



JOINT INTERNATIONAL MASTER PROGRAMMES

Lessons learnt from
Erasmus Mundus

The first generation
EACEA synthesis report

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*Erasmus
Mundus*

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Foreword

With the launch of the Erasmus Mundus programme in 2004, the European Commission pursued a double objective.

On the one hand, the programme was meant to contribute to the European higher education convergence process that started in the late 1980s with the Erasmus programme and is at the centre of the intergovernmental strategy under the Bologna process. In this context, the Erasmus Mundus joint programmes at masters and doctoral levels have contributed to strengthening the Bachelors-Masters-Doctoral cycle in many European countries where the masters level was not clearly identified and the doctoral level was often considered as an individual research path with limited involvement of the degree-awarding institution.

On the other hand, the Erasmus Mundus programme aimed at increasing the worldwide attractiveness of European universities so as to allow them to compete more effectively with other world regions and attract the best international postgraduate students to their institutions. This objective has also been achieved thanks to the high-level scholarships the programme offered to the best postgraduate students worldwide who were invited to study and/or perform research activities in one of the 222 Erasmus Mundus joint programmes funded since the beginning of the programme.

This synthesis report presents the main results achieved by the first generations of Erasmus Mundus joint programmes at master level. During a period of almost ten years (2004 to 2012) these programmes have trained more than 9000 students and offered almost 6000 high level scholarships to the best students from all over the world.

Although the Erasmus Mundus programme will come to an end in December 2013, the two objectives described above will be further pursued and reinforced under the Joint Master Degree action of the upcoming integrated programme Erasmus+. Joint doctoral degrees will continue to be funded by the European Commission in the framework of the Marie Skłodowska-Curie Actions.

As a result, the lessons learned from these pioneer courses should allow future applicant universities involved in setting up international joint study programmes to continue the convergence and attractiveness objectives initiated under the Erasmus Mundus programme.

The present report is the result of the work of seven independent experts, who assessed the reports submitted by all 57 Erasmus Mundus Masters Courses selected between 2004 and 2006. This synthesis report was drafted by Dragana Avramov, with the support of other external experts and the Education Audiovisual and Culture Executive Agency, EACEA.



Jordi Curell
Director - Higher education and international affairs
Directorate-General for Education and Culture
European Commission



Executive summary

This report looks back at the achievements, experience gained and lessons learned by 57 Erasmus Mundus Master Courses (EMMC) selected by the Erasmus Mundus (EM) Programme in 2004, 2005 and 2006. It represents the result of work by seven independent experts, who assessed the FPA summary reports submitted by all 57 EMMCs selected between 2004 and 2006¹. This synthesis report was drafted by Dragana Avramov, with the support of experts and EACEA. It also reflects the outcomes of a seminar held to discuss this work in Brussels on 27 May 2013.

Erasmus Mundus Master Courses (EMMCs) are joint study programmes delivered by a consortium of European² higher education institutions (HEIs). They include a mandatory mobility component in (at least) two European countries and lead to the joint recognition of the study programme in the form of double, multiple or joint degrees. The level of integration ('jointness') of the joint study programme in all its components (student admission and selection method and criteria, course coherence and delivery methods, performance assessment, administrative and financial management, student services, promotion and awareness raising strategies, etc.) constitutes an essential factor in the selection decision taken by the Commission and the Executive Agency.

For each of the 57 EMMCs, the report covers a six to seven years period funded by the EM Programme through a Framework Partnerships Agreement (FPA). During this period, each of these consortia selected and trained five (sometimes six) consecutive cohorts of students, representing more than 9000 students in total out of which almost 6000 benefitted from an EM scholarship³. At the end of the funding period, each EMMC had to provide the Agency with an impact report, looking at the main results achieved.

Enormous progress has been made during the ten years of the EM Programme in setting up and delivering joint study (and research) programmes within the European Higher Education Area⁴. The considerable achievements of these 57 pioneer EMMCs described here shed important light on the gains made by European universities when embarking on this type of international collaborative work. However, their experiences show that there is still work to be done at every level - institutional, national and European –if we are to build on these gains.

The contribution made by EMMCs to the EHEA, the many and myriad advances they have made in internationalising higher education by successfully integrating programmes of excellence throughout this period, is to be celebrated. Beyond this, the report also reflects the realities and pitfalls encountered in creating, managing and sustaining these programmes with a view to the future.

The report looks at three key aspects with particular relevance for the future of joint programmes, i.e.:

¹ See annex 3 for the résumés of the experts who contributed to this assessment.

² Since 2010 and the second phase of the EM Programme, EMMC consortia have had the possibility of including non-European HEIs in their partnership. In 2013, the 138 on-going EMMCs include approximately 122 non-European partner HEIs.

³ The last intake covered under this report graduated at the end of the academic year 2011/2012.

⁴ These 10 years have led to important changes in legal frameworks on joint degrees, as well as in the HEI institutional practices and strategies. The EM programme itself has evolved supporting the inclusion of non-European HEIs in the consortia, encouraging the participation of business, enterprises and other non-educational actors in the delivery and management of the EMMCs, awarding scholarships to European students, extending the scheme to the doctoral level, etc.

- ✓ the extent to which the EMMCs were able to achieve 'jointness' and more generally, their contribution to the Bologna process through inter-institutional cooperation,
- ✓ the extent to which they contributed to enhancing the employability of their graduates,
- ✓ the sustainability prospects of these courses after the end of EM funding.

Noteworthy achievements included the following:

- ✓ All EMMCs achieved structured co-operation and curriculum integration and promoted the international dimension in the participating HEIs. Most effective were consortia that pursued 'jointness' in the programme design, academic provision, training and mobility tracks, and involved all the partners, including non-academic organisations, in the course design, management and implementation.
- ✓ During the period covered by the report, the involvement of third-country HEIs was possible through Action 3 partnership funding (taken up by 32 of the 57 EMMCs concerned). As from the second phase of the EM programme, third-country HEIs could participate as full partners on an equal footing with their European counterparts. In all, 62 third-country HEIs from 35 different non-European countries were involved these EMMCs in the period to 2010.
- ✓ Internationalisation of teaching contributed to significant transfers of knowledge for overcoming disciplinary, administrative or even legal boundaries and promoting participative teaching, evaluation and recognition practices. The EMMC structure enabled academic staff to meet regularly at programme level events to discuss course content, teaching and joint supervision methods, and evaluation practices in view of achieving greater harmonization, in particular with regard to the grading of learning outcomes.
- ✓ Performance evaluation mechanisms were harmonised by all consortia. Almost all EMMCs delivered a version of the Diploma Supplement, although only a few managed to produce a joint DS reflecting the international nature of the joint study programme. The most integrated consortia completed the transition from double or multiple degrees and awarded joint diplomas.
- ✓ Scholarships awarded to visiting scholars and professionals from non-European countries offered students an overview of state of art research outcomes worldwide, both in academia and industry. The best results were achieved when these scholars and professionals could meet all the partners and were involved in developing joint research and opening the network for extension beyond Europe.
- ✓ By opening EM academic modules to local students, EMMCs contributed to raising the general level of provision, inter-cultural dialogue and the integration of EM scholarship holders into the local student community.
- ✓ Student employability was enhanced by consortia where all the stakeholders, including potential employers, contributed to the evaluation of the quality of the academic provision and were open to introducing new study courses based on this feedback. Employability was also enhanced by consortia that offered students a choice between professional internship as practitioners and research track. Students could determine early if they had an interest in a particular career path. Best results were achieved by consortia that offered strong guidance during the professional internship or field work research, preferably by two tutors, one from the company or local hosts and another from the home university.
- ✓ Complementary skills and career guidance were enhanced by consortia that identified at the EMMC level which skills are relevant for the profile of their fellowship students, set clear

targets and provided complementary training opportunities without extra costs for the students.

- ✓ The groundwork for ensuring a quality selection of students, implying sustainability during the period of EM funding, was completed by all EMMCs. This included multi-channel promotion and awareness-raising activities, with visibility world-wide, to make the course attractive for the best applicants.

Focus for future reflection included the following:

The key areas for improvements identified in the 57 EMMC impact reports concern a better follow-through of the achievements through performance evaluation, ambitious internship programmes, training for complementary competences, development of e-learning platforms and business models for sustainability.

- ✓ Achieving full, consistent and sustainable practices in terms of **assessment criteria and grading, transparent conversion methods, robust use of ECTS and awarding of joint degree** takes time. A time line for achieving specific targets for performance evaluation and recognition should be set by each EMMC as part of its quality assurance and sustainability strategy.
- ✓ EMMCs could develop **more ambitious internship programmes**, and a comprehensive policy regarding the **participation of non-academic organisations in curriculum development and performance evaluation**.
- ✓ EMMCs could **structure training to develop complementary competences** tailored to the needs of their specific student population, in particular by including skills such as entrepreneurship, communication, publishing, working in multicultural settings, language skills, IPR, ethics issues, project proposal writing, course management and similar.
- ✓ EMMCs could **set clear targets and identify measurable indicators of success and satisfaction with the course** by several categories of stakeholders – such as students, visiting scholars, staff members and future employers.
- ✓ More efforts could be made by EMMCs in order to **build common e-learning platforms** for international students, especially in view of the mobility component of EMMCs, to develop more collaborative areas between the partner HEIs and the students enrolled.
- ✓ Although the EMMCs concerned appeared well-established, well-recognized and very attractive for students and scholars, most of them still very much depend on the EM Programme's funding. EMMCs could focus more on raising the value of their learning outcomes among potential employers. They should also implement **tracer study to track and measure a longer term impact** on the employment status and career advances of their graduates.
- ✓ Although EMMCs have achieved good visibility during the EM funding period, not enough has been achieved in terms of securing longer term sustainability. It is suggested that EMMCs develop a **business model for ensuring sustainability after the end of EM funding**.

Many of these points have been successfully addressed by the EMMCs funded under the second phase of the programme, in particular with regard to the increased focus on practice-oriented training (placements, internships, field work, etc.), the increased opening of EMMCs to non-European Universities and to organisations from the socio-economic environment, the creation of long-lasting links with their alumni, etc.

However, and in spite of this progress, the issue of sustainability beyond the EU funding period remains a clear challenge for most of the on-going EMMCS.

1. Introduction

“Europe’s higher education sector should acquire a degree of attractiveness in the wider world equal to Europe’s major cultural and scientific achievements”.

