



ALISIOS
ACADEMIC LINKS
AND STRATEGIES
FOR THE
INTERNATIONALISATION
OF THE
HE SECTOR

ALISIOS WORKSHOP REPORTS

DECEMBER 2014

Report of the ALISIOS Workshop 2

*Strategic cooperation with Europe and Brazil and
the quality and sustainability of mobility*



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ALISIOS

REPORT OF THE ALISIOS
WORKSHOP 2

The **second Workshop** of the ALISIOS project, entitled “Strategic cooperation with Europe and Brazil and the quality and sustainability of mobility”, took place at the Mar Hotel Congress Centre in Recife, **Brazil**, on **14 October 2014**. The event was held during the 6th International Seminar and the 7th General Assembly of the Coimbra Group of Brazilian Universities (GCUB), one of the partners of the ALISIOS project. It was organised by GCUB in cooperation with the University of Bologna (ALISIOS partner) and the University of Coimbra (ALISIOS coordinator).

The workshop was structured around two main parts: the first addressed the integration of education, research and innovation into the Europe-Brazil cooperation; the second focused on achieving more quality in mobility through cooperation in the design of the mobility schemes.

PART I - Round table 1: Integration of education, research and innovation into the Europe-Brazil cooperation

The aim of this round table was to share information about the Brazilian and the European priorities in research and innovation and to think how the internationalisation strategies of the universities are relating or can relate with those priorities. It was structured around the key idea that the mobility projects and other cooperation projects should be articulated with the transnational common priorities to be sustainable and have real impact.

The workshop was opened by **Joaquim Carvalho**, Vice-Rector for International Relations of the University of Coimbra and ALISIOS project Coordinator.

He recalled the origin and the objectives of the ALISIOS project, namely creating better synergies between the EU-Brazil policy dialogue and narrowing the gap between the policy processes underway at EU and Brazil government level and the agents involved at the national and institutional levels.

He gave an overview of the activities and outcomes of the project so far and highlighted that this workshop is the second of a series of three with the aim of providing tangible suggestions for the enhancement and coordination of European and Brazilian university cooperation and contributing to the full development of the potential of the Euro-Brazilian partnerships in academic cooperation, research integration, innovation and exchange. Besides the workshops, he presented also the first paper produced by the project focusing on “Understanding EU and Brazilian Higher Education and Research: Policies, Frameworks and Structures” published in English and Portuguese and distributed among the workshop participants; the website and the virtual discussion platform for Science without Borders’ coordinators and other people interested in the EU-Brazil cooperation.

He also highlighted the two main axes explored by the project: institutional strategies for internationalisation and mobility quality tools and practices as means to enabling mutual learning within Europe and Brazil and between Europe and Brazil.

He presented the topics of the two round tables of the day: 1) integration of education, research and innovation into the Europe-Brazil cooperation; 2) achieving more quality in mobility through cooperation in the design of the mobility schemes. He acted as the chair of the first round table, presented the speakers and passed the floor to them.

Summary of the showcase presentations

- 1) Armando Zeferino Milioni** (Secretary of Technological Development and Innovation, Ministry of Sciences, Technology and Innovation of Brazil)

The Ministry of Science, Technology and Innovation (MCTI – *Ministério da Ciência, Tecnologia e Inovação*) is responsible for developing and coordinating policies in the areas of science, technology and innovation. The ministry has four secretariats, which support the implementation of development programmes of research, science, technology and social inclusion, technological and innovative development. It counts also on two main executive agencies: the National Council for Scientific and Technological Development (CNPq - *Conselho Nacional de Desenvolvimento Científico e Tecnológico*) and the Financing Agency for Studies and Projects (FINEP - *Financiadora de Estudos e Projetos*). CNPq and FINEP contribute to the

formulation of national policies for science and technology and provide funding for master, doctoral and post-doctoral students and researchers through national and international scholarships and project support programmes.

