICINN MINCYT

- In the area of Nuclear and Particle Physics, Theoretical Physics and Particle Astrophysics.

  This programme is part of the Interinstitutional Memorandum of Scientific and Technological Cooperation signed between the Ministry of Education, Science and Technology of Argentina and the Ministry of Science and Technology of the Kingdom of Spain, on September 23rd, 2003 and the Supplemental Memorandum which was signed in order to facilitate cooperation, training and exchange of researchers and specialists in the field of Nuclear and Particle Physics, Theoretical Physics and Particle Astrophysics.

  The implementation of two approved projects continued during 2010. A new call will be opened in 2011.

- In the area of genomics

  A Declaration of Intent to stimulate research cooperation in the field of genomics was signed in 2009, followed by a call for submission in May 2009 in the area of plant genomics applied to Health, Forensic and Bioinformatics. 11 Projects were approved for implementation during 2010.

- In the area of nanosciences

  On January 31, 2011, the Minister of Spain met Minister Barañao in which occasion the Declaration of Intent was signed between the two Ministries in Nanosciences, Nanotechnology and Renewable Energies.

c) International PICT in Genomics

On March 12, 2010 an agreement was signed between the National Agency for Promotion of Science and Technology, the MINCYT, Argentina, and the Directorate General for International Cooperation and Institutional Relations of the Kingdom of Spain to collaborate on scientific and technological research projects in the area of genomics. Six Projects have been already approved.

d) Agreement with the Center for Industrial Technological Development of Spain (CDTI)

Within the framework of the Collaboration Agreement signed between the CDTI and the Secretariat of Science, Technology and Productive Innovation (SECyT) of Argentina in 2006:

- 32 IBEROEKA projects involving Argentinean and Spanish entities have been approved so far,

- 2 projects with the participation of Argentinean and Spanish entities are being implemented.

There is a strong focus on concrete actions to promote the participation of Spanish and Argentinean companies in the development of joint international technological cooperation projects, such as regional innovation projects at Ibero-American and/or European level, and

international technology platforms. The ultimate goal would be to increase the number of expert managers capable of increasing the number of joint bilateral projects.

6. Argentina's Multilateral STI Cooperation (non-EU)

Research and Innovation are considered as essential tools for Social and Technological Development, as well as for productive modernisation and greater competitiveness for economic development. Therefore, the multilateral cooperation promotes the participation of institutions, research groups, and enterprises in STI-related initiatives funded by Regional and international organisations.

With respect to Regional integration, Argentina focuses on the cooperation with strategic partners of the MERCOSUR countries, as well as having the whole LAC Region as horizon.

6.1. Argentina's (Sub) Regional S&T Cooperation - Mercosur

RECyT - Reunión Especializada de Ciencia y Tecnología del MERCOSUR

RECyT was established in 1992 with Argentina, Brazil, Paraguay and Uruguay as members, and Bolivia, Chile, Colombia, Ecuador, Peru and Venezuela as associated countries. Main objective is to promote S&T development in the participating countries, and to modernise their economies in order to increase the spectrum and quality of the resources and services for improving the living conditions of their populations. RECyT activities are designed with the aim to increase the productivity of the MERCOSUR economies, and the competitiveness of their productive sectors in international markets.

In terms of the MERCOSUR Region, all types of research are supported which contribute to the solution of common problems, and in this way also to Regional integration. RECyT also promotes the dissemination of the most recent S&T information, develops **priority areas** for cooperation, and organises platforms to defining **priority actions** to eliminate bottlenecks related to specific sectors or regions. Main action lines are the MERCOSUR S&T Framework Programme, the MERCOSUR S&T Price, and sector programmes such as BIOTECH, MERCOSUR Digital, CINECIEN.

RECyT also participates in different international fora, e.g. in the EU-MERCOSUR S&T system, to define cooperation areas of common interest and to define the outline of the Cooperation Programme between the two Regions. (cf. chapter 7).

Argentina is actively participating in this respect, suggesting policy action lines, RTDI activities, and implementing concrete projects.

6.2. Argentina's S&T Cooperation at the Iberoamerican level

CYTED - Programa iberoamericano de ciencia y tecnología para el Desarrollo

Important in the larger, beyond-MERCOSUR Regional context is CYTED, the Ibero-American development programme for S&T, which also has potential bridging functions to the EU-LAC cooperation outlined in chapter 7.

CYTED was created in 1984 through an International Framework Agreement signed by **19 Latin American countries[54], Spain and Portugal** with the aim to combine different perspectives and visions to promote cooperation in research and innovation for the development of the Iberoamerican Region. Therefore, international bodies related to R+D+I, both governmental and non-governmental, can participate as international observers as long as they commit to collaborating with CYTED in one of its activities. At present, the group of International Observers includes OAS – the Organisation of American States, BID - the Inter-American Development Bank, ECLAC – the UN's Economic Commission for Latin America & the Caribbean, OEI – the Organisation of the Ibero-American States for Education, Science and Culture, UNESCO, GBIF – the Global Biodiversity Information Facility, IAEA – the International Atomic Energy Agency.

As an intergovernmental instrument of the national S&T systems involved, CYTED provides a platform for the promotion and support of multilateral cooperation aimed at the transfer of knowledge, experience, information, solutions and technology. The principal objective is to contribute to harmonious development in the Latin American Region by setting up mechanisms for cooperation between research groups of universities, R+D centers and innovative companies in Latin American countries, targeting S&T breakthroughs that are transferable to systems of production and social policies.

CYTED's specific objectives are:

- To encourage integration between Latin American S&T Communities, promoting an agenda of shared priorities for the region.
- To increase the capacity for technological development in Latin America through the promotion of joint scientific research, the transfer of knowledge and practices, and the exchange of scientists and technicians between R+D+I groups in the member states.
- To encourage business sectors in the interested member states to participate in innovation processes, in accordance with the technological developments and research of Latin American S&T Communities.
- To encourage the Region's researchers to participate in other multilateral research programmes through mutual agreements, e.g. to enable inter-regional S&T cooperation between the European Union and Latin America.

At present, the main research areas are

- Agro-food
- Health
- ICT
- Energy
- Science and Society

[54] Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras , Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay, Venezuela

- Promoting Industrial Development
- Sustainable Development, Global Change and Ecosystems.

CYTED provides both an institutional and a functional framework, the operation of which and the management and coordination of the activities are carried out internationally by the General Secretariat.

The **institutional framework**, the General Assembly, is constituted by the bodies responsible for STI policy in the 21 participating countries, called the Programme's Signature Bodies, each one responsible for managing the Programme at national level and for representing its country in the Programme's management bodies.

R+D groups of universities, R+D centers and innovative companies in the member states work form the **functional framework** with their different **cooperation instruments**, e.g. Thematic Networks, Research Project Coordination Activities, Consortium Research Projects, Transversal Activities and Innovation Projects (IBEROEKA).

The budget is based on a co-financing model that corresponds to the contributions of the participating countries. The Spanish Government guarantees to contribute at least 50% of the overall budget. Other countries' contributions depend on socioeconomic conditions and other factors related to scientific research and technological development.

Eligible costs relate to the coordination of groups participating in projects and networks, circulation and transfer of knowledge and solutions, and also in the training of scientific and technical staff through activities such as workshops, courses and conferences, as well as mobility between research groups in the participating countries.

The budget has increased significantly over the years in response to the growing number of projects carried out. So far, CYTED has created 210 Thematic Networks, 197 Coordination Activities, 4 Consortium Research Projects and 633 IBEROEKA Innovation Projects, involving the participation of over 10.000 Latin American scientists and technicians every year.

Table 3 : Argentinean figures in CYTED

Areas	Coord.
Agrifood	8
Health	7
Industr. Devel. Promotion	18
Sustainable Development	9
ICTs	9
Science and Society	3
Energy	2

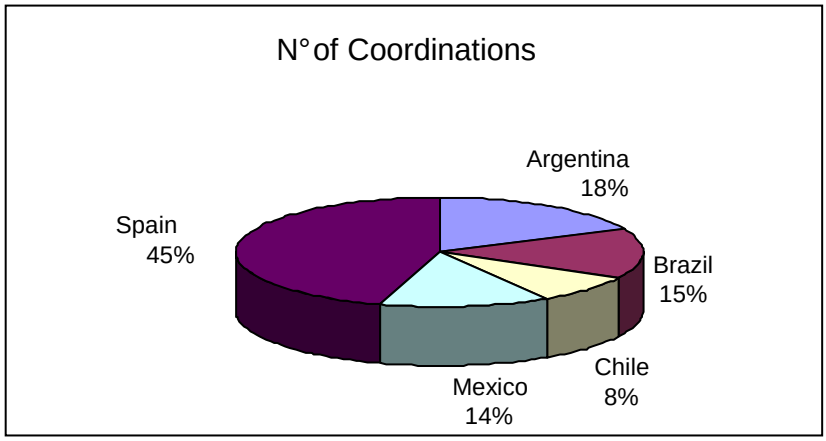

Figure 3 : Ratios of coordinations

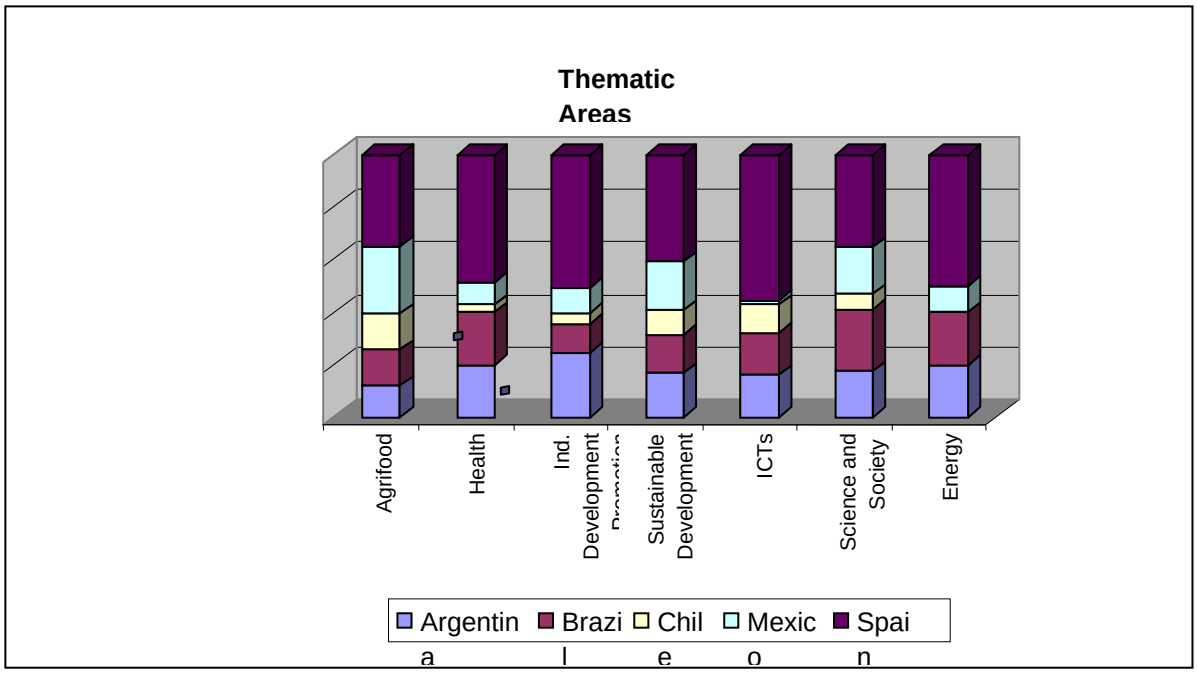

Figure 4 : Number of actions comparing Brazil – Chile – México - Spain

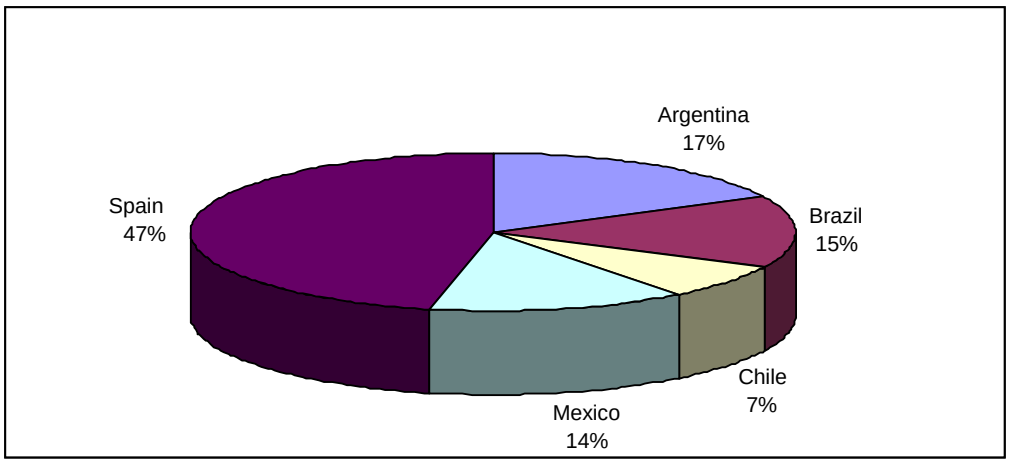

Figure 5 : Participating groups

6.3. Latin America S&T Cooperation Outlook: The Buenos Aires Declaration "Science, Technology, Innovation and Development for the Solution of Latin America's Global Problems"

In November 2010, with the **Buenos Aires Declaration**, the Ministers and High Representatives responsible for S&T in Latin America and the Caribbean agreed on the necessity to incorporate science, technology and innovation as motor for the development and growth of the LAC societies with the aim to solve the numerous problems of the Region.

Specifically, an **STI Action Plan 2010-2012** was outlined including

- Better coordination of STI policies, in the Region and vis-a-vis other Regions
- Survey on HRD capacities and needs for better cooperation in this field
- Pilot projects in the following priority areas
  - Climate Change
  - Health
  - Biotechnology
  - Food Security
  - Energy
  - Biodiversity
- Survey on Technical Platforms and opportunities for third-party participation
- Survey on STI Infrastrucures
- Internationalisation of S&T in LAC

7. Overview on EU Cooperation Policies with the Countries of Latin America and the Caribbean Region (LAC)

One of the foci of EU cooperation policy is the strengthening of Regional integration. Thus, the EU-Argentina cooperation is also analysed against the broader policy background of developing the strategic partnership between the EU and Latin America. Seeing this report also as a contribution to increasing awareness we have outlined relevant policy developments in more detail for those not so familiar with the relevance of those changes for their own activities.

Over the two decades of policy dialogue summarised below, **STI** and education were constantly on the agenda, have increased in importance, and **proved key cooperation areas for achieving sustainable development and social inclusion through the social appropriation of knowledge**. As STI are impacting on practically all policy areas, a point also emphasised in the EU in the ongoing ERA discussions, **STI cooperation could be the starting point for identifying and implementing new areas of EU-LAC cooperation**, and contribute to overcome existing obstacles in other policy areas.

7.1. EU – Rio Group and EU-LAC

In order to facilitate the discussion of topics of common interest, the countries of Latin America created a forum for political consultation called the **Rio Group**. Established in 1986 with an initial membership of six, it now comprises 23 countries: all Latin American countries plus the Dominican Republic, Jamaica, Belize, Guyana, Haiti and Cuba. The other Caribbean countries are represented by one of the full Caribbean members. It is administered by a rotating and temporary secretariat.

The Rio Group dialogue with the EU was institutionalised in 1990. Until the creation in 1999 of the **EU-Latin America and Caribbean Summit process**[55] **(EU-LAC**, see below), the EU-Rio Group meetings were the sole framework of high level political dialogue between the EU and the Latin American countries on key issues for the partnership (human rights, poverty reduction, peace and security, drugs, etc). Now, the EU and the Rio Group meet at Ministerial level every two years alternatively in each Region, and on alternate years to the EU-LAC Summits.

In the following, we present an overview of the respective declarations and conclusions.

The first EU-LAC bi-Regional Summit in Rio de Janeiro in 1999 established the transatlantic Strategic Partnership. Relying on their strong historical, cultural and economic ties, the Regions co-operate closely at international level, and also maintain an intensive political dialogue - at Regional, sub-Regional (relevant for this review: Mercosur, see below) and also more and more at bilateral level. **Priority areas** for cooperation are institutional support and consolidation of the democratic processes; fight against poverty and social exclusion; and support for economic reforms and improved competitiveness. Cross-cutting issues, e.g. support for Regional cooperation and integration, education and training, **S&T**, and management of North-South interdependencies (environment, energy, drugs etc) are taken into account when implementing these priorities.

[55] Meetings of the Heads of State and Government of the countries of the EU, Latin America, and the Caribbean Region

In 2001, a Senior Officials Meeting was held at Bruges/Belgium, involving representatives from Latin American and Caribbean Countries, EU Member States and the EC. They agreed on the **Brasilia Action Plan for S&T Cooperation** as a shared vision in the spirit of the Rio Summit, and identified specific purposes of bi-Regional S&T cooperation. The shared vision explicitly states that society's pressure on the RTDI establishment requires the unambiguous linkage of RTDI programmes to key societal objectives, economic, social or environmental. The Brasilia Action Plan identified the following thematic and cross-sector issues for **priority action**:

- Health and Quality of Life
- Information Society
- Competitive Growth in the Global Environment
- Sustainable Development and Urbanisation
- Cultural Heritage
- Cross-cutting issues with emphasis on the establishment and strengthening of **innovation capacities, as well as education & training**, including transnational and intersectoral mobility

Each of these domains was the subject of a specific workshop coordinated by one senior scientist from each region. These workshops involved an average of 25 invited participants, reflecting disciplinary and regional balances.

For example, Argentina jointly with France was in charge to coordinate "Competitive Growth in the Global Environment: agriculture and food industry". The key challenge was to take an integrated agri-chain approach for food, energy and industrial crop production. Focusing on the interdependence of all actors from the producer to the consumer, all technical and socio-economic aspects should be taken into account with respect to producer and consumer rights, synergistically integrating all stakeholders' resources and opinions.

According to the identified problems, the priorities in terms of scientific and technological research to be developed in partnerships between EU-LAC were focused on: competitiveness; quality and product safety; and preservation of the environment. In this regard, eight thematic opportunities were highlighted :

- Agriculture in the context of a changing environment
- Sustainable agriculture and socio-economic organisation
- Renewable energies and efficient energy use
- Biomass and bio-energy
- New food production and conservation system
- New potential crops and advanced technologies
- Food safety and quality assurance tools
- Product differentiation, standards and policies[56]

[56] For more information cf "Workshop ALCUE Science & Technology" Vol. 5 Competitive Growth in the Global Environment. Consejo Superior de Investigaciones Cientificas, Instituto de Automatica Industrial, Madrid, 2002.

ALCUE-FOOD is an example for a project that benefitted from these earlier cooperation, and then was developed on the formal base of these agreements. (details cf. chapter 11.3)

The Madrid Summit in 2002 issued a comprehensive political declaration ("the **Madrid Commitment**") in which the Heads of State and Government expressed their support for their common political values (multilateralism, rule of law, human rights, political dialogue, fight against terrorism, illicit drugs, corruption, organised crime, racism, concern about local conflicts); common economic issues (trade and investment, in particular the EU-Mercosur association agreement; Doha work programme, global governance; information society) and other shared topics (cultural diversity, horizontal cooperation programmes, migration, HIV/Aids and access to medicines, preparedness for natural disasters).

In the Joint Declaration of the 2004 Guadalajara Summit, the Heads of State mentioned, for the first time, that a future **EU-LAC Knowledge Area** should be developed. Building on the results of the bi-Regional dialogues, it would include **reinforcement of cooperation in S&T, higher education, innovation and ICT**. Considering the importance of S&T for economic and social development it was agreed to **launch a S&T partnership** to include Latin America and the Caribbean as a partner Region for the EU Research Framework Programmes (FPs), thereby contributing to deepen bi-Regional links and encouraging mutual participation.

In 2008, the Lima Declaration of the 5th EU-LAC Summit "Addressing the Priorities of our Peoples together" suggested new approaches to bi-Regional cooperation: Identifying and **relating joint research activities to key policy problems**, e.g. Climate change and Energy supply and use.

According to the 2010 theme of the 6th EU-LAC Summit in Madrid, Spain, "Towards a new stage in the bi-Regional partnership: **Innovation and Technology for sustainable development and social inclusion**", the parties confirmed to aim at achieving concrete results and greater added value in the bi-Regional dialogue:

- Strengthening, as part of the ongoing process of "opening ERA to the world" and relating to the recommendations of the respective ERA-Expert Group[57], the **STI dialogue at Ministerial and Senior Officials** levels with the objective to reinforce the enabling environment for social and technological innovation taking into account the interests and differences between and within each Region;
- Consolidating the necessary structures to ensure a dialogue for periodical up-dating of **joint priorities**, topics and instruments ;
- Framing the activities in a "**knowledge triangle**" perspective, where research policy should have the maximum synergy with higher education and innovation policies, promoting at the same time a **closer relationship with other sector policies**.

The **key role played by STI for achieving sustainable development and social inclusion** through the social appropriation of knowledge was strongly highlighted. It was agreed to give priority to bi-Regional and triangular, including South-South, cooperation in areas of

[57] cf "Opening to the world: International cooperation in Science and Technology". Report of the ERA Expert Group. European Commission. Directorate-General for Research. EUR 23325 EN. 2008

common interest set forth in a joint Action Plan. This "**Madrid Action Pla**n"[58] identifies instruments and activities in the key areas, directly or indirectly linked with the **priorities** established at the Summit: **STI**; Education and employment to promote social inclusion and cohesion; Sustainable development; Environment; Climate change; Biodiversity; Energy; Regional integration and interconnectivity; Migration; The world drug problem.

The related Work Programme encompasses dialogue as well as cooperation initiatives:

- Establishing a regular bi-Regional STI dialogue to consolidate EU-LAC cooperation and **update common priorities**, encourage mutual policy learning and ensure the proper implementation and effectiveness of cooperation instruments;
- Exploring the possibility of working jointly with other institutions in matters related to **innovation and knowledge, applied research and technological innovation**;
- Fully committed to the priorities agreed and decisions taken in earlier EU-LAC Summits to arrive at a "**EU-LAC Knowledge Area**", commencing the development and implementation of the **EU-LAC Joint Initiative for Research and Innovation (the 'Joint Initiative')**[59].

Expected **results** are an improved quality and effectiveness of the S&T cooperation through **increased exchange** between EU-LAC communities, increased research focus on agreed items of mutual interest, larger S&T capacities in LAC countries to drive their own development and to achieve enhanced cooperation with the EU.

Regarding instruments for cooperation, it was proposed to base the Joint Initiative on pre-existing and new initiatives by combining targeted and cross-cutting instruments at national/regional/provincial, Regional and bi-Regional levels. The creation of a "**Joint Cooperation Fund (JCF)**" was proposed permitting to launch variable-geometry initiatives addressing research, innovation and infrastructures. The **ERA-NET scheme** was mentioned as well as horizontal support activities, e.g. the **National Contact Point** system. Coordinated calls, twinning of nationally funded projects, public-private-partnerships, and mobility of researchers could be other important instruments. In addition, cooperation in the frame of the **Competitiveness and Innovation Programme (CIP)** as well as in **Joint Technology Initiatives** could be explored.

The basic principle of cooperation should be co-funding and shared cost. Also a new financial instrument, **LAIF (Latin America Investment Facility**) was seen as potentially attractive.

A support and follow-up scheme was considered necessary based on annual **Senior Officials meetings (SOM)** and a technical support structure. Getting organised for identifying Regional **priorities** will now be the task for the two Regions. For the EU, the "Strategic Forum for International Cooperation (SFIC)" may be the appropriate body. (cf. chapter 3)

[58] Council of the European Union, EU-LAC Summit "Towards a new stage in the bi-Regional partnership: innovation and technology for sustainable development and social inclusion" Madrid Action Plan 2010-2012. Madrid, 18 May 2010

[59] In the context of the Summit, DG Research, has released the brochure "Towards the EU-LAC Knowledge Area - Scientific and Technological Cooperation between Latin America, the Caribbean and the European Union for Sustainable Development and Social Inclusion". The publication traces the development of cooperation since the adoption of the objective to create a EU-Latin America-Caribbean Knowledge Area in the Guadalajara Summit 2004 until the recent Joint Initiative for Research and Innovation. The brochure provides examples of particular research collaborations from the 6th and 7th Framework Programmes that illustrate the link between policy and action in fields such as climate change, demographic transitions and social inclusion.

7.2. EU - Mercosur[60]

At the sub-Regional level, an Inter-Regional Framework Cooperation agreement exists between the EU and Mercosur since 1995. A joint declaration annexed to the Agreement provides the basis for the political dialogue between the parties, which takes place regularly at Heads of State, Ministerial and Senior Official levels.

In 2000 the parties opened negotiations for an Association Agreement based on three pillars: political dialogue, cooperation and a free trade area. Negotiations were suspended in 2004 over fundamental differences in the trade chapter.

Independent of the trade-related difficulties, the EU provides assistance to Mercosur in the framework of the Regional Strategy for Mercosur (adopted in August 2007) through its 2007-2013 Regional Programme providing support to projects in three **priority** areas:

- Mercosur institutional strengthening,
- Supporting Mercosur in preparing for implementing the Association Agreement,
- Fostering the participation of civil society in the Mercosur integration process.

Political relations have also evolved, with an agreement made at the 3rd Summit (Lima, 2008) to extend relations to three new areas

- science and technology
- infrastructure
- renewable energy

In the Joint Communiqué of the 4th EU-Mercosur Summit (Madrid, 2010) the Heads of State relaunched the negotiations for an Association Agreement, and specifically agreed to explore concrete ways to deepen and intensify the cooperation in innovation and technology.

Relating to S&T Cooperation specifically, **RECyT** - Reunión Especializada de Ciencia y Tecnología del MERCOSUR – has a role in related negotiations, to define cooperation areas of common interest and to outline of the S&T Cooperation Programmes between the two Regions. (cf. chapter 6)

7.3. Current legal framework for EU policy priorities towards LA

In terms of a coherent legal framework, developed on the outcomes of the constantly evolving cooperation activities, current **EU policy priorities** towards Latin America are defined in the 2009 Communication "The European Union and Latin America: Global Players in Partnership"[61]. In addition, the "Regional Strategy Paper 2007-2013"[62] defines, and the Mid-Term Review and the Multi-annual Indicative Programme for 2011-2013 refines, the specific areas for Regional development cooperation programmes including EU assistance and European Investment Bank investments.

[60] Common Market of the South (Members: Argentina, Brazil, Paraguay, Uruguay; associated Bolivia, Chile, Colombia, Ecuador, Peru, Venezuela)

[61] COM (2009) 496/3. This communication updates COM (2005) 636 "A stronger partnership between the European Union and Latin America".

[62] Regional Programming Document 2007-2013, 12.07.2007, E/2007/1417

8. EU-Argentina S&T Cooperation over more than two decades – an overview

In the preceding chapters, different EU, Latin American and Argentinean contexts were outlined. In the following we present, as a lead-in to the subsequent chapters with our detailed analyses of the 2006-2010 S&T cooperation activities, an overview of nearly 30 years of EU-AR cooperation in the FPs, key points of the S&T Cooperation Road Map 2010/2011, and a summary of the impact assessment of the first years of the EU-AR S&T Agreement carried out in 2005.

8.1. Frameworks for EU-Argentina Cooperation in general, since 1990

The larger legal frame, under which the cooperation between the EU and Argentina is currently covered, is the Regulation of the European Parliament and of the Council 1905/2006 of 18 December 2006 establishing a financing instrument for development cooperation (DCI)

It was developed in the common framework of objectives, values and principles that the Union – the Member States and the Commission - supports and promotes since 2005, and is characterised by a strong consensus on the **Millennium Development Goals, the international security context and the increased impact of globalisatio**n. The EU Development Policy stresses the importance of good governance, human rights, democracy, environment and sustainable management of resources, economic growth and trade development, food security, social cohesion and combating inequalities. It recognises that the EU's relations with each external partner are unique, and require an individual 'policy mix' of aid, trade and other policies tailored to the needs of each partnership.

Argentina was the first Latin American country to formalise its relations with the EU under the form of a third-generation cooperation agreement. In 1990, the **Framework Trade and Economic Cooperation Agreement**[63] entered into force. It includes as fundamental principles two recurrent cornerstones of the EU cooperation policy: the strengthening of democracy and human rights, as well as Regional integration.

In general operational terms, the follow-up of all thematic / sectoral agreements entail periodic meetings of the EU-Argentina Joint Commission set up under this Framework Cooperation Agreement.

Of the thematic agreements concluded under this framework we mention as examples those on sea fisheries, on the peaceful use of nuclear energy, and on science & technology. The **S&T cooperation agreement**[64] aims at strengthening the institutional foundations of this cooperation field, and at extending and intensifying research cooperation in areas of mutual interest.

The provision of financial cooperation is another important dimension of the EU-Argentina relation – and in many ways **relevant to the success of the S&T cooperation**, the direct subject of this review. Current orientations for the financial cooperation are set out in the

[63] Framework Agreement for trade and economic cooperation between the European Economic Community and the Argentine Republic – Council Decision 90/530/EEC; *OJ L 295, 26.10.1990, p. 67–73*

[64] Agreement for scientific and technological cooperation between the European Community and the Argentine Republic – OJ L6, 11.01.2000, p. 32

strategic framework of the **Country Strategy Paper (CSP) 2007-2013**[65]. It focuses on a shift from the immediate post-2001-crisis relief measures to initiatives designed to foster medium to long-term economic development and to strengthen social cohesion and employment opportunities. Three **priorities** are outlined :

- Strengthening of Argentina's **education, training and human resources development systems**
- Improvement of the country's economic competitiveness
- Deepening of bilateral relations and mutual understanding with two foci : support to the process of policy dialogue on key sectors of common interest identified by the EU-Argentina Joint Commission; intensification of **academic links and exchanges**.

8.2. Overview S&T Cooperation: From STD1 to FP7 participation

Compared to other countries in Latin America, and helped by its strong economy in the late 19th and early 20th century, Argentina has early and substantially invested in S&T. Therefore, and despite the disruptions in the wake of the 2001-crisis, the country can still rely on a broad spectrum of long-standing bilateral S&T relations.

Enriching these networks, the above mentioned General Framework Cooperation Agreement of 1990 facilitated the participation of Argentinean partners in EU research Framework programmes, and with the S&T Cooperation Agreement coming into force in 2000 cooperation hurdles were further reduced.

Some EU-AR S&T cooperation activities started already in 1983 under the first S&T Programme for Development (STD1), reinforced in the mid-1980s by a bilaterally managed ISC programme and FP2 (1986-1990), continued under STD3 in FP3 (1990-1994) and the First INCO Programme in FP4 (1994–1998). Through their considerable participation in INCO, Argentinean organisations were encouraged to take part also in other areas of successive FPs:

FP4: INCO-DC (1994-1998) 32 funded projects had Argentinean participation for a total contribution by the Commission in excess of 17 MEUR. These projects covered the thematic areas of health, agriculture and natural resources management.

FP5: INCO-DEV (1998-2002) Argentinean research teams were involved in 29 projects, despite the economic crisis that affected the country in 2001/2. Themes were expanded to cover also sustainable development policies, including an early coordination action on bio fuels. Concrete S&T cooperation also enabled networking widely with Europe, Latin American neighbours and teams in Africa.

FP6 (2002-2006): Argentinean teams participated 95 times in 78 projects – about 35% were INCO projects addressing basic needs in health and public health, food security and sustainable use of natural resources and their ecosystems. Cooperation was also successful in Food Quality and Safety, Sustainable Development, Climate Change and Ecosystems, ICT and others.

[65] Argentina, Documento de Estrategia País 2007-2013, Comisión Europea, E/2007/753, 23.04.2007

The total investment in these projects was 317 MEUR for an EC contribution of almost 218 MEUR. The investment of Argentinean teams was about 9.2 MEUR attracting an EC contribution of almost 7.6 MEUR.

Of the 751 EU participations most came from the UK (107), Germany (98), Spain (88), France (83), Italy (75) and The Netherlands (62).

Regarding ERA-Net's, the "European-Latin American Network for Science and Technology" (EULANEST) was initiated aiming to overcome the fragmented S&T relations with Latin America.