European Ministers of Education, Bologna (1999)

1.1. Political context

The political context of Erasmus Mundus (EM) is embedded in the Bologna declaration of June 1999. The overarching aim of the Bologna process is to create transparency between higher education institutions, through the creation of the European Higher Education Area (EHEA) and the provision of tools to facilitate recognition of degrees and academic qualifications, mobility and exchanges between institutions.

Currently, the Bologna work programme encompasses, *inter alia*, mobility (some of the challenges are joint programmes, visas, and recognition of qualifications); employability (in April 2012, Ministers committed “to enhance the employability and personal and professional development of graduates throughout their careers” to serve Europe’s needs); quality assurance (addressing a range of issues such as - for example - the nature of the roles played by stakeholder groups such as students and the business community, as well as the types of pressures brought to bear by the current economic crisis); the full and proper recognition of qualifications (facilitated by transparency tools such as ECTS and the Diploma Supplement); and the worldwide attractiveness of the EHEA.

Erasmus Mundus is a co-operation and mobility programme in the field of higher education which promotes the European Union as a centre of excellence in learning around the world. It supports European top-quality Masters Courses and enhances the visibility and attractiveness of European higher education in third countries. Erasmus Mundus Masters Courses (EMMC) are high-quality integrated courses at masters level, offered by a consortium of at least three universities in three different European countries. The courses must be organised and structured in an integrated way, with a relevant and appropriate organisation of a mandatory study period in at least two European countries, a joint admission, supervision and evaluation of the students, and a joint recognition of awarded degrees (at least a double degree, and at best a joint degree issued by all partners).

1.2. Aims of the report

This report concerns the first generations of EMMCs and is based on the analysis of the 57 reports submitted by EMMCs selected in 2004, 2005, and 2006 and funded for five consecutive editions (/students' intakes) under an EM Framework Partnership Agreements (FPA). In all, 9 174 Erasmus Mundus students were enrolled in a total of 298 intakes over this period. Scholarships were offered to 5 980 of these students, almost all of whom were from non-European countries.

The objective of this synthesis report is to identify lessons learnt about practices that worked best for achieving the programme objectives and expected impact, challenges encountered, and areas where improvements are possible. The report is structured around three foci:

- 1) The contribution of EMMCs to the Bologna process through inter-institutional cooperation. This looks at the extent to which these programmes achieved 'jointness' in practice (in terms,

for example, of joint admission criteria, integrated curriculum, common assessment and grading criteria, joint recognition of degrees together with the Diploma Supplement, etc.)

- 2) The employability of EMMC graduates, including quality assurance and the 'fit' between EMMCs and the employment market, the role played by employers in shaping and assessing these courses as well as information (where available) on post-graduation activity of alumni;
- 3) The attractiveness of EMMCs, sustainability success factors and the prospects for these joint programmes after the end of EM funding.

2. 'Jointness' in structuring cooperation between European universities

Promotion of European co-operation within the EM programme aims at developing long-lasting collaborative models among European universities for the delivery of international joint study (training / research) programmes with an integrated mobility component, in line with the objectives of the Bologna Declaration.

We use the notion of 'jointness' to describe the process of cooperation in the programme design and implementation in all the stages of EMMC: from devising an integrated course (including mandatory mobility, which must bring added value to the course), through the development of joint and integrated management structures, the achievement of impact in terms of inter-institutional transfer of knowledge, the harmonization and recognition of awarded degrees and finally, to the integration of EM scholarship holders in the local environment.

2.1. Course integration

EMMC consortia are required to deliver a jointly designed curriculum, within which the consortium members are expected to recognize fully all courses delivered by their partners as part of a common study programme. Although the EM programme does not impose any particular design of courses and 'jointness' may be addressed in different ways, EMMCs are expected to be organised in a structured and integrated way, to benefit fully from the specific strengths and value-added of each of its partners.

Those EMMCs which combine jointly developed academic provision and training with several educational tracks and professional internships, as well as activities bringing all students together at summer or winter schools or workshops, appear to achieve the highest European added value as integrated programmes of study. These consortia show that they successfully build on the complementary expertise of all the partners through effective horizontal cooperation.

The main trend regarding course structure consists in the development of a joint curriculum by the partner universities with a limited number of specialization tracks designed around the core competences of each university. As a rule, basic courses were given to all students at the start of the programme followed by a choice of specialization tracks. In some cases, interdisciplinary EMMCs needed to develop joint introductory classes and methodological courses to give all the students coming from different fields the minimum shared background knowledge before choosing their learning and mobility paths. In other EMMCs (addressing topics such as culture, history or life-long learning), the course design offered a looser structure, with a broader range of mobility and specialization choices to individual students, who could thus define their own learning path and most preferred mobility paths on the basis of the partners' specialisations.

The EM Programme does not set any prescription on the EMMC's tuition language(s). In practice, 99% of them are offered in English, and almost two-thirds are exclusively taught in this language. French, Spanish and German are the most frequent additional tuition languages, although several other languages were also offered.

The choice to offer courses in several languages impacted the course design and patterns of integration of course content and joint activities. One programme from the 2006 selection offered a choice of 10 study tracks, each represented by a different combination of mobility and tuition languages. EMMCs committed to the policy of linguistic diversity regarding teaching language were generally characterised by cooperation between two universities involved in the same mandatory mobility track, while the course integration at the consortium level was achieved through a common orientation week and joint workshops. This model required some considerable calibration in the way students were assessed by universities offering specialization tracks in the same topical area but in a different language.

The duration of the course set some boundary conditions for joint activities, and one year EMMCs (60 ECTS) had less opportunity to develop integrative links either between universities and other stakeholders or between student cohorts. In these shorter courses, EM students usually spent an equal period of stay in each partner university, had no specialization tracks, and were not offered internships or work placements. No joint activities could be organised between cohorts. Between the 2004 and 2006 selections, in line with the Bologna process, the number of EMMCs lasting less than 2 years decreased from four out of every 10 EMMCs selected in 2004 to two out of 10 in the 2006 selection. This trend also continues with the more recent EM selections with a percentage of 81 % of two year courses in the 138 on-going EMMCs.

With respect to integrating local students into the curriculum developed for EM students, three practices are observed. The majority of EMMCs were committed to the opening of a number of EM modules to local and other international students. The second approach chosen by very few consortia was to build a whole original curriculum for EM students, rather than mixing of various modules existing at the different universities. The granted students followed a stand-alone programme for EM scholarship holders and did not take classes together with other students of the universities. Only in exceptional cases students from other degree programmes were allowed to participate in EM course. The third, and least frequent, choice was to integrate EM students into the regular modules offered for local students and not to develop any specific programme dedicated to EM students.

The first model, with the integration of local students in selected modules, proved to be most efficient for promoting 'jointness' between EM and local students, while also preserving the distinct character of the EMMC, being more than the sum of standard academic courses offered by partner universities.

2.2. Transfer of knowledge between universities

The Bologna process aims at improving the quality of services and human resources through mutual learning, comparison and exchange of good practice. In that context, through the development of joint programmes, EMMCs have contributed to promoting structured cooperation between higher education institutions and to offer enhanced quality in higher education with a distinct European added value. By bringing together universities with different teaching and management practices and overcoming disciplinary boundaries often embedded in national traditions, some considerable learning took place at inter-institutional level.

EMMCs improved education practices in the partner institutions by helping to bring about an emphasis on learning outcomes definition for every course in the curriculum and establishing a shared and joint examination methodology. This informed the creation of joint quality assurance procedures, tailored to the requirements of accepting international students in a mobility programme. The joint supervision of master dissertations, organised in many programmes, was also a powerful tool in achieving integration in this respect.

A general trend towards more student-centred learning can also be observed in line with the Bologna recommendations. Specific approaches were developed on top of the classic *ex cathedra* courses in view of broadening the learning towards competence building and opening professional tracks to graduates, both in research and as practitioners.

The internationalisation of teaching - building on the joint content developed for third-country and European students - was conducive to a wider perspective than the national or purely European one. The introduction of the cultural context was also an important innovation, largely due to the variety of origins and profiles of the students and visiting scholars. There was an increased awareness among universities of the importance of teaching in English in view of attracting more international students. English-taught courses turned out to be attractive also for local students who perceived this fact as an additional benefit (this was particularly observed in technical areas such as engineering).

As the academic staff adopted a more international approach in view of meeting the needs of the multicultural student population and associated partners from third countries and other non-EU stakeholders, innovative approaches to studying were introduced with case or project-based and integrative learning. This was of particular benefit for those universities that had had little previous experience with international students and that joined EMMCs with significant experience in this area.

Several EMMCs reported that changes were made in teaching the academic discipline thanks to the development of a culture of interdisciplinarity within the academic and research staff teams. New thematic fields and approaches were introduced in the pedagogical offer of partner HEIs in areas such as health and welfare, photonics, industrial management, business ethics or strategic project management. Several courses that had a high number of career professionals among scholarship students, introduced new practitioner-oriented elective courses and interdisciplinary seminars. Setting up high level specialization courses which involve a wide range of disciplines required new approaches, based on short intensive courses taught by specialists chosen from amongst the best in the world, and organized in series. Interdisciplinary programmes in innovative areas mobilized a broad coverage of knowledge that could not be provided at any single institution.

In some EMMCs the industry partners had a significant role in shaping the programme, by proposing topics for the internship/research training and having advisory roles in the management bodies or providing guest lectures. The visiting scholars offered students an overview of cutting-edge state of the art research in the field of specialization and also opened the university network for extension beyond Europe. They also often added new methods of teaching and produced teaching materials. The industry guest lecturers enriched the teaching methods to top up theoretical courses offered by the university staff.

All 57 EMMCs implemented quality control mechanisms. Each partner was subject to evaluation according to their institutional and/or national practices and standards. Additionally, external evaluations based on peer review of the course design and implementation were carried out. Surveys among students also allowed for the identification of strengths and needs for improvements in the programme design and in the teaching methods.

2.3. Added value of mobility

All EMMCs are required to organise a study programme taking place in at least two European countries. This requirement allowed non-European students to discover the cultural diversity of our continent and forced partner HEIs to ensure coherence in the course content, its delivery methods and the performance assessment criteria within the consortium.

Some programmes were particularly successful in maximizing the combined benefits of the complementary expertise of partners, their international networks and student mobility, for example through non-European HEIs (through their Action 3 project) or other associated partners that organised complementary trainings outside Europe during the final thesis research period.

Most EMMCs organised programme level events, such as summer or winter school, or workshops, following a rotation principle so that each partner could draw benefits from networking through the mobility of teaching staff, visiting scholars and students.