Milioni represents the SETEC (Secretariat of Technological Development and Innovation). SETEC has three action domains:

1) Technological sectors that focus on:

- biofuel and bioenergy
- hydrogen
- energy
- mineral coal
- strategic minerals
- nanotechnologies

2) Regulation including:

- tax incentives
- credit
- grants
- purchases
- qualified HR
- risk capital funds

3) Technological services from:

- SBRT: Brazilian system of technical responses
- PNI: Incubators of companies and technological parks
- SIBRATEC: technological services, technological outreach, innovation centres

These action domains are supported by the EMBRAPPII - Brazilian Institute for Research in Industrial Innovation (*Empresa Brasileira de Pesquisa e Inovação Industrial*) and the newly developed Knowledge Platforms (*Plataformas do Conhecimento*). Knowledge Platforms are the result of a revision of the way innovation projects should be supported and managed. The idea is to launch public calls for projects aiming at presenting solutions to problems and challenges that the Brazilian society is facing.

The projects should be submitted by consortia of universities, research institutes and companies and match the strategic demands of the calls. More investment will be made in fewer strategic projects and the management committee constituted by governmental officials shall make sure that there is a sustained monitoring of the implementation and of the production of the desired results (knowledge, products and processes). Some of the strategic areas that will be covered by the calls are: agriculture, health, energy, aeronautics, advanced manufacture, ICT, naval equipment, monitoring of the Amazon region, mineral resources, and defence.

A governmental official presentation of the Knowledge Platforms can be found here:

http://www.mct.gov.br/upd_blob/0231/231780.pdf

Milioni approached also the Brazilian public and private education systems and the attendance of day classes and night classes. Two major differences between the European and the United States education systems and the Brazilian education systems were highlighted: in Brazil the majority of students attend private schools and night classes contrarily to what happens in Europe and the United States, where this situation is an exception.

During the debate, it was said that students attending evening classes are in disadvantage as they work all day and suffer from physical and mental fatigue and have no time to study outside classes, especially to carry out research activities. Another problem is that almost 50% of HE students are taking degrees in law, administration and education, especially in the private HEIs, a situation that is contributing to the lack of graduates in the science, technology and engineering fields that are crucial to the development of Brazil. Brazilian HEIs should take these factors into consideration when discussing international mobility and internationalisation strategies at the institutional level, without compromising their institutional autonomy.

- 2) **Tiina Vihma-Purovaara**, Counsellor of Education at the Ministry of Education, Science and Culture in Finland and Brazil Group Chair in the Strategic Forum for International Science and Technology Cooperation of the European Council (SFIC)

The European Research Area is comprised by research and development activities, programmes and policies in Europe that involve a transnational perspective. It aims at:

- more effective national research systems by boosting investment and promoting national competition;
- optimal transnational co-operation and competition on common research agendas on challenges and infrastructures;
- an open labour market for researchers, facilitating mobility, supporting training and ensuring attractive careers;
- gender equality and gender mainstreaming in research, by encouraging gender diversity to foster science excellence and relevance;
- optimal circulation, access to and transfer of scientific knowledge to guarantee access to and uptake of knowledge by all.

The ERA Progress Report 2014 has been recently published and shows the implementation of the ERA at country and research organisation level. Further information can be found here:

http://ec.europa.eu/research/era/eraprogress_en.htm

The Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) – in addition to the private investment that this money will attract. It promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market. Horizon 2020 is the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness.

The EU Framework Programme for Research and Innovation will be complemented by further measures to complete and further develop the European Research Area. These measures will aim at breaking down barriers to create a genuine single market for knowledge, research and innovation.

The Horizon 2020 has three programme sections:

- Excellent Science
 - Activities under this Pillar aim to reinforce and extend the excellence of the Union's science base and to consolidate the European Research Area in order to make the Union's research and innovation system more competitive on a global scale.
- Industrial Leadership
 - This pillar aims to speed up development of the technologies and innovations that will underpin tomorrow's businesses and help innovative European SMEs to grow into world-leading companies.
- Societal Challenges
 - Horizon 2020 reflects the policy priorities of the Europe 2020 strategy and addresses major concerns shared by citizens in Europe and elsewhere.