Argentina is also an active participant in several Regional external relations cooperation programmes focused on education, science, technology and/or innovation. Among these are

- **ALFA** promotes the capacities of individuals and higher education institutions through EU-Latin America cooperation. ALFA II (2000 to 2005) saw 58 Argentinean Higher Education Institutions participing in 147 of the 225 supported projects.
- **ALßAN** is a programme for high level scholarships for Latin America to further cooperation in the field of higher education. Between 2003 and 2008 through five calls, 314 Argentineans received scholarships (10% of the total for all Latin America): 127 Master students, 169 PhD students and 18 for specialisation studies.
- **@LIS – Alliance for the Information Society** - aims to promote the Information society and fight the digital divide throughout Latin America. @LIS 2, the second phase, has the objectives to continue to promote, and at the same time improve and extend the dialogue and applications on Information Society in Latin America, boost interconnections between research networks and communities in both Regions reducing the digital divide and integrating Latin America into a Global Information Society. @LIS was established by EC decision in 2001 with a total budget of 77,5 MEUR, of which 63,5 MEUR were financed by the EC.

  For the second phase, @LIS 2, the EC adopted the related decision in October 2008. The programme has a budget of 31,25 MEUR of which 22 MEUR come from the EC.

  The activities of @LIS2, in which all LA countries are involved, have been organised around three lines of action to be implemented between 2009 and 2012:

  - Political and regulatory dialogue, coordinated by CEPAL, the United Nations Economic Commission for Latin America and the Caribbean.
  - Research Networks (successor of RedCLARA), coordinated by CLARA – Cooperacion Latino-Americana de Redes Avanzadas.
  - Network of LA regulators, coordinated by Regulatel – Foro Latinoamericano de Entes Reguladores de Telecomunicaciones.

  Ten Argentinean institutions have participated in different @lis activities.

In **FP7**, Argentinean participants have been active in the INCO Work Programmes, supporting bi-Regional cooperation with different Regions of the world (INCO-Nets), bilateral

cooperation partnerships with countries the EU has S&T agreements with (BILATs[66]). They participated in specific actions regarding research infrastructures and research for the benefit of SMEs, and supported programmes to coordinate national activities (ERA-Nets).

EULARINET (European Union - Latin American Research and Innovation NETworks), a 2008-2012 INCO-Net, aims to strengthen the bi-Regional dialogue on S&T between EU Member States, Associated States and Latin American Partner Countries (LAPC) at policy, programme and institutional level.

For the detailed analyses of the 2006-2010 S&T cooperation activities see the following chapters.

8.3. Overview of the S&T Cooperation Road Map

Regular high-level meetings regarding the EU-AR S&T Agreement have the function to give political guidance to the development and implementation of the cooperation activities, to mobilise support, and to discuss communication, facilitation and coordinating measures. The EU–AR S&T Agreement Steering Committee (SC) has been set up for this purpose.

Following recommendations of the 2008 SC meeting, a biannual **S&T Cooperation Road Map** was established with **strategic priority activities** to be jointly implemented. Since then, this roadmap is regularly updated in the context of the annual SC meetings.

The Road Map 2010/2011 focuses on:

- **Facilitating Cooperation:**
  - The EC Delegation in Buenos Aires will carry out public events with ABEST, the FP7 Liaison Office hosted by the Ministry of Science, Technology and Innovation and also support producing information materials that promote cooperation in the **interconnected areas of education, science, technology and innovation**.
  - The EC will provide, on a regular basis, information and data about the number of proposals submitted by Argentina, evaluated and retained for grant agreement - per programme and area and if possible per instrument (in particular the SICAs) and according to the rules of confidentiality of the FP;
  - Argentina will improve the collection of project information exchanged through its FP7 contact points for INCO, Mobility, SME and the Cooperation Programme themes;
  - Both Argentina and the EC engage in **priority setting**, using the proper participatory approach (bi-Regional and bilateral policy dialogue, workshops, identification of Regional priorities, identifying themes of specific mutual interest) for collaborative research activities as well as for initiatives related to research infrastructures;
  - Argentina continues to play an important role promoting further S&T Regional Cooperation and helping to **mobilise Latin American countries without S&T**

[66] For general background and details cf "Reinforcing Strategic Partnerships - International Cooperation BILAT projects, Call 2009"**.** This brochure presents the activities of five BILAT projects aiming to develop and enhance S&T partnerships with countries, which have signed or are in the process of negotiating an EC S&T cooperation agreement, in this case Argentina, Egypt, Japan, Jordan, and the USA

cooperation agreement with the EC, particularly in the context of the EULARINET Project[67] and the implementation of the **EU-LAC Joint Initiative for Research and Innovation**[68] endorsed in the EU-LAC Madrid Summit Declaration and Action Plan;

- The EULARINET project has become one of the most effective instruments promoting the joint definition in S&T cooperation policies through support to the bi-Regional policy dialogue. One of the initiatives of EULARINET is to develop a portfolio project within the Academy/Industry in order to stimulate the participation of the private sector in FP7;
- Argentina's recent arrangement with the COST programme is another initiative for continued promotion of S&T bi-Regional cooperation (cf section 11.1).

- **Detailed Outlooks for the Cooperation in each of the Thematic Areas of the FP7**

  cf Roadmap in Annex

- **Outlook for Mobility & Exchange of Researchers**

  cf Roadmap in Annex

- **Outlook on Capacity Building in S&T, and Synergies between S&T and other EU Policies and their instruments** (cf. also chapters 3, 5 and 6 of this report)
  - There are evident synergies between the bi-lateral EC-AR Development Cooperation Programme defined in the Argentinean Country Strategy Paper (CSP) for 2007-2013 and the S&T cooperation strategy. The three components of the CSP - Education, Social Cohesion and Innovation and Competitiveness - could be complementary for building capacities in S&T. The Social Cohesion component shows a strong complementarity with several FP7 thematic areas, and uptake of research results might amplify positive effects for both.
  - There are complementarities with MERCOSUR sub-Regional activities (e.g. Biotech).
  - Synergies should also be actively exploited with the Marie Curie Programme and its Staff Exchange modality (IRSES).
  - **ABEST II** (cf chapter 9)

8.4. The 2005 impact assessment of the S&T Cooperation Agreement

In 2005, the first impact assessment[69] of the S&T Cooperation Agreement was carried out, and the results summed up as follows:

- The AR-EU S&T Cooperation Agreement has come of age after 4 years of implementation, even if its initial years were characterised by serious social and economic upheaval – it is now established and looking for new horizons in which the EU becomes Argentina's main international partner in RTD.

[67] European Union - Latin American Research and Innovation NETworks, an INCO-Net Coordination Action
[68] cf chapter 7.1
[69] Carrondo, M.J.T.; Impact Assessment of the S&T Agreement concluded between the European Community and the Republic of Argentina; 2005; EUR 21791

- Under these circumstances, the S&T Agreement has acquired strategic overtones associated to its role as promoter of a global knowledge society targeted by the Lisbon Strategy. To this extent, the next phase of the Agreement requires a deepening of cooperation activities in line with the desired RTD policy convergence between the EU and Argentina.
- In order to fulfil this strategic role the next phase of the Agreement must emphasise:
  - reciprocity by promoting also the participation of EU scientists in the Argentinean RTD programmes; calls for proposals on both sides following the reciprocity principle (i.e. also projects presented by Argentineans in Argentina with European partners); permitting better access of Argentineans to the EU Innovation activities;
  - proactive promotion of links of RTD cooperation with other cooperation areas.
- In operational terms and in what concerns EU interests, it is essential to reinforce the Commission's RTD policy presence in Argentina; a parallel appointment by Argentina to Brussels should also be envisaged.

In this impact assessment, it was strongly emphasised that the renewed Agreement would only generate increased mutual benefit if both parties do devote the necessary qualified officers to set up a prestigious, powerful Steering Committee meeting regularly and setting up the course for action at two levels:

- **Policy level**: As S&T is ever more relevant for all types of societal, economic, commercial and other global issues, the Agreement should be used to strengthen the dialogue and create **more consensual approaches to policies impacted by S&T**, out of which new or improved areas of collaborative work should be identified and implemented. The fact that the Argentineas have designed the Plano 2015 along the European prospective frame is a positive sign and should facilitate this.
- **Operational level**: improved procedures should be set up such that bureaucratic barriers are reduced (e.g. access to funds devoted by EC to Third Countries); moreover, more precise objectives should be defined and pursued to ensure long term improvement and enlargement of S&T collaboration.

  Effort should be geared to the long-term objective of enlarging and strengthening S&T collaborative work at similar level of competence. This would include:
  - Training new actors, revolving around a well-planned post-doctoral exchange programme and sandwich Ph.D. programmes;
  - Broadening access of Argentina's top research teams, for example those financed under the Argentinean P.A.V. programme, to participate in the equivalent European Networks of Excellence (NOEs);
  - Ensuring continuity of bilateral contacts in areas of policy relevance and of successful project implementation, based, on the Specific Support Actions (SSA) or Concerted Actions (CA) formats;
  - Utilise agreement resources to directly finance EU teams participation in Argentinean funded projects, to increase Argentinean "buying power" to bring relevant EU partners into its national programmes[70].

[70] This last disposition was refused

9. ABEST - the EU-AR Liaison Bureau, and Argentina's NCP network

The Argentine Bureau for Enhancing Cooperation with the European Community in STI was created in 2005. It works at MINCyT through its International Relations Directorate. The aim of this Bureau is to establish an Argentinean platform to improve and expand cooperation activities in the STI areas both with the EU and with its Member States.

As coordination action co-funded by the Capacities Programme, the ABEST II consortium is coordinated by MINCyT, with APRE (Italy), CIRAD (France) and DST (South Africa) as partners.

The mission of this bureau is to:

a) Develop an information programme about the European Research Area (ERA) and the opportunities it offers argentine researchers,

b) Implement a Web site and a help desk to solve specific doubts about existing financing tools and opportunities,

c) Contribute to the dialogue between Latin America and the European Union about **priorities** in science, technology and innovation.

ABEST objectives include providing support to AR-EU bilateral RTDI activities and to develop long-term sustainability for the promotional activities carried on this platform. ABEST aims to help researchers, research institutions and local SMEs to make a better use of present and future programmes and tools, and coordinating this participation with other Latin American countries that have S&T cooperation agreements with the EU (Brazil, Mexico and Chile).

National Contact Points are in charge of spreading updated information and assisting researchers to participate in the FP and to contribute to the bi-Regional dialogue. At the time being, there are two NCPs in MINCyT for transversal issues (International Cooperation; Legal and Financial Issues), 7 for thematic areas (Health, Knowledge-based Bio-Economy, ICT, Energy, Nano, Environment, Social Sciences), and one for SMEs. To increase outreach throughout Argentina, ABEST reported to have also established a network of 44 NIPs (Institutional Contact Points) called ABEST-NET.

Under ABEST II, the NCPs are expected to take a more active role. NCPs are mainly researchers and scientists who work in an articulated way with ABEST to identify potential institutions to participate in FP7, scan FP7 calls to find suitable institutions to join existing consortia, and highlight the RTDI priorities of the different thematic areas in the country, and common themes of interest for both Regions. They are connected with similar area-focused organisations in Europe and LAC. Specific attention is paid to increasing visibility of Argentinean researchers and research capacities.

ABEST gives support coordination within the EU-AR cooperation activities encouraging functional links and synergies between research, development and innovation. In this regard, ABEST will cooperate with the national partner of the EU funded project FIRST to foster interaction between European and Latin American Technology Platforms (ETPs and LATPs) in the fields of Future Internet and ICT components and systems.

The SME NCP with its helpdesk service has the task to actively strengthening the 'innovation capacity' of Argentinean SMEs, extending their networks and their contribution to the development of new links with the EU. In this context, ABEST is preparing a proposal to join in the Enterprise Europe Network (EEN) to establish a Network centre in Argentina, which will access EEN's tools and cooperation mechanisms and provide business support to SMEs.

10. Participation of Argentina in FP6 and FP7, between 2006-2010

Nota bene: data come from EU and ABEST. Smaller discrepancies couldn't be avoided, as sometimes data relate to different, e.g., time spans and groupings.

10.1. Overview FP6 and comparison with other LAC countries

Argentinean researchers and organisations submitted 1756 proposals for participation in consortia with European partners and from other countries. The resulting 94 participations in 72 projects represent a success rate of 5,4 %. The total cost of the projects with Argentinean participation amounted to 317 MEUR, of which the EC funded 217 MEUR. The total cost of the participation of the Argentinean groups was approximately 9.2 MEUR, about 7.6 MEUR were funded by the EC.

In these 72 selected projects, European organisations had 751 participations. Most came from the United Kingdom (107), Germany (98), Spain (88), France (83), Italy (75) and The Netherlands (62).

Argentina has been one of the European Union's main Latin American partners regarding the participation in activities within the sixth Framework programme. Argentina is in second place, after Brazil (see Figure 6 and Figure 7).

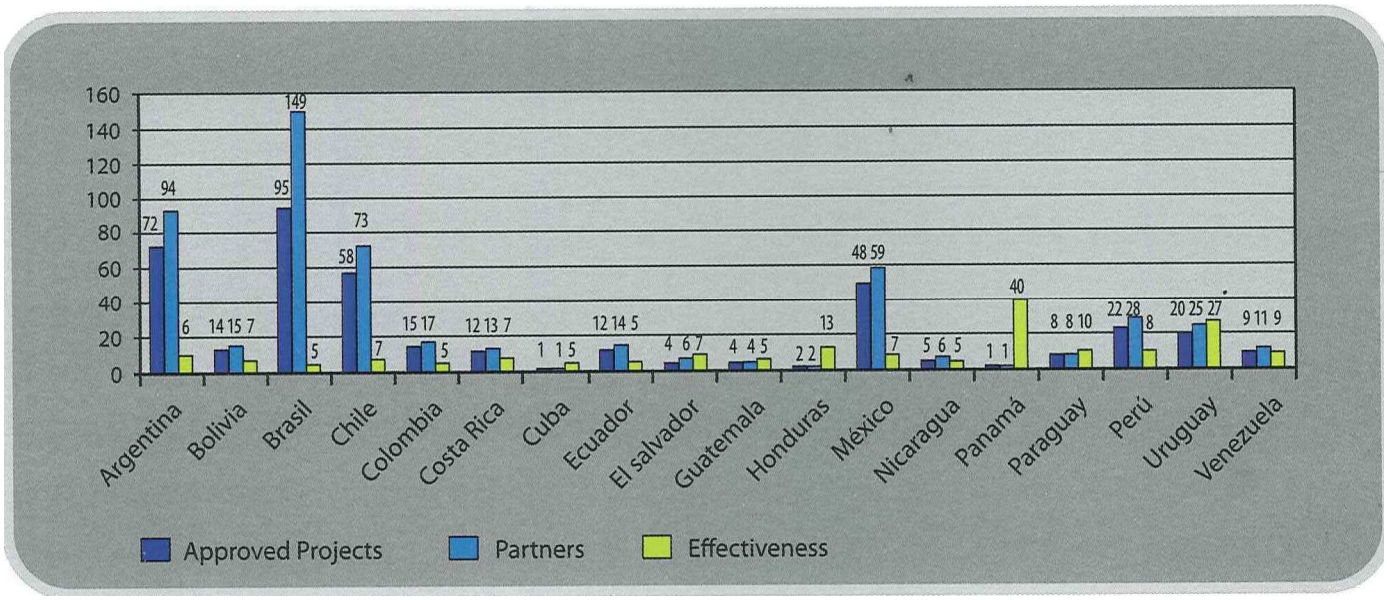

Figure 6 : Latin American in the 6th Framework programme

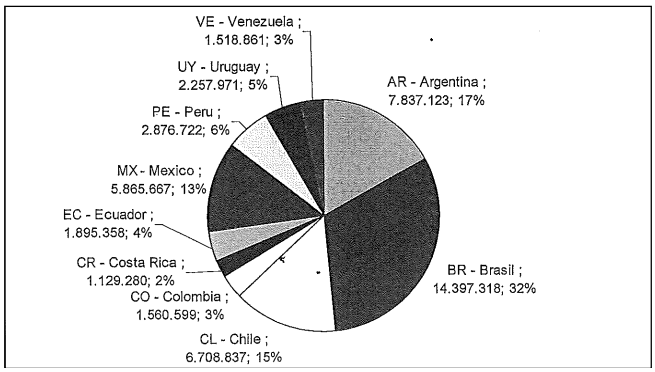

Figure 7 : FP6 EC contribution to South American participants

Taking into account the total number of participations in FP6 (more than 74.000) the number of participations from Latin America is still very low.

10.2. FP6 participation: by themes, by type of organisation, by region

By themes :

Most of the activities were developed in the areas of International Cooperation, Food Quality and Safety, and Sustainable development, Global Climate Change and Ecosystems. See Figure 8.

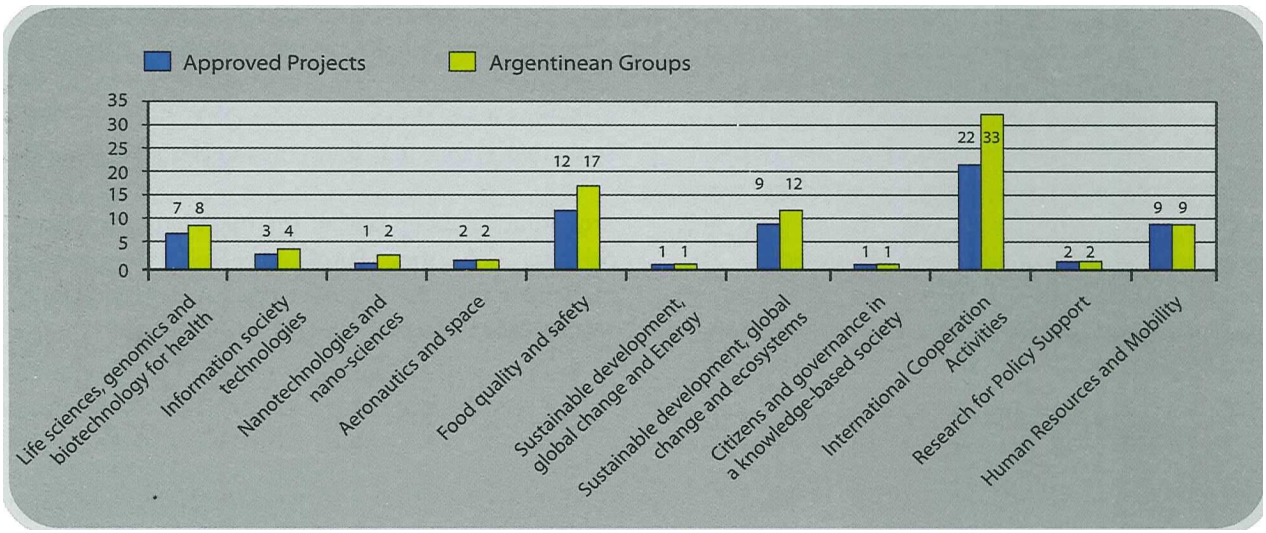

Figure 8 : Thematic priorities Distribution of Argentinean FP6 participations

In fact, INCO programme in FP6 had three thematic foci pitched at regional specificities: health and public health; rational use of natural resources (arid, humid and coastal ecosystems); food security. Regarding the distribution of the Argentinean participations across the thematic priorities of FP6, one can draw the conclusion that the cooperation activities are concentrated mostly in International Cooperation Activities with 22 projects and 33 participations.

Very active thematic sectors are:

- Food, quality and safety (12 projects and 17 participations)
- Sustainable development, global change and ecosystems (9 projects, 12 participations)
- Life sciences, genomics, and biotechnology for health (7 projects and 8 participations)

By type of organisation and themes:

Table 4 shows the distribution of Argentinean participations in FP6 differentiating by type of institutions across the various parts of the programmes, with Argentinean contributions HES (high education), RES (Research centres), IND (industry) and OTH (others).

Table 4 : Distribution of Argentinean FP6 participation by type of institutions

Themes	*Participations*	*% HES*	*% RES*	*% IND*	*% OTH*
1. Life Sciences, …	*8*	*25%*	*37,5%*	*0*	*37,5%*
2. Information society technologies	*4*	*0*	*0*	*0*	*100%*
3. Nanotechnologies	*2*	*50%*	*50%*	*0*	*0*
4. Aeronautics and space	*2*	*100%*	*0*	*0*	*0*
5. Food quality and safety	*17*	*2%*	*43,75%*	*0*	*31,25%*
6. Sustainable development, energy systems	*1*	*100%*	*0*	*0*	*0*
6. Sustainable development, global change ...	*12*	*8,33%*	*75%*	*0*	*16,66%*
7. Citizens and governance	*1*	*100%*	*0*	*0*	*0*
Human resources and mobility	*9*	*33,33%*	*66,66%*	*0*	*0*
International Cooperation Activities	*33*	*21,21%*	*51,51%*	*3,03%*	*12,12%*
Research for policy support	*2*	*0*	*50%*	*0*	*50%*
Research infrastructures	*4*	*25%*	*0*	*25%*	*50%*
Science and society	*2*	*100%*	*0*	*0*	*0*
Total Thematic Priorities *TOTAL FUNDS*	*97* *7 806 543*	*29,89 %*	*45,36 %*	*2,06%*	*22,68 %*

Argentinean participants in FP6 come mainly from research centres (45,36%) and higher education institutions (29,89%). The industry participation is very low (2,06%); Other institutions account for 22,68% . They include hospitals, medical foundations, but also SECyT, and some professional associations or industry-related association or foundations.

In total, the 94 Argentinean participations in 72 FP6 projects come from 65 institutions. The leading institutions include the 2 important research centres INTA and CONICET and the 2 Universities: UBA (University of Buenos Aires) and University of La Plata. This distribution, as

well as the distribution in Table 4 (RES and HES) show the importance of national research centres in Argentina (for example, the percentages of participations between RES and HES in contrast to Mexican participations in FP6).

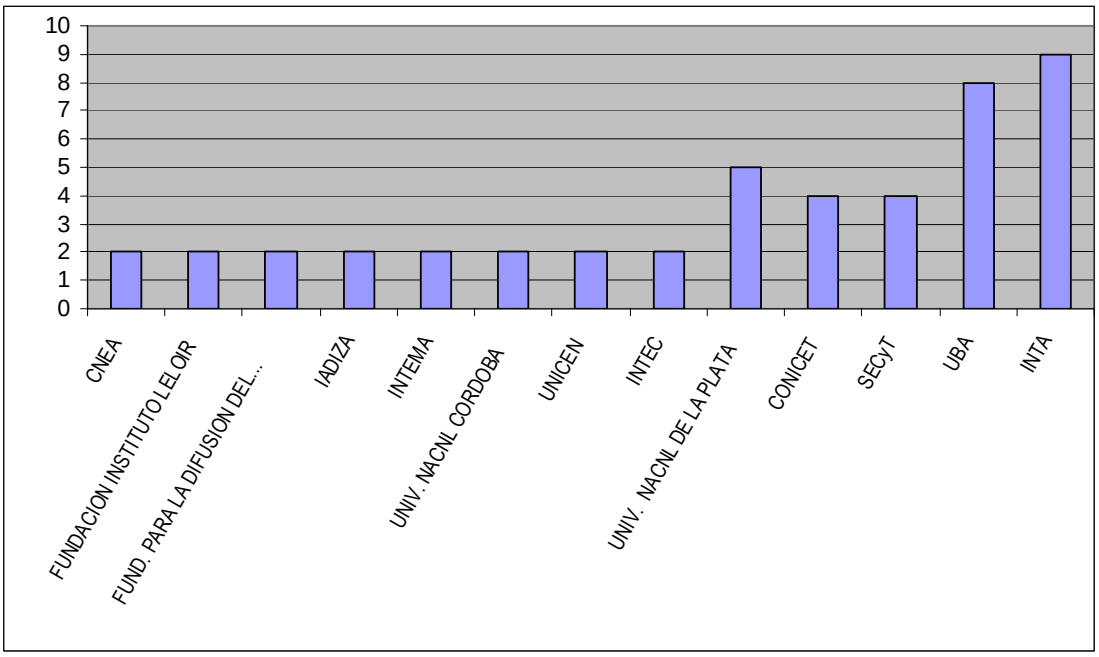

Figure 9 : Distribution of Argentinean participations in FP6 by organisations

The distribution of the FP6 EC financial contribution between the first institutions is represented in Table 5.

Table 5 : Distribution of the FP6 financial contribution

Institution	Participations	EC fin. contribution EUR	EC fin. contribution per participation (EUR)
INTA	9	1 236 477	137 386
UBA	8	472 181	59 023
SECyT	4	418 673	104 668
UNIV. NAC. DE LA PLATA	5	537 500	107 500
CONICET	4	357 413	89 353

By region

The vast majority of projects funded by FP6 are concentrated in Buenos Aires and Pampas regions.

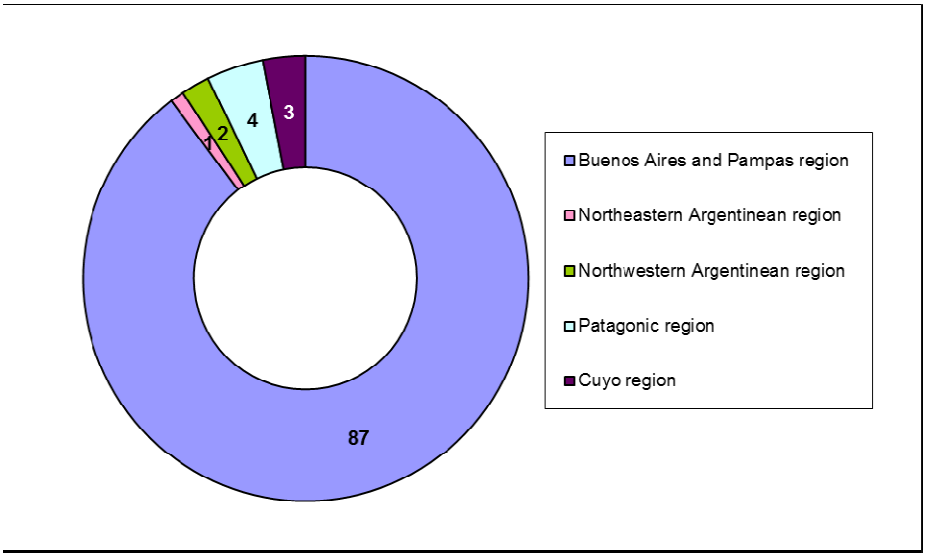

Figure 10 : Distribution of Argentinean participations in FP6 by region

A detailed list of Argentinean institutions in successful FP6 projects is given in Annex 14.4.

10.3. Conclusion FP6:

When reviewing Argentina's participation in FP6, it has to be considered that low success rates were achieved by the Latin American countries in general. Argentina had rather good success but it was very difficult for the Argentinean and regional groups to submit a successful proposal during the development of the FP6. Each participation made by an Argentinean researcher/group cost 95.000 EUR on average, 80.000 of which were funded by FP6. Regarding the number of participations, an average of 18,8 participations per year was obtained by Argentina with more participations in the second and third year of the programme.

10.4. Overview FP 7 and comparison with other LAC countries

The Argentinean participation has improved in FP7 so far. Argentina ranks 12th in terms of number of applicants and 12th in terms of requested EC contribution. A total of 327 eligible proposals were submitted by Argentinean institutions in response to 219 FP7 calls for proposals up to October 26, 2010.

Among the Third Countries in all FP7 signed grant agreements, Argentina ranks 10th in number of participations and 8th in budget share. It participates in 52 signed grant agreements, receiving a total of 107,32 MEUR of EC financial contribution.

Regarding SME performance and participation, Argentina's SME applicant success rate of 21,95% is higher than the Third Countries SME applicant success rate of 19,23%. And the Argentinean SME EC financial contribution success rate of 25,22 % is higher than the corresponding Third Countries rate of 13,82%. In the latest calls, from 82 Argentinean SME applicants, 18 (21,95 %) were successful requesting EUR 2,41m.

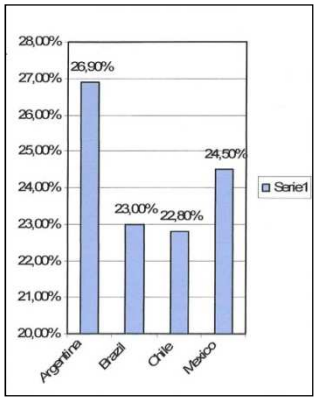

Figure 11 : FP7 LA success rate

10.5. FP7 participation: by themes, by type of organisation

By themes :

The areas of importance in FP7 projects with Argentinean participation (90 projects with 117 participations of Argentinean groups) are : Food, Agriculture and Biotechnology (FAB), ICT, Health, Environment (including climate change), then nanosciences and nanotechnologies, and transport (including aeronautics).

Marie Curie Actions, which are bottom-up, and not restricted to those areas covered by the thematic programmes, play also a very important role.

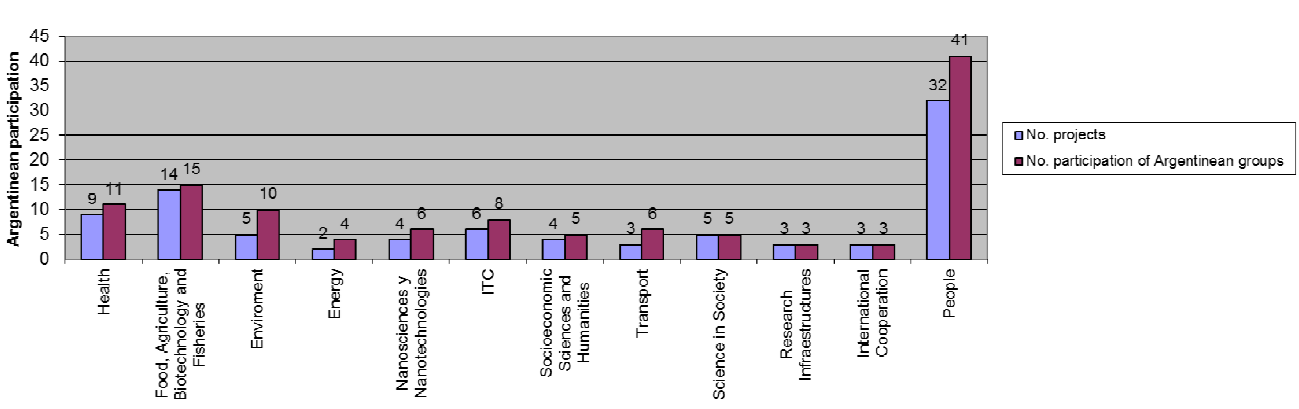

Figure 12 : Distribution by FP7 thematic priorities of Argentinean participations

The most attractive FP7 research priority areas by number of applicants are shown in Table 6.

Table 6 : Argentinean applicants in FP7 thematic areas

FP7 areas	Nr of applicants	Requested EC contribution by applicants (MEUR)	Nr of mainlisted applicants	Success Rate (applicatns)	Requested EC contribution by mainlisted applicants (MEUR)	Success Rate (requested EC contribution)
Marie-Curie Actions	81	n/a	39	48,15%	n/a	n/a
Environment (including Climate Change)	75	11,46	10	13,33%	1,31	11,43%
Food, Agriculture and Fisheries, and Biotechnology	60	8,41	15	25,00%	1,23	14,59%
Health	49	9,15	11	22,45%	2,23	24,39%
Socio-economic sciences and Humanities	45	5,77	5	11,11%	0,82	14,21%
Energy	32	3,71	4	12,50%	0,35	9,53%

Leading to the following distribution of successful projects **by research priority areas** :

Table 7 : Argentinean successful projects over FP7 thematic areas

FP7 Area	Number of grant holders	% of all AR grant holders	EC contribution (MEUR)	% of total EC contribution to AR
Health	10	15,38%	2,23	29,93%
Environment (including Climate Change)	9	13,85%	1,12	14,96%
Food, Agriculture and Fisheries, and Biotechnology	10	15,38%	0,98	13,14%
Nanosciences, Nanotechnologies, Materials and new Production Technologies – NMP	6	9,23%	0,82	11,06%
Information and Communication Technologies	10	15,38%	0,66	8,83%
Activities of international Cooperation	2	3,08%	0,64	8,63%

By type of organisation :

Table 8 : Argentinean FP7 participation by type of institution

Activity type	Nr of applicants	Success rate (applicants)	Success rate (requested contribution)	% of total EC contribution to grant holders
HES	218	20,64%	7,72%	25,23%
REC	95	34,74%	31,00%	27,34%
PUB	41	48,78%	32,48%	22,85%
PRC	38	23,68%	8,48%	20,07%
OTH	36	22,22%	40,63%	4,51%
SME	**82**	**21,95%**	**25,22%**	**18,12%**

More precisely the distribution into types of organisations and FP7 research priority areas is :

Table 9 : Argentinean participations by priorities and type of institutions

Thematic priorities	***Participations***	***% HES***	***% PRC***	***% PUB***	***%REC***	***%OTH***
Energy	*4*	*50%*	*25%*	*25%*	*0*	*0*
Environment	*10*	*30%*	*10%*	*0*	*60%*	*10%*
Health	*11*	*36,36%*	*0*	*9,09%*	*36,36%*	*18,18%*
ICT	*8*	*37,5%*	*0*	*37,5%*	*25%*	*0*
International cooperation (INCO)	*3*	*33,33%*	*0*	*66,66%*	*0*	*0*
Knowledge based bio-economy (KBBE)	*15*	*20%*	*6,66%*	*26,66%*	*40%*	*6,66%*
Nanoscience y nanotechnology (NMP)	*6*	*33,33%*	*0*	*0*	*66,66%*	*0*
People	*41*	*53,65%*	*12,19%*	*14,63%*	*12,19%*	*7,31%*
Research infrastructure (INFRA)	*3*	*33,33%*	*0*	*0*	*33,33%*	*33,33%*
Science in Society (SiS)	*5*	*40%*	*0*	*20%*	*30%*	*0*
Socio economic sciences and humanities (SSH)	*5*	*20%*	*0*	*0*	*60%*	*20%*
Transport (TPT)	*6*	*16,66%*	*33,33%*	*33,33%*	*0*	*16,66%*
Total	***117***	***38,46%***	***7,69%***	***17,09%***	***28,20%***	***8,54%***
TOTAL FUNDS	***8 445 418 (1)***					

A detailed list of Argentinean organisations active in FP7 is given in annex 14.4.

