

Part I: Opportunities and benefits of EU-Asian academic collaboration

1. Joint degrees and student mobility

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In the context of globalisation, international co-operation partnerships between higher education institutions are becoming increasingly important in order for education and research systems to respond to the changing needs of the labour market in all continents. The development of the joint degree concept represents a huge opportunity for entering a new area of international partnerships based on an original and innovative combination. Institutions both in Asia and Europe should look at joint degrees as a possible component of their internationalisation activities and institutional development.

1.1. Education for Sustainable Development

The United Nations has declared the years 2005 to 2014 as the world decade on "Education for Sustainable Development". The aim of the Decade is to anchor the ideal of sustainable development in all areas of education. The Decade wants to provide educational opportunities for everyone, enabling them to acquire knowledge and values and learn about behaviour and lifestyles which are needed to ensure a liveable future and develop a future-oriented society.

Educational institutions play a key role in society, contributing to sustainable development and economic growth which is why education and research have to be seen as strategic sectors for development cooperation. To achieve this goal of sustainable development, societies need innovative solutions which bring into line economic performance, social equity and responsibility for the natural environment. Sustainable development can only be achieved if the future is shaped with imagination and creativity, by trying new things and exploring uncharted territory. Education provides orientation in an increasingly complex world.

The education and research sectors thrive on the cross-fertilisation of ideas and on the exchange of students and academics. In the context of globalisation, international co-operation partnerships between higher education institutions are becoming an increasingly important part of the response of education and research systems to the changing needs of the labour market across the world.

1.2. Mobility: the key point

Fostering meaningful, cross-cultural learning experiences through study abroad programmes is now considered to be one of the most effective ways of preparing graduates to work in an increasingly interconnected world.

Since the Renaissance period in Europe with iconic humanists such as Desiderius Erasmus Roterodamus, the benefit of mobility in the education process has been recognised and promoted. Today, studying and training abroad gives students the generic skills and international competences needed at work. However, and in order to be successful, this mobility period combining studying and training activities abroad should be a motivated part of a degree programme.

The objectives of student mobility for studies could be defined as the following:

- To enable students to benefit educationally, linguistically and culturally from the experience of learning in other countries
- To promote co-operation between institutions and to enrich the educational environment of host institutions
- To contribute to the development of a pool of well-qualified, open-minded and internationally experienced young people as future professionals.

In addition to the educational benefit, employers take international experience into account in recruitment. To this extent, mobility also supports the employability of graduates.

Today, at the international scale, approximately 3 million tertiary students have made the choice to study abroad (UNESCO/OECD 2006 – Project Atlas 2007). This number still represents a small group compared to the global population of tertiary students which has reached 200 million (Unesco, 2009). However, the concept of mobility today is more and more well received by students and institutions. In 1987, the European Union launched a major initiative with the Erasmus programme. With financial support values at 3.1 billion Euros for 2007-2013, approximately 4,000 participating institutions and the participation of more than 1% of all European students, this programme has strongly supported cooperation among 30 European countries.

At the institutional level and in addition to increasing the collaboration possibilities with various institutions, the process is clearly part of the growing international visibility needed by high education structures.

Curricula harmonisation

Mobility schemes can be implemented successfully only when the students receive immediate recognition of their period abroad within their curriculum. The basic requirement is, of course, a common architecture for the curricula in order to allow and promote the seamless mobility of the participants.

One of the most significant steps at the international level is clearly the Bologna Process developed by Europe. The Bologna Process aims to create a European Higher Education Area by 2010, in which students can choose from a wide and transparent range of high quality courses and benefit from smooth recognition procedures. The Bologna Declaration of June 1999 has put in motion a series of reforms needed to make European Higher Education more compatible and comparable, more competitive and more attractive for Europeans and for students and scholars from other continents. Reform was needed then and reform is still needed today if Europe is to develop higher education systems that are responsive to global challenges.

The three priorities of the Bologna process are:

- Introduction of the three cycle system (bachelor/master/doctorate)
- Quality assurance
- Recognition of qualifications and periods of study.