Further information can be found here: <http://ec.europa.eu/programmes/horizon2020/en/h2020-sections>

The Commission has been setting multi-annual roadmaps for international cooperation with its key partner countries and regions since September 2012. In the 2014 roadmap¹, the following priority areas have been agreed for future cooperation with Brazil:

- Marine Research and bio-economy, food security, sustainable agriculture
- Energy

¹ http://ec.europa.eu/research/iscp/pdf/policy/annex_roadmaps_sep-2014.pdf

- Nanotechnology
- Information and Communication Technologies (ICT)
- Health

Cooperation in future years (2016 and 2017) will most likely continue to focus on these jointly defined priorities as well as on other areas that will be jointly identified and agreed upon within the existing institutional mechanisms under the ST & I agreement between the EU and Brazil.

The international cooperation on science, technology and innovation in Europe is followed by the Strategic Forum for International Science and Technology Cooperation of the European Council (SFIC). SFIC is a strategic forum and an advisory body to the Council and the Commission with a view to implementing a European Partnership in the field of international scientific and technological cooperation (S&T cooperation). Member States and the Commission are Members of the Forum while countries associated to the 7th Framework and H2020 Programmes have an observership status. SFIC's objective is to facilitate the further development, implementation and monitoring of the international dimension of ERA by the sharing of information and consultation between the partners with a view to identifying common priorities which could lead to coordinated or joint initiatives.

The geographical coverage of SFIC includes 5 countries: India, USA, China, Brazil and Russia. Tiina Vihma-Purovaara is the chair of the Brazil core group and leads the Brazil Initiative programme. In this scope, the group's main goals are:

- 1) To make Europe visible in Brazil (for instance by promoting events that make the audience aware of the excellent research in Europe and show concrete opportunities to work in Europe (Tour of Brazil 2014, national events);
- 2) Share information (learning from one another, circulating information, better understanding of European STI landscape in Brazil and vice-versa, informing Brazilian partners of European excellence and innovation activities);
- 3) Use the whole knowledge triangle: education-research-innovation (address the need to facilitate interactions between Brazilian and European stakeholders from the public and the private sectors for research, innovation and business partnerships, capitalise the experience of the Tour of Brazil events, joint seminars, workshops, bilateral/multilateral cooperation).

During the debate, the concerns about Brazil having to co-fund the participation of Brazilian researchers in the Horizon 2020 programme were mentioned and it was said that the Brazilian State Funding Agencies (FAPs) are starting to match the funds to the European opportunities to some extent, but this is not done in a consistent and coordinated way. Apparently there will be EU and Brazil initiatives to enhance this dynamics in the near future.

3) Ana Paula Rossetto, B.BICE+ Project

[B.BICE+](#) is an International Cooperation project funded by the European Commission, under the 7th Framework Programme, whose aim is to enhance bilateral cooperation and to support political dialogue in Science, Technology and Innovation among the European Commission, EU Member States, Associated Countries and Brazil. It is coordinated by the French government Research Institute for Development (IRD) and its partners are: the University of Brasilia, CNPq, ANPROTEC, Project management agency in the German aerospace centre, Foundation for research and technology Hellas /Help-forward (FORTH) in Greece.

The main objectives of the project are:

- To contribute to the ongoing ST&I policy dialogue between the EU and Brazil;
- To promote enduring partnerships between EU and Brazilian actors in the whole research-to-innovation chain;
- To facilitate the coordination of EU Member States' cooperation in research with Brazil on the "program level";

- To disseminate information on programs encouraging cooperation in research and innovation between the EU and Brazil.

Some activities from B.BICE+ project were highlighted, such as the establishment of has established a Joint Action Taskforce (JAT) constituted of several European and Brazilian research and innovation institutions, that aims at defining a roadmap for coordination and implementation of joint action with participation of EU Member States and Brazilian institutions.

The project is also responsible for carrying out meetings and workshops to foster the participation of state-level institutions in Brazil (FAPs, SECTIs, etc.) into EU-Brazil cooperation as well as raise awareness of current programs and initiatives. The organisation of some of the events of the Tour of Brazil is an example of those activities.

Other examples of activities include:

- Facilitating the exchange between European and Brazilian collaborative research teams; technology transfer offices; research laboratories promoting collaborative action and sharing means; Brazilian and European research and innovation networks.
- Hosting of "Information Days" in Europe and in Brazil to raise awareness of the services and activities provided by B.BICE+, promote opportunities for EU-Brazil cooperation under Horizon 2020, advertise Member State and Brazilian programmes.
- Developing the EU-Brazil Online Guide to Innovation to be launched in November 2014.