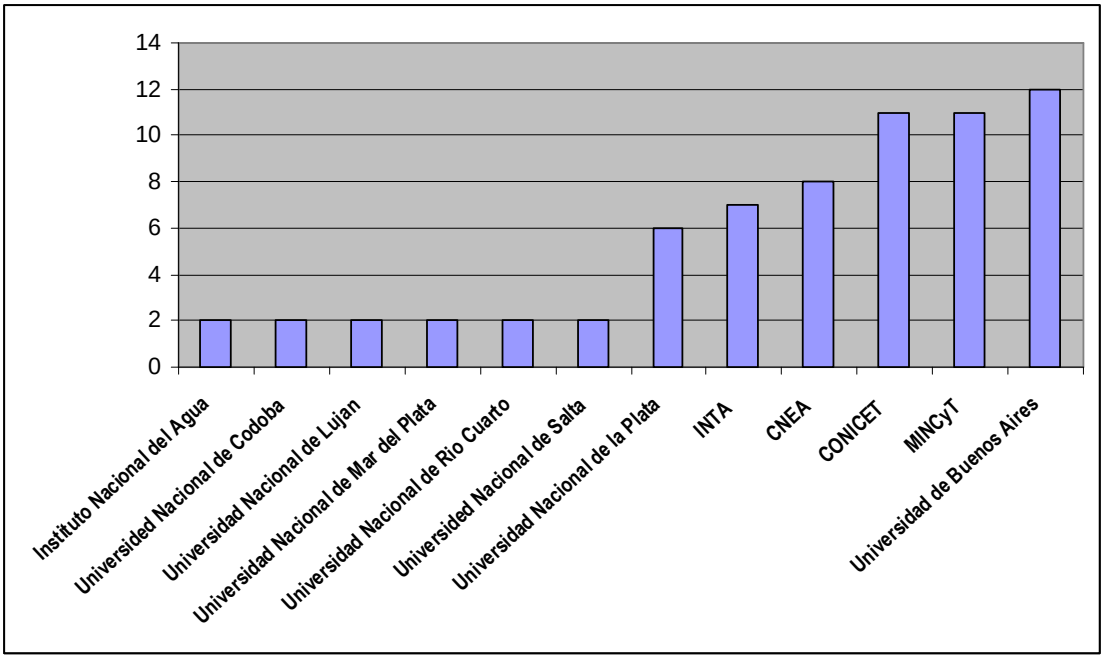

Figure 13 : Distribution of Argentinean FP7 participations by organisation

As in the analysis of FP6 Argentinean participations, one can see the importance of national research centres participations, namely, CONICET, INTA, CNEA, as well as the main universities UBA (University of Buenos Aires) and University of La Plata. Table 10 displays the nationality of applicants in projects with at least one Argentinean partner. The usual main partners of Argentina are: Italy, Spain, UK, Germany, France for Member States, Brazil, Mexico, Chile for Latin American countries.

Table 10 : Nationality of FP7 applicants in projects with Argentinean partner

Applicant country	Number of applicant	%	Applicant country	Number of applicant	%
Italy	86	9%	Greece	16	2%
Spain	80	8%	Denmark	15	2%
United Kingdom	76	8%	Colombia	13	1%
Brazil	71	7%	Portugal	13	1%
Germany	68	7%	United States	13	1%
France	65	7%	Russian Federation	11	1%
Netherlands	41	4%	Sweden	11	1%
Mexico	36	4%	Hungary	10	1%
Switzerland	33	3%	Uruguay	9	1%
Belgium	29	3%	Finland	8	1%
Chile	28	3%	Norway	8	1%
Austria	21	2%	Poland	8	1%
China (People's Republic of)	20	2%	Australia	7	1%
India	17	2%	Ecuador	7	1%
South Africa	17	2%	Canada	6	1%

Table 11 shows the list of coordinators for the FP7 projects with at least one participation of Argentinean group/researcher. UK and Spain has both 20 coordination roles, Germany 15,

Italy 14. France is coordinator for only 4 projects despite a very strong cooperation activity with Argentina.

Table 11 : FP7 project coordinators'nationality with Argentiniean participation

Applicant country	Number of coordinators of projects
Austria	4
Belgium	4
France	4
Germany	15
Greece	2
Ireland	1
Italy	14
Netherlands	6
Norway	1
Slovenia	2
Spain	20
Switzerland	1
United Kingdom	20
TOTAL	**94**

10.6. The role of high-level research centres

Research centres (REC) play an important role in Argentinean S&T landscape. The global budget for scientific and technological activities in Argentina in 2010 is equivalent to 1.4 billion dollars[71]. The distribution of the 2010 budget through some of the most important institutions is the following: CONICET 330.689 M$, INTA 258.582 M$, INTI 50.543 M$. Moreover there exists an inter-institutional Council for Science and Technology (CICyT) which harmonises the key S&T institutions. Therefore, the participation of research centres (REC) in EU projects is important. The analysis of FP6 and FP7 projects shows respectively 45,36 % and 28,20 % of overall participation.

CONICET

[71] FORESTA, D 4.2 Study on Latin America national funding agencies action in international cooperation projects

Since 1986 CONICET has been directly involved through its executive units, and indirectly through their researchers, in more than 75 % of the 200 research projects of the EU with Argentinean participation.

Participation has grown after the second half of the FP6 (2002-2006) and has become more stable since the 7th programme.

Table 12 : Evolution of Argentinean participation in FP programmes 2002 - 2009

Year	2002	2003	2004	2005	2006	2007	2008	2009
projects	2	1	8	15	8	13	15	14

Main partners for cooperation are UK, Spain, France, Italy and Germany. The projects cover a wide spectrum of areas. Main areas are medical science and biology, physics and chemistry, engineering, earth sciences.

The participation of CONICET in EU project by areas is described in the next figure

field	Nº of Projects
Earth Sciences	9
Astronomy	3
Medicine and Biology	21
Biochemistry	7
Agronomy	5
Physics and Chemistry	15
Engineering	12
Social Sciences	6
Technology	4
Other	10
Total	**92**

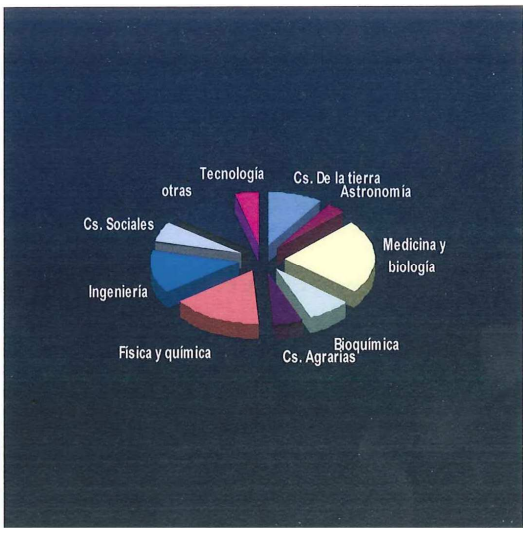

Figure 14 : Distribution of FP6 projects involving CONICET by areas

CONICET is currently directly involved in 20 projects of the FP7. Nowadays the fields with more projects are physics and chemistry, and earth science, see Figure 15:

Field	Nº of Projects
Physics and Chemistry	7
Medical Sciences	2
Earth and atmosphere	5
Biochemistry and Molecular biology	2
Agronomical sciences	4
Total	**20**

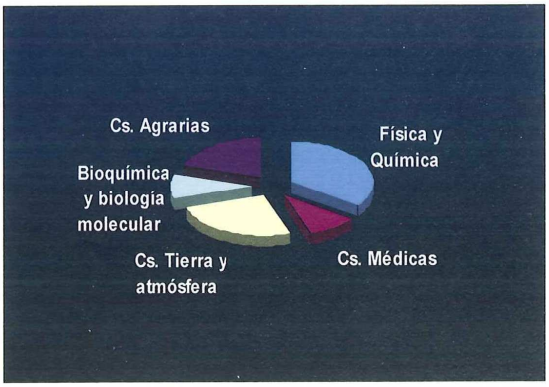

Figure 15 : Distribution of FP7 projects involving CONICET by areas

Since 1986 about 50 MEUR of EU budget have gone to research groups belonging to units of the CONICET. CONICET currently is involved in research projects for the total of 12 MEUR.

INTA

The National Institute of Agricultural Technology (INTA) is a public decentralized agency subordinate to the Secretariat for Agriculture, Livestock, Fisheries and Food, created in 1956. It is organised into 15 Regional Centres with 47 Agricultural Experiment Stations and over 313 Extension Agencies, and 4 research centres with 15 institutes (over 7000 people).

INTA is the public institution engaged in research and technology transfer to fulfill the needs of the agricultural, agro food and agro industrial system. INTA plans and carries out the agricultural and agro-industrial policy.

The mission of INTA in its institutional strategic plan (2005-2015) is to "carry out and foster actions addressing the innovation of agricultural, agro food and agro industrial sectors to contribute to the competitiveness of agro industrial chains, environmental health and sustainability of productive systems, social equity and territorial development, through research, technological development and extension".

The integration of scientific and technological skills and competencies is promoted through strategic networks. INTA is closely related to international agencies and leverages technology generated by International Research Centers, e.g. the Consultative Group on International Agricultural Research, CGIAR.

INTA implements a proactive bi- and multilateral cooperation policy with advanced S&T centres, participates in regional and international fora, exchanges experiences and information, develops and carries out research and technology transfer programs through a number of agreements with public entities, institutions engaged in research and technology transfer, international cooperation agencies, foreign universities and private entities. At the time of our visit, 36 bilateral agreements were in place, often used also, for example with the French institutes INRA and/or IRD, for EU projects consortium building (see CLARIS LPB).

Regarding institutional international participation the following were considered most relevant: at continental level, the participation in the Regional Fund for Agricultural Technology (FONTAGRO), and at MERCOSUR scope, since 1986, the Cooperative Program for Technological Development of the Agriculture in the Southern Cone (PROCISUR)

PROCISUR achieved the institutionalisation of its cooperative effort over more than 20 years. Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay, through their respective national agricultural research institutes (NARIs), are now complementing it with a process of subregional consolidation. PROCISUR has also created five subprograms (biotechnology, genetic resources, natural resources and agricultural sustainability, institutional development, and agroindustry). An objective of PROCISUR is to support joint actions by the NARIs and to contribute to building stronger ties between the national agricultural research institutes and the international agricultural research centres.

Within the PROCISUR framework, INTA is involved in the project BABETHANOL which objective is to promote the incorporation of technology and innovation in the production of ethanol from lignocellulosic biomass

In addition to its bilateral cooperation, INTA also uses its Regional S&T involvement to enhance its participations in EU programmes. As shown in Figure 9 and Table 5, INTA had 9 participations in FP6. The 7 participations in FP7 include:

- CLARIS : a Europe-South America Network for Climate change Assessment and impact studies in La Plata Basin, whose objective is to strengthen cooperation between European and South American groups to develop research strategies on climate change and its impact on the subtropical region through the framework of the CLARIS LPB.

- DEVCOCAS-GEONETCAST: the objective is to ensure the access of INA, the Climate and Water Institute, to a grant for the installation of a receiving station GEONET cast system of global observing systems (GEOSS).

- Assessment of the impacts of non-tariff barriers-NTB on the competitiveness of the EU and selected trade partners whose objective is to collect and analyze new data on non-tariff measures (NTMS), particularly in government standards and regulations prescribing the conditions for importing good products in EU markets and major competitors. It also examines the impacts of the EU and its trading partners in least developed countries.

INTI

The National Institute of Industrial Technology is a decentralized governmental organisation created in 1957, under the secretariat for Industry, Trade and SMES within the Ministry of Industry. Its 2.200 employees work in the 24 Argentinean provinces, in Research and Development Centres, or Extension and Information Units.

INTI's vision is to be recognized as public service for the generation and transfer of industrial Technology that contributes to society welfare, on a permanent and sustainable basis.

INTI has three main missions:

- Acting as the technical reference organisation for the implementation of product identity and quality regulations in industry and commerce.

- Promoting technologies for people's integration into the productive system.

- Assisting the public for furthering industrial productiveness.

INTI aims to foster productive capabilities in the areas of natural resources, environment, food, construction, metrology, chemistry, energy, materials and processes, electronics.

In these domains, INTI has an important involvement in international relationships; the South-South cooperation is dedicated to the productive knowledge transfer to countries

with less industrial development and the identification and transfer to technologies with potential to be produced locally from countries of intermediate development. Within the North-South cooperation INTI promotes local development to solve social problems, improves technological knowledge and participates in joint innovation processes.

Since 1989, INTI is involved in bilateral cooperation also with various EU Member States, for example the certification of electrical materials for potentially explosive atmospheres (1989-1999), the standardization and industrial certification (2001-2003), the improvement in competitiveness and efficiency of the Argentine Economy (2002-2008), the improvement of regional economies and local development (2011).

Regarding EU S&T-programmes, INTI is a beneficiary of ERASMUS MUNDUS scholarships, has experience in Twinning (Novel integrated strategies for worldwide mycotoxin reduction in food and feed chains), and is also a partner in strengthening SME competitiveness and job creation in Argentina implemented by MINCyT in the field of nanotechnology.

INTI is also actively participating in FP proposals, and we have found in our visit a good understanding of the FPs aiming on impacts on the economy, as well as a strategic vision of how to involve SMEs and other socio-economic actors. INTI was successful in FP6 with the NOVELQ project (Novel processing methods for the production and distribution of high quality and safe foods). From its 8 proposals in FP7 (3 KKBE, 3NMP, 2 ENV) related to water (irrigation, water technologies, water scarcity mitigation in Latin America), environmental technologies and food security, none has been successful yet.

10.7. Conclusion first years of FP7

As for the participation of Argentinean research institutions CONICET and INTA maintain their presence also in FP7. However, higher education institutions are more present, especially universities. This is a very encouraging fact with respect to the administrative difficulties frequently mentioned, since researchers from universities can handle participation in large consortia. Nevertheless, 2007 expectation for Argentinean participations was far higher, extrapolating partial results of the first year with 55 participations per year, which would have led to the expectation of almost 280 participations during the seven years of the FP7. This shows that the dynamics of the participation was slower, even if good results have been obtained by Argentinean teams in FP7.

10.8. Overall conclusion

Argentina began to participate in the FPs in the eighties. In the continuity of the existing bilateral links with EU member states, the S&T cooperation agreement was signed between Argentina and the EU in 1999, which facilitated greater multilateral cooperation. This Agreement gave a legal framework to the activities being carried out, and declared joint scientific research and technological development activities to be of strategic interest. The agreement also has the increase of cooperation in areas of mutual interest as a key objective. Within Latin America, Argentina was (2nd to Brazil) a main partner for cooperation within FP6. These two countries have a leading effect on the other Latin American countries. Biotechnologies, food quality, environment and health were the areas most addressed in

FP6 projects with Argentinean partners. In 2006, when the S&T Cooperation Agreement was renewed, Argentina expressed its interest in projects which, in addition to S&T development, produce technological goods and services, would go beyond the traditional fields of cooperation (food, agriculture, biotechnology, health, and environment), and address themes of growing importance such as energy, transports, nanotechnologies and communication and information technologies (ICT).

An analysis of the three first years of FP7 shows the following results: The EC funds distribution between the four major LA countries in FPs, namely Argentina, Brazil, Chile, Mexico shows that Argentina is still 2nd to Brazil with 6,94 MEUR (3,34 MEUR in 2007, 2,77 MEUR in 2008 and 0,83 MEUR in 2009). This represents slower dynamics in Argentina than in Brazil and Mexico. In retained proposals for FP7 calls concluded in the same period, the total of applicants for funding stays practically stable for Argentina (33 in 2007, 26 in 2008, 32 in 2009), whereas Brazil and Mexico both increased their numbers. During these three years, Argentina continued to have a good FP7 success rate (27,17%) compared to Brazil (22,83%) and Mexico (21,47%).

A more in depth analysis of the EU-Argentina collaboration was carried out by the Foresta project for the ICT area: Argentina's participation in FP6 IST projects amounted to five participations. During the years 2007-2008-2009, Argentinean brokerage efforts and activities by EU support action projects have started to target ICT, which has already shown good results with eight participations in six successful projects in FP7 so far. As initiatives supporting Argentinean participation, one can mention the establishment of an FP7 NCP for this thematic area, the EC country strategy paper 2007-2013 emphasizing the relevance of ICT for the social and economic development, the PRO-IDEAL project developing "virtual project angel courses". In this project, each project angel receives, in the form of coaching course modules, relevant information on an on-going basis.

Nevertheless, the slow development of Argentinean FP participation could also mean that the information about opportunities for R&D projects with the EU is still not disseminated broadly enough. It seems that mostly people already involved in R&D projects with the EU already go the cumbersome way to access the grants. Ways to promote a broader dissemination and an in-loco support to applicants are outlined in chapter 13.

Most grants administered by the Argentine R&D agencies are still based on credits from national sources. Applying for grants through Argentinean funding agencies is much easier for local researchers than accessing foreign resources like those coming from EU, which require complex procedures and involve negotiations with several institutions from foreign countries. As this issue is currently high on the agenda in the EU too, we suggest in chapter 13 a specific consideration of international cooperation aspects in all related working groups and procedures.

11. Argentina's S&T Cooperation – selected projects

As a general policy line, Argentina's cooperation activities with research centres abroad and with international organisations have the objectives to contribute to:

- Promoting the S&T Regional integration inside MERCOSUR and associated countries;
- Impelling cooperation and exchange with S&T excellence networks in developed countries worldwide, strengthening financial aid for basic research and production;
- Improving relations with centres with future potential in Asia and the Pacific, Middle East, Central and Western Europe and Africa;
- Motivating horizontal cooperation projects within the expanded regional collaboration system with Ibero-America (CyTED), Latin America and Caribbean countries;
- Promote human resources training by obtaining external scholarships and grants for scientists and technologists;
- Expanding international cooperation modalities inside the country by actively incorporating provincial and municipal units in joint projects with research centres and companies from third countries and multilateral organisations;
- Promoting the participation of specialists and Argentinean centres in the programming and implementation of activities sponsored by multilateral organisations belonging to the UN system;
- Strengthening national S&T capacities by developing policies and actions to encourage Argentinean researchers to stay in the country or to return if they are interested in developing their activities in Argentina;
- Promoting the linkage between Argentinean Technology Centres and companies with companies, NGOs and foreign organisations to encourage the participation in international cooperation activities in S&T&I through the participation in congresses, fairs, international exhibitions as well as the development of training programmes with international export standards in order to increase the sectors' competitiveness and to strengthen Argentinean institutions' and companies' links with foreign ones.

Considering these policy objectives, we mention in the following selected projects with different geographical and S&T focus.

11.1. Argentina – EU

Argentina is very active in this regard, and invests considerable efforts and resources to increase her influence in different policy arenas. In this section, we first outline examples of programmes with an overarching nature, and then specific research projects in the different regions of Argentina. As the EU-AR liaison office **ABEST** has a special importance it was described separately in chapter 9.

Programme for Strengthening SME competitiveness and job creation in Argentina: EU-MinCyT NanoPymes (NanoSMEs) 2007-2013

The Programmme is funded jointly by the EU and MINCyT. With a credit line of 19,6 MEUR (9.800 EUR each) it aims at supporting and improving governmental mechanisms for technology transfer to existing SMEs, thus supporting the creation of new technology-based companies. Implemented nationwide, the focus is on strengthening the competitiveness of SMEs through the use of nanotechnology in 4 industrial sectors: Metal Mechanics (including auto parts), Agro-Food, Health & Electronics.

Expected outcomes:

- Improving the level of awareness of SMEs regarding innovation and the introduction of new technologies
- Increasing cooperation in the field of innovation between research institutes and SMEs
- Supporting governmental mechanisms for SMEs in Argentina related to micro- and nanotechnologies, creation of new technology-based companies
- Launching of regional innovation and project funding strategies
- Creating and strengthening of an Argentinean Technology Platform in micro- and nanotechnology.

ARGENTINA – COST Reciprocal Agreement

In 2010 Argentina signed a Reciprocal Agreement with COST, becoming the first Latin American Country and the fourth between third countries (together with Australia, New Zealand and South Africa) in signing this kind of partnership. COST's reciprocal agreements create mutual beneficial cooperation opportunities for both COST countries' researchers and the research institutes of the countries that have signed the reciprocal agreement. COST Action scientists participating officially in activities with the reciprocal agreement countries, are eligible to benefit from funds mostly in the form of Short-Term Scientific Missions under the Reciprocal Agreement (RSTSM). The agreement covers travel and subsistence expenses to and within the host country. In addition, Argentinean scientists are able to participate in COST Actions through funding made available by MINCyT through its designated implementing agent, the National Direction of International Relations.

Since 2009, the **Twinning Programme** identifies similar activities among FP7 projects and ones that are supported by MINCyT and other countries with bilateral agreements. It is already considered a very successful and also a cost-effective approach (approx 1 % of project budget reserved for this). Nevertheless it has not been renewed.

Research projects in the regions of Argentina

With 70 % of the population, the Pampas region also has the lion’s share of Argentina’s S&T capacity (universities, research institutes, CONICET-, INTA- and CNE-centres - especially around Buenos Aires and Cordoba). Nevertheless, MINCyT points out that there are FP projects implemented in all Argentinean regions.

Northeast (Formosa, Chaco, Misiones, Corrientes and Entre Rios)

This area, which has an extensive river basin is characterised by a geography of plains, marshlands in Corrientes and plateaus in Misiones. Its economy is based on agricultural primary activities, logging, and ranching. Much of the research in this region is focused on studies related to the region's natural resources, such as water, agriculture and forestry, environment with particular attention to climate change. Studies within the scope of rural and social development should also be mentioned.

There are regional and provincial universities such as the National Northeast University with successful participation in Erasmus Mundus Programme, National University of Misiones, National University of Formosa, National University of Entre Rios, and research centres such as the botanical Institute of the Northeast (IBONE) and experimental stations of INTA and INTI, among others. Most research is focused on the natural resources (water, agriculture, forestry and environment) and the related rural and social development.

The **ARAMAP** project aims at the genetic improvement of peanuts where Argentina is one of the leading exporters. As the cultivated species have a scarce variability in terms of genes of agronomic interest detailed genetic maps have been developed also of the large number of wild species in Latin America, and candidate genes for resistance to diseases and pathogens identified.

Northwest (Jujuy, Salta, La Rioja, Catamarca, and Santiago del Estero)

In this region, agriculture (tropical crops, e.g. sugar cane, citrus, tobacco in the province of Salta, Jujuy and Tucuman and the vineyards in the valleys of Salta and La Rioja, and paper production) and mining are major economic activities. There are significant deposits of oil, gas and minerals.

While research activities are diverse, activities related to medicine and biology prevail as well as agricultural sciences and mineralogy. Studies of history and anthropology are also important. The region is home to numerous universities and national research institutes among which in the province of Tucuman: the reference Centre for Lactobacilli (CERELA), Pilot plant of microbial industrial processes (PRIMI) and the experimental station Obispo Colombres, who has recently completed one hundred years since its inception.

The **Healthy Market** project, a virtual marketplace for the implementation of healthy nutritional plans, focuses on an increased interaction between food production industry, providers of certified and verified medical information, certified laboratories providing information on food composition, and consumers. The objective is to increase the quality of life of working groups at risk, by addressing key prevention factors such as nutrition, sports, social relations, and the environment.

Pampas (Cordoba, Santa Fe, Buenos Aires and La Pampa):

Pampas region has a strong industrial-based economy, including agriculture and livestock, automobiles, metallurgy, textile, chemical-pharmaceutical and paper. It has also the largest concentration of internationally recognised and long-standing universities, and a high density of execution units and S&T research centres. These characteristics explain the massive participation of the region in all parts of FP6 (87 %).

Examples include:

- The **CLARIS LPB** (FP7) project develops a set of coordinated regional climate scenarios for the **L**a **P**lata **B**asin (time horizons 2010-2040 and 2070-2100), and adaptation strategies for land use, agriculture, rural development, hydropower production, river transport, water resources and ecological systems in wetlands. Of the 20 institutions from 9 countries, Argentina participates through CONICET, INTA, INA (the national water institute) and UBA's School of Natural and Exact Sciences.
- With the objective to develop better **F**oot-and-**M**outh-**D**isease control strategies, the **FMD-Disconvac** project progresses on various aspects regarding FMD vaccines. The consortium from 11 countries positions its activities in the larger context of the 2007-2013 Strategy of Community Animal Health, the European Technology Platform for Global Animal Health, and the Global Roadmap for Improving the Tools for Control of Disease in Endemic Regions.

Cuyo (San Juan, San Luis and Mendoza)

The Cuyo region economy relies on agricultural activity, mainly viticulture. Cattle ranching and extractive industries contribute to the economy of the region (Loma negra cement, calcium carbide, ferroalloy and silicon metal in San Juan, oil distillery in Lujan de Cuyo). National Universities and numerous research institutes in the region, as the regional centre of scientific research and technology (CRICyT), the Pierre Auger Observatory, the Argentine Institute for Arid Zone Research (IADIZA), the Institute of Human Sciences, Social Sciences and Environment (INCIHUSA) among others, develop high level research in various scientific areas.

There is a long tradition in research in medicine, agricultural sciences, food industries and engineering. The **ALARM** (FP 6) project (Assessing LArge-scale environmental Risks with tested Methods) mobilised institutions from 36 countries to gain a systems view on environmental risks. The research focused on assessing – in an integrated way – and forecasting changes in biodiversity and in structure, function and dynamics of ecosystems, including the relationship society-economy-biodiversity.

Patagonia (Neuquen, Rio Negro, Chubut, Santa Cruz and Tierra del Fuego)

In this region, whose economy is based largely on the search and extraction of fuel (gas and oil), research is especially related to biofuel production and the search for alternative energy sources, oil and forestall activities (natural forest protection and rational wood exploitation). In addition to national universities such as National University of Comahue, Patagonia's University and the University of Rio Negro, INTA's experimental stations and other S&T institutions, the Institute Balseiro-Atomic Centre Bariloche is located here, and is distinguished for its research in the area of physics, material technology and devices, and nuclear engineering.

Research in this region focuses on all types of energy (from biofuel to gas, oil and nuclear) and natural resources management. The **BIOTOP** (FP7) project develops technologies for producing second (non-edible biomass such as jatropha or algae) and third generation

(cellulose from wood waste or grass) biofuels. The consortium of 7 countries includes Argentina and Brazil as the two largest producers of biodiesel and ethanol respectively.

11.2. Mercosur - EU

Demand / market-driven, the biotechnology platform **BIOTECSUR** has the objective to develop and apply new technologies, and mobilises and articulates public and private actors in this field for the sustainable solution of regional and global issues. The agreement between the European Community and the Mercosur was signed in November 2005, with MERCOSUR contributing around 2MEUR. A Management Unit within MINCyT is responsible for the implementation. Strategic and operational orientation is defined by the Commission for the Support of Biotechnology Development within RECyT. In each country and Region there is a technical secretary acting as a focal point: RECyt for Mercosur, EC Delegation in Montevideo for the EU, MINCyt for Argentina, MCT for Brazil, Conacyt for Paraguay, and MEC for Uruguay.

BIOTECSUR promotes innovation by strengthening the capacities of – and better links between - the business and S&T sectors. It consolidates and effectively utilises scientific and biotechnological capacities and leverages financial resources, stimulating cofinancing and international cooperation. Another aim is to promote a regulatory environment favourable for the development of public and social legitimacy policies to stimulate development investment and biotech application.

Taking into account the current scenarios and capabilities in the countries of the Region the activities mentioned above are implemented along the following 5 strategic lines:

- Building business and productive capabilities: providing institutional support for the development of competitive alliances between big corporations and small organisations; fostering pre-competitive business alliances; developing biotech parks and incubators; creating consolidating enterprises and fostering entrepreneurship; systematising regional information flows; building databases; creating a competitive intelligence observatory;
- Capacity building: human capital development; knowledge management; infrastructure and business capabilities development;
- Supporting public policy formulation: harmonising standards; developing regional fiscal incentives; creating a think tank aimed to promote the development of a Regional policy; integrating and harmonising the work carried out by regulatory state agencies; supporting the institutions involved in biotech development;
- Improving the funding system: developing new financing tools; procuring and managing resources to support activities and projects;
- Improving the positioning of biotechnology – vis-à-vis society and in competitive global markets.

Resources for the platform come from a broad spectrum of sources, the EU contribution is in the order of 6 MEUR.

11.3. LAC-EU

EULARINET, e.g. (15 partners) aims at strengthening the dialogue on S&T between EU Member States, Associated States and Latin American Partner countries , thus contributing to promote:

- the joint identification, setting up, implementation and monitoring of mutual interest priorities of future work programmes across FP7;
- the joint definition of S&T co-operation policies
- the support and stimulation of LAPC participation in FP7

Target groups are stakeholders at policy and programme level as well as in research establishments and private companies.

EULANEST, financed under FP6 from 2006-2010, supported its partners in the development and implementation of joint research activities between Europe and Latin America. The consortium was formed by the following eight institutions from five European countries: Spain (Coordinator): Ministry of Science and Innovation MICINN; France: Ministry of Foreign and European Affairs MAEE, Ministry of National Education, Higher education and Research MENES, Research Institute for Development IRD; Germany: Federal Ministry of Education and Research BMBF, International Bureau of BMBF IB-BMBF; Norway: Research Council of Norway RCN; Portugal: Foundation for Science and Technology FCT.

Within the project cooperation activities in S&T between European EULANEST partners and LA countries were the mapping and benchmarking, identifying best practices and preparing a base for a Joint Action Programme.

As EULANEST's final goal, a Joint Call was launched in 2009 to strengthen EU-LAC research co-operation in Sustainable Renewable Energies in the frame of climate changes, and Nanosciences with emphasis on human health. The Latin American partners participating in the Joint Call were: from Brasil the National Council for Scientific and Technological Development (CNPq), and from Argentina MINCyT.

A total of 63 proposals were presented, 38 in Sustainable Renewable Energies and 25 in Nanosciences. Seven proposals have been selected, five of them with Argentinean participation.

LAC ACCESS had the objective to do a general mapping of high quality LAC R&D institutions relevant to FP7, **ProIdeal / ProIdeal Plus** focused on the EU-LAC dialogue regarding ICT, **BioCircle / BioCircle II** strengthen and enlarge the NCP network in the Food, Agriculture, Fisheries and Biotech area, while **CoopAir** aims to facilitate LAC countries' capacities in aeronautical research.

ALCUE Food - From European fork to Latin American farm – was an innovative networking platform for EU-LAC partnerships in food quality and safety R&D: Further to the Rio summit, the bi-regional S&T dialogue between Latin American and Caribbean countries and the EU's Members States (ALCUE) has successfully highlighted opportunities in areas of co-operation and provided a concrete outline of issues to be addressed in the agrifood area. Considering the role of agriculture and agrifood in the Southern Cone Countries, the importance of

agricultural products trade to EU, the presence of recognised research groups, the bilateral EU agreements in S&T, the networking platform aimed at

- meeting EU safety and quality requirements;
- developing safer food and feed chain production;
- providing high quality and health-enhancing foods.

Promoting in LAC countries a "total food chain approach" for EU exported products will subsequently contribute to improve the welfare of Latin American populations and must be considered as an important impact in terms of co operation and mutual benefit.