Adding value through mobility cannot be achieved by simply increasing the number of mobility tracks. A programme divided in three semesters, one at each participating institution, in which there are few integrative links, would score lower on course 'jointness' and students may not perceive much added value in such courses as compared to the national courses that served as basis for the programme.

Due to the differences in teaching practices between partner universities in the same consortium, whereby some partners provided much face-to-face teaching while others left much time for research and personal work, joint support during mobility periods was particularly important for providing students with a smooth guidance. Several master programmes had joint examination boards to ensure coherence across the partnership in assessing students following a period of mobility. Furthermore, the period of research work and master thesis writing taking place in the last semester, were usually supervised by two tutors from different institutions.

The majority of EMMCs opted for a rather limited and traditional use of advanced information and communication technologies (ICT) for supporting students, networking, ensuring joint supervision by home and host university, increasing consistency in teaching and assessing students.

Use of ICT was often limited to posting slides of some lectures and some key scientific articles selected by teachers and exchange of teaching materials between different university staff. One third of EMMC consortia used an electronic learning environment such as open source MOODLE or commercial applications. One consortium used an e-learning platform and examination platform developed by the coordinator. These applications offer different support functionalities and decrease the amount of paper students needed to transport from one country to another and eventually back home. They also provide access to other students, who can thus consult relevant research articles and sources from home, even from other countries.

2.4. Evaluation harmonisation and recognition of awarded degrees

The achievement of greater compatibility and transparency of higher education systems is embedded in the objectives of the Bologna process. The establishment of a system of credits is seen as means of promoting widespread student mobility, while the adoption of a system of easily readable and comparable degrees is seen as means of promoting employability of graduates and international competitiveness of the European higher education system.

All EMMCs have introduced the European Credit Transfer and Accumulation System (ECTS) to define programme components and to recognise learning outcomes.

In most cases students were assessed in the national grading system and conversion tables were used to ensure that credits were allocated transparently. In exceptional cases, the partners had agreed to use the regulations of one university as the common set of education and examination regulations.

Much effort was made by all EMMCs for achieving coherence in the way student performance was assessed and graded in different partner countries. Some EMMCs tried to overcome more subtle differences in expectations of professors from different universities and various countries when assigning highest or lowest marks. This was done through dialogue and promotion of a common understanding of differentiations between given values.

The examination criteria, required thresholds, and conversion systems were usually defined in the partnership agreement, while a joint examination board consisting of each partner university oversaw consistency in the implementation. A continuous evaluation of students was introduced in most programmes to include writing of essays, case studies, lab work, role playing, portfolios, individual and group presentations, simulation of seminars with interactive posted presentations and debates. This allowed for the evaluation of the development of students' competences over time and also diminished re-sits and high graduation stress.

One of the main common elements among EMMCs concerns the defence of the thesis at the end of the programme. This was generally organised on a transnational basis, with reviewers from different countries being part of the jury, and with quite an integrated European approach in the way this was organised. Dissertations were generally marked by two teachers from different partner universities. As remarked in the seminar for FPA coordinators, joint supervision can be a very powerful tool for integration (not least, for understanding the mind-set of other supervisors).

Most graduates received a Diploma Supplement, although these were not always in line with the European template (developed by the European Commission, the Council of Europe and UNESCO/CEPES). Some consortia issued a joint Diploma Supplement, and others issued separate Diploma Supplements from each degree-awarding university. Consequently, the specific nature of the EM qualification was not always clearly represented.

Even if for many programmes, the original application mentioned the intention to deliver a joint degree to successful students, it was clear that many partner universities were not able to do so during the period covered by the report.

The pathway towards recognition and 'jointness' in the degree-awarding mechanisms was generally long, even for the most committed programmes. Typically, consortia started with each university awarding a master degree and a Diploma Supplement and over several years managed to reach an agreement on a joint degree awarding mechanism. The longer term funding under EMMC was instrumental for achieving this progress.

Lack of degree-awarding harmonization among Member States and complex administrative procedures for the recognition of joint degrees are a common observation in the EMMC reports (and at the seminar organised for FPA coordinators). National or local regulations, together with institutional resistance, continued to pose problems during this period. This is reflected in different practices for degree awarding among partners under the same EMMC. Joint degrees may sometimes be awarded by some, but not all, partners in a consortium. This means that graduates from the same EMMC may end up with either a joint or a double/multiple degree.

Progress towards delivering joint degrees may be expected to take up pace as the national legal frameworks have evolved in recent years, making joint degrees possible in most European countries. Many of the EMMC consortia concerned reported that a joint degree approach would be effective from 2011/2012 or 2012/2013 intakes, when final administrative obstacles to awarding a joint degree are lifted in their respective countries.

Although constraints of national legislations are often mentioned as the main obstacle to joint degrees, differences in the level of commitment to issuing joint degrees among different EMMCs may also be observed.

Some universities prefer to maintain their uniqueness and argue that employers recognise/identify only regular university degrees in their country. In their view, the production of a new degree would require years to achieve the same status. One EMMC from the 2004 intake declared for instance that it did not find it useful to evolve towards a joint degree, affirming that companies prefer to deal with applicants in possession of well-known and renowned national degrees.

In reality, universities appear to have put little effort into explaining the benefits of the joint programme and its joint degree amongst potential employers and other groups. Some confusion also remains as to what properly constitutes a joint degree, and expectations differ in the various consortia partner countries. More work is needed here. In this context, work by organisations such as ECA (European Consortium for Accreditation) is useful, for example ECA's recent (April 2013) guidelines for good practice for awarding joint degrees⁵. In addition, a number of Erasmus Mundus-funded projects (such as JOQAR) are also very relevant here. More generally, closer contacts with national accreditation authorities and ENIC/NARIC centres can help to prevent communication blind spots. Erasmus Mundus National Structures have an important role to play here.

2.5. Services and networking facilities

Services provided by the partner institutions to host the third-country scholarship students were designed to meet a broad range of needs and to facilitate integration of incoming students in the local environment.

Participating universities offered the services of their international office and provided incoming students with information about visas, housing, opening a bank account and language courses to support integration in the host culture. Many consortia allocated a “buddy” student for assisting each incoming EM student with practical issues and organized a welcome day at the start of each semester (or new mobility period).

The integration of EM scholarship holders into the local community was facilitated by measures undertaken by all the consortia to create opportunities for interactions between students. The specific networking features depended on the course structure and mobility patterns. Integration typically took place during courses shared with local students, language courses and cultural visits organized for EM students.

Some programmes welcomed all EMMC students at the place of the coordinator for a week preceding the start of the first semester, in order to address administrative issues and also give an opportunity for EM scholarship holders to understand the integration challenges during mobility. This introduction week at the start of each academic year was an opportunity for EM scholarship

⁵ http://www.eacaconsortium.net/admin/files/assets/subsites/1/news/1369921623_guidelines-for-good-practice-for-awarding-joint-degrees---v1-1.pdf

students to meet other students who were following the same programme, and an opportunity for successive EM student cohorts to meet.

'Survival Guides' for foreign students were also developed. Social media, Face book and LinkedIn group, or a student blog, were typically used by students and alumni for networking.

2.6. Conclusions

'Jointness' in curricular design and joint programme implementation ensures cross-fertilization of knowledge for the benefit of each student, as well as for the participating HEIs.

It contributes to a strong structuring effect in European higher education, as poles of excellence are established which favour transfer of knowledge about participative teaching practices and joint supervision of students. Networking between hosts, visiting scholars and students broadens the perspective and competences of EM scholarship students, local students and teaching staff.

The systematic application of the tools provided through the European Credit Transfer and Accumulation System (ECTS) allowed EMMCs to define and agree on their programme components, to recognise their respective learning outcomes and to harmonise their assessment and grading criteria.

Most EMMCs provided Diploma Supplements. Double or multiple degrees prevailed, although joint degrees are becoming increasingly possible as governments lift obstacles to joint degree recognition. The majority of programmes included mobility of students between more than two countries and often included supervised field work or internships in third countries.

The analysis of 'jointness' as a process of cooperation between key EMMC stakeholders reveals a significant contribution towards the Bologna process. EMMCs offer high quality education, promote the European dimension in higher education through joint curricular development, inter-institutional co-operation in teaching and supervising students, joint recognition of qualifications, support mobility streams within Europe and between the EU and third countries, and finally contribute to the worldwide attractiveness and competitiveness of the EHEA.

3. Employability of graduates

In a longer term perspective a quality higher education system, as one of the pillars of the Bologna process, is expected to strengthen Europe's intellectual, cultural, social, scientific and technological dimensions. One of the immediate expected impacts of co-operation in quality academic and training provisions is to promote citizens' mobility and employability thus contributing to growth and creating jobs.

3.1. Quality of academic provision

EMMCs evaluated the quality of their academic provision through surveys among visiting scholars, students, industrial partners and teaching staff.

The best results in quality assurance were achieved by consortia that implemented standard internal quality control (self-assessment) in accordance with the practices of each university, combined with programme level procedures including external peer review and student assessment of the educational provision of the EMMC as a whole. The few consortia that relied only on the assessments at the level of each partner organisation provided fragmented information and were less successful in bringing improvements at programme level.

Efficient joint quality assessment approaches were implemented through annual workshops dedicated to the analysis of the EMMC by all the partner institutions. Best results were achieved when the assessment was comprehensive, covering every stage of the programme from the course promotion and marketing strategies to the joint recognition mechanisms, covering aspects such as the students' application and enrolment procedures, end of semester feedback from scholarship holders, teaching practices and other aspects related to studies, etc.

There are strong advantages of continuous monitoring and assessment following each semester so that improvements can be introduced at various stages, and not only at the end of the educational cycle. At the end of the course the alumni feedback was useful for assessing the key success factors and needs for improvements.

Student feedback was obtained in a variety of ways. The prevalent practice was the use of questionnaires among students. In several cases improvements to the study programme included the introduction of additional subject matters. Based on the student feedback, one project had integrated business ethics in the programme, and another introduced Intellectual Property Rights (IPR). In both cases, the additional subjects requested by students related to the marketable knowledge and competences.

Very occasionally, it was not clear to students if and how their feedback was actually used to improve the course or programme at large.

Some EMMCs included student representatives in the quality management body, which brought together internal and external auditors. Student representatives were elected from the student body of all participating institutions during the orientation week. Students elected as representatives in the first year were also invited to the orientation week the year after. This approach proved to be effective and improvements were introduced following official requests from the student representatives. This active involvement and student participation in the management of higher education is fully in line with the Bologna process.