Under the support to the policy dialogue in STI, the B.BICE+ project monitors the cooperation between the EU and Brazil, for instance, by analysing the Brazilian participation in FP7 and the European participation in the Brazilian calls for proposals.

During her presentation, the B.BICE+ representative presented the data from the Observatory of the EU-BR STI cooperation, bringing to the discussion significant data from the Brazilian participation in FP7 and from the Brazilian opportunities for foreigners, especially focused on the European participation and the Science without Borders programme. In this sense, the data presented could complement the panel discussion with key information on the EU-BR cooperation at the research level.

The debate with the audience lead to some concluding remarks:

- Brazil needs to look at other funding possibilities. For instance, there is an open window inside H2020, such as the European Research Council calls, to which not many Brazilian researchers are used to apply to. It was also said that Brazilians should also take more advantage of the PhD scholarships under Science without Borders' programme.
- The challenges of today's societies demand interdisciplinary expertise, therefore all study fields should be supported and internationalised. The creation of joint interdisciplinary laboratories across borders would be welcomed.
- Being able to show excellence in research is a key element to make HEIs internationally attractive and enhance the mobility of researchers.

PART II - Round table 2: Achieving more quality in mobility through cooperation in the design of the mobility schemes

The aim of this round table was to focus on the importance of the international cooperation in the design of large-scale joint mobility schemes in order to guarantee the maximum impact and quality. Speakers were asked to present examples of mobility schemes where quality and quantity go hand in hand as the result of a previous joint design made by the participating universities based on in-depth international cooperation. The issue of the studies and diplomas' recognition, and the potential structures and networks that support this, was also a topic brought to the discussion.

Summary of the showcase presentations

1) Luca Lantero, Director of the Italian ENIC/NARIC Centre (participation via Skype)

The speaker explained what the ENIC-NARIC centres are:

- ENIC stands for European Network of Information Centres in the European Region and it is under the responsibility of the UNESCO Europe and North America Region.
- NARIC stands for National Academic Recognition Information Centres in the European Union and it is under the responsibility of the European Commission.
- These networks comprise 55 countries from Europe, Central Asia as well as Australia and the USA.

He talked about the importance of the recognition of the studies and diplomas for:

- overcoming the difficulties encountered by persons who return to their country of origin after receiving an education abroad;
- ensuring the highest degree of mobility of teachers, students, research workers and members of the professions across world regions;
- bringing about the fullest and most effective use of the human resources of the regions with a view to ensuring full employment and preventing the migration of talent.

The ENIC-NARIC centres created and maintain their respective Country Page within the joint website² with official information on:

- National Information Centres
- National education bodies
- System of education
- University education
- Quality Assurance in Higher Education
- Post-secondary non-university education
- Recognised higher education institutions
- Policies and procedures for the recognition of qualifications
- Qualifications Framework
- Diploma Supplement Information

Under the UNESCO Regions³ section of the ENIC-NARIC website there is a Country List section with information on national competent authorities in charge of higher education issues for most countries:

- Europe and North America
- Asia and the Pacific
- Africa
- Latin America and the Caribbean
- Arab States
- Mediterranean Region

It is important to highlight that ENIC-NARIC centres are set up by national authorities and the status and the scope of work of these individual networks may differ. In the majority of States, institutions of higher education are autonomous, taking their own decisions on the admission of foreign students and the exemption of parts of courses of study programmes that students may be granted on the basis of education undertaken abroad. As a result, most networks do not take a decision, but offer information on request and advice on foreign education systems and qualifications.

² <http://www.enic-naric.net/country-pages.aspx>

³ <http://www.enic-naric.net/unesco-regions.aspx>



There is a large body of information about the world education systems and qualifications, international conventions, such as the Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Latin America and the Caribbean (1974)⁴ or the Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in the States belonging to the Europe Region (1979)⁵, there are procedures, etc. but what is still missing is a culture of recognition inside the education institutions. That is the key for studies recognition to become a reality on its own right.

During the debate, it was clear that the non-recognition of studies and diplomas of Brazilian and European students is identified as one of the major obstacles for mobility and international cooperation between Europe and Brazil and vice-versa. HEIs are the key actors in the recognition of both credits and diplomas for both mobile and full-degree students; therefore this issue should be on the top of the priorities to be addressed by HEIs.