The Bologna process has grown from 29 countries in 1999 to 46 today. Of course the number of participants exceeds the political limits of the European Union and includes countries that are interested in taking part in the process. The latest Bologna Stocktaking Report concludes that good, albeit somewhat uneven, progress has been made in implementing the Bologna reforms. The European Commission's latest report in support of the process confirms this positive conclusion and indicates that substantial progress has been made, including on structural reforms. The focus should now be on modernising national policies and on achieving the concrete implementation of the reforms of Europe's higher education institutions. The European Commissioner for Education, Training, Culture and Youth, Ján Figel', said in 2009: *"The Bologna Process has led to greater compatibility and comparability of systems of higher education. Among other things, it has made Europe a more attractive destination for students from other continents. [...] Higher education has a key role to play in supporting sustainable economic recovery and in stimulating innovation. The universities must modernise, and the widespread recognition of this need by governments not only in Europe, but also around the world, gives the Bologna Process the vital support it needs for success."*

Most of universities, especially in Europe, have become mass education institutions. The European Commission expects 60-70% out of 100 pupils beginning at school to receive a university education. This ambition together with the objective of introducing a harmonised system of degrees led to the Bachelor-Master System. It is believed that this system is flexible enough to respond to the needs of all education domains with an output of about 75% of enrolled students finishing with the Bachelor degree and 25% of the enrolled students going on to Master level. Transition from Bachelor to Master level is possible either directly after Bachelor Award or by continuous education and life-long-learning programmes.

The Bachelor-Master programme is a consecutive one: in many countries the Bachelor programme lasts 3 years (though this can vary) and the Master Programme 2 years (though there are increasingly different models and lengths of masters being offered). The objective of the Bachelor is a first profession qualifying degree; the Master degree is the second

qualifying award for professional qualifications, for example in engineering. Education for research is provided in independent Ph.D. research and courses after the Master graduation. The implementation of the Bachelor-Master sequence requires changes in the traditional longer programmes of education in many European countries. The implementation of the Master Programme is intended as a consecutive programme on top of the Bachelor Programme. This seems to be close to former national degree programmes of 5 years duration, however, it is very different. While within former 5-years degree programmes a broad theoretical background was taught during the first years of the curriculum as a basis for a 5 years programme, now the theoretical background is reduced to only that extent which is needed for the Bachelor qualification, i.e. for the majority of students of the first 3 years. Note, however, that there is variance both in how higher education systems were structured previously and how they have implemented the Bologna Process, thus this is only a generalisation.

Together, these reform efforts have created new opportunities for universities and students. The process described in Europe has gained interest internationally and a global convergence process could be expected over the coming years.

Mobility scheme

A recent EuroBarometer Survey (2009) among students in higher education (European Commission, 2009a) shows that students want wider access to higher education and that universities should open up cooperation with the world of work and to lifelong learning. For example, an overwhelming 97% of students believed that it was important to provide students with the knowledge and skills they need to be successful in the labour market. A large majority (87%) also agreed that it was important for higher education institutions to foster innovation and an entrepreneurial mindset among students and staff, and that there should be a possibility to undertake work placements in private enterprises as part of a study programme. More students want to study abroad and the majority want more information about the quality of higher education institutions in order to make informed study choices. The mobility scheme properly implemented in a curriculum provides an efficient answer to these requests. In fact, the mobility period offers participants the possibility of following some modules organised by the hosting institution in their specific domain but could also offer the participation in an R&D project developed with an industrial partner, or an internship with a company and under joint supervision. In all cases, the mobility scheme has to be carefully defined and incorporated into the curriculum. In a very general sense and following the implementation of the Bachelor-Master architecture, it is obvious that the benefit of mobility for the student is that it could take place during the two years of the master programme when the basic knowledge and the elementary skills have been gained during the bachelor cycle.

The mobility period could be of various durations. However, experience demonstrates that two main concepts have been used successfully so far:

- A short period (several weeks) associated with the acquisition of a special competence linked, for example, to an equipment or the participation in a special event such as a scientific experiment or a conference

- A long period (at least a semester) to take part in the education and training activities of the hosting institution or to complete an internship with a company or a research lab.

Both options are extremely fruitful from the student perspective and can contribute to developing specific competences and skills. For the institutions, the short stay could coincide with a summer school, an intensive programme such as is defined in the Erasmus programme, or an international workshop. In all cases, this type of event contributes to promoting the institution and providing recognition for the teachers and researchers involved. For the longer stay the institutions get the benefit of the international students mingling with their national students. If welcoming international students represents a significant effort for institutions, it should be remembered the foreign students bring diversity in the student population and actually encourage teachers to integrate a wider dimension in their lectures and training activities.

The implementation of a mobility scheme for a specific curriculum requires the recognition of the competences acquired during the stay. This essential step is traditionally made through a pedagogic agreement established between the two institutions and based on a credit transfer system, for example the ECTS scheme. This process requires a mutual recognition of the two pedagogic teams and potentially offers the possibility to set up a close collaboration. In order support this process, a specific quality insurance scheme has to be implemented and used in order to assess the mobility period. This last element represents a major field of development, where important progress is still needed in order to harmonise the different practices of the higher education institutions.