The best results in terms of quality assurance of the study and training programme that enhance employability were achieved by those consortia that used the feedback from all the stakeholders, including the non-academic organisations to improve the educational content, the coherence of the course and to take into account the needs of industry and the employment sector. One EMMC programme included an external advisor from an industrial partner to assist the consortium in including the needs and requirements from industry with respect to educational content, complementary competences and quality assurance.

The perception of the attractiveness of the graduates for the employers depends also on the presentation of the learning content and outcomes. The Diploma Supplement provided most EM graduates with a description of the nature, level, context, content and status of the international studies completed by its holder, with a view to promoting their employability worldwide. However, this was not always in the form of the standardized European template.

There are no measurable indicators of the extent to which the EM identity of the degree has enhanced employability more than comparable national high quality master degrees. The fact remains that employers are not yet always well acquainted with the double, multiple or joint diploma system. The Diploma Supplement can facilitate the readability of the degree, thus helping to promote its market value.

3.2. Internships/work placements

Internships/work placements are intended to equip students with professional skills and competences, tailored to labour market needs and to improve professional career opportunities. A system of internships or placements helps students to determine if they are interested in a particular career path and allows them to create a professional network. Given the tremendous diversity of disciplines represented by the EMMCs, the specific type of opportunity offered to students will vary according to the programme and the related academic and professional environment.

In all EMMCs lasting four semesters, students were immersed in this environment because in most cases the fourth semester was devoted to research work and master thesis writing. Research work for the thesis required field or lab work or internship in private companies or public organisations. Almost all EMMCs offered internships outside the academic setting, although in some cases, students were not obliged to take up this offer and could also opt for a research track.

The proportion of students taking up professional internships varied between consortia. In only three EMMCs did all EM scholarship holders take up an internship, but the average percentage of students that took work placements varied between 30 and 50 percent.

Differences in the attractiveness of professional internships can largely be attributed to the educational field, the design of the programme and the extent to which the non-academic dimension was an integral part of the programme. Differences may also, however, be partly explained by the degree of commitment of partners to find a significant number of companies to host interns. One consortium was particularly successful in offering a broad variety of internships as some 100 placement opportunities were made available to 20 students.

The most efficient way for EMMCs to run professional programmes was to establish formal procedures and to define learning outcomes and skills to be improved through internships or work placements as well as learning outcomes and academic competences to be acquired at the university.

One EMMC in water treatment had internships that were highly geared towards employment / recruitment, and 95 percent of placements resulted in employment offers. Another EMMC in

education in organizational and personnel psychology provided the support of two tutors during the internship, one being a professional of the company, and the other the academic tutor of the home university. Similarly, the majority of students following a master in culture opted for the well supported and attractively positioned professional track. Each student prepared a full report on their internship activities, including lessons learnt and competences obtained. Student reports and the evaluation of the supervisor at the host institution were the basis for the final approval of the internship and the award of credits by the home university.

Internships counted for ECTS ranging between 12 and 30 ECTS, depending on the programme design.

The research area of academic provision and topics addressed by some master programmes were more industry/market oriented and the interest of employers in taking interns was usually higher in consortia with partners in applied sciences than theoretical sciences. However, there are examples of EMMCs in social sciences and humanities that forged strong links with private and public companies, just as there are examples of EMMCs in computer sciences, engineering or economics that had not established clear procedures for placements and relied mainly on informal relations with companies.

The culture of placements is often embedded in the tradition of the university co-tutoring the master thesis. Within the same EMMC, some universities made contractual agreements with professional organisations, while others considered themselves to be more academic, not needing any structured input from practitioners to prepare students for professional careers. The latter relied on informal contacts with non-educational organisations.

Very few EMMCs had no internship or research training provision at all. These EMMCs were mostly two or three semester courses. However, even for one-year master programmes, the lack of on-the-job training is a lowlight, especially when they address topics such as ethics, international trade or project management.

3.3. Complementary skills

In addition to the high quality academic provision, capacity-building through mobility and internships, training in complementary skills at various academic host institutions is considered instrumental for the employability of graduates.

The best results for developing complementary skills were achieved by programmes that involved non-academic organisations with expertise in the field of the master course. Professional stakeholders include organisations such as farming communities, the commercial sector, industry partners in the computing sector, professional associations in organisational psychology, or cultural institutions. Guest lecturers coming from a broad array of organisations, active in various sectors and regions of the world, contributed to the broadening of the perspectives of students of the types of complementary skills necessary for working in public and private, commercial, academic, humanitarian, or intergovernmental organisations.

The evaluation model and the ways students were expected to defend their master thesis, also defined a number of complementary skills developed by students during their academic training.

In one EMMC the defence of the thesis was split in two parts: a short public oral presentation in front of the whole jury and a poster presentation of the research work. This model enhanced a broad range of complementary competences, including presentation skills in a traditional academic setting and learning how to prepare a plan for poster presentation.

In another EMMC students were in charge of defining the topic and the conditions for their field work with the host institution in a third-country. In these cases developing negotiation skills was

seen as a part of the learning process. The coordinator checked, at the end of the negotiations, if the research was feasible and if the master students would be working under good conditions.

Participation in the management of higher education through contribution to quality assessment, especially when done in a structured way through the consortium board or by discussions between students and teaching staff, enhanced skills for critical thinking and dialogue.

Proficiency in at least one foreign language is a complementary skill that all the EM students acquired.

Most EMMCs were taught in English and although a solid level of knowledge was required at the application stage, proficiency certainly increased during the master course, especially regarding professional terminology. However, linguistic and cultural issues appeared not so well developed and addressed in the EMMC reports. Very few mentioned the type of arrangements offered to students in order to learn a foreign language and the culture of the host country. Only one programme mentioned offering accessible on-line language courses.

3.4. Career guidance

Some EMMCs developed a structured career guidance plan, combining individual guidance of students with programme-level events.

With a view to responding to the needs of industry and opening career prospects for students, one EMMC organized an annual project-level event involving industry participants. This one day gathering created an opportunity for the first and the second year student to meet and interact with industry representatives, helping to shape both student interests and their choices and opportunities for a future career within the graduation options provided by the programme.

Another EMMC organised a career day where alumni from previous cohorts met with current students and presented them with the various possibilities in the professional field from a personal point of view.

One EMMC actively involved the associated partners in career guidance. Their input was highly important during the employment fairs organised by the consortium to engage companies and provide professional career openings to the EMMC graduates. Relevant industry associations directly related to the master officially linked their brand and provided an approval certificate to the EMMC in view of facilitating finding the first employment.

In some cases, in areas such as agriculture or local development, large numbers of master students were employed before applying for the EM fellowship. As many graduates returned to their former employment, it may be said that the master degree did not enhance their employability *per se* as it was high to start with, but it certainly opened employment opportunities at more senior levels and higher income posts.

Some EMMCs that organised alumni surveys report that considerable numbers of graduates embarked on a research career by joining a PhD programme.

One EMMC in economics reported that half of their graduates continued with PhD studies and that 9 out of 10 followed PhD courses in European universities.

Some companies offered a fellowship for a continuation at PhD level for their graduates as a follow-up of internships. One EMMC in rural development reported that one third of their graduates continued with PhD studies in European higher education institutions. Another EMMC that sent a questionnaire one year after the graduation reveals that one third of their graduates continued towards a PhD, in the majority of cases (8 out of 10) in Europe.

Another EMMC in biotechnologies reveals that 80 percent of their graduates were hired as PhD candidates, most of them in Europe.

The European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers sets standards for new types of employment contracts with full social security for PhD candidates to replace stipends, and fellows are no longer considered to be students but early stage researchers. Thus, EMMCs which gave access to PhD studies, and which enabled some considerable numbers of master graduates to continue PhD research through sponsorship by their industry partners have achieved significant impact in opening up career prospects.

Even when some masters graduates continued as self-paying PhD fellows and did not obtain the work contract-based benefits of early stage researchers, the pursuit of PhD was quite an important career step, which affected future employability in a positive way.

3.5. Conclusions

The overwhelming majority of EMMCs provided a well-integrated system of academic and complementary skills through internships and contributions from visiting scholars and lecturers from non-academic organisations that opened up students' visions about employment and career prospects. In several cases a request for complementary skills such as IPR or ethics came from students, and universities introduced relevant changes in the course content.

Although there are no measurable indicators to document the relationship between academic provision, professional internships and employment status of graduates, there are strong indications that the professional internships offered competences which are well tailored for the labour market and appreciated by employers. For those graduates who were employed before starting the EMMC the acquired degree gave access to better-paid and higher-ranked positions.

For many EMMC graduates a career opening progressed via PhD research.

4. Promotion and sustainability of the master course

4.1. Promotion and awareness raising

The primary purpose of the EMMCs promotion strategy was to attract the best students for scholarships as well as renowned visiting scholars for short term contributions to the study and training programme. However, the EMMC promotion was also a powerful vehicle for raising awareness, recruiting self-paying students and attracting a broad range of stakeholders for networking, all of which together provided a solid basis for the sustainability of the master programme beyond the period of EM funding.

The best results in this area have been achieved through developing promotion strategies and marketing programmes jointly by all the partners, led but not dominated by the coordinator.

In view of attracting more applicants and selecting the best scholarship students multiple tools and strategies were used by the EMMCs.

The EMMC website, with links to the dedicated website of each partner organisation and the EACEA Erasmus Mundus website, was the first communication window for the joint programme and proved to be the most powerful vehicle for reaching out to different stakeholders. E-News pages on which participants and others can follow on-going student and consortium activities is often an effective practice. Yet very few consortia undertook an impact assessment by monitoring visitors (via Google Analytics, or similar) to record unique visitor numbers and adjust the promotion strategy accordingly, ensuring a balanced attraction of students and scholars from various world regions

More generally, the internet and the use of social media are important vehicles for promoting the EMMC programme on LinkedIn or Facebook. Some consortia created Twitter accounts for publishing short announcements. Electronic direct mailing to a broad range of defined stakeholders was a necessary component of the outreach strategy.

Beyond the virtual world, a large variety of intermediary bodies and organisations were used by the EMMCs to raise awareness of their activities.

National and regional administrations responsible for higher education proved to be valuable sources of information about on-going master programmes in each country that could be targeted for the EMMC promotion among the general student population. Effective outreach efforts were also directed at scientific and professional associations and international networks active in dedicated areas. Major non-academic organizations including public and private companies in third countries and Europe committed to life-long learning helped recruiting potential students motivated to advance their career. Cultural centres and diplomatic representations of the countries involved in the consortium were also invited to contribute to the EMMCs promotion.