The ALISIOS project is contributing to the discussion of this issue and trying to improve and widespread information and good practices about it. The next [workshop](#) of the ALISIOS project will deal specifically with this topic and provide in-depth analyses of the main academic recognition issues.

2) **Rossana Valéria de Souza e Silva**, Executive Director of the Coimbra Group of Brazilian Universities (GCUB)

The speaker talked about quality in mobility and gave some examples of best practices implemented by the GCUB.

When increasing the number of participants one should always be sure to ensure the quality of the mobility programmes. It is crucial to have a strategic approach, to plan, monitor and evaluate those programmes.

In terms of strategic approach, one should look for establishing networks and strong partnerships involving international organisations, university associations, rectors' conferences, HEI, governmental bodies and funding agencies.

As part of the planning process, it is important to create structured mobility through specific projects and programmes managed by specific teams who identify the participants' profile and monitor and evaluate the projects and programmes in collaboration with general and institutional coordinators (university authorities, but also professors and administrative staff, namely international relations officers) through studies and frequent follow-up meetings.

Structured projects and programmes contribute:

- To create alternatives that facilitate the recognition of academic titles and programmes;
- To increase mobility of teachers, researchers and doctoral students;
- To promote the institutional changes needed to allow that courses are offered in English and in the languages of interest from the universities involved in international cooperation programmes;
- To develop less bureaucratic policies for students and teachers involved in international programmes.

Examples of successful programmes managed by GCUB:

PAEC-OEA-GCUB - Programme of Alliances for Education and Training: the largest scholarship programme of Latin American and the Caribbean for training of human resources at master and PhD levels. Since 2011, 1051 master and PhD scholarships have been awarded. 52 Brazilian universities and students from 35 OAS member countries have participated in the programme.

PLI - International Degree Programme: a mobility scheme aimed at expanding and improving teacher training for basic education in the national context; increasing and making more

⁴ <http://www.unesco.org/education/studyingabroad/tools/conventions.shtml>

⁵ *idem*

dynamic actions regarding teacher training, focusing on initial training programs implemented in undergraduate courses; supporting the formulation and implementation of new curricula guidelines for teacher training, focusing on Elementary and Secondary Education.

So far, in PLI, there are 50 participating Brazilian universities, 1200 students and 700 professors involved. Seven fields of study are covered: Chemistry, Physics, Mathematics, Biology, Portuguese, Arts, and Physical Education. The international partners are 12 Portuguese universities and 2 French universities. In 2010, PLI was pointed out by different sectors as a good practice model regarding the enhancement of the Brazilian Basic Education.

3) Philippe Martineau, Deputy Cultural Counsellor for Scientific and Technological Cooperation of the Embassy of France in Brazil

The speaker presented the case of the French Industrial Doctorate scheme: CIFRE. CIFRE exists in France since 1981 and offers PhD grants in partnership with companies and academic laboratories. The CIFRE-Brazil programme was put in place in February 2013 and it aims at training Brazilian students in France.

The programme was agreed the Brazilian National Council for Scientific and Technological Development of the Ministry of Science, Technology and Innovation (CNPq), the French Ministry of Higher Education and Research and the French National Association for Research and Technology (ANRT). The agreement covers a period of 4 years and foresees the funding of 30 fellowships per year by CNPq, each covering a period of 3 years. The CIFRE-Brazil scheme involves a French company, a French research laboratory and a Brazilian PhD student. The Brazilian student is actually hired by the French company; the research laboratory provides the academic supervision and the ANRT is in charge of the overall programme management.

Typical fields of study covered by the CIFRE-Brazil programme are:

- Engineering and technology;
- Exact sciences and earth sciences;
- Biology, biomedical and health sciences;
- ICT;
- Air space technology;
- Medicinal drugs;
- Biotechnology;
- Biodiversity.

The success of the programme lies in the fact that it is a win-win situation:

- CNPq is able to train future managers of R&D, able to drive projects in academic and business contexts.
- The French company gets the opportunity to prepare potential future employee by its subsidiary or corporate in Brazil or future partner who will never forget his former French company; to be seen by Brazilian government as good partner.
- The Brazilian student gets R&D's competencies in international context and gets acquainted with the French company and the French academic body.
- The French Ministry and the ANRT contribute to the enhancement of the Brazilian-French scientific and business relationships.