ALCUE-KBBE - Towards a Latin America and Caribbean **Knowledge Based Bio-Economy** in partnership with Europe (2011-2016), coordinated by CIRAD

On the basis of shared interest, comparative advantages, and mutual experiences, the project aims to construct the basis for a strategic alliance between the EU and LAC regions, to facilitate collaboration and coordination of research and innovation in the area of the KBBE, including agriculture, fisheries, forestry, food and related biotechnologies. Expected is to scale-up the collaboration with Third Countries signatories of bilateral S&T agreements with the EU, to contribute to the advancement of a competitive bio-economy reflecting the needs and opportunities of both European and LAC countries, and addressing global challenges affecting the KBBE world-wide, including achievement of the Millennium Development Goals.

Within this context, the **general objective** is to establish a platform bringing together regional and continental organisations involved in research funding and implementation, as well as other relevant stakeholders from the public and private sector and the civil society. The platform generates relevant information for the design and implementation of specific plans and projects, including the necessary R&D activities, and constitutes the base for the establishments of an enabling policy and institutional environment, as well as for the development, consolidation and cross fertilisation (synergies) of the KBBE in both Regions.

EULAC Health - Defining a Roadmap for Cooperative Health Research between Latin America and the EU: a Policy Oriented Approach (2011-2016)

Partners: ISCIII (Spain) as coordinator, MINCyT (Argentina), UCR (Costa Rica), INNOVATEC (Spain), DLR (Germany), COHRED (Switzerland), APRE (Italy) and FIOCRUZ (Brazil).

The EULAC Health coordinating action aims to define a Roadmap for Cooperative Health Research between Latin America, Caribbean and the EU using a policy oriented approach and taking into account the new political framework for EU-LAC collaboration in S&T. This roadmap will provide policy-makers and R&D funding bodies with new insights on how to best coordinate and fund cooperative health research between the two Regions.

Main lines of action:

- Coordinating health research policies and funding between the European Commission and EU Member States and Latin America and Caribbean (LAC) countries.
- Establishing a Roadmap for cooperative health research with the objective of setting up a future framework between the EU and LAC in this field.
- Disseminating the project results to the main stakeholders as a means to increase and improve EU-LAC cooperation in health research.

11.4. Bilateral Projects

Argentina – Germany: Use of urban waste in urban-perimeter agriculture

This cooperation of INTA / Universidad Nacional de Entre Rios and Berlin University aimed at strengthening the cooperation university-enterprises-society and on this base developing better solutions to a socially and ecologically important problem, the use of urban waste. Developing a network of Argentinean and German institutions, and going beyond the direct exchange of researchers and students for the projects implemented, academic structures in general were compared (graduate- and postgraduate curricula, availability and potential of infrastructures, the role of agriculture-focused universities in society) and options explored for long-term strategic S&T alliances in the area of urban and urban-perimeter agriculture.

12. Feedback from stakeholders and project participants

12.1. Online survey

An online survey for the group of coordinators, European and Argentinean participants in FP6 and FP7 projects was organised in the framework of this review. This survey (version 1) was launched on January, 11th 2011 with deadline March 9th, 2011.

An alternative, shorter version - without details regarding project implementation - was sent on February 11 (version 2). The following analysis is done from the merge of the 154 replies to V1 (see annex 1) and the 75 replies to V2. The target group comprised 690 valid e-mail addresses.

V2 was preferred by participants/coordinators of already finished projects, mainly FP6 projects. (60% of the replies of V1 are from FP7 as 58% of replies to V2 deals with FP6)

The global return rate of 33,18 % (in spite of the fact that the survey had to be answered in the main holiday period in Argentina) shows the interest of the community to the EU-AR cooperation.

As we are dealing with more than 200 answers, the number of answers is not quoted in each case, but significant with respect to the total sample. A general caveat iw that, as the e-mail

addresses came from the EC address file, only people registered in the EC project database, i.e. already acquainted with EU procedures were reached by this online survey.

The survey contains one group of questions regarding the profile of the respondents: who are they, from which countries and which kind of organisations. Another group of questions deal with the experiences of respondents with FP6 and FP7, as well as their knowledge of the S&T Agreement between EU and Argentina under review in this report. The survey addresses the characteristics of projects in which respondents are/were involved (kind of EU tools, number of partners, countries involved, type of organisations involved). This group of questions permits to see if the respondents' sample is consistent with Argentinean participations in EU projects. Detailed questions concern the histories of the cooperation as well as the preparation of the projects. In addition to the reasons for getting involved in EU projects, further questions focus on expected outcomes, bottlenecks and difficulties. Moreover, open questions incentivate suggestions for improvements, and for preferred priorities for future S&T cooperation. Therefore, the answers give a review of previous experiences as well as indications of how and where to go in the future.

12.1.1. Who and how many answered?

The overall 229 answers are a good sampling of the FP project participants/coordinators. Taken the coordinators alone, there is an even better rate of answers to the survey, showing their deeper involvement in project building:

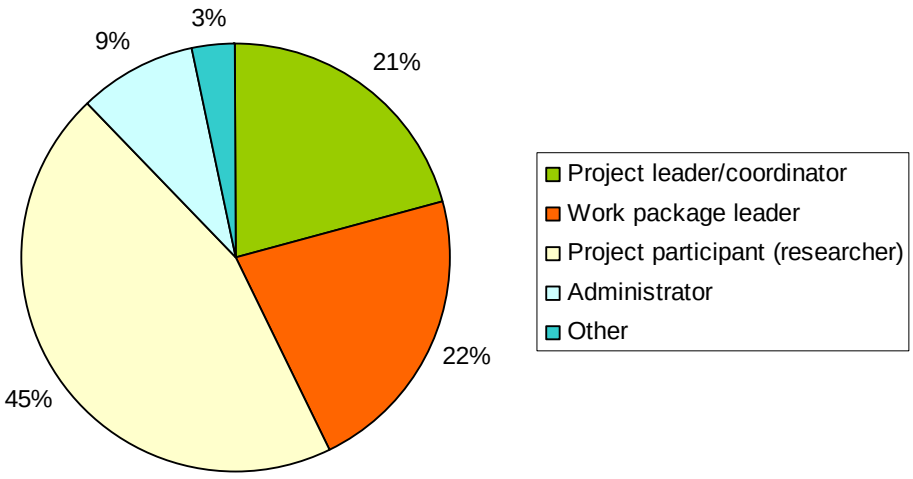

Figure 16 : Involvement in research projects of the respondents

Half of the answers give details on the location of their organisations, showing 28 countries with a good representation of Argentinean participants (42,48%); the main EU partners of Argentinean groups are also represented in the answers, namely France, Germany, Italy, Spain, UK. The leading effect of Argentina on other Latin American countries is also visible (see answers from Brazil, Colombia, Ecuador, Mexico, Nicaragua, Peru, Venezuela):

Table 13 : Geographical distribution of the respondents

Country	Answers
Argentina	48
Australia	1
Austria	2
Belgium	2
Brazil	2
China	1
Colombia	1
Croatia	2
Ecuador	1
Egypt	2
France	11
Germany	7
Hungary	1
India	1
Italy	8
Latvia	1
Mexico	2
Moldava	1
Nicaragua	1
Norvege	1
Peru	1
Poland	1
South Africa	1
Spain	5
Switzerland	1
The Netherlands	2
The United Kingdom	4
Venezuela	2

The profile of the organisations' respondents is given in

Figure 17. This illustrates the strong involvement in FP projects of research organizations and Higher Education Institutions (69% all together), as well as the deficit of participation of SMEs and industry (9% all together).

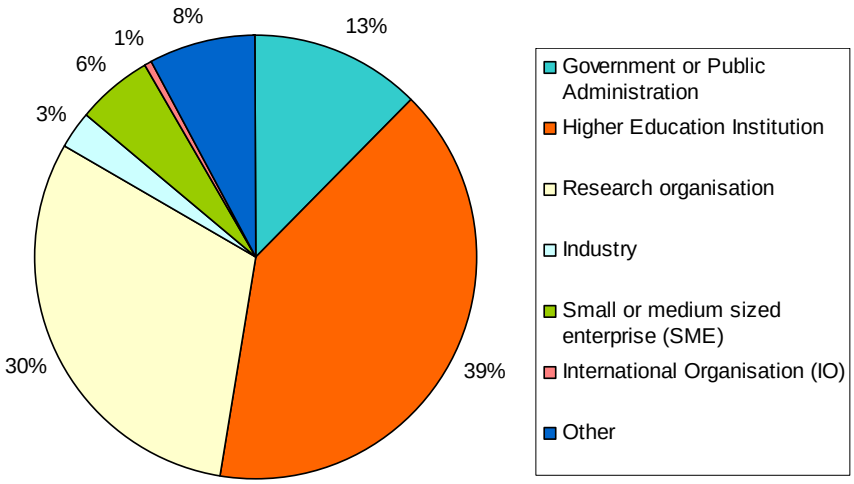

Figure 17 : Distribution of respondents' organisation

In Figure 18, “others” refer mostly to LA-, Iberoamerican and Higher Education initiatives. The relatively high number (32) relating to Joint Programming preparation is in contrast to the fact, that in the interviews Joint Programming was not very known. This makes the reviewers assume that some might have meant “jointly preparing projects” instead.

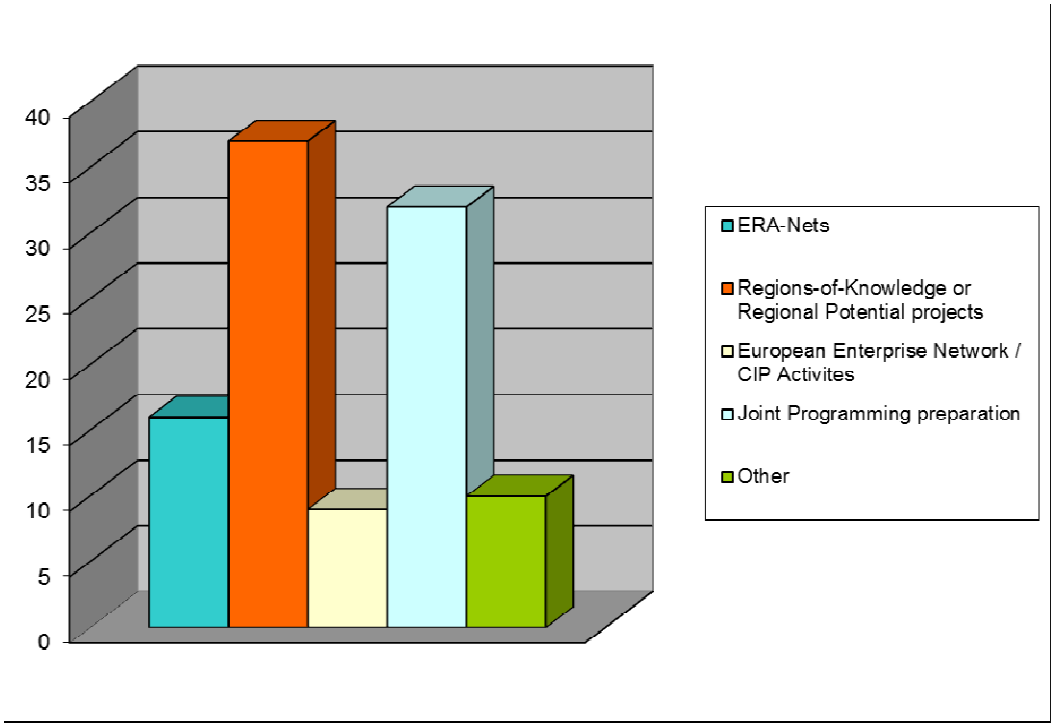

Figure 18 : Distribution of cooperation activities of the respondents

12.1.2. Experiences in FP6 and FP7 projects, S&T Agreement

The S&T agreement between EU and Argentina is well known in 1/5 of the answers even if more than 60% did not know it at all. 14,6% of the respondents were involved in FP6 projects, 53% are involved in FP7, 17,5% in both FP6 and FP7 projects.

FP6 participation:

The following Figure 19 shows the distribution of the thematic areas covered by the activity of respondents in the FP6. The three main thematic areas for emerging economy group of third countries are well represented: life sciences, food, environment.

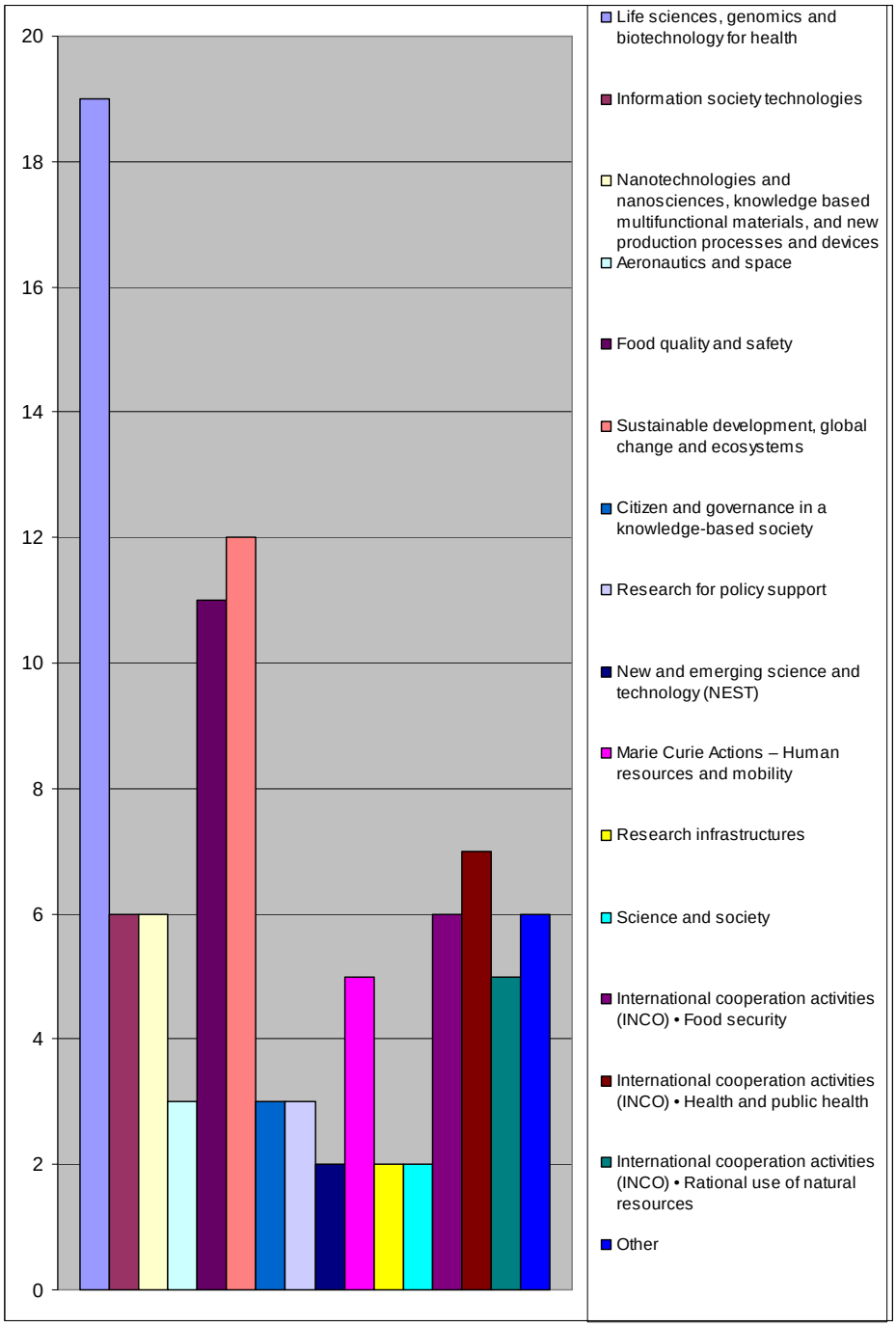

Figure 19 : FP6 thematic areas distribution

These answers are consistent with the assets of the Argentinean research.

FP7 participation:

Three fourth of the answers dealing with FP7 pertain to Cooperation programme, as shown in Figure 20. This strong representation of cooperation programme can be interpreted by a better appropriateness of the survey to this type of instrument.

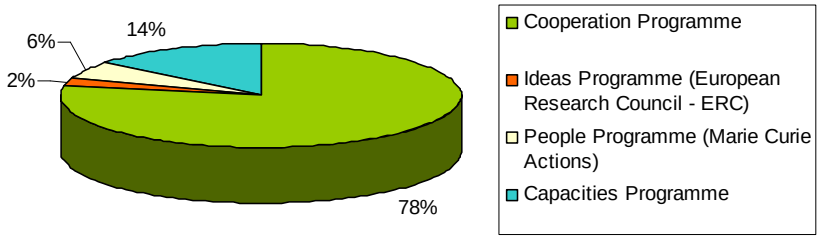

Figure 20 : FP7 programmes' distribution

The description of scientific areas covered by the respondents' activities in the Cooperation Programme is given in Figure 21. Again the three main areas Health, food, environment furnishes the main part of the answers (63% all together). ICT projects are also well involved in this group of respondents (12%).

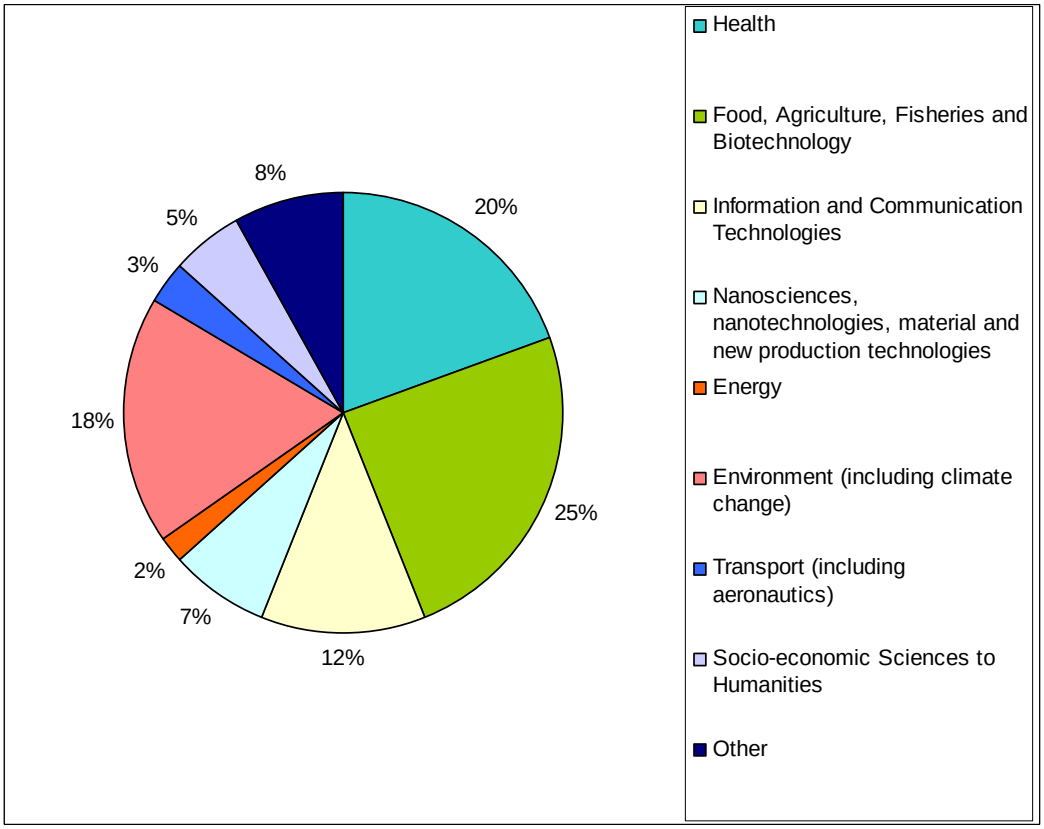

Figure 21 : FP7 scientific areas distribution

The Ideas Programme answers correspond to ERC Advanced Grant while People Programme answers pertain to Initial training network (3), International Outgoing Fellowship (1), Reintegration Grants (3). Capacities Programme answers are described in Figure 22.

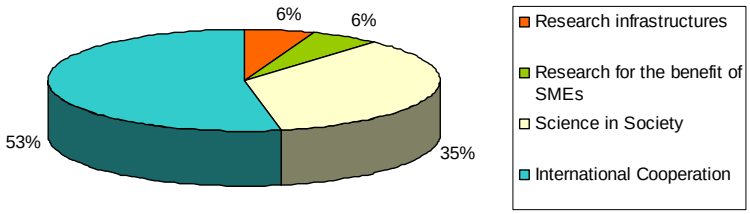

Figure 22 : Distribution in FP7 Capacities Programme

12.1.3. Project profiles

As detailed below, a 'typical project' is composed of 6 to 10 partners from 6 countries with a high proportion of research organisations and higher education institutions. 30 answers deal with FP7 collaborative projects, mainly science-led (53%) or technology-led (25%):

- Number of partners participating in a project:

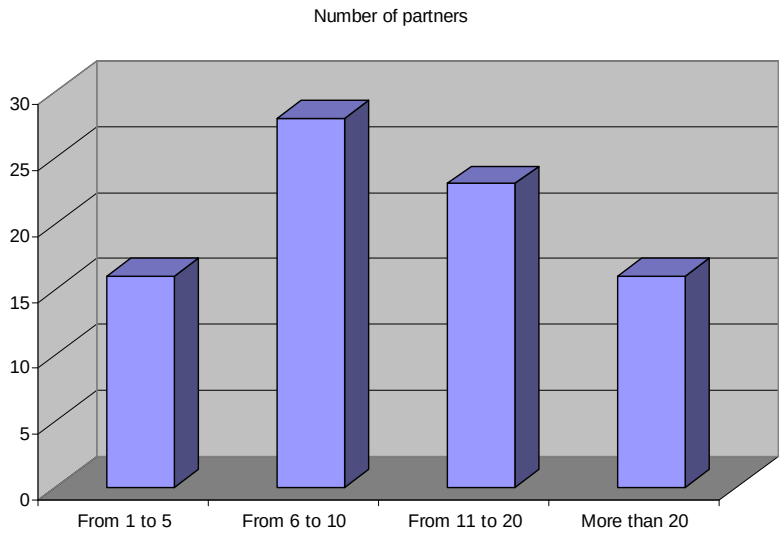

Figure 23 : Size of the consortia

- Number of countries participating in a project:

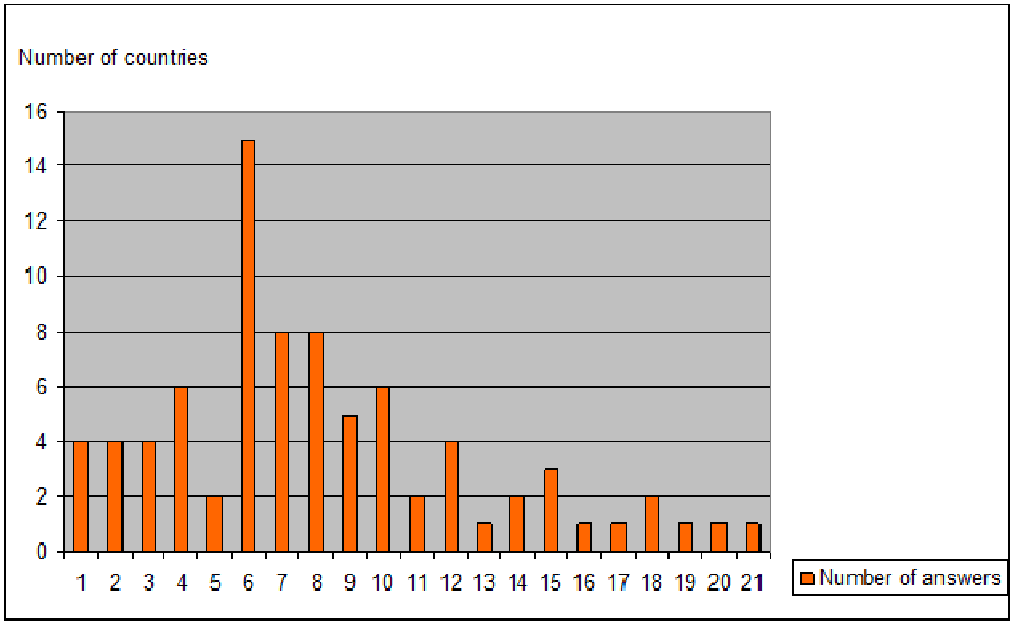

Figure 24 : Number of countries participating in projects

- Type of organisations involved in a project:

The respondents are mainly from Higher Education institutions and research organisations as shown in figure 25.

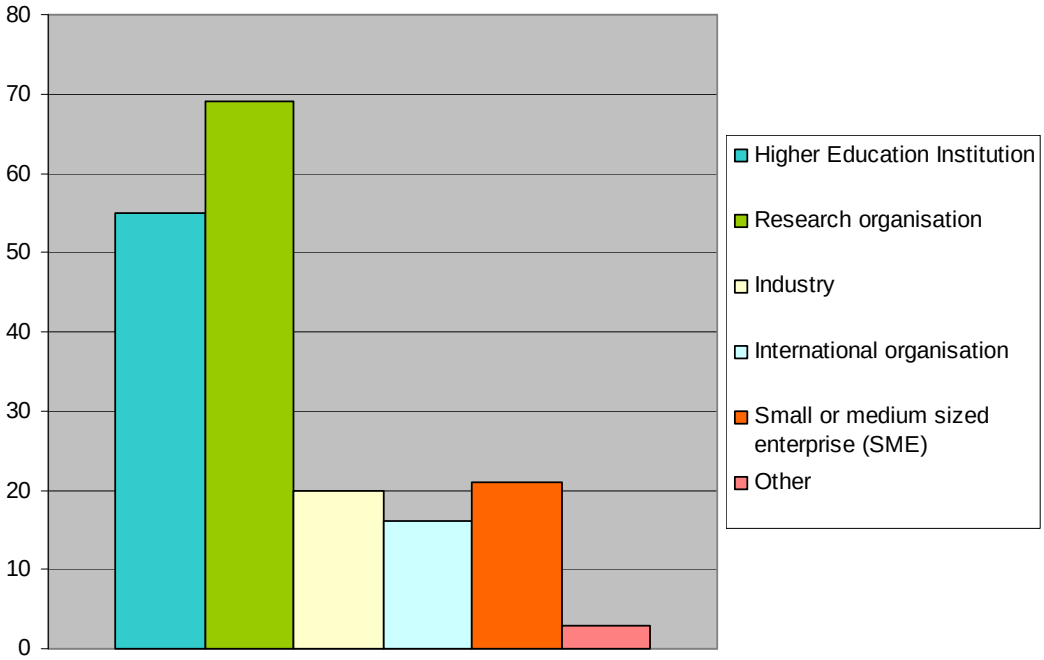

Figure 25 : Respondent profile

- Funding instruments:

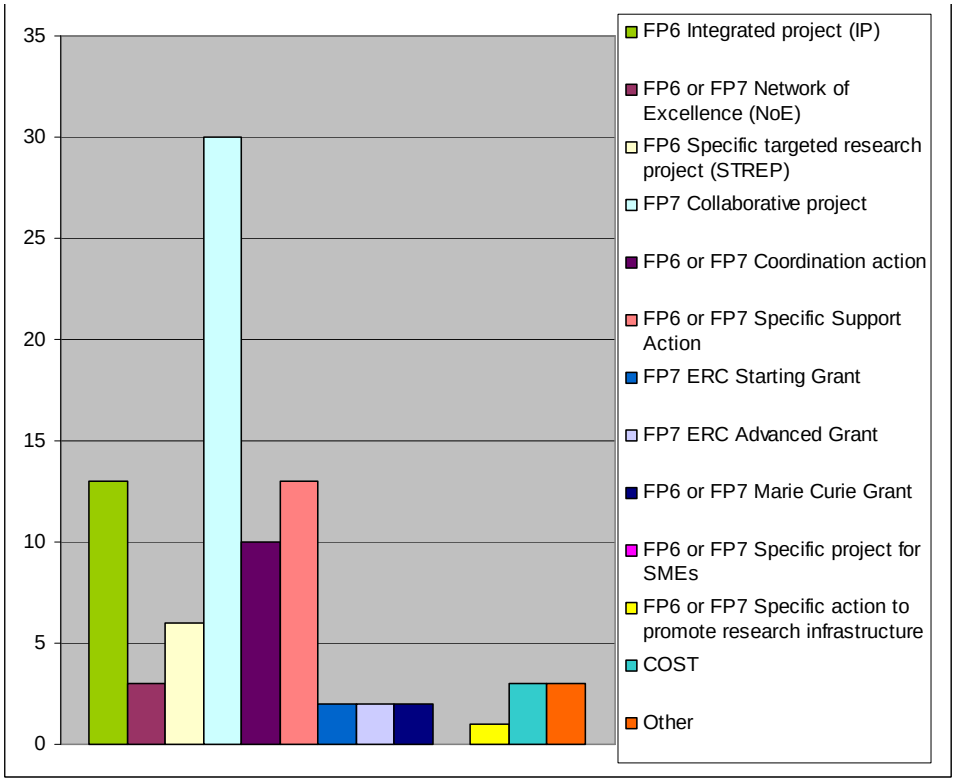

Figure 26 : Funding instruments

- **Type of research or policy action:**

Main part of the answers corresponds to science-led projects. It is interesting to note the importance of technology-led projects answers in this survey:

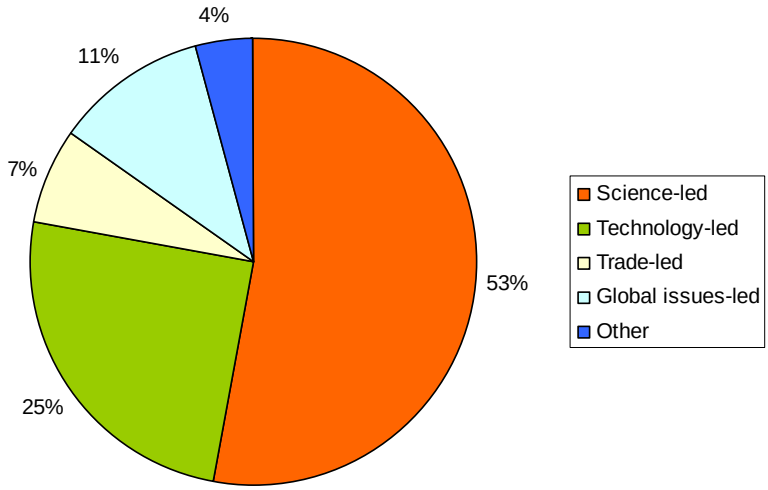

Figure 27 : Type of research/policy action

12.1.4. Preparing the projects

The survey included questions about assistance and information to applicants:

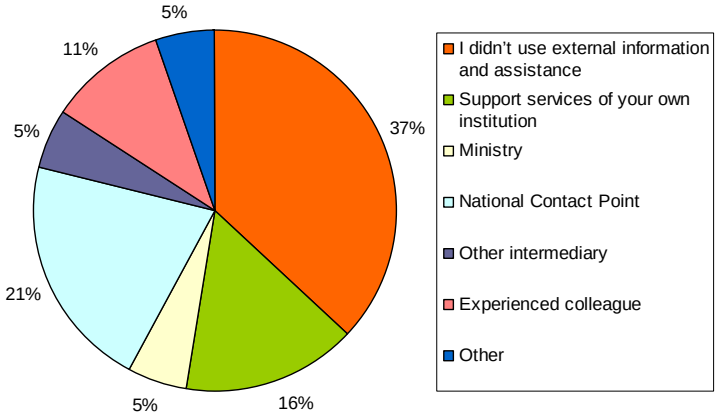

Figure 28 : Assistance to coordinator

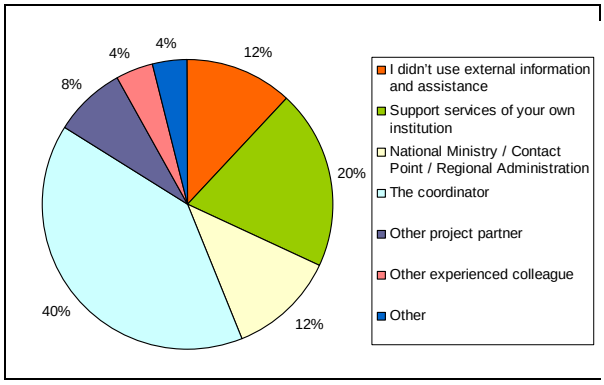

Figure 29 : Assistance to Argentinean partner

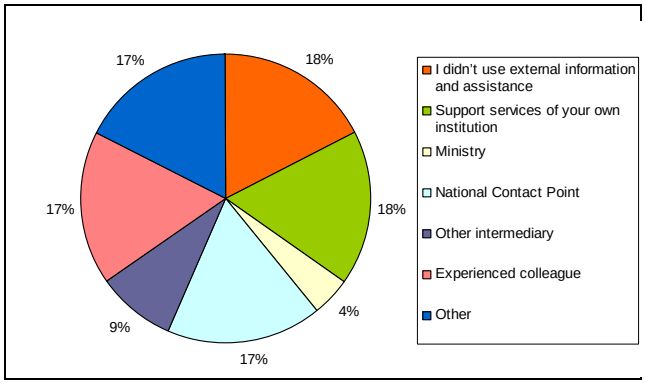

Figure 30 : Assistance to European partner

Coordinators need less assistance than partners (37% did not use any external assistance). They are themselves an important source of information and assistance for Argentinean partners (40%), and European (partners (40%). NCPs and ministries represent together 21% of the assistance for European partners, and only 12% for Argentinean partners, who are mainly advised by coordinators. Experienced colleagues are good sources of assistance for European partners (17%) while they are of little help for Argentinean partners (4%). Support services of institutions have the same role on each side (coordinator/Argentinean partner/European partner).