Almost all EMMCs developed printed materials such as brochures and posters in order to add more visibility to their joint programme and the EM scholarship scheme. Special advertising campaigns targeting scientific and professional journals or using search engines were developed. Some programmes used the opportunity offered by the outreach activities covered under EM Action 3 in order to contribute to promoting their programme worldwide. Presentations of the EMMC at international scientific conferences and student fairs also contributed to the worldwide visibility of the master programme.

Once the programme had its first graduated students, the creation of an alumni association was a source for a network of ambassadors. However, some projects that started relying heavily on

word-of-mouth by former students ran the risk of perpetuating an unbalanced distribution of countries from which new fellowship holders were recruited and not recruiting sufficient numbers of self-paying students.

4.2. Attractiveness of EMMC for applicants

All the EMMCs were successful in attracting excellent third-country students for the fellowships offered by the EM Programme. The selection criteria were commonly based on the degree obtained in the home country, the student's performance, his/her motivation, proficiency in the teaching language(s) and sometimes the previous work experience.

It was often remarked that the quality of third-country students – scholarship holders and self-funded ones – was higher than the quality of the European students with whom they shared classes. They appeared to have better personal resources, to be more experienced in the field, strongly motivated, more mobile and active leaders in classes. In many cases, staff needed to ensure that scholarship holders were suitably challenged and lectures adapted to the high level and demand of these students, whereas the European (or self-funded) students needed additional support to achieve the same level.

The attractiveness of EM scholarships was remarkable. In almost half of all EMMCs the oversubscription was extremely high and the scholarship success rate was as low as 5 to 10 percent. Even for the least oversubscribed programmes, the ratio of applicants for scholarships was higher than three to one. These figures confirm that only the best students had a chance to be selected and that the interest for the programme among third-country students was very high.

Each EMMC was opened to the wider world with students coming from 20 or more countries and in some programmes as many as 50. The most open and attractive study and training programmes for third-country students ensured broad transfer of knowledge between a large number of countries, allowed for avoiding bias towards only the best known universities from some countries, and prepared grounds for sustainability after the end of EM funding.

Most of the EMMCs used the opportunities offered under the geographically regional 'windows' – that is, additional funds coming from the Community's external relations budget and injected into the Erasmus Mundus programme to encourage students of specific non-EU nationalities to study in Europe. Although this was an excellent opportunity for EMMCs to attract more students, it was not always a success story with respect to the take-up. In addition, selected students from the targeted countries sometimes had lower levels of competence than the normal EM scholarship holders and, in a few cases, did not manage to graduate.

Although this report mainly covers the first phase of the EM Programme, the last intake of the 21 EMMCs from the 2006 generation started in 2010 under the second phase of the Programme. As a result, these 21 EMMCs were also able to offer EM scholarships to European students (Category B scholarships).

On the one hand, for the majority of EMMCs the experience was rather positive as the award of scholarships to European students helped to maintain a high number of students with EM scholarships in the intake. But on the other hand, several consortia reported difficulties in recruiting category B scholarship holders and had frequent cancellations between the recruitment phase and start of the programme. Several consortia found it hard to develop adequate promotion activities to attract EU students and enrolled fewer scholarship holders than planned. The reasons given by several consortia for these recruitment difficulties concern the lower scholarship grant amount offered to European students combined with the high EMMC mobility costs, the

awkward timing of the scholarship application deadline in January and the lack of information on the new scheme.

Despite these difficulties, the introduction of scholarships to EU students increased diversity among the EM student population and obliged some EMMCs in topical areas such as regional development or welfare to adapt the content of their classes accordingly.

The participation of self-funded students (as opposed to students with an EM scholarship) in EMMCs varied considerably from one joint programme to another. If on average the ratio was approximately of 2 EM scholarship holders for one self-funded student, some EMMCs managed to enrol less than ten self-paying students during the entire period covered by the report while others declared up to 77% of self-paying students in their 5 or 6 cohorts. On average, half of the 57 EMMCs concerned had at least 25% of self-paying students among their enrolled students.

When looking at the origin of the non-scholarship holders, it appears that approximately 75% of them were Europeans.

The relatively small numbers of self-paying students amongst EMMCs combined with the fact these students were mainly Europeans who paid lower tuition fees, has meant that many consortia struggle to reach financial sustainability at the end of the EM funding.

During these first years of the EM Programme, only a few EMMCs reported having developed joint research projects (EMJD) and/or obtained funding for joint research under the EU Framework Programme 7 (FP7). These consortia were successful in offering more and better training through research opportunities to their students and achieving additionality in terms of mobility and research by accessing funding through different Community instruments and enhanced the sustainability of partnerships.

4.3. Funding of EMMC

Many consortia were effective in raising the interest and involving industry in the course management structures, in shaping the course content, and hosting students for field work or internships, and organising programme events to which industry stakeholders were invited. In return they could draw benefits from industry providing bursaries to self-funded students in order to help them covering the fees and, in some cases, the mobility costs.

In some cases, the partners themselves offered partial bursaries, such as fee waivers or stipends, to highly qualified candidates from the EM reserve list. Additional scholarships were also provided by national programmes. Sponsorships from local authorities, national or regional organisations were obtained mainly for joint events such as workshops. One EMMC, which had strong links to a Network of Excellence, could draw on their financial support.

However, in many cases the EMMC was almost completely funded by the returns from the EM programme and there were no external sources for additional scholarships.

The lack of a business plan, both at the level of the EMMC and for individual partners, appears as an important weakness in many consortia. Differences in amounts of tuition fees charged by various consortia and differences in fees charged to various categories of third-country students within the same consortium were not explained in terms of business logic. Also, sharp increases of fees from one selection to another for EM scholarship holders were applied in some cases although it was not evident that the new cohort was getting something more and better than the previous cohort of students. Many consortia appeared to have charged costs to students based on the maximum allowable rates under EM financial conditions, rather than on a business and marketing model.

Only few consortia set targets or explored possibilities for co-funding, or matched funding whereby a share of fellowships would be covered from EM returns and a similar share from industry, public or own resources.

As an example of the difficulties encountered by the EMMCs in terms of financial sustainability, one EMMC from the 2005 selection decided not to reapply immediately at the end of the first funding cycle. It applied only for the brand name, which was granted, and wanted to give itself time to thoroughly revise the programme, taking into account the lessons drawn from the first experience and to test the sustainability of the master courses without any financial contribution from the Commission. Although efforts were made to find alternative financing, the conclusion was rather discouraging. Without the attractive effect of the EM scholarships, the recruitment of non-EU students stopped and the course had to continue with only European students. This led the consortium into a deficit and forced it to re-apply to the next call for proposals.

4.4. Visiting scholars and alumni as agents of sustainability

Over the period covered by the reports, a total of 1 439 visiting scholars (of which 300 were European) contributed to the joint programmes, by teaching, conducting research, developing project content, supervising thesis work, and so on.

These scholars bring outstanding academic and/or professional experience to the consortia and may be important agents of sustainability. They open the network for extension and can be considered as an important link regarding the development of sustainability mechanisms of the master programmes after their funding period.

However, the reports contained little if any information on how the universities continued to prolong the cooperation with visiting staff and third-country universities beyond specific EMMC events. There was also no information from the bulk of EMMCs about any significant effort to set up joint research projects co-funded by national research councils, or international research and development programmes (RTD) by the partners and involving visiting scholars.

The alumni could also play a crucial role to link the students with the network of future employers in the professional sector. Employed graduates may be the first actors to generate requests from employers and forge links with students. Yet, only a small number of consortia seem to have developed a coherent strategy to engage alumni. The best results were achieved when the alumni association had a website, a Twitter, Facebook or LinkedIn account, as the graduates could extend information about positions, and job offers through these media.

4.5. Conclusions

EMMCs appear very attractive for students and scholars. Although most programmes are well-established and well-recognized, they still depend to a large extent on the scholarship funding from the European Commission. Based on the analysis of 57 EMMCs it appears that only a few of them would be able to continue as originally planned if they were recruiting only self-paying students.

For many consortia, a failure to renew the EM funding would either result in abandoning the project, decreasing the number/international profile of students or decreasing the mobility options. As a consequence, students would not find comparable alternatives to match their mobility needs to the same extent as in the EMMC.

Notable efforts have been made by various consortia to negotiate additional scholarship funding from industry and/or public authorities. Few have explored options for support from national or

regional programmes for cofounding, or have developed spin-off projects. Visiting scholars and alumni as agents of sustainability are identified but appear to be underused by many consortia.

Overall, it may be concluded that more efforts should go into developing business models, and exploitation and marketing plans, developing quality assessment metrics and impact analysis in view of sustainability of the study and training programme beyond the period of EM funding.

5. Key conclusions and recommendations

5.1. Achievements of EMMCs and contributions to the Bologna process objectives

- All EMMCs achieved structured co-operation and curriculum integration and promoted the international dimension in European higher education institutions. Most effective were consortia that pursued 'jointness' in the programme design, academic provision, training and mobility tracks, and involved all the partners and also non-academic organisations, in particular companies in the course design, management and implementation.
- In the first phase of the programme, access to EM joint programmes was facilitated for third-country institutions through Action 3 partnership funding (32 EMMCs had a former Action 3 partnership). The second phase of the programme went further by opening up the programme itself to universities world-wide, enabling third-country institutions to participate as full or as associate partners on an equal footing with their European counterparts.
- Internationalisation of teaching contributed to significant transfers of knowledge for overcoming disciplinary, administrative or even legal boundaries and promoting participative teaching, evaluation and recognition practices. Best results were achieved when academic staff met at regular programme level events to discuss course content, teaching and joint supervision methods, and evaluation practices in view of achieving greater harmonization in grading the learning outcomes.
- Visiting scholars and professionals offered students an overview of state of art research outcomes worldwide both in academia and industry. The best results were achieved when they met all the partners and were involved in developing joint research and opening the network for extension beyond Europe.
- By opening EM academic modules to local students, EMMCs contributed to raising the general level of higher education, inter-cultural dialogue and integration of EM scholarship holders in the local student community.
- Performance evaluation mechanisms were harmonised by all consortia. Almost all EMMCs also delivered a version of the Diploma Supplement, although this was often a local document (not reflecting the whole of the joint programme) and not always in line with the European template. The most integrated partnerships had completed the transition from double or multiple degrees and awarded joint diplomas.
- Student employability was enhanced by consortia where all the stakeholders, including potential employers, contributed to the evaluation of the quality of the academic provision and were open to introducing new study courses based on this feedback.
- Employability was also enhanced by consortia that offered students a choice between professional internship as practitioners and research track. Students could determine early if they have an interest in a particular career. Best results were achieved by consortia that offered strong guidance during the professional internship or field work research, preferably by two tutors, one from the company or local hosts and another from the home university.
- Complementary skills and career guidance were enhanced by consortia that identified at the EMMC level which skills are relevant for the profile of their fellowship students, set clear targets and provided complementary training opportunities without extra costs for the students.