At the end Martineau showed the testimonies of several PhD students satisfied with the experience and a list of companies interested in the programme and which are looking for applicants.

4) Elizabeth Colucci, Programme Manager at the European University Association

The speaker talked about the institutional impact and capacity development in structuring mobility at the PhD level.



She started by identifying some characteristics of structured mobility (either mobility windows or joint programmes/degrees):

- Mobility is planned
- Fully recognised/credit award
- Implying inter-institutional cooperation/agreements
- Entailing quality assurance mechanisms

The Academic Cooperation Association (ACA) developed a study in 2013 called “Mobility windows: from concept to practice”. By analysing varied practices, a working definition for mobility window was proposed: “a period of time reserved for international student mobility that is embedded into the curriculum of a study programme.” This mobility can be mandatory, optional, highly prescribed or loosely prescribed. The examples that were analysed were study programmes of five target countries: Finland, Germany, Italy, the Netherlands and Romania.

The motivations for developing structured mobility schemes are:

- Development of closer cooperation with partners – faculty and institutional level
- Improvement of quality/relevance of study programme
- Improvement of quality of mobility experience
- Enhancement of internationalisation (programme and institution)
- Improvement of employability/university-industry relations (in case of placements)

According to the results of a survey conducted within the scope of the [MAUNIMO project](#) (Mapping University Mobility of Staff and Students), carried out between 2010 and 2012, strategic discussions on mobility within institutions have mostly focused on Bachelor and Master level short term mobility, however doctorate candidates and academics are deemed to be very important to internationalisation. This is in fact one of the features that the Salzburg Principles identify as crucial in doctoral study cycles: internationalisation as a tool to enhance the quality of doctoral education and research capacity. Mobility during the doctoral cycle is more particular, however, as it should serve the research interests of the candidate and also potentially the training objectives of the programme. The significance of doctoral schools is rising in the support of structuring doctoral mobility.

While many institutions find collaborative programmes strategic, there are divided perspectives on the added value of joint/ dual doctorates. Though they can be seen as an institutional development tool, they are resource intensive programmes that only benefit a small group of students. It is not always clear that a ‘joint programme’ as such (where the degree is jointly awarded) actually has added value over a lighter collaborative model (sandwich programme, for example). Regardless, the motivations for the development of such programmes are:

- Internationality/ general enhancement of research;
- Deepening institutional research and (potentially) teaching partnerships;
- Critical mass/economies of scale/ complementariness in research;
- International visibility of programme;
- Development cooperation/capacity building.

An example of a project dealing with international doctoral education, coordinated by EUA, is [CODOC](#) - Cooperation on Doctoral Education between Africa, Asia, Latin America and Europe (2010-2012). Within the framework of the project, a tri-regional comparative survey on doctoral education trends, a series of workshops exploring the role of doctoral education partnerships in development lead to the following conclusions:

- Doctoral education is a high priority for institutions in their internationalisation strategies;
- Research-intensive institutions seemed to be more oriented towards the internationalisation of research activities (competition/quality enhancement);
- Those with less research capacity may associate internationalisation with capacity development:
 - Structured mobility has different purposes in these contexts;
- Mobility should be seen as a means to develop research environments:
 - Institutional benefits beyond the individual;
 - Needs to be accompanied by dialogue between institutions and development of supervisory capacity;

- Universities in developing countries give more priority to sandwich programmes, whereas developed countries favour double degrees.

University development cooperation programmes in Flanders, Norway, and Africa were briefly presented. The conditions underlying these collaborations are based on:

- Strategic interest in obtaining critical mass;
- Complementarity;
- Reciprocity;
- Shared quality culture;
- “Bottom-up grown/ top-down facilitated” (institutional research interests are matched with national support and funding);
- Enabling financial conditions (external versus internal resources/ national policy context favourable to internationalisation and research capacity development).