More precisely, the need for assistance is about: General information on the FP (29,2%), information on rules for participations such as evaluation, criteria, eligibility, financial rules, contract issues, IPR (18,5%), information on the contents of the annual work programme and the content of the Call for proposals (7,6%). Note, however, that external information does not refer to finding partners.

12.1.5. Cooperation Argentina-EU

28% of the respondents have already prior cooperation activities in the Framework Programme, 20% participated in calls from bilateral agreements between Argentina and EU Member States or research organisations, 18% never worked with EU/AR partners before. Experience of work with non EU/ non AR partners is sketched in Figure 31, showing importance of LA countries cooperation.

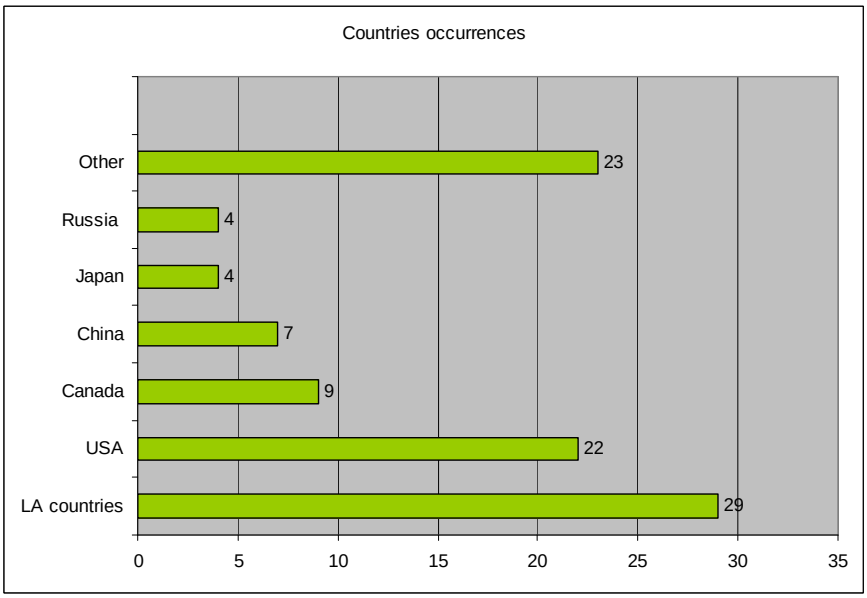

Figure 31 : Non EU/non AR partners of respondents

This history of cooperation explains the answers of the respondents about the structure of the partnership; existing contact with the coordinator (29%) or another project partner (33%) are the two main reasons to establish a network; previous projects networks or other actions are also a good reason to enter the project (23%). These answers highlight also the fact that mostly people already involved in R&D projects with the EU know about opportunities and mechanisms to access to the grants.

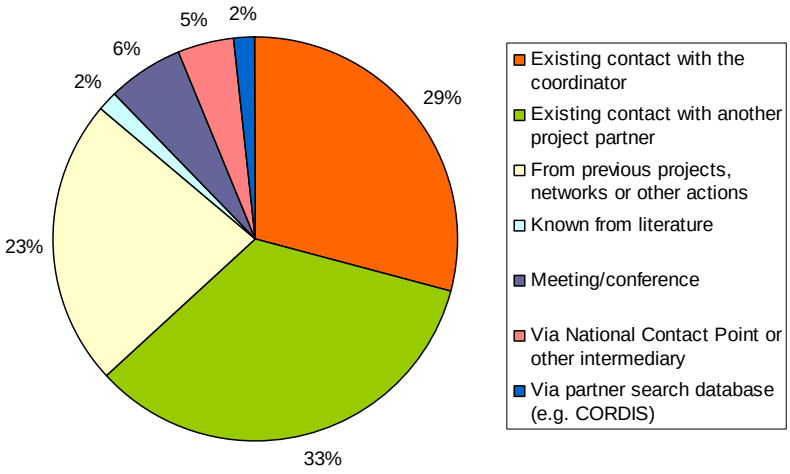

Figure 32 : reasons to establish the network

Usually (58%), the initiative for the project originates from a Europe researcher or research group. 28% are joint initiatives by researcher or research groups in Europe and Argentina.

11% are Argentinean initiative. These answers can indicate a lack of efficient procedures to disseminate, broadly, the information about opportunities for collaboration with the EU. It can also relate to the difficulty for Argentinean groups to initiate partnerships with foreign and EU institutions, due in some cases, to language and bureaucratic barriers as seen in the following.

The project proposal is mainly developed in teamwork of most project partners (35%), by the project coordinator (29%) or by a core team of project partners (28%). In only 8%, the project proposal is developed by one partner. The involvement of Argentinean partner is described in Figure 33. This involvement is mainly considered positive (55%).

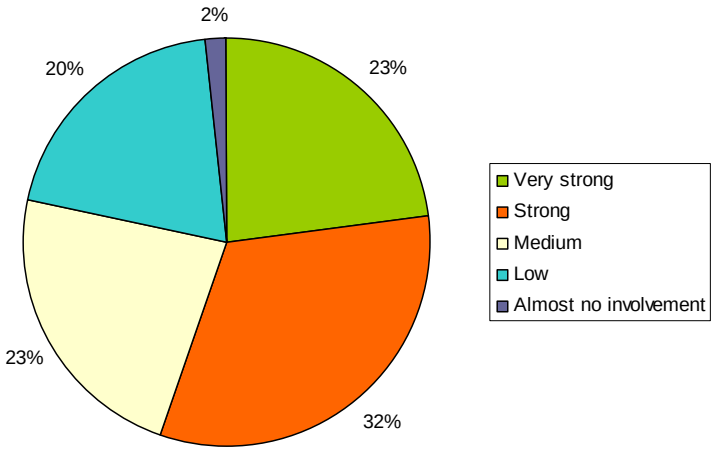

Figure 33 : Involvement of Argentinean partner

Main reasons for European partners to involve Argentinean partner are mostly the synergies with bilateral or national/regional funded projects and the access to complementary experience or expertise, as showed in the following:

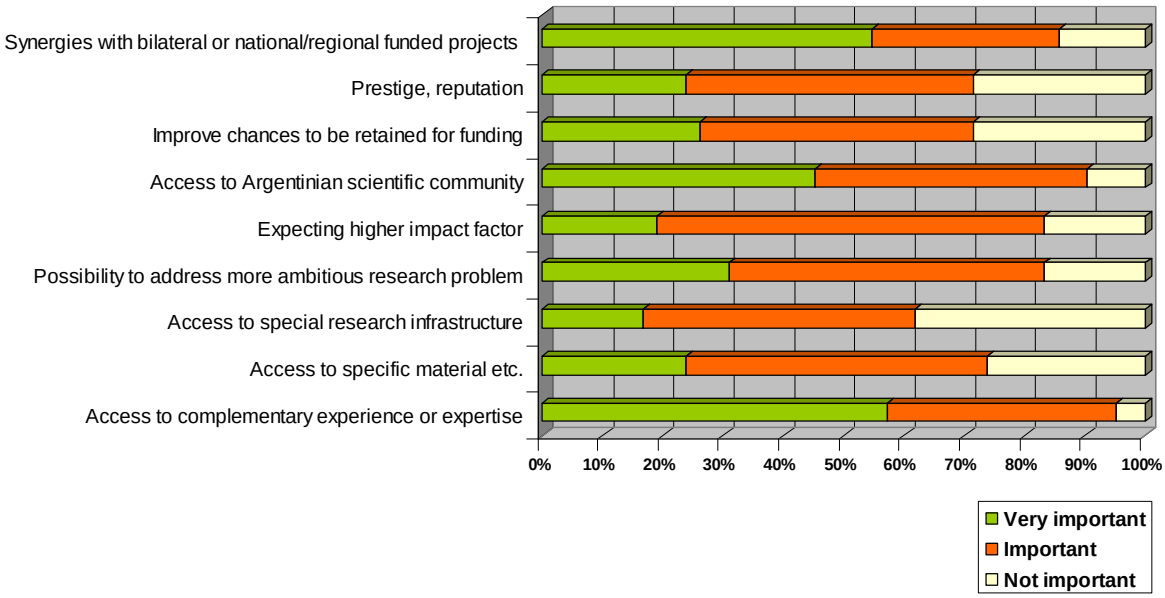

Figure 34 : Reasons to involve Argentinean partners

The main reasons for Argentinean Partner to get involved in European project are similar: the access to European funding is a very important reason (54%) as well as the possibility to address more ambitious research problems (46%):

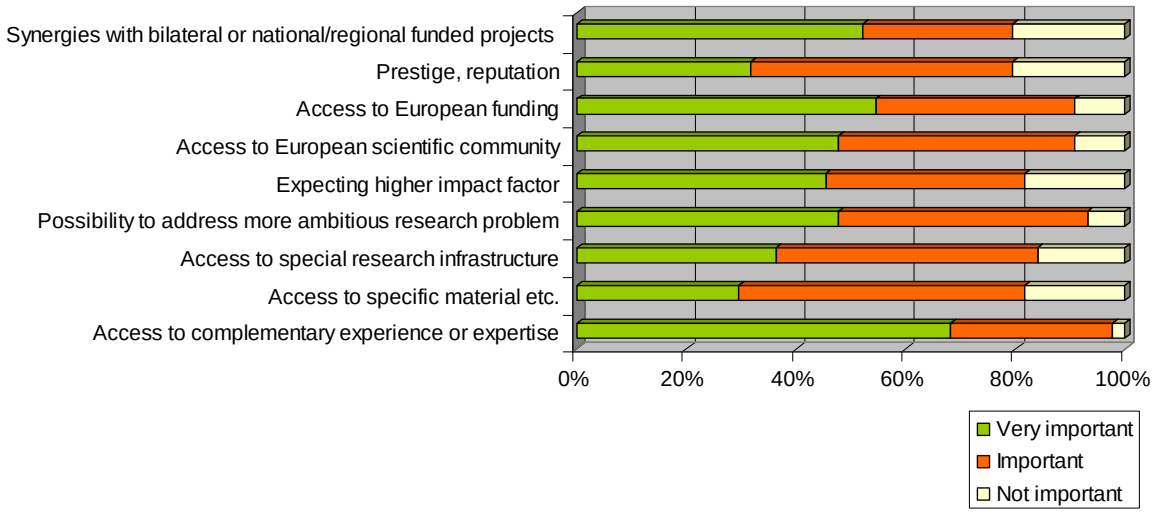

Figure 35 : Argentinean partners' interest

12.1.6. Results and outcomes

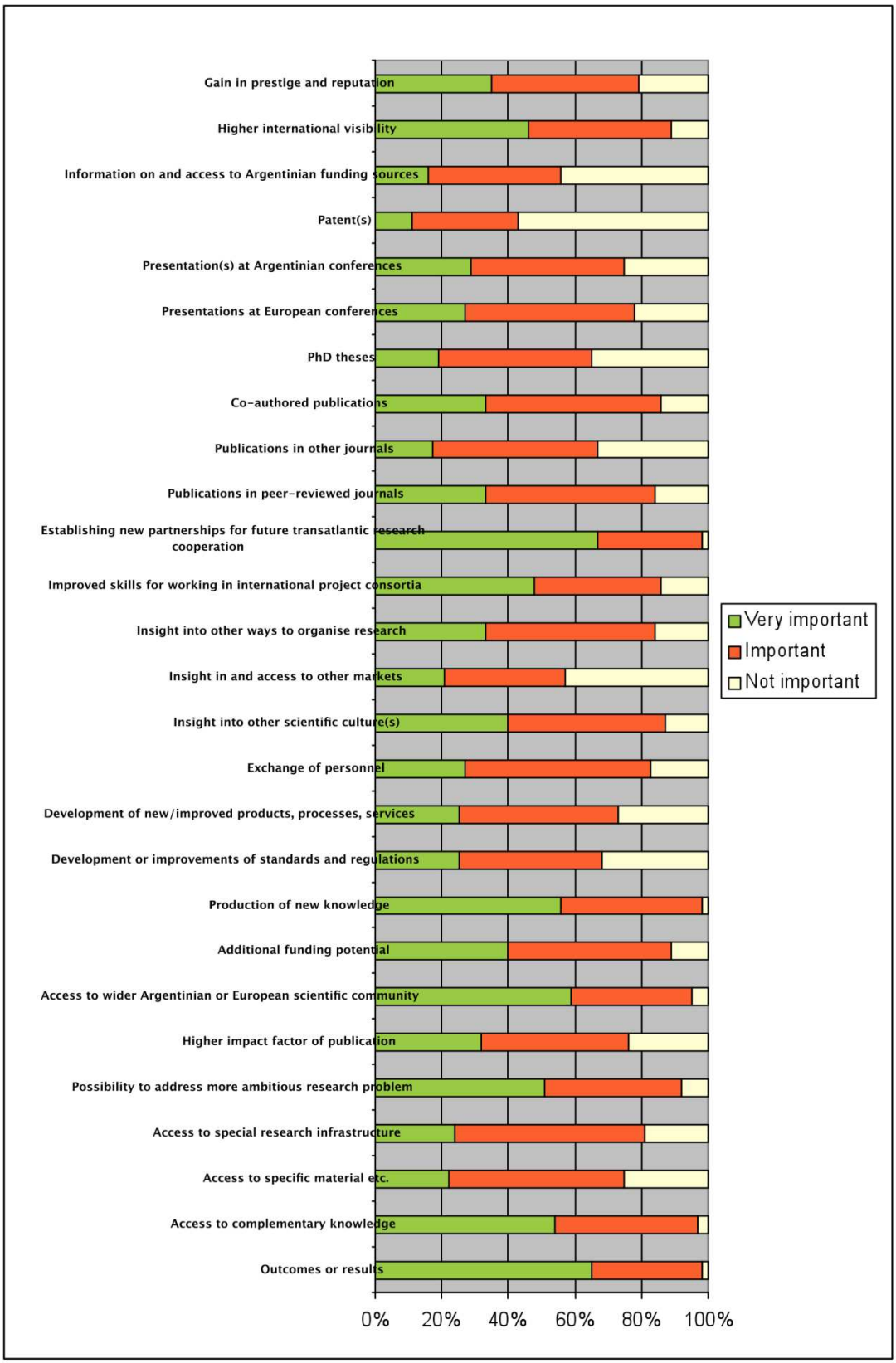

Figure 36 : Outcomes of EU-Argentina cooperation in EU projects

Respondents strongly agree or agree (70%) that the cooperation between EU and Argentina was successful. Contacts and collaboration developed during the project is leading to other

networking between EU and Argentina. The benefits of working jointly in a EU-AR team correspond to expectations of the respondents (70%). The previous table shows more precisely the beneficial outcomes of this cooperation, which are of two types:

Partnership: the establishment of new partnerships for future transatlantic research cooperation is very important (66%) or important (30%), followed by the access to wider Argentinean or European scientific community.

Scientific outcomes: Results and production of knowledge is quoted at a very high level of importance, as well as the possibility to address more ambitious research problems. The improvement of international visibility is also mentioned as being important or very important by 88% of the respondents.

The respondents quoted as less important matters the economic development (Patents, access to or insights in new markets). This answer has to be correlated with the fact that SME's and Industry represent 9% of the respondents.

12.1.7. Bottlenecks and difficulties, suggestions for improvements

Figure 37 below shows that main causes for difficulties are: Project administration (44%), dependency on deliverables of projects partners (40%), differences in management approaches and cultures (35%). The reporting requirements deadlines and the substantial travel costs are also quoted as difficulties in EU-Argentina cooperation.

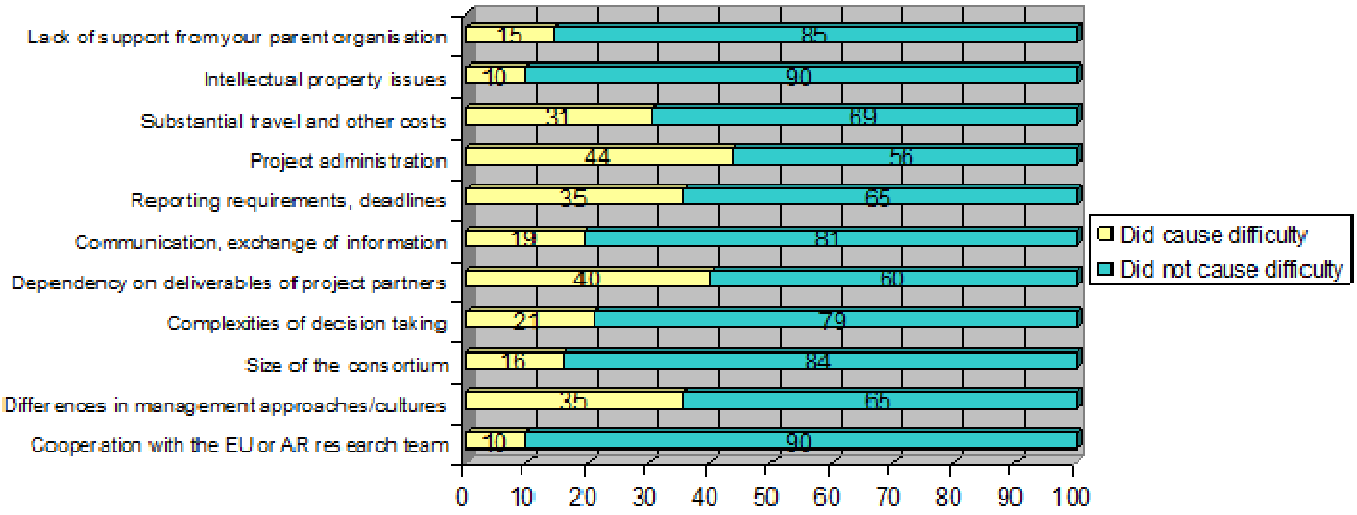

Figure 37 : Difficulties when cooperating with EU or Argentinean counterparts

The Survey included open questions in order to get more substantial answers.

More than half of the answers deal with **administrative** difficulties. The cultural difference between Latin America and Europe also occurs in administrative matters. Complexity is a term that occurs very frequently in these answers dealing with administrative procedures. Slow process of decision and complexity of workflow involved in the EU calls are mentioned by the respondents. Answers may go to very practical statements: "Bureaucracy. Forms are

extremely complicated and subtle to fill in." The lack of experience by LA partners is also a difficulty with respect to these heavy administrative parts of projects. Different administrative and legal requirements on the EU, EU Member States and Argentinean level did cause difficulties. This difficulty related to administration and bureaucracy is mentioned by Argentinean and European respondents: "too much administration - as scientists we don't have sufficient staff for such administrative management".

Another group of answers deal with **funding** questions. All the problems related to heavy administrative procedures - sometimes leading to delay in the payment - are explained. Beyond the questions of administrative difficulties and delay with respect to funding, another generic remark occurs about the change Euros/dollars, leading to a limited participation for third countries. The financial rules of reimbursement seem to be difficult for Argentinean partners. Somebody says: "The main bottleneck was the difference in the financial administration procedures of Argentina and the European Union. These differences were not clear at the beginning of the project." These statements have to be related to the fact that most of the grants administered by the Argentine R&D agencies are based on credits granted by national sources and not by foreign countries. Therefore there is a general lack of knowledge about European funding rules and/or reluctance to access them.

Some groups of difficulties are mentioned in a significant number of answers:

Evaluation and programmes: "the FP7 is extremely closed, the comments coming from the reviewers are too vague and general (sometimes seems they did not read the project properly) and that do not help to improve the proposal."

Visibility of Argentina, knowledge of S&T agreement and involvement of Argentinean partners: "The main problem is the lack of visibility of the Argentina capacity in the EU. Also, there are a lot of EU researchers and organisations that think that an Argentina partner can´t participate or receive funding and so they are not interested in such a partner. Besides, some actors, even EU-NCPs think that a consortium with a Latin American partner will be negatively evaluated"

Adaptation to Argentinean interests: "Often, priorities are defined taking into account European perspectives, so it is difficult to match our interests with these pre-defined priorities."

The difficulty for SMEs to access in EU project is also mentioned but does not seem specific to the EU-AR partnership. A respondent's answer should be a good conclusion to this paragraph: "Too much administration and administrative deliverables and too little emphasis on concrete impacting results". However the lack of relationship between industry and the research organisations (Universities, Institutes, Laboratories) in Argentinean S&T landscape has to be mentioned and related to the very few answers from industry and SMEs side. Does the concentration of the R&D projects in public university and states laboratories and centres make it difficult to the private institutions to access to the grants?

The **open questions** lead to a lot of recommendations about administrative procedures and funding rules following the previous one. About funds, suggestions are written to have more flexibility in dealing with European funds by foreign institutions. Funding through national Argentinean authorities is suggested by Argentinean partners. Higher budget for travel is also needed, in order to encourage a more fluid exchange between partners. More open and clear evaluation process is asked, together with a better information about the

possibility for Argentineans researchers or groups to participate in the EU-AR cooperation programme. Any tool to facilitate access for Argentinean partner to prepare proposal is asked, as facilitation for exchange of high level Argentine partners. Some respondents suggest to build special training to LA administrations, who will have to manage future EU projects. Some typical suggestions for improvements and comments are listed below:

- More information to the EU partners about the possibility of introducing a Latin American partner in a consortium
- From Argentinean administration more funds should be dedicated to support travels of Argentinean researchers to present results at EU meeting. This should improve the visibility of Argentinean researchers for EU partners.
- From EU, it is necessary to develop more areas of common interest (food and environmental research for instance)
- The European Community should find the ways to speed up the administrative process to reimburse the money spent as a project progresses
- Share information about EU-AR cooperation; to establish interactive web (portal) with announcement of new projects or other possibilities for co-operation
- Have better relationships with persons instead with forms…..

12.1.8. Awareness of developments in the larger policy background

Respondents were asked if they are aware of developments in the EU RTDI policy landscape that might affect international research and innovation cooperation. The answers (Figure 38) show a relatively low knowledge of EU RTDI policy landscape:

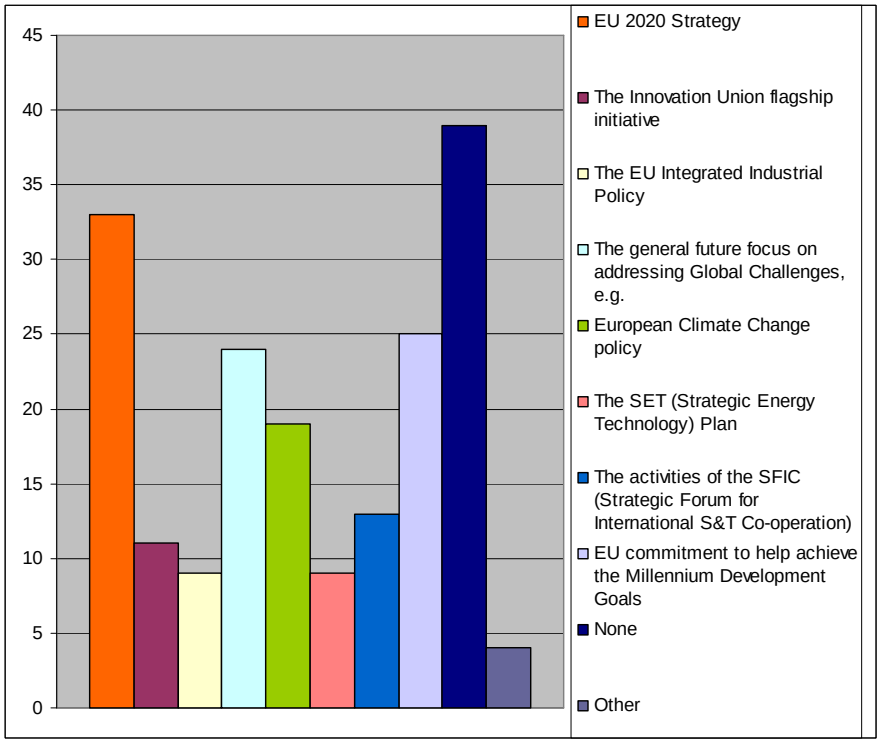

Figure 38 : Knowledge about developments in the EU RTDI policy landscape

12.1.9. Aspects influencing positively and negatively future S&T cooperation

The more frequent comments about the influence on future Argentinean S&T cooperation activities have been listed below:

Negative influences:

- Lack of EC partners actively involved in issues of Latin America
- Changes in priorities from FP6 to FP7 affected on going developments from both sides. This should be carefully considered by EC. Science direction can not be changed every 5 years!
- The selection of research topics are not defined jointly, and it will influence negatively any kind of research.
- The (financial) capacities to maintain the high skilled technology present in Argentina
- Lack of long term perspective and clearness of aims from Argentinean government agencies and private stakeholders. Lack of long term perspective and clearness of aims from Argentinean government agencies and private stakeholders.
- More exchanges and information delivered to Argentinean partners and to European partners
- Currency conversion in unstable market is a problem

Positive influences:

- The general focus on addressing global Changes, the EU commitment to help to achieve the Millennium Development Goals.
- A strong need in cooperation in scientific education for teachers and students. There will be very important to establish a Network in scientific education.
- AR-EU S&T Agreement will increase Argentinean participation in the FPs Defined common policies for future cooperation.
- Increased Mercosur, LAC, NAFTA cooperation
- The creation of an specific programme Argentina-EU, mainly in health will influence very positively in our mutual cooperation activities
- a common agenda of R&D based on the Millennium Development Goals. We need to find together new knowledge because nowadays problems are global such as poverty, the lack of food, illness, climate change, weak democracy, an others.
- The opportunity to innovate and get equipment - Linkages with partners of excellence in R&D from Europe
- Among major development issues are Biodiversity conservation and planning. These include Climate change impacts on biodiversity of Andean ecosystem; biological invasions, and large-scale eco-regional changes (e.g. habitat fragmentation).
- Establish a more direct contact with the EU Use technology in the management and implementation of projects

12.1.10. Preferred priorities for future S&T cooperation

Due to the profile of respondents, the priorities are science- and technology-led research:

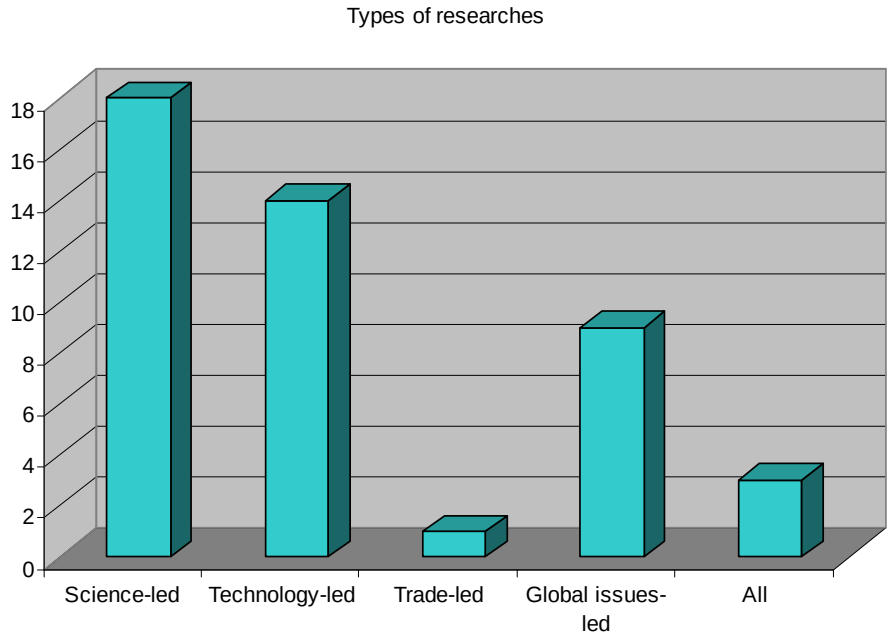

Figure 39 : Preferred priorities for future cooperation

The more frequent thematic areas quoted are:

- Environment: management, links with physics and biology, environment and energy, biodiversity, global change
- Food, nutrition, agriculture
- Health, genomics, genetics, cancer, infectious diseases, virology, immunology, tropical medicine,
- Few answers on nanotechnology, social sciences, KBBE call

12.2. Interviews and discussions with researchers and stakeholders

A week of interviews took place in Buenos Aires on February 28-March 4th. The agenda is given in annex 14.5. Meetings and discussion were organised with MINCyT, EU delegation and representatives of member states, 2 NCPs : Environment, Health , 3 National research centres as INTI, INTA, CONICET, Argentinean partners in European programmes and platform, Argentinean researchers involved in international cooperation, Technological vinculation units as UBATEC S.A. of Buenos Aires University.

The scientific fields represented in the meetings were biotechnologies, SSH, environment including water remediation, nano and new materials, polymers, fluid mechanics, cosmology, neurosciences and neurotoxins, agriculture.

The researchers participating in the discussion are involved in European and international projects as BIOTECSUR, FP7 SSH Environmental Governance (CLACSO), LIA Devenir, LIA FMF, ABEST II, CosmoComp network, LACEGAL network,….

The interviews confirm the analysis of the survey results. Nevertheless it brings interesting complementary indications. The survey group was built from EC source, including people already involved in European Commission mechanisms. The interviews brought complementary insights from those who preferred staying in bilateral scientific relationship, for example.

Main remarks about FP projects deal with the difficulty with administrative part of work and problems about funding

- Difficulty to find the relevant information in the right time.
- No human resources dedicated to build project, as well as lack of support from administrations of big universities services
- Lack of legal, financial and administrative information
- Need for "projects angels", HR bottlenecks
- Lack of relevant information for support entities (TVUs) in order to be helpful to the researchers building projects
- Lack of knowledge about the entire suite of tools in FP programmes.
- Difference in financial reports rules.
- Lack of pre-funding from Argentinean ministries to prepare European projects

To summarise, it was clearly expressed, through all these difficulties, that there is such a big distance between Argentina and Europe! Information via mail is not at all the same than information collected directly in Brussels via English speaking partner, for example. The NCPs have no real contact with Brussels, and they also express this distance telling that the S&T agreement is almost unknown by European scientific community, as well as the ability to build a European network including Argentinean partner. Despite the need in infrastructures, we experienced that ESFRI was very poorly known by researchers. The EEN (European Enterprise Network) was not known either, and would be a good entry point for some cases we met. This ignorance may lead to misunderstanding: some European scientists think that there is a difference in evaluating Argentinean research and European research in FP projects. Therefore the projects involving Argentinean researchers are built on previous strong bilateral relationship between researchers. The heaviness of administrative part of the projects is sometimes bypassed by Argentinean researcher; they can choose to stay partner and to bring strong European structures coordinating the project (see Clacso). The non adaptation of European priorities and funding are also mentioned, for example the definition of scientific priorities not well suited to Argentinean concerns. Moreover some changes in financial rules have changed from FP6 to FP7; support for travelling in Latin American locations of network was allowed in ALFA project. In the framework of Marie Curie Action, support is only available for Europe-Argentina travel support.

12.3. Conclusion: a disconnect between Bilateral Cooperation and FP participation?

Bilateral cooperation between Argentina and member states as Spain, France, Germany, UK is long-standing and built on powerful tools, exchange programmes, joint laboratories,

international platforms, etc. A sketch of the bilateral cooperation is shown in chapter 5 of this report. Meeting with member states representatives in the European delegation emphasises this point and also the need for a sub level coordination of these bilateral activities. Setting priorities by taking more into consideration this bilateral cooperation would be a way to build international networks for European funding.

Meetings with researchers involved in bilateral cooperation made clear that, for many, the financial EC contribution does not counterbalance the heaviness of EC procedures. Sometimes, the funding for bilateral cooperation is also better, but at least easier to get. Moreover the "label" induced by a (bilateral) UMI or LIA kind of laboratory is attractive, for example to reach good PhD students, which is one of the fragility of the Argentinean research landscape. Finally bilateral cooperation is not often a step towards EC funding. This fact has not become obvious through the survey analysis.