- The groundwork for ensuring a quality selection of students was completed by all EMMCs. This included multi-channel promotion and awareness-raising activities, with visibility world-wide, to make the course attractive for the best applicants.

5.2. Forward-looking recommendations to build on what has been achieved

The consistent advances made by consortia in the first generation of Erasmus Mundus programmes should not be underestimated. The work done has also prepared the ground for many other similar collaborative initiatives, and EMMC consortia also report that the indirect impact, or 'side effects' of the programme have had considerable value for their institutions. These achievements have continued and been consolidated in the second phase of the programme. Furthermore, the diversity of the Masters courses funded under Erasmus Mundus, and the in-built flexibility to accommodate this wealth of disciplinary approaches, means that there is no 'one size fits all' beyond the overriding principle of excellence. Notwithstanding these observations, the analysis offers the following forward-looking recommendations.

5.2.1. Recommendations for EMMCs

Achieving consistent assessment criteria and grading, transparent conversion, robust use of ECTS and joint degree awarding, together with a joint Diploma Supplement, takes time. EM is designed to give longer term support to consortia in order to achieve harmonization of performance evaluation mechanisms, degree awarding and recognition.

- All EMMC partners could make a firmer commitment to the harmonization of performance evaluation mechanisms from the very start, and consortia could set targets and elaborate time lines for achieving each specific harmonization task for performance and recognition of degrees. They could ensure ECTS allocation is decided jointly (both in terms of learning outcomes and workload) and is distributed evenly. They could also develop a single, joint Diploma Supplement for all their EMMC graduates following the European template.

After five years of funding, many EMMCs had not really put into place a long-term strategy with non-academic organisations which could have a direct impact on the quality of the courses and on the employability of the students after graduation.

- EMMCs could invest in more ambitious internship programmes, and a comprehensive policy regarding the participation of non-academic organisations in curriculum development and performance evaluation.

As labour market needs are rapidly evolving towards competences approaches to lifelong learning, the development of complementary skills and career guidance are important for accessing and staying in employment.

- EMMCs could design course components to develop complementary competences tailored for their specific student population. This could include skills such as entrepreneurship, communication, publishing, working in multicultural settings, language skills, IPR, ethics issues, project proposal writing, course management, and similar.

Overall, the supervision arrangements remained quite traditional for the majority of EMMCs and only a few offered joint online tutoring during mobility. Use of advanced ICT by the EMMCs is quite basic and consortia are generally lagging behind in profiting from the technological solutions for supporting teaching, assisting students during mobility, and creating virtual communities among students and graduates and their environment.

- EMMCs could do some major work on building common e-learning platforms for international students especially in view of the mobility component of EMMCs, and for developing more collaborative areas between all students.
- Websites, as the most powerful communication tool, could be more closely monitored for the number of visitors (via Google Analytics, or similar) and include interactive functionalities to better inform and engage students and other stakeholders.

Important resources are invested for the course promotion, yet EMMCs rarely assess the impact of their promotion efforts for recruiting students and the impact on the visibility of the programme.

- EMMCs could develop quality assessment metrics and undertake an impact analysis of their promotion and awareness raising plans on regular basis.

Collecting data and disseminating results about achievements may contribute to greater visibility of some excellent European consortia, allow for impact assessment, and ultimately contribute to the sustainability of programmes after the end of EM funding.

- EMMCs could set clear targets and identify measurable indicators of success rates, satisfaction with the programme by several categories of stakeholders - students, visiting scholars, but also staff members and industry/ employers- and targets for informing the academic community and professional sector about the key success factors.

EM does not require that consortia develop a business model. However, exploitation strategies comprising business and marketing plans are necessary for the continuation of programmes after the EM funding expires.

- It is suggested that each EMMC develops its own business model for pursuing academic and financial sustainability. A business model could describe how the specific EMMC creates and delivers value, using appropriate and measurable targets for each partner. Alumni associations and graduate tracer studies to track and measure employment status could enhance network continuation.
- Building financial sustainability could include a strategy for contributing own resources, tuition waivers, attracting self-paying students, joint research, encouraging sponsorship of the EMMC or individual students and attracting co-funding or matched funding from public and private stakeholders including the business sector.

Although the relatively low number of self-paying students and the insufficient involvement of companies are major concerns for some EMMC, they have not always developed sufficiently elaborated corrective measures.

- Consortia could develop outreach activities with a view to raising the visibility and acceptance of awarded degrees among academia and the business community worldwide.

Some excellent EMMCs could have better promoted and publicised their achievements and informed the stakeholders and new applicants about their success factors and challenges encountered.

- EMMCs could publish final reports summarizing the EMMC identity, organisational features, course structure, and quality and impact assessment in order to inform the academic community and other key stakeholders about the key success factors, challenges and opportunities.

5.2.2. Recommendations for Member States and EU

The most frequent difficulties encountered by EMMCs relate to obtaining visas for successful third-country applicants and visas when third-country students move between EU countries to follow EMMC mobility tracks.

- Negotiations among the Member States could be reinforced, in order to obtain the acceptance of non-EU students holding EM grant with a single visa valid throughout the EU.
- The EU Delegations, national contact points and diplomatic and cultural representations could be involved to provide more active support for enhancing the visibility of EM and for ensuring that study visa for third-country students is granted in due time.

The second most frequently reported difficulty relates to the joint degree awarding due to obstacles in national legislations and complex administrative procedures for degree recognition.

- The European Commission could be more vigorous in raising awareness in Member States and amongst students, employers and other stakeholders of the added value of joint degrees and (Joint) Diploma Supplements. It could also work to raise awareness of learning outcomes (expressed on the Diploma Supplement) among potential employers
- Member States could reinforce their efforts with a view to facilitating and accelerating the accreditation of European Master Courses and degrees (joint or multiple).

Sustainability of high quality integrated master programmes with mobility tracks is a major challenge for universities. In addition to industry contributions, the host country's commitment to support internationalisation of their universities may also be necessary.

- The European Commission could encourage the Member States to take an active role in sustaining the partnerships created under EMMC after the end of EM funding.

ANNEX 1 – Facts and figures

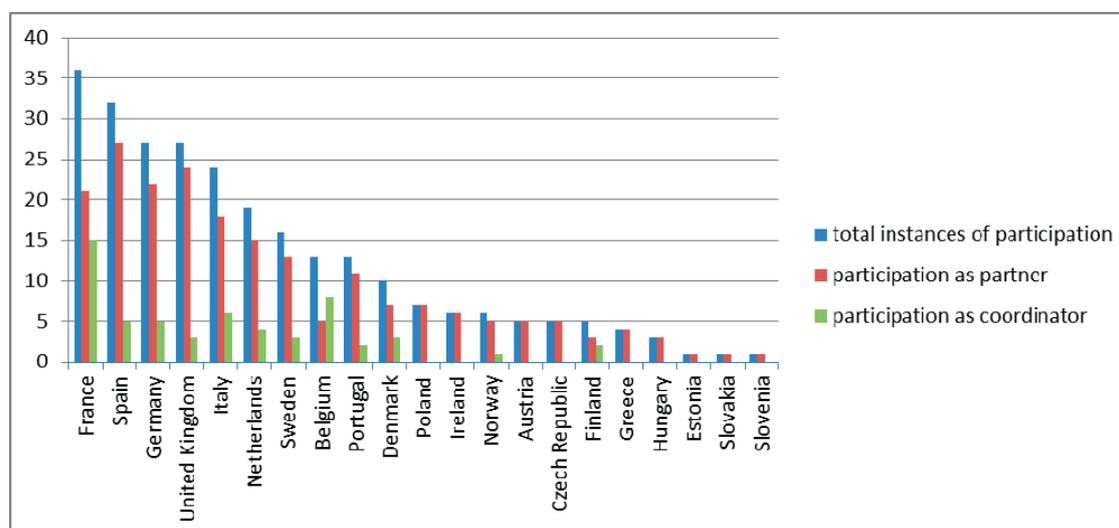
1. CONSORTIUM COMPOSITION AND COURSE MANAGEMENT

The 57 EMMCs concerned by the report included 192 different European universities, with 261 instances of participation.

While the minimum eligible consortium consists of full-partner HEIs from three different European countries, at least one of which must be an EU Member State, these pioneer EMMCs were composed on average of 4.6 higher education institutions (the range goes from 3 to 8 universities representing 7 different countries).

Because the selection criteria were based exclusively on the excellence of the joint programme (from the management and content points of view), as well as on its added value for the attractiveness of the European Higher Education Area (EHEA), the geographical balance among participating countries was never treated as an award criterion. Despite this, these 57 EMMC included universities from 21 different European countries (20 Member States plus Norway) and were coordinated in 12 of these countries.

As shown in the figure below, HEIs in France, Spain, Germany and the UK were most frequently active in the EM (total instances of participation). In terms of coordinating the EM consortia, HEIs in France, Belgium and Italy were most frequently represented, while HEIs in Spain, United Kingdom and Germany were most frequently represented as partners in the consortia.



While since 2010 EMMC consortia can also include universities from non-European countries among their partners, this was not the case at the time these 57 EMMCs were selected. However, they had the possibility to apply for an Action 3 Partnership that allowed them to initiate cooperation activities with non-European universities, and benefit from scholarships for their European students and academics in order to study, perform research activities, or contribute to the delivery of part of the EMMC in the non-European universities concerned.

32 (56 %) of the 57 EMMCs have benefitted from this funding opportunity and have included some 96 additional universities representing 31 different non-European countries, among which the most frequently represented are, China, the United States, Australia and South Africa. Many of these universities became full partners when the EMMC concerned continued under the second phase of the programme.

Finally it should be noted that the 57 EMMCs concerned received their last funding for the student cohort starting in the academic year 2008/09 (2004 FPAs), 2009/10 (2005 FPAs) and 2010/2011 (2006 FPAs). At the start of the 2013/2014 intake, 45 (79 %) of these EMMCs continue to be funded by the EM programme.