1.3. Joint degrees: towards a new paradigm

Over the past few years, the new concept of Joint Degrees has emerged. This new idea has been elaborated and promoted through several initiatives and, in particular with the Bologna Process, implemented in Europe. The Joint Degree represents a kind of ultimate paradigm following the already successful development of the international mobility schemes. A definition of a joint degree has been submitted by the European Universities Association (EUA) in 2002 and is based on the following 6 main characteristics:

- The study programmes are jointly developed and recognised by several institutions
- Students at participating institutions spend part of their studies at another institution
- Students spend significant periods of time at participating institutions (as opposed to short exchanges)
- The periods of study and examinations, which are completed at other institutions, are automatically recognised in full at their home institutions
- The teaching staff of each participating institution works out the curriculum together, formulates regulations for admission and the examination conditions and also teaches at the other institutions
- Upon completion of the study programme, students receive either national degrees from the individual institutions or a degree which is jointly conferred.

As mentioned on the official Bologna process website (Bologna Process Secretariat Website, 2009) good joint degree programmes offer a series of interrelated benefits for students, staff and institutions alike. In particular, institutions are able to combine their strengths in a collective endeavour in which one unified programme becomes more valuable than the sum of its parts. In addition to opportunities for developing and practising language and cultural skills, joint programmes also offer the potential to develop more internationalised, multi-dimensional curricula. Students experience the intellectual stimulation of viewing their chosen subject through more windows, developing new learning methods and ways of thinking. In the same way, university staff can be exposed to unfamiliar approaches to their subject through more sustained contact with partner colleagues. In doing so, they may also explore how different methods of teaching and learning in their areas of specialisation can complement and enrich each other.

Within the Bologna Process there has been the call for the establishment of recognised joint degrees to promote the European and International Dimension in Higher Education and graduate employability. Joint study programmes provide an instrument for giving students the chance to gain academic and cultural experience abroad and higher education institutions an opportunity to co-operate and to innovate.

If the concept appears as an obvious conclusion to the on-going developments on mobility and internationalisation of higher education, the development and the implementation of a joint degree remains a challenging issue.

First of all, the extent of the joint degree has to be clarified. The starting point of the concept is the added value provided by each academic partner and by the mobility scheme imposed on the participants. Obviously this approach does not fit with all curricula. The contribution of several academic partners promotes the development of innovative curricula, mostly based on multi-disciplinary approaches or on new emergent domains. The new curriculum is then based on the most original and innovation contribution of each academic partner.

If the first pedagogic step can be solved by motivated and enthusiastic pedagogic teams, the administrative implementation requires going through complex and long processes such as reviewing and accreditation. In most cases, the legal framework requires adaptation in order to allow the award of a joint degree. Most of the legal environments consider only the national level and do not allow for the possibility of jointly issuing a degree. The only approach which could lead to the successful implementation of a joint degree is based on the mutual trust of partners. In this specific case, all national accreditation processes have to recognise the work done by the similar services of partner institutions and draw up a collaboration scheme.

A major initiative was taken in Europe in 2003 with the development and the implementation of the Erasmus Mundus programme. The aim of this framework was to promote the creation and the implementation of joint master degrees with European higher education institutions, and at the same time support the mobility of students and scholars with grants.

Since 2004 the programme has successfully supported more than 110 new master courses giving a clear European added value based on innovation and partnership within Europe and

also with international partners. A list of these master courses is published by the European Commission (2009b).

The success of the Erasmus Mundus Programme underlines the strong interest of the higher education institutions to innovate in this direction and the enthusiastic support of the participating international students. However, if the aim of the programme was to establish joint degrees defined as a single diploma jointly signed by the partner institutions involved in the teaching activities, it has to be recognised that the administrative processes which are still in the hands of the member states have required, and still require, a lot of effort. For the time being, only a few master courses have successfully achieved this main objective. An example could be mentioned with EuroAqua, an Erasmus Mundus master course since 2004 and focused on Hydroinformatics and water management (Euroaqua, 2009). This master degree is jointly awarded by five European universities: University of Nice - Sophia Antipolis (France), Brandenburg University of Technology at Cottbus (Germany), Budapest University of Technology and Economics (Hungary), Technical University of Catalonia (Spain) and Newcastle University (United Kingdom). The 2-year curriculum, jointly elaborated by all partners and with the strong support of the industrial sector involved in the water field, receives approximately 40 participants per year, and integrates a mobility scheme with 3 locations in Europe as well as an internship with a European company during the last semester.