Suggestions and recommendations:

- Administrators at universities and research institutions should be trained in order to make them understand the basic structure of EU agreements.
- The NCPs should receive supports to have better connections to Brussels.
- There is a need to increase visibility of Argentinean research in Europe as well as cooperation tools (S&T agreement)
- More Argentinean reviewers should be involved in project evaluation exercices. Argentinean researchers should be encouraged to register in the expert database of the EC. Goal: to know from inside the success factors of projects.
- The "Agencia" should develop national programme to accompany preparation of European projects (for example, few months' salary for "projects angels")
- MINCyT and/or EC delegation should build priorities and networks based on successful bilateral cooperation's

13. Overall Synthesis: The EU-Argentina S&T Cooperation – prospects for developing the cooperation further

The first part of our recommendation framework for strengthening and improving EU-Argentina cooperation comes in the form of a SWOT analysis summarising the strengths and weaknesses, the threats and opportunities of the cooperation between Argentina and Europe based on the information available and presented to us. From this, the different actors and stakeholders can assess the impacts on their specific situation and capabilities, and work out their most appropriate strategies for improvement - by developing these strengths further, addressing the weaknesses, being aware of the threats and realising the opportunities.

In addition, we present, in the concluding outlook, further recommendations in their respective policy frame.

Strengths

- **Argentina is a country with European history and polarity**, and has long-lasting research relationships with Europe. Argentina and Chile are the two Latin American countries having more publications (6247) with EU than with third countries (5752). The collaboration of Argentina with the EU represents 21% of the production in WoS, whereas the international collaboration with third countries is slightly lower (19%). [72]
- **Argentina has strong and well-known assets in selected scientific fields** : agronomy and agriculture, health, physics, environment and climate change. The areas with most publications in international collaboration are physics, biomedical research and agriculture, biology & environmental sciences. Physics has the greater number of documents with the EU although the percentage of documents with European centres on the total of the international collaboration is more important in areas such as chemistry and engineering, technology over 60%.
- **Renowned universities** and **strong public sector-based research centres** (e.g. INTA for agriculture, CNEA for nuclear energy, INTI for industrial technologies) and **excellence** research centres (CONICET, for all areas). Strategic plans of these research organisations are of great help in EU strategy.
- **Well-established bilateral research cooperation agreements as well as related budgets and regular calls** with European countries, sometimes evolving to common structures (e.g. International Partner Labs and Joint Research Units with France, Biomedicine Bi-national Institute with Max-Planck Germany, Plant Genomics Bi-national Centre with Spain).
- **A strong research ministry** (MINCyT, since 2007), its highly influential Directorate for International Relations, of which the ABEST office depends, the well staffed EU-AR Liaison Bureau with its NCP network.
- **Considerably increased research funding (not yet surpassing** 0,6 % of GDP, however)
- **Traditional role of Argentina** to bring the different Latin American countries together in research consortia.
- **Presence of Argentinean researchers in main research centres in Europe**. Due to common culture but also earlier crises, many Argentinean researchers have senior scientific positions in Member States, predominantly Spain, France, Germany, Italy. Moreover younger Argentinean scientists have doctoral or postdoctoral positions in Europe, constituting a strong kernel for future collaboration.

Weaknesses

- The **national research strategy toward international cooperation is more generic than specific**, with real priorities not yet concretely defined (National Plan of STI 2011-2014 under preparation).
- **Weak coordination between Argentinean research actors** namely National Institutes (with strategic plan) and universities.

[72] See Eularinet deliverable 1.2

- **Difficulties to go beyond bilateral projects to form AR-EU consortia:** Due to the complexity of EC project mechanisms, good research teams are often focused on, and stay with their successfully established bilateral collaboration.
- **Difficult coordination** between bilateral, bi-Regional activities on the one hand, and S&T, Financial, Development, and other types of coordination on the other hand.
- General weakness of cooperation between public research institutions and industry.
- **Still to be improved cooperation** between the two main responsible ministries for research and industry.
- **Still suffering from the very low research investments over the last years**. Low impact of national tools to implement public-private synergies despite dedicated programmes of the Agencia (FONCyT, FONTAR, FONARSEC).
- **Weak attractiveness of Argentina for foreign researchers** due to a relative scattering of research teams (large country with low density) and relatively low visibility in EU.
- A **country seemingly still relying more on the past** (3 Argentinean Nobel prizes) than on future perspectives.

Threats

- **Confident and fast growth of S&T in Brazil**, comforted, e.g. by the much larger number of PhD educated in Brazil, and the size and strength of the economy in general.
- **Weakening of the secondary education level, especially in the public sector** (20 % of 18-24 age group neither study nor work / 14 % in Brazil; 43 % successful secondary school leavers / 70 % Chile; 58th PISA position / 44th Chile). This is a difficult starting point for research in a generation later.
- **Loss of a researchers generation:** the emigration in the 90's and the crisis years means a lack of senior researchers able to pass their experience and know-how on to the younger research generation.
- From the side of the Argentinean enterprises, low interest in or knowledge regarding the cooperation, and relatively weak links of relevant parts of the Industry Ministry with ABEST activities.
- **Discrepancies**, on the Argentinean and the EU side, between strategic activities focusing on long-term strategy development & priority setting and an implementation/management focus.
- **Failure**, on the European side, to considerably simplify project implementation procedures.
- Growing EU focus on **BRICS** on the one hand, and, on the other hand, on **developing countries**.
- Increased EU focus on **large and complex, autonomously managed and adapted 'projects'** such as ETSs, JTIs, JPIs, and, most recently, EIPs (European Innovation Partnerships).

Opportunities

- Increased EU focus on **large and complex, autonomously managed and adapted 'projects'** such as ETPs, JTIs, JPIs, and, most recently, the EIPs (European Innovation Partnerships).
- **Converging** of EU-RTDI- and EU-LAC-RTDI-cooperation policies in terms of **priorities** and **approaches**, e.g. relating joint research activities to key policy problems.
- Growing EU and LAC focus on "**Knowledge-Triangle**" (Education, Research, Innovation) approaches
- Growing EU focus on **opening ERA to the world**.
- Increased EU focus on leveraging national funds (of the Member States) – which could give indications (mutatis mutandis) of how to use this mechanism as one approach to opening ERA to the world.
- Increased EU efforts to **better use resources** through more **coherence** and **synergies** between different programmes, and through **better priority setting**.
- Strong focus of the **EU Delegation in Buenos Aires** to concretely work towards synergies and bring the different actors together.
- A growing interest of Europe for **Latin American countries** in general**.**
- **An increased propensity of students and young researchers to be internationally mobile,** and ability to host young European researchers having difficulties to get appropriate positions and conditions in their home countries.
- **The global necessity to share research facilities** to share costs, therefore creation and development of international platforms.
- **Good opportunities for research employment in Argentina**, whereas member states lack more and more this kind of positions. Incentives are, inter alia, the **RAICES**[73] programme, a specific repatriation programme, and the recent increase of 30% in the salary of public researchers and professors.

In the following, we summarise the main recommendations from the online survey:

- More information in the EU RTDI landscape is needed about the possibility of introducing a Latin American partner in a consortium
- More funds by Argentinean agencies to support travel of Argentinean researchers to present results at meetings in Europe could improve the visibility of Argentinean researchers for EU partners, and facilitate project initiation and preparation more generally.
- Developing, from the side of the EU, more areas of common interest (food and environmental research for instance) could be useful to build dedicated programmes between Argentina and EU which built on domains of excellence of Argentinean research.

[73] Red de Argentinos Investigadores y Científicos en el Exterior : http://www.raices.mincyt.gov.ar

- The EC should speed up the reimbursement processes.
- Better sharing and broader information about EU-AR cooperation are needed (cf. suggestions above).
- Real relationships with persons instead of with forms are strongly and broadly requested.

Additional prospects for developing the cooperation further

The EU S&T Cooperation Agreements with third countries[74] are set up with the aim to "establish a formal basis for cooperation". In that sense, their existence is an asset in itself, they can alleviate otherwise insurmountable formal barriers. In addition, they could be further developed into strategic instruments to more systematically open ERA to the world – not only bilaterally with the countries with S&T agreements, but also by developing a network of such countries, through which additional countries could be more and better integrated. (This was suggested, e.g., by the ERA-Expert-Group "Opening to the World: International Cooperation in S&T".) With Argentina's strong international focus, and already playing a facilitator and multiplier role, e.g. with her NCPs, the S&T cooperation agreement with Argentina could be a frontrunner in this respect.

Regarding Argentina's S&T agreement, the second phase has definitively seen considerable progress, especially on the political side. One of the key topics of the Agreement, the setting up of a "RTD Cooperation Steering Committee" (SC) has been well implemented and is bearing fruit. The regular SC meetings with high-level participation give credibility to the overall frame and maintain the political momentum. Continuously updated roadmaps add substance and give guidance to all cooperation areas and instruments.

Nevertheless, more priority setting and focusing resources, which then is being clearly manifested in the annual roadmaps, could improve the cooperation. The (then) fewer areas could be exploited with increased resources more effectively, and possibly more efficiently. In addition, more systematically addressing the impacts of relevant developments or pilots – regarding policies, institutions (e.g. SFIC, EIT[75]) or instruments - could add an attractive and appropriate dimension to the work of the Steering Committee.

To harness synergies more broadly, a generally better integration of the EU S&T cooperation in the overall Argentina S&T cooperation, as well as in the broader (EU and other) cooperation would be greatly beneficial. Declarations in this respect can be found everywhere, also in the SC minutes, but implementation seems difficult. More could be done even with regard to the bilateral S&T cooperation of the EU Member States, let alone with regard to other important players (e.g. the US), or with regard to the EU development and financial cooperation, or with regard to different governance-level cooperation, etc.

One reason for the EU focus on synergies lies in the need for a **better use of the resources available for RTDI** and **more impact of RTDI investments**. Therefore, in addition to aiming at the aforementioned programme synergies, the synergies inherent in well designed, and well implemented projects should not be neglected. Those of course depend on the quality of the

[74] Although there is much controversy regarding the term "third countries", the European Commission has stated repeatedly, e.g. in reactions to earlier evaluations of International Cooperation, not to abandon it.
[75] European Institute of Innovation & Technology

participants and their cooperation, but also, and not to a small degree, on better **positioning** the concrete RTDI actions in the **overall programme contexts**, and on systematically aiming at **increased impacts concerning the higher programme, and also the broader cooperation policy objectives**. This is mentioned not only in annual work programmes, but also in calls and general evaluation guidelines. Nevertheless, we did not find, in our discussions with Argentinean researchers including research managers, a high awareness of the relevance of this subject, even in the cases where the broader context was known. (Unfortunately, the same is often true also with European researchers.) We strongly recommend that more emphasis is given to this issue, in all aspects of the work of national and institutional contact points (see below) with potential proposers, in proposer guides, in evaluator training and concertation meetings, kick-off meetings, through the feedback on project reports, in all other contacts of EC Scientific Officers with project coordinators, and in general information and dissemination events to name but a few.

ABEST, the EU-AR Liaison Office is very well staffed both quantitatively and competently, and has the highest political backing. They are actively involved in political work on the one hand, and dissemination activities on the other, the latter via 10 National Contact Points (NCP). Nevertheless, Argentina is a big country, and the best-staffed Liaison Office can't reach out to the large number of individual researchers, in their many RTDI organisations and locations, in a way that could substantially boost Argentina's participation. ABEST reports to have established a network of 44 NIPs (Institutional Contact Points) called ABEST-NET, but the participation figures don't allow immediate conclusions regarding the strength and institutional embeddedness of these NIPs. We assume, that the EU-AR cooperation support network could be substantially strengthened by setting up or improving – from the side of the institutions - '**institutional liaison offices**' and integrate them in a harmonious way in **ABEST-NET, thus giving it a solid institutional, bottom-up built base**. Strong offices, responsible for managing external resources from EU and others and knowledgeable in dealing with the different administration requirements, exist in some cases already, e.g. in the Universities of Buenos Aires and Cordoba, or in INTA and INTI. Special support from the Argentinean side to establish such offices as well as **twinning with successful institutional offices in the Member States** (e.g. of big universities or large research organisations) might be a good investment given the considerable difficulties of individual researchers and research groups with the Brussels bureaucracy or their dependence on foreign consultants.

As far as **participation in general** is concerned, the strong research organisations continue to be reliable and competent cooperation partners, as well as researchers which are well integrated in the international networks of their scientific disciplines. Research Organisations are, for example, able to use their international thematic network (see the PROCISUR project for INTA's international strategy) to build EU consortia. However, there is still a long way to go towards harnessing more fully the large untapped potential of competent - and attractive for the EU - Argentinean researchers and research groups.

Regarding **enterprise participation** the situation, we got the feedback that the situation is much to be improved. This issue might not see considerable progress without a stronger cooperation of the Science and the Industry Ministries. CICyT, the Inter-institutional Council for Science and Technology, could play a role in this.

Not surprisingly, this outlook cannot be concluded without a reference to the main obstacle to opening ERA to the world – procedures, administration, and payment in EU projects. Already difficult for European participants, this could become a nightmare for researchers

from ‘over the oceans’. If there is no dramatic progress on this front it seems illusionary to expect step-changes in ‘real’ participation. By real participation we mean researcher- or stakeholder-driven consortia, not foreign consultants initiated ones, where the distribution of resources sometimes seems to reflect more the overhead-interests of the consultants than the research or policy coordinating interests of the EU and Argentina. Besides simplification of procedures, more training of administrators at Universities and research institutions should be a good way to accompany researchers in consortia building. Following the same idea, increased supports to NCPs, in order to have better connections to Brussels would be an efficient investment. The participation of Argentinean researchers in EU project evaluation should also be encouraged; this experience would allow future FP participants to know the success factors of projects from the inside. An efficient way to build consortia is also to address the relative disconnection between bilateral cooperation projects with EU member states and other countries, strongly established in the Argentina S&T landscape, and FP projects with Argentinean participants. Relating better these two ways of collaboration could be driven by MINCyT and/or the EC delegation in Buenos Aires. A national programme of the National Agency for S&T Promotion (“La Agencia”) to accompany the preparation of European project proposals could be an interesting tool also. Moreover any activity to facilitate and support efficient procedures to disseminate the information about opportunities for collaboration between Argentina and EU should be taken up in order to increase the number of Argentinean beneficiaries of EC funding. Within the reciprocity principle of the S&T agreement, dedicated thematic programmes between EU and Argentina could be developed building on the areas of excellence of Argentinean research (see physics for example) as well as adapting to Latin American Region policies.

The EU Commissioner for Research, Innovation and Science is putting simplification high on her agenda[76]. Therefore, it might be advisable to ensure, in all related working groups and procedures, that the specific barriers for more International Cooperation are adequately addressed, and that rules and regulations conducive to more, and a broader range of cooperation activities are put in place.

[76] - COM (2010) 187 : SIMPLIFYING THE IMPLEMENTATION OF THE RESEARCH FRAMEWORK PROGRAMMES
- http://ec.europa.eu/research/consultations/fp-simplification/consultation_en.htm . Consultation « Ideas for simplifying the implementation of the EU Framework Programmes »

14. Annexes

14.1. The EU-Argentina S&T Cooperation Roadmap 2010/2011

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Scientific and Technological Cooperation
Between EC and Argentina

Road Map 2010/2011

Table of Contents

Introduction 2
Facilitating Cooperation 3
Cooperation in Thematic Areas 4
Mobility / Exchange of Researchers 18
Capacity Building in S&T and Synergies between S&T and other EC Policies and their instruments 20
Tentative Timetable 22

1

Introduction

Engaging in science and technology through increased research efforts is important both for the European Union (EU) and Argentina to achieve economic development and competitiveness in a sustainable way and to improve social welfare.

Research cooperation between the EU and Argentina dates back to the 3rd Research Framework Programme (1990-1994). In 1999 both parties signed a Science and Technology Cooperation Agreement in order to strengthen cooperation and extending it in areas of mutual interest. This agreement proposes facilitating Argentina's interaction with the European Research Area. Argentina also has bilateral S&T agreements with several EU Member States involving joint research, institutional cooperation, students and researcher's mobility, and initiatives for sharing the use of research infrastructure.

The fifth meeting of the EC-Argentina Steering Committee took place 15 July 2010 by video-conference. The meeting offered the opportunity for assessing the progress in S&T cooperation since the previous meeting in 2009, and particularly since the new phase of the ABEST II project, the liaison office with the European Research Framework Programme, started up its work. The fifth Steering Committee was preceded by bilateral meetings and video-conferences involving thematic directorates and others Units of the European Commission, which allowed to discuss about research opportunities and regulatory and innovation policies. During these preparatory meetings opportunities were explored to further develop S&T cooperation, e.g. through further development of the on-going twinning research projects in FP7 and Argentinean national research projects and other mechanisms available on both sides. Emphasis was placed on making use of existing instruments and combine bilateral with regional cooperation and S&T policy dialogue and practice.

The operational outcome of the Steering Committee is reflected in this Roadmap, which is to be considered as a rolling agenda for the further cooperation between the EU and Argentina aiming at increasing Argentina's participation in the Seventh Research Framework Programme (2007-2013), furthering the dialogue with the European Research Area as well as developing wider S&T&I cooperation between the two sides in bilateral and multilateral settings.

The elements identified below, are not in order of priority nor intended to be comprehensive. They are the result of the current assessment of the cooperation between both parties with the aim to enhance mutual understanding and provide a basis for future activities and to ensure research cooperation in areas of mutual interest oriented to supporting scientific excellence and to enhance research impact in support of problem solving and policy design.

Facilitating Cooperation

The Agreement is up for renewal of the next five year period in 2011. Hence, an evaluation will be carried out between October 2010 and March 2011.

Exchanging information data and carrying out joint analyses on the research cooperation between the EC and Argentina encouraged more cooperation between European and Argentinean teams across different instruments as well as facilitate Argentina's participation in the Seventh Research Framework Programme. In this context it was agreed:

- That the EC will provide, on a regular basis, information and data about the number of proposals submitted by Argentina and the number of proposals evaluated and retained for grant agreement per programme and area and if possible per instrument (in particular the SICAs) and according to the rules of confidentiality of the FP.
- Argentina will improve the collection of project information exchanged through its FP7 contact points for INCO, Mobility, SME and the themes in the Cooperation Programme.
- Both Argentina and the EC engage in priority setting, using the proper participatory approach (bi-regional and bilateral policy dialogue, workshops, identification of regional priorities, identifying themes of specific mutual interest) for collaborative research activities as well as for initiatives related to research infrastructures.
- Argentina continues to playing an important role promoting further S&T Regional Cooperation and helping to mobilize Latin American countries without S&T cooperation agreement with the EC, particularly in the context of the EULARINET Project and the implementation of the EU-LAC Joint Initiative for Research and Innovation endorsed in the EU-LAC Madrid Summit Declaration and Action Plan.
- Efforts will be made by both sides to update their respective web pages regularly to disseminate relevant information.
- The EULARINET project has become one of the most effective instruments promoting the joint definition in S&T co-operation policies through support to the biregional policy dialogue. One of the initiatives of EULARINET is to develop a portfolio project within the Academy/Industry in order to stimulate the participation of the private sector in FP7.
- With the launch of the ABEST II project, in December 2009, not only is the participation of Argentinean researchers encouraged, but also that of Argentinean SMEs. It is expected that the experience in this field of the extended ABEST II consortium will be valuable in this respect.
- Another initiative for continued promotion of S&T biregional cooperation, is Argentina's recent arrangement with the COST programme through a reciprocal agreement together with, Australia, New Zealand and South Africa.

Cooperation in Thematic Areas

Food, Agriculture, Fisheries and Biotechnology

Achievements:

Food, Agriculture, Fisheries and Biotechnology research was the most important thematic area in the EC-Argentina cooperation in the 6th Framework Programme and its importance has continued during the early calls of the 7th FP. Recognizing this past track record and given the importance of this area in Argentina – EU economic relations, in 2008 it was agreed to promote the twinning of projects in areas of particular shared interest.[1] Following this agreement Directorate for Biotechnologies, Agriculture and Food, DG Research and the Argentinean Ministry of Research, Technology and Innovation identified 12 potential projects for twinning (6 from each side)in the area of Soil, Plant and Food research. In May 2009 a workshop was held in Buenos Aires to bring together the coordinators of the projects and develop a working plan for information exchange and possible joint activities. Out of the Buenos Aires workshop specific twinning initiatives were launched involving research teams from both sides;

Since 2009 all the "twinnings" have developed significant interactions going from information and staff exchanges to the identification of new areas for collaboration, joint publications and the reflection on new proposals for funding under new FP7 calls or other sources. Thanks to the cooperation concrete research collaborations are taking place, such as in the area of wheat genomics: A collaborator from the Argentinean INTA undertook work at INRA Clermont-Ferrand to clone a wheat rust disease gene in chromosome 3B for which the FP7 Triticeae Genome project had just developed the physical map. The results will shortly be published. The experiences gained during this first year of operation have been reviewed during a second twinning workshop held in Athens, Greece, June 30/July 1, 2010, under the auspices of Greece's Center for Renewable Energy Sources (coordinators of the 4FCROPS project). Besides providing an opportunity for reviewing past activities and future plans, the workshop's discussions also made evident the potential of this kind of mechanisms as a tool to mobilize further interdisciplinary cooperation between research groups as well as for identified other aspects were increased collaboration would be mutually advantageous.

Taking advantage of the opportunity provided by the twinning workshop, and with the support of the BioCircle project were both Greece and Argentina are consortium members, a "summer school" for young scientist was organized on June 28-29, 2010, with the objective of providing them with training on transferrable skills (e.g. issues related to project preparation and presentation), as well as on scientific fields of relevance to their areas of specialization. A number of young scientists from Argentina and European countries participated in this event.

In view of this the following activities were identified for implementation from 2010 onwards.

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[1] The twinning mechanism implies a coordinated connection of related projects respectively from FP7 and related Argentinean and LA research programmes. Both parties, EC-FP7 and Argentina agreed to support a limited amount of expenses for twinning activities (e.g. meetings, short term staff exchanges, exchanges of information and materials). The cost of these expenses is estimated at 1% of the total project value (about € 30.000 for an FP7 small collaborative project of €3 million); equal amounts would be provided from each side.

Outlook:

- **Twinning of research projects in areas of shared interest**

Given the success achieved during the first round of "twinning" of projects in the area of soil, food and plant research, it has been agreed (i) to continue with the further development of the mechanism both to include new projects as well as to further improve its operational aspects, i.e. formally include the costs of the "twinning" activities as eligible costs in the funding instrument, etc, taking into consideration the conclusions and recommendations emerging from the Athens workshop, (ii) In line with this, over the next few months – as the new funding instruments for both the areas of agriculture and food and biotechnology go into implementation – Argentina will identify a number of new potential projects for twinning and communicate them to the Commission so that the number of projects participating in the mechanism is increased. (iii) Additionally, Argentina will explore existing possibilities for expanding the twinning process to include projects from other countries of the MERCOSUR region, (iv) The Commission will further identify a number of new projects relevant for the twinning and (v) A second follow – up workshop will be organized to continue promoting the exchange of experiences and the consolidation of the twinning mechanism as a permanent instrument within the Cooperation Programme in FP7. The workshop is foreseen for Oct/Nov 2011 in Argentina. The workshop will include scientific sessions addressing issues of common interest and a session reviewing the twinning mechanism.

The participants in the twinning activities also agreed to look for the possibility to support the twinning activity by submitting a proposal to the Marie Curie International Staff Exchange Scheme.

- **Summer school for young scientists**

Following the experience gained with the first summer school held in Athens back to back with the second twinning workshop, it has been agreed to explore the possibility of organizing a second summer school for early carrier scientist in Argentina next year, also organized back to back to the twinning workshop and following the same general model of having two modules, one dealing with training on transferrable skills (international cooperation including project preparation for presentation to FP 7 calls), and a second focused on training on scientific issues of common interest. The overall aim is to train the next generation of scientist in international cooperation and cutting edge technologies in the areas of soil, plant and food research.

Furthermore it was also agreed that (i) coverage will be extended to include at least the MERCOSUR countries and possibly also from countries from other LAC regions, with a formal and transparent selection process for participant being agreed set well in advance, (ii) the scientific program of the event to be developed in collaboration with a scientific committee composed of selected members of the projects participating in the twinning, and (iii) funding support for this activity will be sought from the EU-LAC countries SC&T liaison offices (Argentina, Brazil, México and Chile) as well as from other existing projects such as BIOCIRCLE II, EURALINET, ENLACE, and EUCARINET among others.

- **Information exchange on GM crops management and environmental and economic impact**

In the context of the recent settlement of long standing GMO related dispute between the EU and Argentina and other parties before the World Trade Organization, and considering that the permanent exchange of information of all kinds (scientific, environmental, economic, commercial, etc) was one of the points of the agreement, it has been agreed that both the Commission and MINCYT will seek to jointly organize a workshop on the environmental and economic impact of the GMO use in agriculture. The meeting could be held in Brussels during 2011 and funding support ill be sough from FP7 projects in particular the ALCUE-KBBE project under negotiation among others the proposal currently under negotiation.

- **Technology Platforms**

In view of the success of the MERCOSUR Biotechnology Platform, BiotecSur, (aiming at linking research and innovation in MERCOSUR) and the on-going plans by the MERCOSUR countries to institutionalize it beyond the current EU project supported cycle, it has been agreed to jointly work in the facilitation of links and exchanges with the different European Technology Platforms (ETPs) relevant to the KBBE area in general and those working forestry, oil seeds, beef and poultry related issues, in particular. A systematic dialogue between these EU and LA platforms could be instrumental both as mechanism to identify research agendas of shared (bilateral and bi-regional) EU-LA interest and to facilitate networking between the respective scientific communities and private sector organizations operating in these areas Support from existing projects such as, EURALINET, ENLACE, and EUCARINET will be investigated.

Environment (including climate change)

Achievements:

S&T cooperation in this thematic area has been one of the most dynamic in FP6, both in the thematic priority (9 projects, 12 participations) and under INCO (8 projects with 11 participations). Studies on coastal zones and marine research, water management, biodiversity and climate change were principal themes addressed in these projects.

At present, four projects in the thematic area of Environment including climate change, are being executed. Services for natural resource management in Latin America, environmental risks management and their need for adequate information, a network for Climate Change assessment and impacts in La Plata Basin and assessing climate impacts on the quantity and quality of water were principal themes addressed in on-going collaborations, on which future cooperation should be built build.

Argentina actively participated in the EULARINET Latin American-European Workshop on Environment that took place in Bogotá, Colombia during November 18-20, 2009. The aim of the workshop was to identify priority topics for strong international collaboration in environmental research in order to tackle the challenges of pressure on the environment, to mitigate negative climatic change effects, and to find adaptation strategies.

Outlook:

- In order to go forward in this important field and to respond to the priorities of the "EU-LAC Madrid Summit on technology and innovation for sustainable development and social inclusion", Argentina is committed to implementing the Summit Action Plan together with other EU-LAC partners. Dialogue will continue enhancing cooperation in the follow-up to the Madrid Summit introducing sustainable development challenges more firmly in the political and scientific agendas.

- As a result of the regional environment priority setting workshop in Bogotá, a set of thematic S&T recommendations were produced and presented to the European Commission along with proposals for future topics of international calls.

The ten proposals are:

1) Development of alternatives for water management to adapt to climate change impacts in Latin American context
2) Adapted technologies for water management and water scarcity mitigation in Latin American context.
3) Understanding, diagnosing and modeling global environmental changes (anthropogenic and climate-induced land-use/land-cover changes) in Latin America and their consequences for global and regional climate change scenarios.
4) Climate change impacts and adaptation strategies in highly climate-sensitive regions in Latin America using an integrated approach (social, ecological and economic).
5) Climate Change Impact on Coastal and Marine Areas of Latin America: Participative Adaptation Strategies Useful to Sustainable Development and Generation of Tools to Policy makers.
6) Impact of global environmental changes (climate, land-use, population) on human health in urban environment including air quality and vector-borne diseases (dengue and yellow-fever)
7) Design multi-stakeholder strategies for pollinator conservation in order to ensure agricultural productivity, local food security, functioning ecosystems, and climate change adaptation.
8) Development of community-oriented sustainable land use systems for vulnerable areas, by making use of local knowledge of (agro-) biodiversity, and by putting adequate incentives in place.
9) Develop permanent, simple and cheap, observation systems for land and water resources that integrate remote sensing with ground-based methods, in small grids over the continent, to allow monitoring of environmental information needed for policy decisions, following up on and linking them to existing networks.
10) Development of sustainable management of vulnerable aquatic and island ecosystems.

- The parties note with satisfaction that several of these recommendations have already been introduced in the 2011 work programme or had been covered in previous work programmes for environmental research. Dialogue may continue about how best to go forward on the remaining recommendations and/or update the prioritisation before the end of FP7, if possible.

- A report on the State of the art for Environment (including Climate Change) in Argentina was established by an official expert panel and brought to the attention of the Commission. The document includes a broad view of the principal research organizations, as well as the governmental agencies with decision-making power on dealing with environment issues. Focus was put on research strengths, identification of ongoing research projects and research priority. Several of these challenges also have regional or even global dimensions and can inform the identification of bilateral and bi-regional priorities. Climate Change is expected to affect the various geographical and eco-zones of the country in different ways. Other environmental changes are expected along the following parameters:

  Land use change: A high deforestation rate to use the land for extensive agriculture (mainly soybean) is taking place especially in the west-north border of the Pampas. Drivers are favorable economics and the increase in precipitation in the last two decades.

  Urban areas: Megalopolis like Buenos Aires, Rosario, Cordoba and Mendoza face several environmental problems, like all the big cities. Air pollution, waste management (including industrial effluents and garbage recycling) policies, environmental risks are some of the unsolved or partially solved problems of Argentine cities.

  Agriculture and livestock: Contamination of soils and water with agrochemicals and sub-products of farming are common problems. In some region at the central part of the country, the water table has high levels of arsenic.

  Argentinean research interests would therefore focus on

  - Assessment of ecosystem services in climate change scenarios
  - Carbon budget in crops, vineyards and orchards
  - Downscaling of models on regional high resolution
  - Establishment of Environmental Observatories
  - Integrated social, health and environmental risks
  - Development of integrated environmental education agendas
  - Urban waste management and recycling.

Information and Communication Technologies

Achievements:

While in FP6 only 5 Argentinean organisations had participated in four ICT projects, and four organisations had participated in two e-Infrastructures projects, so far in FP7 there are 10 participations in eight ICT projects, as well as four participations in two e-Infrastructures projects. The projects concern software and services, mobile and wireless systems, networked services, ICT for health, open source software, research infrastructures, including e-Infrastructure to remotely access to the AUGER observatory located in Argentina, GRID technologies and the support of international cooperation. The ICT NCP visited many institutions located in Ciudad de Buenos Aires and in different provinces to present the ICT FP7 opportunities. This dissemination is reinforced constantly with the MINCyT attendance of specific IT events, workshops and meetings.

During the last SC meeting in Buenos Aires, the ICT National Contact Point, Ms. Rosa Wachenchauzer presented the priority themes on ICT areas for Argentina; theses themes were: Components, systems, engineering; Micro y nano-electronic, Radio frequency identification RFID, Systems on-chip, Embedded systems: low cost sensors, ICT for Independent Living and Inclusion, Applications of ICT for improving the logistics of agricultural bulk exports, Applications of ICT for greater social inclusion (including applications to education).

There is also good complementarity between research and technical cooperation under bilateral and regional RELEX/AIDCO programmes.

Outlook:

- Under the FP7 ICT projects PRO-IDEAL, PRO-IDEAL PLUS, and FORESTA, the ICT Programme will continue to be promoted with further activities such as information events and coaching courses for potential project participants. More emphasis will be placed on raising the visibility of Argentina in Europe to enable continued growth of cooperation.

- During the ICT Event 2010 organised by the European Commission in Brussels from 27 to 29 September 2010, Argentina will have a stand in the "International Village" of the exhibition. It will also participate in a networking session on cooperation with Latin America.

- The updated version of the Roadmap identifies four R&D ICT areas for Argentina:
  1. Components, systems, engineering: micro- y nano-electronic, Radio frequency identification RFID, Systems on-chip, Embedded systems: low cost sensors
  2. ICT for independent living and inclusion
  3. Applications of ICT for improving the logistics of agricultural bulk export

  Applications of ICT for greater social inclusion (including applications to education).
  These subjects are based on the results of the Forum "2020: Perspectives and Strategies in Science, Technology and Innovation", organised by the MINCyT in 2008. This multi-sectoral and multi-stakeholder effort gathered more than 150 key actors to identify the technologies, application areas and business that should be primarily fostered in the ICT area in Argentina in the next years.

- The key technological areas that are taken into account in the report are: Software Engineering; Signals; Image Technologies; Embedded Software; Micro and Nanoelectronics. The application areas are: Industry; Agriculture; Government; Services; Contents; and Security. The transversals areas are: Education and Human Capital; Innovation and I+D; and Diaspora.