2. COURSE STRUCTURE AND IMPLEMENTATION

The EM programme does not impose particular requirements on the EMMC structure except that a) it has to lead to an officially recognised joint, double or multiple degree, and b) it has to include a mandatory study (or research) period in two different European countries represented in the consortium.

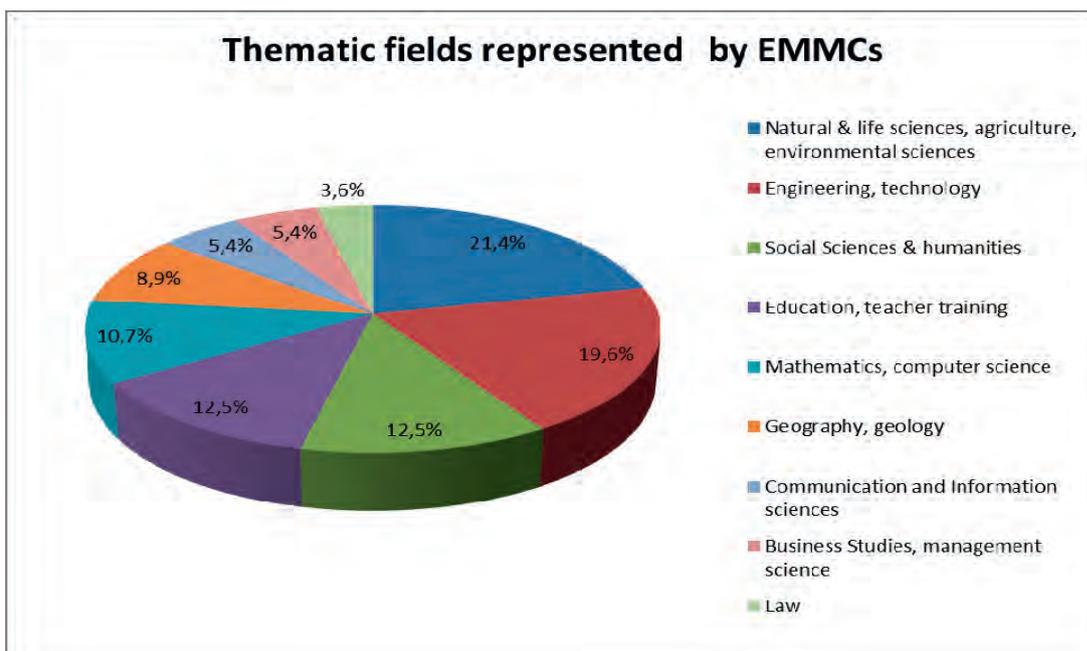
With these two basic requirements, selected EMMCs presented a large variety of models.

In terms of duration, 41 EMMCs out of 57 (72%) had a duration of two years (or 120 ECTS), 6 (10%) had a duration of one year (or 60 ECTS) and the remaining 10 (18%) had a duration of one year and a half (or 90 ECTS).

As was the case for the geographical representativeness of the consortium, the thematic area represented by the EMMC has never been used as a selection criterion. Only the best integrated master courses were to be selected independently from the thematic area(s) they addressed. Despite this approach, the thematic coverage of the 57 EMMCs is rather broad, going from space science to quaternary studies, and from earthquake engineering to humanitarian aid.

Although the vast majority of these EMMCs are pluri- and multi- and trans-disciplinary, often combining "hard sciences" (physics, chemistry, mathematics, informatics, etc.) with "soft sciences" (humanities, social sciences, economics and political sciences, business, law, etc.), the share of EMMCs between these two very broad categories is almost balanced.

The following table provides the distribution of the 57 EMMCs among specific thematic fields.



Another feature of the EMMC that was left to the decision of the consortium is that of the tuition language.

Although all selected consortia had to provide possibilities for the enrolled students to learn the local language of their European host universities, they were free to decide which tuition language(s) would be used for the delivery of the courses.

It is not a surprise to note that 54 out of 57 EMMCs had English as their tuition language and, for 36 of them, as the only tuition language. Next to English, French followed by Spanish and German are the other three most common tuition languages.

While 36 EMMCs (63 %) used only English as tuition language, the range of languages offered by the other EMMCs varied from 2 to 6 (including in this case, Portuguese, Spanish, Italian, German, French and English as tuition languages.)

Finally, although consortia were free to decide to deliver double, multiple or joint degree to their successful students, the Commission and the Executive Agency have encouraged them to aim for the delivery of joint degrees.

From a statistical point of view, this encouragement has not been very effective since progress towards joint degrees does not appear as a striking figure in the reports submitted by the 57 EMMCS. Although 23 of them claim to deliver joint degrees, either exclusively (in 12 cases) or in combination with double or multiple national degrees, the other 34 EMMCs did not manage to achieve this highest level of integration because of administrative or legal constraints.

3. STUDENT AND SCHOLAR PARTICIPATION

Student Participation

During the period covered by the reports (from the 2004 to the 2010 intake), more than 9 000 students were enrolled in the 57 EMMCs.

Disregarding the 2004 intake - for which only 13 consortia offered a limited number of scholarships -, the total enrolment figure amounts to 5 770 students with an average number of approximately 32 students per intake and consortium.

Out of these 9 000 students, 64 % were supported by an EM scholarship and one third enrolled on a self-paying basis or with the support of another funding scheme.

The take up rate of the EM scholarship was around 93 % (5 981 used out of 6 441 offered).

Although the scholarships were mainly awarded to non-European students, 27 % of the students enrolled were Europeans, among whom 124 were supported by an Action 1 scholarship (EM phase II).

The geographical distribution of the EM scholarship holders during the period covered by this report shows a very high proportion of Asian students (almost 40 %). This very high figure is partly the result of geographically targeted scholarships (the so-called 'windows') offered to Asian students⁶. However, the share of Asian students amongst EM scholarship holders remained quite

⁶ From 2005 to 2008 these "windows" scholarships (offered to Asian students but also students from the ACP countries or from the Western Balkans and Turkey) accounted for approximately 20% of the total number of scholarships allocated to non-European students in the context of the EMMCs.

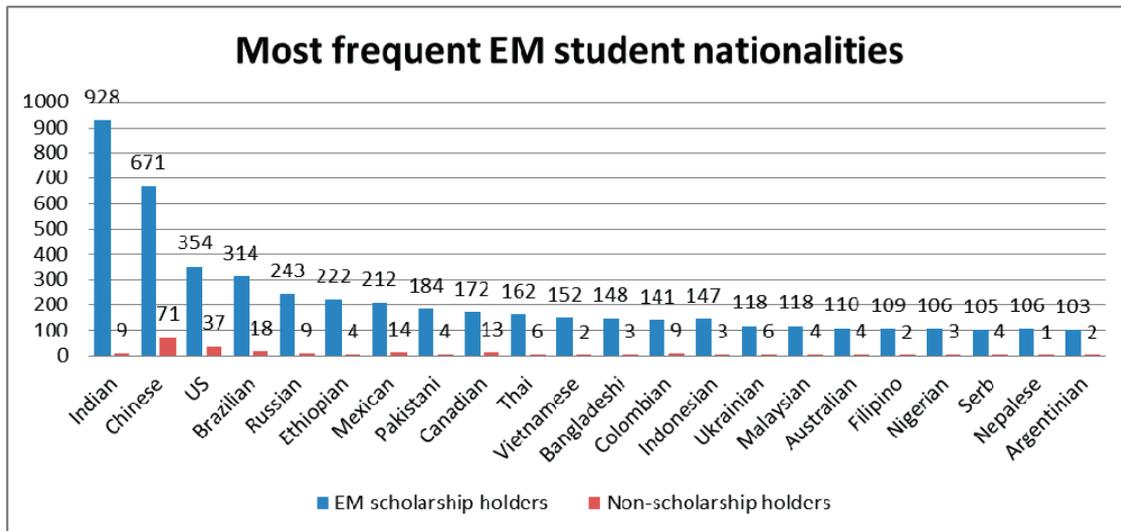
high in the last two intakes covered by the report (around 30%), when 'windows' were no longer offered. Between 2005 and 2008 'windows' scholarships (which were also offered to students from the ACP countries or from the Western Balkans and Turkey) accounted for approximately 20% of the total number of scholarships allocated to non-European students in the context of the EMMCs.

Apart from Asian students (among whom the most frequently represented were Indian, followed by Chinese, Pakistani and Vietnamese students), the most represented non-European countries were the United States, Brazil, Russia, Ethiopia and Mexico. In all, students from 135 non-European countries participated in the Erasmus Mundus programme in the period covered by the report.

See table below for a picture of relative take-up by most frequent third country nationalities (scholarship holders and self-paying students). Of the top ten nationalities shown here, the largest proportion of students tended to enrol in EMMCs in engineering subjects (i.e., about one-fifth of students, and as much as a quarter of Brazilian students and a third of all Mexican students). Pakistani students also favoured EMMCs in the field of mathematics, followed by engineering (24% and 18% respectively). EM students from the US and Canada are an exception, as they tended to enrol in social sciences and medical disciplines (respectively, 27% and 17% of US students and 29% and 20% of Canadian students).

With respect to the participation of European students, the distribution by nationality matches that observed in the composition of the EMMC consortia with German, French, Spanish and Italian students accounting for 54% of the European students enrolled. This tends to show that, contrary to non-European students, European students were recruited mainly (sometimes almost exclusively) from local students in the participating universities.

In terms of the distribution by disciplines offered, over half of German students enrol in EMMCs in the social sciences. This trend, while still observed, is less marked for French, Spanish and Italian students, and EMMCs in agriculture, mathematics and geography/geology respectively are the second most preferred thematic fields for these students.



In accordance with the programme requirements, students were to visit at least two European countries. In fact, the analysis shows that as many as two-thirds of the scholarship holders visited three or more different European countries during their EMMC studies.

The European countries most often visited by the EMMC students are France (visited by 14% of the students), Germany (12%), the UK (11%), followed by Spain and Italy with approximately 10% each.

Finally, concerning the European students supported by an Action 3 scholarship, 20 % visited the United States, 17 % visited South Africa, 11 % Australia, and 10 % China.

Scholar Participation

In total, more than 1 400 scholars received an EM scholarship from one of the 57 EMMCs analysed in this report.

Around 1 100 of these were awarded to non-European scholars invited by an EMMC for teaching, thesis/project supervision or research activities, and 300 more were awarded to scholars enrolled in European universities partners of the consortium in order to visit non-European partners in the context of an Action 3 partnership.