5) Moacyr Martucci, Professor at USP Polytechnical School and Coordinator of the Institute Brazil-Europe (IBE)

The speaker recalled some of the main reasons for fostering mobility, especially at the PhD level:

- To contribute to generating results using complimentary knowledge in order to save time and money;
- To prepare future generations of international researchers;
- To promote “cross boundary innovation” (technological innovation and social innovation).

He listed a couple of conditions that are necessary for the quality and sustainability of mobility:

- Research topics of mutual interest;
- Well-managed collaborative projects;
- Funding instruments;
- Networking;
- Win-win relationship;
- Partners’ complementarity;
- Partners’ commitment and trust;
- Two-way mobility;
- Good applicants’ selection;
- Language proficiency;
- Institutional structured mobility programs and strategies to support this;
- Scholarships for non-academic researchers (industry);
- Long-term collaborative research programs.

Then, he identified also some of the challenges of the mobility programmes and successful initiatives:

- Quality assurance in the mobility programs;
- Implementation of the long-term collaborative research programs given the limitations of funding instruments;
- Mobility connected to innovation as a priority;
- Diploma recognition.

Initiatives in place:

- Agreement between the Brazilian CNPq and the EU Joint Research Centre (JRC) for mobility of researchers under Science without Borders;
- Newton Fund – UK/CONFAP (three year programme established between the UK National Academies and the CONFAP offering funded exchange of researchers between the UK and Brazil under the auspices of the Newton Fund).

The speaker considers that there should be a permanent think-tank for mobility and cross-border innovation in Brazil. PhD programmes in cooperation with Brazilian and European



partners should focus on the training of students with an entrepreneurial profile and a trans-disciplinary vision able to solve complex problems and implement innovative solutions. He is also in favour of the mobility of non-academics, for instance the establishment of mobility programmes for professionals working at SMEs and Technological Parks. There should be more dialogue between the Brazilian and the EU authorities regarding the funding instruments available for Brazilians and Europeans, otherwise the development of joint projects with mutual benefits for both regions will be limited. One example is the limitation to the funding of Brazilian researchers in the EU Horizon 2020 programme.

Conclusions

The chair of the Workshop closed the session and presented the conclusions of the day:

- mobility projects and other cooperation projects should be articulated with the national and transnational common priorities to be sustainable and have real impact. However, national priorities should be discussed with the university sector and guide cooperation, not limit it. They should also respect institutional autonomy;
- the Brazilian and the European funding programmes and calls should be discussed among the relevant authorities in both regions, and mechanisms designed to maximize joint participation (it is clear that worry still persists over participation of Brazilian universities in Horizon 2020, for example);
- the support of initiatives and projects such the EC multi-annual roadmaps for international cooperation with Brazil (in force since 2012), SFIC, B.BICE+ and ALISIOS should be continued because there is an evident lack of awareness about the EU education, research and STI in Brazil and vice-versa;
- there is a strong need to develop a “culture of recognition” inside the HEIs towards the education received abroad, which goes beyond political agreements and administrative tools and regulations. The difficulties encountered by the holders of foreign degrees are huge and recurrent and can be an impediment to mobility between higher education systems. This is clearly something to be further explored in the Brazilian-EU context and a topic for a future ALISIOS event;
- structured mobility programmes can help to generate closer cooperation with partners at faculty and institutional levels, improvement of the quality/ relevance of study programmes involved, improvement of the quality of the mobility experience, enhancement of the internationalisation of the courses and of the HEIs, and improvement of employability/university-industry relations (in the case of placements). It is necessary to create specific programmes and make use of networks in order to the successfully develop and implement structured programmes. Academic and administrative personnel also need to be incentivised and trained to manage such schemes and should be given opportunities to be mobile themselves. Examples of good practice are the PAEC-OEA-GCUB, PLI and the CIFRE programmes;
- mobility at the doctoral level should be further fostered, especially through international collaborative study/ placement programmes focusing on the training of students with an entrepreneurial profile and an interdisciplinary vision able to solve complex problems and implement innovative solutions. Doctoral mobility can be not only key to fostering research collaboration, but to eventually linking teaching and research via international partnerships. There is an increasing need for “cross border innovation”, i.e., the combination of technological and social innovation, to which universities, research centres and industry must all contribute.

The presentations of the round tables are available in the ALISIOS website at <http://alios-project.eu/outputs/ws2>