- In order to strengthen the EU-Argentina ICT cooperation, five European Technology Platforms (ETPs) were suggested due to their topics and current projects, which bring into line with Argentinean priorities and the work carried out in some Latin American ETPs (1 means high priority, and 5 means lower priority):
  1. Networked European Software and Services Initiative (NESSI).
  2. Embedded Computing Systems (ARTEMIS).
  3. Networked and Electronic Media (NEM)
  4. European Technology Platform on Smart Systems Integration (EPoSS)
  5. Mobile and Wireless Communications – eMobility.

- This collaboration will give some opportunities to overcome one of the main challenges for ICT international cooperation, meaning to promote and enhance effective cooperation among private enterprises in I&D ICT stakeholders.

- On 3 September, 2010, Rosa Wachenchauzer as local coordinator of PRO-IDEAL project will coordinate an Info Day & Round Table to foster Argentina – Europe cooperation in Information and Communication Technologies (ICT). The event will be held in the frame of the Jornadas Argentinas de Informática JAIIO 39 (Argentine Informatics Days), organized by the Sociedad Argentina de Informática (SADIO). The PRO-IDEAL session aims to provide in-depth knowledge on the European Union funding mechanisms under the ICT Seventh Framework Programme (FP7) and offers guidelines on the status of ICT policy development and priorities in Argentina.

- ABEST is going to actively participate in ICT2010 in Brussels, having a booth of its own in the International Village Area and participating in a specific information session on Latin American-EU projects.

Nanoscience and Nanomaterials, Material science, Industrial Technologies

Achievements:

Argentinean organisations participated successfully in 1 NMP project during FP6 and within the three first years of FP7 five Argentinean groups participate successfully in four NMP projects.

One of the FP7 Project is a Network in Advanced Materials and Nanomaterials of industrial interest between Europe and Latin American Countries of MERCOSUR (Argentina-Brazil-Uruguay), EULASUR.

The kick-off meeting of EULASUR was in Barcelona during October 2009. Following this meeting, the project's website was established (http://www.icmab.es/eulasur/). The first issue of the project newsletter was published on March 1, 2010, contains information relevant to all members of the project. The next scheduled EULASUR meeting is to be held in Bariloche,

Argentina: Summer school on "Synthesis, Processes, Properties and Applications of Materials and Nanomaterials", October 2010.

Within the EULANEST project, the partners have decided to open the first joint call for multilateral research projects and Argentina participated by co-financing those projects with participation of Argentinean research institutions. The aim of this call was to promote Sustainable Renewable Energies and Nanosciences research between Europe and Latin America by supporting joint research activities and networking activities in these fields, including both European and Latin American scientists.

In the NMP thematic area, 3 projects were selected. These projects are: Nanoskin (Nanoparticles for the improved Therapy of Severe Skin Diseases- Leishmaniasis and Squamous Cell Carcinoma as examples), Neuronano (Magnetotransduction: Development of Magnetic Nanoparticle-Viral Vector Complexes for Therapeutic Gene Delivery in the Senile Brain) and Fibrogel (Bioinspired Nanofibrous Gel for Engineering of Cartilage and Bone).

Outlook:

- The work of NanoForum-EU-LA is continued in a wider ICPC context by a FP7 support action ICPC Nanonet. This action aims to develop an electronic archive of nanoscience and nanotechnology (N&N) publications derived from publishers and open access repositories, and by encouraging researchers to deposit their own peer-reviewed publications; provide regular information on research expertise, capacities and initiatives in different world regions; and network N&N researchers in different global regions through a combination of online facilities and physical workshops, with the purpose of promoting collaborative research. The project has produced the first set of regional reports, and about 30 Argentinean institutions and 10 individual researchers involved in nanotechnology research are currently recorded in the data base. These networking activities are expected to boost the participation of Argentina in FP7 projects.
- To promote both sides' participation in projects such as EULASUR, where academic groups devoted to similar research fields profit from the others' experience and contacts within the public and private sectors.

The following proposals by Argentina might be further explored with due attention to the fact that these would be of interest to bi-regional cooperation and not confined to bilateral relations.

- To develop common goals and perspectives in Health and Safety using advances from nanotechnologies. These should naturally flow into future FP7 projects, wherein past and present experience from research groups in both sides have previously established contact, in order to pinpoint the main areas of interest.
- To collaborate in identifying and initializing new micro- and nanodevices which can be used in non-fossil energy projects.
- To combine efforts between Argentinean, other Latin American and European research and development of nanotechnology-based approaches for health application.
- To improve the competitivity of technology-based SME's, with advances provided by the

cooperation among academic institutes in both Argentina and Europe.

- To foster research and development in nanomaterials involved in the manufacturing of fuel cells.

Energy

Achievements:

The participation of Argentina under the Energy research programme in FP6 was rather lean with only two participations in 2 projects in the fields of wind energy and carbon capture and storage. The total EU contribution was approximately 0,1 M€.

Since then an increased effort for cooperation in energy research with Latin America has taken place, and two SICA topics have been published targeting the region in the area of biofuels.

The aforementioned efforts have resulted in a substantial increase in Argentinean participation in the first Energy Call of FP7:

- 13 participants of Argentina in 9 submitted proposals all of which related to the identification of research needs and technological opportunities for biofuels production in Latin America.

- One SICA proposal (BioTop) with Argentina was retained for negotiation and since then the procedures have been finalised and the corresponding contract signed;

In the second energy call Argentinean participation has maintained its level of activity:

- 16 participants in 9 submitted proposals, most of which were submitted to the SICA topic "enhancing international cooperation between the EU and Latin America in the field of Biofuels", and one to the joint Energy-NMP call "Novel materials for energy applications".

- Two proposals have been retained with Argentinean participants, the DIBANET and Fly Hy projects.

Argentina has been a successful participant in FP7 energy calls, ranking eighth in the list of received EC financing, with 4 participants receiving a sum total of 350.000 €.

Currently, Latin America as a region ranks only behind Russia in received funding from the FP7 Non nuclear Energy specific programme with a total of 3.9 M€. Regionally, Argentina ranks third in received funding behind Brazil and Mexico.Within the EULANEST project, the EULANEST partners have decided to open the first joint call for multilateral research projects and Argentina participated by co-financing those projects with the participation of Argentinean research institutions. The aim of this call was to promote Sustainable Renewable Energies and Nanosciences research between Europe and Latin America by supporting joint research activities and networking activities in these fields, including both European and Latin American scientists.

In the ENG thematic area, 2 projects were selected. These projects are: CRENH2: (H2/Cerium-Based Catalysts for the Purification of Hydrogen from Renewable Sources) and SOCs: (H2 from H20/Energy conversion form Renewable Sources in Solid oxide cells)

Outlook:

- As an International Cooperation Partnership Country, Participation in all FP7 calls is open to Argentinean partners, with the possibility to receive funding.
- Regional S&T cooperation with Latin America is of high strategic interest for the EU in terms of environmental specificities and scientific excellence. Biofuels research is a significant area for which the regional cooperation with Latin America has recently been reinforced, but other clean energy technology areas should also be explored.
- Areas for joint S&T cooperation should primarily be conducted at regional level and bi-lateral collaboration investigated where it represents the most feasible avenue for cooperation.
- In all cases, the promotion of the participation of Argentina in the FP7 energy programme should continue and be promoted on an ad-hoc basis (considering the added value of its participation), reinforcing the information campaigns and dissemination activities to well targeted and relevant audiences
- Argentinean participation in the energy Info days is recommended to be fully informed about new opportunities and liaise with EU possible partners; the energy info days took place on the 8th of July 2010
- WP 2011 Energy calls will focus mainly on the priorities of the SET plan and the European Industrial Initiatives.
- Topics that could potentially interest Argentinean participants will address bioenergy carriers, development of design tools for offshore wind farms, or low medium temperature solar thermal systems for heat.
- The **"Third National and 2nd Latin American Congress, Hydrogen and Sustainable Energy Sources"** in San Juan, Argentine (June 2009), revealed current national capacities in science and technology of Argentine. The main conclusions obtained during the Congress will be published in a special number of the International Journal of Hydrogen Energy in 2010, a publication suitable for European groups interested in knowing about current activities in renewable sources in Argentine regarding suggestions on possible collaboration topics.

One of the most important renewable energy fields in Argentina finds its current strengths in the development of hydrogen as an energy vector, both in the area of fuel cells and in the development of hybrid fuel based on compressed natural gas mixed with hydrogen. The European experiences such as the CUTE project (Clean Urban Transport for Europe), could be taken as an example for the country.

Health

Achievements:

In FP6 Argentina had eight successful participations in projects funded under this Thematic Priority, two in Integrated Projects, three in two different STREPs, and one each in an SSA and an Network of Excellence. The areas addressed in the projects range from specific diseases to fundamental research. In addition, Argentina participated successfully in five specific international cooperation projects (SICA) in health related topics (eight participations/teams).

Analyzing the two FP7 first calls (2007-2009) Argentinean organisations have successfully applied in 9 consortia, most of those projects areas addressed to translating research for human health. Awareness-creation workshops were scheduled to inform the Argentinean science community better about cooperation opportunities with Europe. A couple of them were already done in the last months of 2009 and in April 2010.

Outlook:

In order to continue this cooperation based on mutual interest and benefits, the following actions has been agreed:

1. The implementation of thematic workshops in different regions of the country in order to give a wider visibility to the opportunities of participation in FP7. In those workshops successful cases in FP7 consortias will be presented with the participation of Argentinean partners.

2. A workshop to define thematic areas of regional interest for being suggested for SICA actions. That workshop will be done in Buenos Aires into the frame of the EULARINET Project, with the participation of LAC countries and EC representatives. Their main goal will be defining potential research lines to be funded by SICA actions. The following general topics have been already identified by national experts: co-infection Tuberculosis & AIDS, regenerative medicine, health for the elders (eg. Alzheimer's disease) and, production of polyvalent vaccines.

3. The inclusion of the NCP into to the HEALTH - NCP – Network: participating in that network will bring the opportunity to participate in training sessions, and also to exchange knowledge and good practices with NCPs from the EU and other third countries and, importantly, raise the visibility of Argentinean health research in Europe.

4. The promotion of a Latin-American HEALTH NCP Network: the creation of a regional network will bring the possibility of coordinate common activities, exchange information, give mutual support and share good practices among the Health NCPs of the region.

Transport (incl. Aeronautics)

Achievements:

Sub-theme Aeronautics:

Under FP6, Universidad National del Litoral, Instituto de Desarrollo Tecnológico para la Industria Química participated in two projects and got EC contributions of:

- €123.7k (100% of total cost) for its participation in the project SYNCOMECS which consisted in building an integrated software for the design of aeronautical compliant mechanical systems;
- €196.6k (100% of total cost) for its participation in the 3 year long project RAPOLAC which ended in January 2010 and aimed at producing prototype aerospace parts through the Shaped Metal Deposition (SMD) process.

Under FP7 (1st, 2nd and 3rd Call), 3 Argentinean applications requesting a total EC contribution of €360k received, and one selected for funding. The Ministerio de Ciencia, Tecnología e Innovación Productiva (MINCYT) gets €20.7k EC (100% total cost) for its participation in the Coordination and Support Action CoopAIR-LA (Guidelines for cooperation of Latin American countries in European aeronautics and air transport research) aiming at deepening strategic cooperation in aeronautics and air transport research between EU and LA.

Sub-theme Surface Transport:

Under FP6 one application on innovative standardized tramway command systems with 4 Argentinean applicants requesting a total EC contribution of 436k€ was received and rejected.

Under FP7 (1st, 2nd and 3rd Call): 8 Argentinean applications requesting a total EC contribution of €400k received, 5 rejected, one ineligible, and one selected for funding. Universidad de Buenos Aires gets €101.6k EC contribution (100% of total cost) for its participation in the Coordination and Support Action ENABLE (Stimulate Sustainable Freight Transport Systems with Latin American countries) which aims at stimulating intermodal freight transport systems in Argentina and Brazil using European relevant experiences.

Sub-theme Galileo:

Under FP7, one application for a project with 4 Argentinean participants requesting a total EC contribution of €60k received and selected for funding. This project, GACELA (GALILEO Centre of Excellence for Latin America), aims at fostering the GNSS local industry and the Galileo based applications development in the region trough the creation of a Galileo Centre of Expertise in Argentina, the first such centre in the world out of the European Continent.

Outlook:

In Aeronautics, ongoing workshops and priorities-mapping activities with EU stakeholders in the frame of CoopAIR-LA may lead to suggestion of topic areas of mutual benefit for future initiatives. Argentinean capacities are especially relevant in the fields of numerical analysis, modelling and simulation.

In surface transport, the upcoming final recommendations of the Support Action SIMBAII might help identify research topics of common interest in the areas of urban mobility and Intelligent Transport Systems (ITS). As well, the on-going coordination and support action ENABLE could help promote EU-Argentinean cooperation in the area of intermodal freight transport and identify research topics of common interest.

Cooperation with the INCO-Net for Latin America might be useful to identify research topics of a common interest.

Socio-economic Sciences and Humanities (SSH)

Achievements:

Up to now, under FP7 four out of 37 applications (including 45 Argentinean partners) have been selected for funding in the following areas:

- Connecting Socio-Economic Research on the Dynamics of the Knowledge Society in the European Union and Latin American and Caribbean Countries (EULAKS project).
- Models and their Effects on Development paths: an Ethnographic and Comparative Approach to knowledge transmission and livelihood strategies (MEDEA project).
- Global Re-ordering: Evolution through European Networks (GREEN project)
- Environmental Governance in Latin America and the Caribbean: Developing Frameworks for Sustainable and Equitable Natural Resource Use (ENGOV project – includes two Argentinean partners).

The 2009 call offered for the first time a SICA specially designed for Latin America (SSH.2010.4.1-2 Collective challenges for Latin American and Caribbean Countries). More than twenty Argentinean researchers or teams submitted proposals.

In order to revitalise the area, a new National Contact Point has been designated: Dr. Florencia Luna.

1) The EU-LAC Workshop "Environment: Collective Challenges of Latin America and the Caribbean held in October 2009 in Santiago de Chile, organised by the European Commission and CONICYT. The aim of this meeting was to present and discuss the research topic for the new SICA specially centered in Latin America to researchers of the region.

2) A Training Workshop on Legal and Financial Issues organised by Net4Society as the National Contact Point in SSH, this is an NCP Network on SSH- The meeting was held in Sophia, Bulgaria on January of 2010.

3) Several meetings with Dr Philippe Keraudren and other colleagues from the International Cooperation Directorate of the European Commission to discuss how the participation of the Argentinean researchers could be improved until the end of FP7.

Outlook:

In order to continue developing this mutually interesting and beneficial cooperation, Dr. Luna proposes the following:

1) Organisation of Information Meetings with the Argentinean researchers from the Socio-Economic Science and Humanities Area. It would be particularly appropriate in September 2011 especially since the new WP combines two years (2012 and 2013).

2) Participation of the National Contact Point in SSH in the Meetings that are going to be held in Brussels about mega-projects in SSH, in order to re-transmit this information through the Information Meetings to local researchers. Such a meeting is organized by Unit L.2 on 8 October on two challenges (i.e. with more than €6,5 M EU contribution) linked to poverty and development on the one hand, and world food needs on the other hand.

3) Net4Society is organizing a brokerage event in September in Istambul to promote the next call and foster the interaction among researchers. The proposal is to promote this event through an open call and invite researchers that may be interested in participating in the currently open Call.

4) Organisation of a Workshop in Argentina with ethics experts, research ethics committees, authorities (that deal with clinical trials, data protection, animal welfare, etc.) and scientists and discuss the impact of the ethics review procedures on them. These workshops are going to be initiated in certain countries in Europe and can be replicated in Argentina as a way of knowing needs and problems of researchers regarding ethics and also promoting the possibilities of cooperation with the European Commission.

Science in Society (SiS)

Achievements:

Under FP7, four out of eight applications have been selected for funding in the following areas:

- Civil society engagement with ecological economies (CEECEC project).
- A multistakeholder dialogue providing inputs to implement the European Code of Conduct for Nanosciences & Nanotechnologies (N&N) research (NANOCODE project).
- Transformative Research Activities. Cultural diversities and Education in Science (TRACES project).
- An Observatory for Science in Society based in Social Models (SISOB project).

Mobility/Exchange of Researchers

Achievements:

As far as the Marie Curie International Fellowships scheme is concerned, in FP6 17 Argentinean researchers have been funded to carry out research activities in Europe; 9 of them have been awarded a reintegration grants back to Argentina.

In FP7, so far 11 Argentinean researchers are participating in the individual fellowship scheme; four in the International Incoming Fellow scheme and 7 in Intra European Fellow scheme. For 2009, five contracts for Argentinean researchers are still in negotiation phase; 4 for IIF and 1 for IEF.

So far, 38 Argentinean researchers are participating in host driven project. These figures are encouraging and show that MC actions are attractive for Argentineans in the different individual schemes.

Argentina nominated Ms. Inés Menvielle as new FP7 Contact to pursue cooperation in this area.

Outlook:

From the EC side, several actions under the FP7 People Specific Programme are of interest to Argentina. For institutes and organisations the following actions are particularly relevant:

- IRSES: The participation of Argentina within the "International Research Staff Exchange Scheme" (IRSES) has increased from the first call (3 research organisations submitted and 2 retained for funding) to the 2d call where 21 Argentinean organisations were successful out of 26 that have submitted a proposals. For 2010 19 research organisations are involved in submitted proposals. The figure confirms the interest of Argentinean institutes in this scheme. The number of successful applicants will be communicated shortly.
- Initial Training Networks (ITN): So far, participants from Argentina were included in 9 proposals submitted to ITN action, of which two were successful. Currently, one grant agreement has been signed including Argentina as a full partner in the consortium. It means that the Argentinean organisation can recruit researchers and participate actively in the international and inter-sectoral training provided by the network. Negotiations related to another ITN proposal including Argentinean partner will be open.
- Industry-Academia Partnerships and Pathways (IAPP): Argentina can explore the possibilities to participate as a partner in IAPP, a possibility that until now has not yet been investigated.

- For individual researchers the following actions are of interest:
    - International Incoming Fellowships (IIF) is still an important tool to gain experience in Europe.
    - There is a need to continue to raise awareness on the possibilities offered to Argentinean researchers and organisations to participate within the individual scheme (IIF) and within the host actions, ITN and IAPP. The first results from

FP7 confirm the interest on individual schemes but the effort must continue on communicating, in particular, on ITN and IAPP host actions.

- Vacancies in the ITN and IAPP contracts are advertised through the Marie Curie website: http://ec.europa.eu/mariecurieactions.
- New calls for proposals will be launched in July 2010 for IAPP and ITN.
- In addition, it is equally important to raise the awareness of the possibilities offered to Argentinean research organisations to host European researchers (e.g. IOF- scheme).

- Argentina may consider developing a national mobility portal and connect it to the highly visible European EURAXESS Portal. Argentina confirmed its interest to start working on this during the next 6 months.

- Since 1 March 2010, Policy Marie Curie area has been transferred to Education and Culture Directorate General. The new Director in charge of the unit is Jordi Currell. This change will probably open new synergies with international educational and cultural programs. There are potential synergies particularly with the Joint Doctoral Programme of Erasmus Mundus.

- A Videoconference on Marie Curie actions as well for the Erasmus Mundus Programme is planned before end 2010.

Capacity Building in S&T and Synergies between S&T and other EU Policies and their instruments

In the following, a number of potential or actual synergies are presented between S&T cooperation with Argentina and other European policies and their instruments, without prejudice to the development and implementation of these other policy areas. Developing and using these synergies, including those with EU Member States' bilateral cooperation where applicable, may garner greater effects and, potentially, cost-effectiveness, of overall cooperative relations. It is in this context that this roadmap of joint activities in science and technology is evolving.

There are evident synergies between the bi-lateral EC-Argentina Development Cooperation Programme defined in the **Argentinean Country Strategy Paper (CSP) for 2007-2013** (the second part – 2010-2013 has some explicit potential for synergies) and the S&T cooperation strategy.

The three components of the CSP - Education, Social Cohesion and Innovation and Competitiveness - could be very complementary for building capacities in S&T. The complementarity with sub-regional activities at MERCOSUR level are obvious (e.g. Biotech-EC-MERCOSUR. Synergies should also be actively exploited with the Marie Curie Programme and its Staff Exchange modality (IRSES), whenever possible.

The Social Cohesion component will develop concrete initiatives related to better social distribution, employment and addressing inequities, social dialogue, synergies between social cohesion and environmental protection, such as projects related with poverty reduction and a sustainable management of natural resources. There is a strong potential complementarity with several FP7 thematic areas such as Social Sciences and Humanities and uptake of research results under this component might amplify positive effects for both.

The EC Delegation in Buenos Aires will carry out public events with the FP7 Liaison Office hosted by the Ministry of Science, Technology and Innovation and also support producing information materials that promote cooperation in the interconnected areas of education, science, technology and innovation.

With the beginning of the ABEST II project, the named NCP on the different thematic areas, will take a more active role on the activities of the Argentinean Liaison Office specially those that have to do with the dissemination actions of the Office, and the participation of the NCP on the different Conferences of each thematic area that will take place in Europe and Latin America during the next years. Specific attention will be paid to increasing visibility of Argentinean researchers and research capacities in Europe. The new SME NCP, Santiago Sacerdote from the Unión Industrial Argentina and director of the national network of All-Invest, is very active to strengthen the 'innovation capacity' of Argentinean SMEs, extending their networks and their contribution to the development of new links with the European Union.

ABEST is preparing a proposal to join in the Enterprise Europe Network (EEN) to establish a Network centre in Argentina, which will access EEN's tools and cooperation mechanisms and provide business support to small and medium enterprises (SMEs). MINCYT through ABEST is already involved in providing business support to SMEs in Argentina to improve the competitiveness of technology-based SME's and their cooperation to their pairs in Europe.

Among its main objectives, ABEST gives support coordination within the International Cooperation activities between Argentina and the EU encouraging functional links and synergies between research, development and innovation. ABEST has a Helpdesk service specially dedicated to SMEs. In addition, ABEST is also promoting different actions and funding schemes to support the internationalisation of local technology-based SMEs in order to contribute to reinforce social cohesion in the region. In this regard, ABEST will cooperate with the national partner of the EU funded project FIRST to foster International Cooperation in the interaction between European and Latin American Technology Platforms (ETPs and LATPs) in the fields of Future Internet and ICT Components and systems between Europe and Latin America.

ABEST, represented by Luciana Ayciriex, participated in the Business Forum and Conference – Europe & Latin America in the scope of the project "Support of the International Technopark of Panama in the City of Knowledge", which is supported by the European Union and was held on 15-17th June 2010 in the Convention Centre of the International Technopark, Panama. Argentina was very active at the "European Union's support of Science and Technology – the realms of the VII Framework Programme" panel. The event focused on making the most of ICT and Biomedical sciences ("Biociencias") for the development of Latin America: an opportunity for Europe to make business links with Latin America and vice versa, a theme of unquestionable relevance and socio-economic impact.

Some specific actions were carried out under the FP7 Capacities Programme, such as INCO-Net, the BILAT, research infrastructure and research for the benefit of SMEs.

Argentinean INCO NCPs have been very active in the last activities carried out within the INCO Work Programmes in FP7, supporting bi-regional cooperation with different regions of the world INCO-Nets, bilateral cooperation partnerships with countries the EU has S&T agreements (BILATs) and supported programmes to coordinate national activities (ERA-NET).

Regarding the ERA-Net's, the "European-Latin American Network for Science and Technology" (EULANEST; http://www.S2lat.eu/eulanest) was initiated aiming to overcome the fragmented S&T relations with Latin America. Within the EULANEST project the realization of a Joint Call was defined to strengthen the development of sustainable joint research co-operations between European and Latin American institutions. This new instrument was launched in contribution to research collaboration between Europe and Latin America in the area of Sustainable Renewable Energies in the frame of climate changes and Nanosciences with emphasis on human health. The submitted proposals should have represented the base for the creation of new knowledge through mixed consortium of LA and EU countries. The Joint Call was opened for submission for three months with an agreed methodology. During that period a total of 63 proposals were presented, including 38 proposals of the area of Sustainable Renewable Energies and 25 proposals of the area Nanosciences. Seven proposals have been selected, five of them with Argentinean participation.

Tentative Timetable
May 2010/ April 2011

Cooperation Area	2010								2011					
	May	**June**	**July**	**Aug**	**Sept**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**April**	**May**	**June**
S&T Steering Committee Meeting	XX	xx	SC Meeting by Videoconference	xx	xx	Eval	Eval	Eval	Eval	Eval	Eval	xx		SC Meeting Brussels
Capacities SP														
BILAT (FP6/7)	ABEST II Activities	ABEST II Activities			ABEST II STAND on ICT Event Brussels						ABEST II Steering Committee Meeting			
EULARINET	xx	xx	xx	xx	Workshop on ICT	Workshop on KBBE and Health	xx	xx	xx	xx	Biregional Meeting, Mexico	xx	xx	xx
ERANET		EULANEST EULANEST Projects, Lisbon	EULANEST – Project Meeting – OSLO											
INCONTACT		1st INCO Conference "Supporting Research Integration - GREECE												
Cooperation SP														
Environment		Informative Meeting on ENV						Informative Meeting on ENV				Informative Meeting on ENV		

	2010								2011					
Cooperation Area	**May**	**June**	**July**	**August**	**September**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**March**	**April**	**May**	**June**
FAB/KBBE		Summer School on Soil, plant & food research - GREECE	II Workshop Twinning opportunities in soil, plant & food research between EU – ARG & Mercosur		BIOCIRCLE	BIOLATINA – 18-20								
Material Science / Nano		Information Meeting on NMP						Information Meeting on NMP				Information Meeting on NMP		
ICT		Information Meeting on ICT			ICT2010 - Event – Brussels Info Day & Round Table to foster Arg – Europe cooperation			Information Meeting on ICT				Information Meeting on ICT		
Energy		Information Meeting on ENG						Information Meeting on ENG				Information Meeting on ENG		
Health	Special Meeting on Health - Rome	Information Meeting HEALTH						Information Meeting HEALTH				Information Meeting HEALTH		
Transport (including Aero-nautics)					CoopAIR workshop									

	2010								2011					
Cooperation Area	**May**	**June**	**July**	**August**	**September**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**March**	**April**	**May**	**June**
Social Sciences & Humanities		Information Meeting on SSH			Net4Society Brokerage event - Istanbul			Information Meeting on SSH				Information Meeting on SSH		
People SP – Mobility														
General matters 'people'		FP7 contact Information Meeting – OLAVARRIA & SALTA	Designation of new PEOPLE NCP	FP7-PEOPLE-IIF-2010 FP7-PEOPLE-ITN-2010 Deadline	Information meetings for the new calls		Video-conf.	FP7-PEOPLE-IIF-2010 FP7-PEOPLE-ITN-2010 New Call						
IRSES				IRSES III Dissemination activities	Report of IRSES II Results	IRSES IV Dissemination activities	IRSES IV New Call				IRSES IV Deadline			

14.2. Online Survey

Experiences with the EU-ARG S&T Co-operation Agreement

Questionnaire on EU-AR S&T cooperation in the 6th and 7th EU Framework Programme for Research, Technological Development and Demonstration (FP6 and FP7)

Bilateral S&T co-operation has a long and successful history in Argentina, and is increasingly enriched by the participation of Argentina in EU Framework Programmes (FP). Since May 2001, the legal framework for this cooperation is the EC-Argentina S&T Co-operation Agreement. It is due for extension in 2011. An assessment is currently underway to learn lessons for the future.

An important input will be your assessment of the S&T cooperation activities: you - the organisations and individuals who have concretely implemented or supported those actions.

This questionnaire has been designed to synthesise your experience and suggestions, analysing the past and present, but also suggesting ways forward. Reacting to each question contributes to building a solid assessment base, and sharing your ideas via the 'open questions' helps us developing better targeted suggestions for future S&T co-operation between the European Union and Argentina.

Objectives of the Survey

- To characterise key features related to EU-AR S&T co-operation through participation in the 6th and 7th EU RTD Framework Programmes (FP6 and FP7) so as to draw up a pattern of co-operative activities in terms of :

1. Areas/topics
2. Types of research (science-led, technology-led, trade-led, global issues-led)
3. Types of instruments / implementation mechanisms.

- To assess the benefits and difficulties of S&T co-operation through participation in EU Framework Programmes as well as of co-operative activities between EU-AR in EU projects in particular.

- To identify areas/actors/instruments for which there are promising prospects for developing the co-operation further.

Confidentiality

All information is treated confidentially, and distributed to the EU only in an anonymous format.

Practical information

Filling out this survey does not require more than **a quarter of an hour.** We will close the survey on **March 9, 2011**.

We thank you in advance for your time and effort in responding to this survey.

Claudine Schmidt-Lainé (FR) and Günter Clar (DE), reviewers.

Contact for the survey

Claudine Schmidt-Lainé

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There are 39 questions in this survey

Legal Framework

1 Which of the following statements best describes your awareness of the EU-AR Science & Technology Co-operation Agreement and/or its implementing arrangements ? *

Please choose **only one** of the following:

○I know the EU-AR Science & Technology Co-operation Agreement in detail

○I know the EU-AR Science & Technology Co-operation Agreement by name only

○I don't know anything about the EU-AR Science & Technology Co-operation Agreement

○other (please specify)

EU-Ar co-operation in 6th or 7th framework programme

2 Please indicate whether your involvement in EU-AR co-operation was/is under. *

Please choose **only one** of the following:

○The 6th EU Research Framework Programme (FP6)

○The 7th EU Research Framework Programme (FP7)

○Both

3 Which of the following best describes the scientific area covered by your activity?

6th EU RTD Framework Programme (FP6) *

Only answer this question if the following conditions are met:
° Answer was 'The 6th EU Research Framework Programme (FP6)' or 'Both' at question '2 [Q2]' (Please indicate whether your involvement in EU-AR co-operation was/is under.)

Please choose **all** that apply:

☐Life sciences, genomics and biotechnology for health

☐Information society technologies

☐Nanotechnologies and nanosciences, knowledge based multifunctional materials, and new production processes and devices

☐Aeronautics and space

☐Food quality and safety

☐Sustainable energy

☐Sustainable transport

☐Sustainable development, global change and ecosystems

☐Citizen and governance in a knowledge-based society

☐Research for policy support

☐New and emerging science and technology (NEST)

☐Marie Curie Actions – Human resources and mobility

☐Research infrastructures

☐Science and society

☐International cooperation activities (INCO) • Food security

☐International cooperation activities (INCO) • Health and public health

☐International cooperation activities (INCO) • Rational use of natural resources

☐Other (please specify):

4 Which of the following best describes the scientific area covered by your activity?

7th EU RTD Framework Programme (FP 7) *

Only answer this question if the following conditions are met:
° Answer was 'The 7th EU Research Framework Programme (FP7)' or 'Both' at question '2 [Q2]' (Please indicate whether your involvement in EU-AR co-operation was/is under.)