The experience gathered during the course, and also the lessons learned from 5 generations of EuroAqua graduates have shown that the course is producing an innovative profile extremely useful to the water sector industry. The companies have recognised the graduates as professionals capable of immediately integrating into engineering teams in foreign countries, in foreign environments within Europe and beyond, capable of proposing European approaches to engineering problems, but also able to adapt themselves to local conditions. This comment is in fact the most frequently given about Erasmus Mundus students following one of the master courses.

The new Erasmus Mundus Programme (European Parliament, 2008) launched in 2009, has, as its main ambition, to develop joint doctorate programmes as well as joint masters. At the same time and with the same vision, the new collaborative scheme extends the financial support to non-European higher education institutions.

1.4. International cooperation for benefits

The internationalisation of education is a requirement associated with the globalisation of our interlinked societies. The development of the mobility of students and of staff under various collaborations defined under joint degree framework is one of the future trends. This major trend will request a significant financial investment from the states in order to support both the mobility schemes of students and the development of cooperation mechanisms among the institutions. The various initiatives (*i.e.* Erasmus, Erasmus Mundus) developed in Europe over a 30 year period have contributed significantly to these processes and have successfully promoted this approach at the international level. At the same time, the partnership between higher education institutions working with joint degrees is a

perfect starting point for developing joint research activities which have to be carried out by the different teams. This approach allows for the implementation of successful and sustainable international collaborations and contributes to developing capacities for institutions located in developing countries.

1.5. Prospective as a conclusion

The education environment is in a period of transition. In order to respond to this challenge, institutions have to develop a common architecture for curricula such as that launched in Europe with the Bologna Process. Of course, the new organisation has to be based on the principle of increasing the quality of the curricula and ensuring the employability of students. During the last 10 years, drastic changes have occurred in the education landscape and a new global organisation, based on a more transparent system, has emerged. This progress has boosted tertiary student mobility which is considered a major indicator for the internationalisation of education and quality improvements. Mobility programmes like Erasmus in Europe have strongly contributed to promoting the idea and have successfully implemented it in the student community. Higher education institutions have to realise that recognition and attraction for education and research is now based on their capacity to participate in and to set up international networks: welcoming international students and staff, promoting research activities and attracting funding through international programmes are now part of their core actions in the strategy. This dynamic has to be recognised at the institutional level and a supportive environment has to be developed in order to increase the collaborations and support the mobility of students.

The development of the joint degree concept represents a huge opportunity for entering a new area of international partnership based on an original and innovative combination of the best knowledge and skills of each partner for a fruitful collaboration. Institutions have to consider going in this direction which is expected by students and supported now by several international frameworks like Erasmus Mundus. The economic world has already anticipated and realised this major evolution with the global economy. The higher education institutions have now a major role to play with the education and training of the actors of the knowledge economy. The young graduates will develop a new profile, open to the world and ready for a global society, and at the same time, will have the capacity to shape the future and to promote international partnership.

References

Official Bologna Website, 2009, <http://www.ond.vlaanderen.be/hogeronderwijs/bologna/>

EuroAqua, 2009, <http://www.euroaqua.org>

European Commission, 2009a, http://ec.europa.eu/public_opinion/flash/fl_260_en.pdf

European Commission, 2009b, http://eacea.ec.europa.eu/erasmus_mundus/results_compendia/selected_projects_action_1_master_courses_en.php.

Project Atlas – Atlas of Student Mobility, 2007, <http://atlas.iienetwork.org/>

European Parliament, "DECISION No 2317/2003/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 December 2003 establishing a programme for the enhancement of quality in higher education and the promotion of intercultural understanding through cooperation with third countries (Erasmus Mundus) (2004 to 2008)", Official Journal of the European Communities (31-12-2003).

European Parliament, "Decision No 1298/2008/EC of the European Parliament and of the Council establishing the Erasmus Mundus 2009-2013 action programme for the enhancement of quality in higher education and the promotion of intercultural understanding through cooperation with third countries.", Official Journal of the European Communities (16-12-2008).

Unesco, 2009, Global Education Digest 2009, Comparing Education Statistics Across the World, UNESCO Institute for Statistics, Montreal, Quebec H3C 3J7, 264 p.
http://www.uis.unesco.org/template/pdf/ged/2009/GED_2009_EN.pdf