Please choose **only one** of the following:

○Cooperation Programme

○Ideas Programme (European Research Council - ERC)

○People Programme (Marie Curie Actions)

○Capacities Programme

5 Which of the following best describes the scientific area covered by your activity?

Cooperation Programme *

Only answer this question if the following conditions are met:
° Answer was 'The 7th EU Research Framework Programme (FP7)' or 'Both' at question '2 [Q2]' (Please indicate whether your involvement in EU-AR co-operation was/is under.) *and* Answer was 'Cooperation Programme ' at question '4 [FP7]' (Which of the following best describes the scientific area covered by your activity? 7th EU RTD Framework Programme (FP 7))

Please choose **only one** of the following:

- ○Health
- ○Food, Agriculture, Fisheries, and Biotechnology
- ○Information and Communication Technologies
- ○Nanosciences, nanotechnologies, materials and new production technologies
- ○Energy
- ○Environment (including climate change)
- ○Transport (including aeronautics)
- ○Socio-economic Sciences and the Humanities
- ○Space
- ○Security
- ○Other (please specify

6 Ideas Programme (European Research Council - ERC) *

Only answer this question if the following conditions are met:
° Answer was 'The 7th EU Research Framework Programme (FP7)' or 'Both' at question '2 [Q2]' (Please indicate whether your involvement in EU-AR co-operation was/is under.) *and* Answer was 'Ideas Programme (European Research Council - ERC)' at question '4 [FP7]' (Which of the following best describes the scientific area covered by your activity? 7th EU RTD Framework Programme (FP 7))

Please choose **only one** of the following:

○ERC Starting Grant

○ERC Advanced Grant

7 People Programme (Marie Curie Actions) *

Only answer this question if the following conditions are met:
° Answer was 'The 7th EU Research Framework Programme (FP7)' or 'Both' at question '2 [Q2]' (Please indicate whether your involvement in EU-AR co-operation was/is under.) *and* Answer was 'People Programme (Marie Curie Actions)' at question '4 [FP7]' (Which of the following best describes the scientific area covered by your activity? 7th EU RTD Framework Programme (FP 7))

Please choose **only one** of the following:

○Initial Training Network (ITN

○Life long training and career development – COFUND only

○Industry Academia Partnerships (IAP)

○International Outgoing Fellowship (IOF)

○International Incoming Fellowship (IIF); Reintegration Grants (IRG)

8 Capacities Programme *

Only answer this question if the following conditions are met:
° Answer was 'The 7th EU Research Framework Programme (FP7)' or 'Both' at question '2 [Q2]' (Please indicate whether your involvement in EU-AR co-operation was/is under.) *and* Answer was 'Capacities Programme' at question '4 [FP7]' (Which of the following best describes the scientific area covered by your activity? 7th EU RTD Framework Programme (FP 7))

Please choose **only one** of the following:

○Research infrastructures

○Research for the benefit of SMEs

○Science in Society

○International Cooperation

Project Information

9 Which one of the following best describes your involvement in a research project, network or other action ?

You are involved as :

*

Please choose **only one** of the following:

○Project leader/coordinator

○Work package leader

○Project participant (researcher)

○Administrator

○Other (please specify)

10 Where is your organisation based ?

*

Please choose **only one** of the following:

- ○ARGENTINA
- ○Albania
- ○Andorra
- ○Austria
- ○Belgium
- ○Bielorussie
- ○Bosnia-Herzegovinia
- ○Bulgaria
- ○Cyprus
- ○Croatia
- ○Denmark
- ○Estonia
- ○Finland
- ○France
- ○Germany
- ○Grece
- ○Hungary
- ○Ireland
- ○Iceland
- ○Italy

○Latvia

○Liechtenstein

○Lithuania

○Luxembourg

○Macedoine

○Malta

○Moldava

○Monaco

○Montenegro

○Norvege

○Poland

○Portugal

○Republique tcheque

○Roumania

○Russia

○Serbia

○Slovakia

○Slovenie

○Spain

○Suede

○Switzerland

○The Netherlands

○The United Kingdom

○Ukraine

○Elsewhere (please specify) :

11 General information *

Please write your answer(s) here:

- How many partners participate/d in the project?
- They were from how many countries?
- Total project value (€) :
- Total EU contribution (€) : 1. Up to 1M€ - 2. Between 1.1M€ and 3M€ - 3. More than 3M€ (please specify) :
- EU contribution to your organisation (€) :
- National contribution to your organisation's participation (€) :
- Your organisation's contribution to project participation (estimate of cash and in-kind combined (€) :

12 Which of the following best describes the type of organisation you work for, in the context of the project(s) ? *

Please choose **only one** of the following:

○Government or Public Administration

○Higher Education Institution

○Research organisation

○Industry

○Small or medium sized enterprise (SME)

○International Organisation (IO)

○Other (please specify)

13 Which types of organisations were/are involved in your project? *

Please choose **all** that apply:

☐Higher Education Institution

☐Research organisation

☐Industry

☐International organisation

☐Small or medium sized enterprise (SME)

☐Other (please specify):

Research Projects - 6th EU RTD Framework Programme (FP6)

Research Projects - 7th EU RTD Framework Programme (FP7)

Research Projects - Funding instrument

14 Your project is/was performed under the following FP funding instrument: *

Please choose **all** that apply:

- ☐FP6 Integrated project (IP)

☐FP6 or FP7 Network of Excellence (NoE)

☐FP6 Specific targeted research project (STREP)

☐FP7 Collaborative project

☐FP6 or FP7 Coordination action

☐FP6 or FP7 Specific Support Action

☐FP7 ERC Starting Grant

☐FP7 ERC Advanced Grant

☐FP6 or FP7 Marie Curie Grant

☐FP6 or FP7 Specific project for SMEs

☐FP6 or FP7 Specific action to promote research infrastructure

☐COST

☐Other (please specify):

Research Projects - Policy action

15 Which type of research / policy action characterises best the project? *

Please choose **only one** of the following:

○Science-led

○Technology-led

○Trade-led

○Global issues-led

○Other (please specify)

Other co-operation activities

16 Have you been involved in: *

Please choose **all** that apply:

☐ERA-Nets

☐Regions-of-Knowledge or Regional Potential projects

☐European Enterprise Network / CIP Activities

☐Joint Programming preparation

☐Other (please specify):

Who provided information and assistance for preparing the proposal?

17 *

Please choose **only one** of the following:

- ○For coordinator
- ○For Argentinian partner
- ○For European partner

18 For coordinator *

Only answer this question if the following conditions are met:
° Answer was 'For coordinator' at question '17 [Q13]' ()

Please choose **only one** of the following:

- ○I didn't use external information and assistance
- ○Support services of your own institution
- ○Ministry
- ○National Contact Point
- ○Other intermediary
- ○Experienced colleague
- ○Other (please specify)

19 For Argentinian partner

*

Only answer this question if the following conditions are met:
° Answer was 'For Argentinian partner' at question '17 [Q13]' ()

Please choose **only one** of the following:

- ○I didn't use external information and assistance
- ○Support services of your own institution
- ○National Ministry / Contact Point / Regional Administration
- ○Other institution
- ○The coordinator
- ○Other project partner
- ○Other experienced colleague
- ○EC Delegation in Argentina
- ○Other (please specify)

20 For European partner
*

Only answer this question if the following conditions are met:
° Answer was 'For European partner' at question '17 [Q13]' ()

Please choose **only one** of the following:

○I didn't use external information and assistance

○Support services of your own institution

○Ministry

○National Contact Point

○Other intermediary

○Experienced colleague

○Other (please specify)

21 Main reasons for European partners to involve Argentinian partner?

*

Only answer this question if the following conditions are met:
° Answer was 'For European partner' or 'For coordinator' at question '17 [Q13]' ()

Please choose the appropriate response for each item:

	Very important	Important	Not important
Access to complementary experience or expertise	○	○	○
Access to specific material etc.	○	○	○
Access to special research	○	○	○

	Very important	Important	Not important
infrastructure			
Possibility to address more ambitious research problem	○	○	○
Expecting higher impact factor	○	○	○
Access to Argentinian scientific community	○	○	○
Improve chances to be retained for funding	○	○	○
Prestige, reputation	○	○	○
Synergies with bilateral or national/regional funded projects - Please specify which applies: [that means there must be a technical possibility to do so]	○	○	○

22 Main reasons for Argentinian partner to get involved in European project? *

Only answer this question if the following conditions are met:
° Answer was 'For Argentinian partner' or 'For coordinator' at question '17 [Q13]' ()

Please choose the appropriate response for each item:

	Very important	Important	Not important
Access to complementary experience or expertise	○	○	○
Access to specific material etc.	○	○	○
Access to special research infrastructure	○	○	○
Possibility to address more ambitious research problem	○	○	○
Expecting higher impact factor	○	○	○
Access to European scientific community	○	○	○
Access to European funding	○	○	○
Prestige, reputation	○	○	○
Synergies with bilateral or national/regional funded projects. Please specify which applies: [that means there must be a technical possibility to do so]	○	○	○

Information on the preparation of the project

23 How was the contact with the Argentinian or European project partner established? *

Please choose **only one** of the following:

- ○Existing contact with the coordinator
- ○Existing contact with another project partner
- ○From previous projects, networks or other actions
- ○Known from literature
- ○Meeting/conference
- ○Via National Contact Point or other intermediary
- ○Via partner search database (e.g. CORDIS)
- ○Other (please specify)

24 Where did the initiative/idea for the activity originate? *

Please choose **only one** of the following:

- ○Researcher or research group in Europe
- ○Researcher or research group in Argentina
- ○Joint initiative by researcher or research groups in Europe and Argentina
- ○Other (please specify)

25 How was your project proposal developed? *

Please choose **only one** of the following:

- ○Mainly by the project coordinator
- ○Mainly by one other partner

○By core team of project partners

○In teamwork of most project partners

26 Involvement of Argentinian partner in preparing the proposal *

Please choose **only one** of the following:

○Very Strong

○Strong

○Medium

○Low

○Almost no involvement

27 If you used external information and assistance for preparing a proposal, what was it for? *

Please choose **only one** of the following:

○I didn't use external information or assistance

○General information on the Framework Programme

○How to prepare a proposal?

○Information on the contents of the annual work programme and the content of the Call for Proposals

○Information on rules for participations (evaluation criteria, eligibility, financial rules, contract issues, IPR, etc.)

○Finding partners

○Other (please specify)

28 Have you or your organisation worked with EU / AR partners before? *

Please choose **only one** of the following:

○Yes, in the Research Framework Programme

○Yes, calls from bilateral agreements between Argentina and EU member states or research organisations

○Yes, in other programmes or initiatives (please specify)

○No

29 Have you or your organisation worked with non-EU / non-AR partners before?

If yes, from which country?

Please write your answer here:

Information on the outcomes and results of your project etc.

30 Please assess the importance of the following outcomes / results of your project, network or other *

Please choose the appropriate response for each item:

	Very important	Important	Not important
Outcomes or results	○	○	○
Access to complementary knowledge	○	○	○
Access to specific material etc.	○	○	○
Access to special research infrastructure	○	○	○
Possibility to	○	○	○

	Very important	Important	Not important
address more ambitious research problem			
Higher impact factor of publication	○	○	○
Access to wider Argentinian or European scientific community	○	○	○
Additional funding potential	○	○	○
Production of new knowledge	○	○	○
Development or improvements of standards and regulations	○	○	○
Development of new/improved products, processes, services	○	○	○
Exchange of personnel	○	○	○
Insight into other scientific culture(s)	○	○	○
Insight in and access to other markets	○	○	○
Insight into other ways to organise research	○	○	○
Improved skills for working in international project	○	○	○

	Very important	Important	Not important
consortia			
Establishing new partnerships for future transatlantic research cooperation	○	○	○
Publications in peer-reviewed journals	○	○	○
Publications in other journals	○	○	○
Co-authored publications	○	○	○
PhD theses	○	○	○
Presentations at European conferences	○	○	○
Presentation(s) at Argentinian conferences	○	○	○
Patent(s)	○	○	○
Information on and access to Argentinian funding sources	○	○	○
Higher international visibility	○	○	○
Gain in prestige and reputation	○	○	○

31 Please rate the following statements about benefits from your involvement in EU-AR RTD cooperation

. Strongly disagree = 1
. Strongly agree = 5
*****

Please choose the appropriate response for each item:

	1 2 3 4 5
The EU-AR cooperation was successful	○○○○○
The EU-AR cooperation was essential for achieving the project results	○○○○○
The cooperation with AR partners improved quality and relevance of project outcomes	○○○○○
The benefits of working jointly with a EU-AR team met my expectations	○○○○○
Contacts and cooperation developed during the project will continue after the project has finished	○○○○○
My organisation has used the project to build other networks between the EU and AR	○○○○○
My organisation will actively seek EU-AR collaboration in subsequent EU and other projects.	○○○○○

32 Which of the following caused you difficulties when cooperating with EU-AR counterparts? *

Please choose the appropriate response for each item:

	Did cause difficulty	**Did not cause difficulty**
Cooperation with the EU or AR research team	○	○
Differences in management approaches/cultures	○	○
Size of the consortium	○	○
Complexities of decision taking	○	○
Dependency on deliverables of	○	○

	Did cause difficulty	Did not cause difficulty
project partners		
Communication, exchange of information	○	○
Reporting requirements, deadlines	○	○
Project administration	○	○
Substantial travel and other costs	○	○
Intellectual property issues	○	○
Lack of support from your parent organisation	○	○

33

In synthesis

From your experience, what would you consider the main bottlenecks and administrative, legal or institutional obstacles to ongoing co-operative activities?

Please write your answer here:

34 In synthesis

What should be changed, and by whom, to facilitate co-operation and to attract new partners to participate?

Please write your answer here:

Looking forward

35 Are you aware of developments in the EU RTDI (research, development and innovation) policy landscape that might affect international research and innovation cooperation? e.g. *

Please choose **all** that apply:

☐EU 2020 Strategy

☐The Innovation Union flagship initiative

☐The EU Integrated Industrial Policy

☐The general future focus on addressing Global Challenges, e.g....

☐European Climate Change policy

☐The SET (Strategic Energy Technology) Plan

☐The activities of the SFIC (Strategic Forum for International S&T Co-operation)

☐EU commitment to help achieve the Millennium Development Goals

☐None

☐Other EU policy developments you consider relevant (please specify) ::

36 RTDI developments in Argentina and Latin America

From your point of view, which developments influence (positively or negatively) future Argentinian S&T co-operation activities with the EU?

Please write your answer here:

37 Given the above, where in each of the following items would you see priorities for future S&T co-operation regarding

Please write your answer(s) here:

- Research & Innovation policy issues?
- Research areas/topics?
- Types of research (science-led, technology-led, trade-led, global issues-led)?
- Types of instruments / implementation mechanisms?

Final general comments and information

38 Do you have any further comments on the activities in EU-AR S&T co-operation you have been involved in, or the EU-AR S&T Co-operation in general?

Please write your answer here:

39 Information on organisation, person, FP project (Optional)

Please write your answer(s) here:

- Name of your organisation:
- Your name:
- Title of your FP 6 and/or FP7 project, network etc.:
- Project acronym:
- Project status (dates): 1=Project start - 2=Project end:

14.3. Interview Guidelines

Guidelines for interviews

1 – **International S&T cooperation strategy of the organisation**

- General strategy for international cooperation
- Strategy for EC-AR S&T cooperation
- Role of S&T Agreement, Steering Committee and Roadmap
- Role of different approaches for international cooperation in EU Framework Programme (different types of instruments and their application)
- Key benefits, role of reciprocity
- Future prospects of EC-AR S&T (areas/topics, broad range of actors and instruments)

2 – **Experiences with the S&T Policy dialogue between the EC and Argentina** :

- in the frame of S&T Agreement
- in other fora for dialogue, e.g. EU-Mercosur, EU-LAC, Ibero-America, SFIC, ...

3 – **Examples, patterns, achievements of the S&T cooperation in FP6 and FP7**

- Success stories, flagships
- Areas/topics, actors of specific importance, rôle of the thematic working groups, of the Roadmap thematic areas
- Role of and access to infrastructures

4- **Bottlenecks, barriers, for cooperation in FP6 and FP7** : communication, international coopération, reporting, project management and administration of collaborative projects and networks, ...

5 – **Role of INCO Projects** : Eularinet, Coopair, Incontact,.....

6- Experiences of differently focused National Contact points (**NCP**)

7 – **Role of bilateral S&T cooperation between Argentina and individual EU / non-EU member states** (coordination, synergies, complementarities or competition between bilateral and multilateral S&T cooperation).

8 – Role of **ABEST II, MINCYT, ANPCyT**, others ?

9 – **Suggestions for strengthening & broadening Argentine S&T cooperation from the point of view of your organisation** : .....

10- **Suggestions for strengthening & broadening Argentine S&T cooperation from a higher-level point of view considering similar policy developments**, e.g.

- holistic 'S&T policy' approaches (integrated support to education, research, innovation)
- synergies / alignment across a range of policy areas - beyond 'S&T'
- focus on knowledge for society / grand challenges
- from project to programme cooperation with larger, highly differentiated consortia making use of a whole spectrum of specific instruments

11 - **Other comments**

14.4. Argentinean organisations participating in FP6 and FP7

The following Table 14 displays the list of all the Argentinean institutions in successful FP6 projects :

Table 14 : Argentinean institution in sucessful FP6 projects

1.	ADMINISTRACIóN NACIONAL DE LABORATORIOS E INSTITUTOS DE SALUD "DR. CARLOS G. MALBRAN"
2.	AGENCIA CORDOBA CIENCIA SE
3.	ARGENTINE NATIONAL COUNCIL OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH
4.	ASOCIACIÓN ARGENTINA DE MÉDICOS POR EL MEDIO AMBIENTE
5.	ASOCIACION ARGENTINA DE PRODUCTORES EN SIEMBRA DIRECTA
6.	ASOCIACION CIVIL CIENCIA HOY
7.	ASOCIACIóN CONSORCIO PARA EL DESARROLLO REGIONAL BS. AS. OESTE- INNOVAR
8.	ASOCIACIÓN MISIONERA DE MEDICINA GENERAL/ FAMILIAR Y DEL EQUIPO DE SALUD (MISIONES ASSOCIATION OF GENERAL FAMILY MEDICINE AND HEALTH TEAM)
9.	BIO&SUR - ASOCIACIóN CIVIL HOSPITAL DE CLíNICAS DE LA UNIVERSIDAD DE BUENOS AIRES
10.	CENTRO DE INVESTIGACIóN Y DESARROLLO EN CRíOTECNOLOGíA DE ALIMENTOS
11.	CENTRO DE INVESTIGACION Y EXTENSION FORESTAL ANDINO PATAGONICO
12.	CENTRO DE INVESTIGACIONES EN CIENCIAS VETERINARIAS Y AGRONóMICAS, INSTITUTO NACIONAL DE TECNOLOGíA AGROPECUARIA
13.	CENTRO DE PSICOLOGIA MEDICA SAN MARTIN DE TOURS S.R.L.
14.	CENTRO INTERDISCIPLINARIO PARA EL ESTUDIO DE POLITICAS PUBLICAS
15.	CENTRO REGIONAL DE INVESTIGACIONES CIENTíFICAS Y TECNOLóGICAS (MENDOZA)-CRICYT
16.	CENTRO ROSARINO DE ESTUDIOS PERINATALES
17.	COMISION NACIONAL DE ENERGIA ATOMICA (CNEA)
18.	CONSEJO NACIONAL DE INVESTIGACIONES CIENTIFICAS Y TECNICAS (CONICET)
19.	COORDINADORA DE LAS INDUSTRIAS PRODUCTORAS DE ALIMENTOS
20.	FACULTAD DE CIENCIAS ASTRONOMICAS Y GEOFISICAS, UNIVERSIDAD NACIONAL DE LA PLATA
21.	FACULTAD LATINOAMERICANA DE CIENCIAS SOCIALES
22.	FEDERACIóN LATINOAMERICANA DE ASOCIACIONES DE EMPRESAS BIOTECNOLOGICAS
23.	FUNDACION GESTION Y DESARROLLO
24.	FUNDACION INSTITUTO LELOIR
25.	FUNDACION PARA LA DIFUSION DEL CONOCIMIENTO Y EL DESARROLLO SUSTENTABLE VIA LIBRE
26.	FUNDACION PARA LA INNOVACION Y TRANSFERENCIA DE TECNOLOGIA
27.	FUNDACIóN PARA LA LUCHA CONTRA ENFERMEDADES NEUROLóGICAS DE LA INFANCIA
28.	FUNDACION PROYUNGAS
29.	GRUPO REDES
30.	HOSPITAL DE PEDIATRíA SAMIC "PROF. DR. JUAN P GARRAHAN"
31.	HOSPITAL ZONAL ESPECIALIZADO DE AGUDOS Y CRONICOS DR. CETRáNGOLO
32.	INSTITUTE FOR GENETIC ENGENIERING AND MOLECULAR BIOLOGY
33.	INSTITUTO ARGENTINO DE INVESTIGACIONES DE LAS ZONAS ARIDAS
34.	INSTITUTO ARGENTINO DE OCEANOGRAFíA
35.	INSTITUTO BIOLOGICO ARGENTINO SAIC
36.	INSTITUTO DE BIOLOGíA MOLECULAR Y CELULAR DE ROSARIO
37.	INSTITUTO DE EFECTIVIDAD CLINICA Y SANITARIA ASOCIACION CIVIL
38.	INSTITUTO DE INVESTIGACIONES EN CIENCIA Y TECNOLOGIA DE MATERIALES
39.	INSTITUTO DE INVESTIGACIONES MEDICAS MERCEDES Y MARTIN FERREYRA.
40.	INSTITUTO NACIONAL DE TECNOLOGíA AGROPECUARIA (INTA)
41.	INSTITUTO NACIONAL DE TECNOLOGíA INDUSTRIAL

42. ITMO-FUNDACIóN MAINETTI - INSTITUTO DE TRASPLANTE DE MéDULA OSEA
43. PLANTA PILOTO DE INGENIERIA QUIMICA
44. PRAGMATICA TECHNOLOGIES S.A.
45. SECRETARIAT OF SCIENCE, TECHNOLOGY AND INNOVATIVE PRODUCTION
46. SILICA NETWORKS ARGENTINA S.A.
47. SUBSECRETARIA DE RECURSOS NATURALES DE TIERRA DEL FUEGO
48. THE NATIONAL UNIVERSITY OF RIO CUARTO
49. UNIVERSIDAD CATOLICA ARGENTINA SANTA MARIA DE LOS BUENOS AIRES
50. UNIVERSIDAD CATOLICA DE CORDOBA (CATHOLIC UNIVERSITY OF CORDOBA)
51. UNIVERSIDAD DE BUENOS AIRES
52. UNIVERSIDAD NACIONAL DE CORDOBA
53. UNIVERSIDAD NACIONAL DE LA PAMPA, FACULTAD DE AGRONOMíA
54. UNIVERSIDAD NACIONAL DE LA PLATA
55. UNIVERSIDAD NACIONAL DE LUJAN
56. UNIVERSIDAD NACIONAL DE QUILMES
57. UNIVERSIDAD NACIONAL DE SALTA
58. UNIVERSIDAD NACIONAL DE SAN MARTIN
59. UNIVERSIDAD NACIONAL DEL CENTRO DE LA PROVINCIA DE BUENOS AIRES
60. UNIVERSIDAD NACIONAL DEL COMAHUE
61. UNIVERSIDAD NACIONAL DEL LITORAL
62. UNIVERSIDAD NACIONAL DEL LITORAL - INSTITUTO DE DESARROLLO TECNOLóGICO PARA LA INDUSTRIA QUíMICA
63. UNIVERSIDAD NACIONAL DEL MAR DEL PLATA
64. UNIVERSIDAD NATIONAL DE CORDOBA
65. USUARIA ASOCIACION ARGENTINA DE USUARIOS DE LA INFORMATICA Y LAS COMUNICACIONES

Most active Argentinean organisations in term of EC contribution granted to FP7 research projects is shown in Table 15 :

Table 15 : : Argentinean institution in sucessful FP7 projects

1. ASOCIACION CIVIL "INSTITUTO DE INVESTIGACIONES GINO GERMANI"
2. ASOCIACION CIVIL GRUPO REDES
3. CAMARA ARGENTINA DE BIOCOMBUSTIBLES
4. CEIL-PIETTE
5. CENTRO DE INVESTIGACIONES EN CIENCIAS VETERINARIAS Y AGRONOMICAS
6. CENTRO DE REFERENCIA PARA LACTOBACILOS
7. CENTRO ROSARINO DE ESTUDIOS PERINATALES
8. CNEA
9. COMISION NACIONAL DE ACTIVIDADES ESPACIALES
10. CONICET
11. CONSEJO LATINOAMERICANO DE CIENCIAS SOCIALES
12. FEDERACION ARGENTINA DE CARDIOLOGIA (ARGENTINE FEDERATION OF CARDIOLOGY)
13. FLACSO
14. FOUNDATION FOR INTERACTION BETWEEN ENTERPRISES AND EDUCATION, SCIENTIFIC ? TECHNOLOGICAL SECTOR
15. FUNDACION BARILOCHE
16. FUNDACION DE INVESTIGACIONES GENOMICAS
17. FUNDACION PABLO CASSARA CENTRO DE CIENCIA Y TECNOLOGIA DR. CESAR MILSTEIN
18. FUNDACION PARA LA DIFUSION DEL CONOCIMIENTO Y EL DESARROLLO SUSTENTABLE VIA LIBRE
19. FUNDACION PARA LA INNOVACION Y TRANSFERENCIA DE TECNOLOGIA
20. GRUPO CEO
21. GRUPO DE ECOLOGIA DEL PAISAJE Y MEDIO AMBIENTE UNIVERSIDAD DE BUENOS AIRES - FACULTAD DE ARQUITECTURA, DISE?O Y URBANISMO
22. HOSPITAL DE PEDIATRIA S.A.M.I.C
23. HOSPITAL ITALIANO DE BUENOS AIRES
24. HOSPITAL ZONAL ESPECIALIZADO DE AGUDOS Y CRONICOS DR. ANTONIO A. CETRANGOLO
25. INSTITUTO DAMIC
26. INSTITUTO DE BIOLOGIA MOLECULAR Y CELULAR DE ROSARIO
27. INSTITUTO DE BIOLOGIA MOLECULAR Y CELULAR DE ROSARIOIBR
28. INSTITUTO DE BIOLOGIA Y MEDICINA EXPERIMENTAL
29. INSTITUTO DE DESARROLLO ECONOMICO Y SOCIAL
30. INSTITUTO DE INVESTIGACION EN CIENCIA Y TECNOLOGIA DE MATERIALES
31. INSTITUTO DE INVESTIGACIONES FISICOQUIMICAS TEORICAS Y APLICADAS
32. INSTITUTO DE INVESTIGACIONES FISICOQUIMICAS TEORICAS Y APLICADAS
33. INSTITUTO INTERNACIONAL DE MEDIO AMBIENTE Y DESARROLLO- AMERICA LATINA
34. INSTITUTO NACIONAL DEL AGUA
35. INSTITUTO TORCUATO DI TELLA
36. INSTITUTO UNIVERSITARIO DE LA FUNDACION ISALUD
37. INTA
38. INTITUTO NACIONAL DE ENFERMEDADES INFECCIOSAS ANLIS
39. MINCYT
40. MINISTERIO DE LA SALUD DE LA PROVINCIA DE BUENOS AIRES
41. PALLIUM LATINOAMERICA NON GOVERNMENTAL ORGANISATION (NGO)
42. PLANTA PILOTO DE PROCESOS INDUSTRIALES MICROBIOLOGICOS, CENTRO CIENTIFICO TECNOLOGICO-TUCUMAN
43. RAUL CARREA. INSTITUTE FOR NEUROLOGICAL RESEARCH
44. ROUND TABLE ON RESPONSIBLE SOY ASSOCIATION

45. TELESPAZIO ARGENTINA S.A.
46. TESAM ARGENTINA
47. UNIVERSIDAD DE BUENOS AIRES
48. UNIVERSIDAD DE PALERMO
49. UNIVERSIDAD NACIONAL DE GENERAL SARMIENTO
50. UNIVERSIDAD NACIONAL DE LA PATAGONIA SAN JUAN BOSCO
51. UNIVERSIDAD NACIONAL DE LA PLATA
52. UNIVERSIDAD NACIONAL DE LUJAN
53. UNIVERSIDAD NACIONAL DE MAR DEL PLATA
54. UNIVERSIDAD NACIONAL DE RIO CUARTO
55. UNIVERSIDAD NACIONAL DE ROSARIO
56. UNIVERSIDAD NACIONAL DE SAN JUAN
57. UNIVERSIDAD NACIONAL DE SAN LUIS
58. UNIVERSIDAD NACIONAL DEL CENTRO DE LA PROVINCIA DE BUENOS AIRES UNCPBA
59. UNIVERSIDAD NACIONAL DEL LITORAL
60. UNIVERSIDED NACIONAL DE CODOBA
61. UNIVERSIDED NACIONAL DE SALTA
62. YPF SA

14.5. Draft agenda of the Reviewers visit in Buenos Aires

Agreement for Scientific and Technological Cooperation between the European Community and Argentina

Reviewers Visit

Günter CLAR

Claudine SCHMIDT-LAINE

February 28th- March 4th 2011

DRAFT AGENDA

Monday 28th

10:00- 10:30	Ministry of Science, Technology and Productive Innovation (MINCYT) Ms. Águeda Menvielle National Directress of International Relations Directress of ABEST Liaison Office Ms. Mónica Silenzi General Coordinator	Córdoba Av. 831 4th floor- CABA Ph.: 4891-8300	Confirmed
10:30- 11:30	National Contact Points (NCPs) ABEST Liaison Office Staff	Córdoba Av. 831 4th floor- CABA Ph.: 4891-8300	Confirmed
11:30- 12:30	Representatives of the National Agency of Scientific and Technological Promotion (ANPCYT-MINCYT)	Córdoba Av. 831 1st floor- CABA Ph.: 4891-8300	Confirmed
12:30- 15:00	Time for lunch		
15:00- 17:00	Meeting with EU Member States at the EC Delegation in Argentina Mr. Henning Reimann Head of International Cooperation Ms. Constanza Aja Espil International Cooperation Advisory	Ayacucho 1537- CABA Ph.: 4805-3759	Confirmed

National Directorate of International Relations
Ministry of Science, technology and Productive Innovation
Córdoba Av. 831-CABA
Ph.: 4891-8470/71/72/73 / Fax: 4891-8470
internacionales@mincyt.gov.ar

Tuesday 1st

9:00-11:00	Faculty of Exact Sciences of the University of Buenos Aires (FCEN-UBA) Ms. Olga Penalba Mr. Mario Núñez Ms. Irene Ippolito	Ciudad Universitaria Intendente Guiraldes 2160-CABA Ph.: 4576-3300	Confirmed
12:00-13:00	National Council of Scientific and Technical Research (CONICET) Ms. Marta Rovira President of CONICET Mr. Jorge Tezón Scientific and Technological Development Manager	Rivadavia Av. 1917-CABA Ph.: 5983-1420	Confirmed
13:00-15:00	Time for lunch		
15:30-16:30	Latinamerican Council of Social Sciences (CLACSO) Mr. Alberto Cimadamore	Callao Av. 875- CABA Ph.: 4811-6588	

Wednesday 2nd

10:00-11:00	Ministry of Science, Technology and Productive Innovation (MINCYT) Ms. Patricia Tissera Institute of Astronomy and Space Physics (IAFE-UBA)	Córdoba Av. 831 4th floor- CABA Ph.: 4891-8300	Confirmed
11:30-12:30	Institute of Neurosciences and Celular Biology (IBCN) Ms. Diana Jerusalinsky	Córdoba Av. 831 4th floor- CABA Ph.: 4891-8300	Confirmed
12:30-13:30	Ministry of Science, Technology and Productive Innovation (MINCYT)	Córdoba Av. 831 4th floor- CABA Ph.: 4891-8300	

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	Ms. Paula Vink G&L Group Ms. Vanesa Lucchetsi Executive Director of the Chamber of Software and Computer Services (CESSI) Mr. Santiago Sacerdote Regional Coordinator of AL-INVEST Argentinean Industrial Union (UIA)		
13:30- 15:00	Time for lunch		
15:00- 16:00	Meeting at the Ministry of Science, Technology and Productive Innovation (MINCYT) with argentinean participants who did not obtained European funding	Córdoba Av. 8314th floor- CABA Ph.: 4891-8300	
16:30- 17:30	Ministry of Science, Technology and Productive Innovation (MINCYT) Mr. Esteban Corley Technical Coordinator of the Biotechnologies Platform BIOTECSUR	Córdoba 934- CABA Ph.: 4393-3822	Confirmed

Thursday 3rd

10:00- 11:00	Argentinean Foundation dedicated to the Transfer of Technology, Education and Science Grants Management (FUNPRECIT) Mr. Horacio Bosch	Sarmiento 1452- CABA Ph.: 4371-1433	Confirmed
11:30-	University of Palermo (UP)	Córdoba Av. 3501-	Confirmed

National Directorate of International Relations
Ministry of Science, technology and Productive Innovation
Córdoba Av. 831-CABA
Ph.: 4891-8470/71/72/73 / Fax: 4891-8470
internacionales@mincyt.gov.ar

12:30	Mr. Esteban di Tada	CABA Ph.:4964-4600	
12:30- 15:00	Time for lunch		
15:00- 16:00	National Institute of Agricultural Technology (INTA) Mr. Néstor Oliveri INTA Director Ms. Ana Cipolla Directora de Relaciones Institucionales	Rivadavia Av. 1479- CABA Ph.: 4338-4637	
16:30- 17:30	Ms. Laura Boveris Directora General de UBATEC S.A	Viamonte 577 5th floor – CABA Ph.: 4313-3600	

Friday 4th

9:00-10:00	Briefing at the EU Delegation in Argentina	Ayacucho 1537 - CABA Ph.: 4805-3759
10:30-11:30	Briefing at the Ministry of Science, Technology and Productive Innovation (MINCYT)	Córdoba Av. 8314th floor- CABA Ph.: 4891-8300

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The report by two independent experts presents the findings of their review of the last five years of implementing the EU-Argentina Science and Technology Cooperation Agreement (2006-2010). It contextualises the agreement in the wider institutional and policy developments in Argentina and the European Union during the review period. A SWOT analysis is carried out and suggestions put forward for the continued development of mutually beneficial scientific and technological cooperation.

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