With respect to the first category and considering only the intakes 2005 to 2010, each consortium invited an average of 4 non-European scholars per intake.

Scholars from North America (the US, Canada and Mexico) represented more than a quarter (27 %) of all non-European scholars participating in the Erasmus Mundus programme. The next most represented scholar nationalities were Chinese and Indians (10 and 9 % respectively).

Concerning the European scholars supported by an Action 3 scholarship, French (19 %), German (14 %), Spanish (11 %) and Italian (10 %) were the nationalities most often represented. These scholars were most likely to visit the United States (16 %), China (12 %), South Africa (10 %) and Australia (9 %).

Finally, while the maximum scholar scholarship duration was as much as one year in the first phase of the EM programme, the average duration of the scholar mobility was 7 weeks and the most frequently visited countries were, not surprisingly, those most represented among the consortia, i.e. France (17%), Spain and Italy (both 11 %), and Germany and the United Kingdom (both 10 %).

ANNEX 2 – List of EMMCs

2004 selection

Acronym	Title*	Duration (months)
ALGANT	International integrated Master course in Algebra, Geometry and Number Theory	24
CoMundus	European Master of Arts in Media, Communication and Cultural Studies	24
EJMWCM	European Joint Master in Water and Coastal Management	24
EMCL	European Masters in Clinical Linguistics	24
EMLE	European Master in Law and Economics	12
EMMS	Joint European Masters Programme in Materials Science	24
EMPCL	European Masters Programme in Computational Logic	24
EuMI	European Master in Informatics	24
EUROAQUAE	Euro Hydroinformatics and Water Management	24
HEEM	European Masters Degree in Higher Education	24
IMQP	International Master in Quaternary and Prehistory Master International en Quaternaire et Préhistoire	24
IMRD	International Master of Science in Rural Development	24
LLMEUR	European Legal Practice - LL.M. Eur	24
MEEES	Masters in Earthquake Engineering and Engineering Seismology	18
MEEM	Erasmus Mundus Master of Mechanical Engineering	24
MERIT	Master of Science in Research on Information and Communication Technologies	24
MScEF	Master of Science in European Forestry	24
NOHA	Joint Master's Degree Program in International Humanitarian Action	18
TropEd	European Master in International Health	12

2005 selection

Acronym	Title*	Duration (months)
AMASE	Joint European Masters Programme in Advanced Materials Science and Engineering	24
Crossways	Crossways in Cultural Narratives	24
EMCAST	European Masters Course in Aeronautics and Space Technology	24
EMGS	Global Studies - A European Perspective	24
EMMA	Journalism and Media within Globalisation: The European Perspective	24
EMMAPA	Erasmus Mundus Master in Adapted Physical Activity	12
EMMNano	Erasmus Mundus Master in Nanoscience and Nanotechnology	24
EUROMIME	Master européen en Ingénierie des Médias pour l'Education	24

GEM	Geo-information Science and Earth Observation for Environmental Modelling and Management	24
MAE	Master of Applied Ethics	12
MASEN	Master's in Special Education Needs	14
MESPOM	Master of Science in Environmental Sciences, Policy and Management	24
MIM	Master of Industrial Mathematics	24
MSNBC	MSc in Network and e-Business Centred Computing	18
Sefotech	European MSc in food science, technology and nutrition	18
SpaceMaster	Joint European Master in Science and Technology	24
VINTAGE	International Master Vintage, Vine, Wine and Terroir Management	24

2006 selection

Acronym	Title*	Duration (months)
AGRIS MUNDUS	Sustainable Development in Agriculture Masters Course	24
ATOSIM	Atomic Scale Modelling of Physical, Chemical and Bio-molecular Systems	12
CoDe	Joint European Master in Comparative Local Development	24
EMIN	Economics and Management of Network Industries	24
EMMSP	Erasmus Mundus Master of Science in Photonics	24
EURO CULTURE	Europe in the Wider World	16
EUROPUBHEALTH	European Public Health Master	24
FUSION_EP	European Master in Nuclear Fusion Science and Engineering Physics	24
IMIM	International Master in Industrial Management	24
MA LLL	European Master's in Lifelong Learning: Policy and Management	24
MBIO	Master of Bioethics	12
MEITEI	M.A. Economics of Globalisation and European Integration	12
M.E.S.C.	M.E.S.C. - Materials for Energy Storage and Conversion	24
MONABIPHOT	MONABIPHOT - Molecular nano- and Biophotonics	24
MSPME	Masters in Strategic Project Management	16
NORDSECMOB	Masters programme in Security and Mobile Computing	24
PHOENIX	Dynamics of Health and Welfare	24
QEM	Models and Methods of Quantitative Economics	24
SUTROFOR	Sustainable Tropical Forestry Erasmus Mundus Masters Course	24
VIBOT	European Master in Vision and Robotics	24
WOP-P	Master on Work, Organizational and Personnel Psychology	24

* If you are viewing an electronic version of this document, clicking on the Masters title will take you to a project description on the Erasmus Mundus website.

ANNEX 3 - Expert Résumés

The assessment of the 57 Final Summary Reports submitted in the context of the Erasmus Mundus Framework Partnership Agreements (FPA) was performed by seven independent experts: Dragana Avramov, Rinske van den Berg, Marc Durando, Lucia Franchi, Sylvia Gómez-Ansón, Michel Jouve, and Frank Wilson. The assessment was based on the form developed by EACEA. The synthesis report focusing on 'jointness', employability and sustainability aspects of EMMCs was drafted by Dragana Avramov with the support of independent experts and EACEA.

Dragana Avramov, PhD in sociology, is Director of an independent research organisation, Population and Social Policy Consultants (PSPC), Brussels. She has studied and worked both in Western and Eastern Europe where she was Director of the Demographic Research Centre at the University of Belgrade. Her publications include fourteen books and over 70 scientific articles in several languages. She has served as consultant to the United Nations, the Council of Europe and was a member of the European Commission Expert Group “The World and Europe up to 2030/2050: EU policies and research priorities”. She is currently involved in the research project “Managing migration and its effects in South-East Europe: Transnational actions towards evidence based strategies”. Besides, she has been evaluator, project reviewer, rapporteur, lead expert, chair of panels, and independent observer for the European Commission DGs RTD, EAC, INFSO and CNECT, and EC Executive Agencies TENT-EA, REA and EACEA. She was independent observer, chair, evaluator and reviewer for the People Programme (Marie Curie Actions ITN, IAPP, IOF, IIF, IEF, IRG, ERG, CIG, COFUND and IRSES).

Rinske van den Berg is working from Brussels as an independent education consultant since 2007. For European Schoolnet, she manages a large FP7 funded programme, called inGenious, promoting STEM education and careers. Rinske developed and managed training programmes for CEDEP – European Centre for Executive Development in Fontainebleau and for Rotterdam School of Management. At RSM she coordinated the Bachelor/Master implementation and became the Director of MScBA programmes in 2004. In all her positions held, Rinske worked closely together with industry, the Community of Management Schools and various international educational networks. After her Masters of Arts in Communication Sciences, obtained in Brussels and Barcelona, she started occupying successful positions for the European Student Fair and the SOCRATES&YOUTH Technical Assistance Office. Today, Rinske collaborates with different training institutes, with the EAC Executive Agency as an expert for various EU funded programmes and as external evaluator of education and research programmes.

Marc Durando has over 30 years of experience in the field of education and training, both at European and national level. Since 1983 he worked in the education and training area, where after 5 years of activities in the field of continuing education for enterprises he developed specific expertise in the area of European cooperation in the field of education and training. He occupied successively the post of Director of the COMETT Technical Assistance Office and the SOCRATES&YOUTH Technical Assistance Office. At the end of 1998 he joined the Pôle Universitaire Européen de Lorraine where he developed European projects in the field of education and training and provided consultancy services in the area of European cooperation in education and training. Since September 2006, Marc Durando joined the European Schoolnet network as Executive Director of EUN. As a network of 30 MoE, European Schoolnet provides

its member Ministries with in-depth analysis of the state of play of ICT in education across Europe.

Lucia Franchi is a researcher at the Scuola Normale Superiore in Pisa, Italy. Her research and publication activities are devoted to Archaeology, European Art, Museology, Cultural Heritage and Cultural Heritage Law. Currently she is leading the medieval-modern research group of the project Thesaurus, addressing the documentation and discovery of ancient and modern shipwrecks in the area of the Tuscan Archipelago. Previously she has curated, or collaborated to several museum displays and exhibitions (the "Marble Museum" of Carrara, Italy; the "Frankincense Museum" of Salala, Oman; the "Artemidorus Papyrus", Turin; the "Beauty of the Greek Art", Mantua), and has participated to the international group for the safeguard of the "Leaning Tower" of Pisa. She has been acting as an expert evaluator, assessing Atlantis and Erasmus programmes for the EC/EACEA since 2005, and as an expert, and lately as a vice-chair, for the People-Marie Curie programme (ITN, IAPP, IOF, IIF, IEF) since 2004.

Silvia Gómez Ansón is Professor of Finance at the University of Oviedo, Spain. She holds a Bachelor Degree in Economics and Business from the Complutense University of Madrid, Spain, Master's Degree in International Economic Relations from the University of Constanze, Germany and a Ph.D. in Economics and Business Administration from the University of Oviedo, Spain. She has been coordinator of different Erasmus Agreements with German speaking countries of the Faculty of Economics and Business, visiting Professor at the Otto von Guericke Universität Magdeburg, the University of Torino and Europa Universität Viadrina am Frankfurt am Oder. She has acted as expert assessing different programmes for the EC/EACEA since 2004.

Michel Jouve is emeritus professor of the Université Michel de Montaigne, Bordeaux. He became Vice-President of the university between 1989 and 1995, in which position he contributed to the development of the Erasmus programme locally and nationally. In 1994-1995 he was contracted by the EC to coordinate the promotion of the ECTS across Europe. In 1995, the Minister of Education nominated him to create and direct the new French Socrates Agency. At the end of his mandate, in 2000, he became detached national expert, at DG EAC, where he soon was asked to coordinate and develop the evaluation activities for the Socrates programme, producing among other things the interim report of the Socrates programme and the first draft of the impact assessment for the new LLL Programme.

Frank Wilson is an advisor in operations research, having previously qualified and worked in Psychology (experimental) and Ergonomics, addressing ICT design and services where human aspects are critical. After working with companies such as Xerox developing new interface technologies, he joined University College London as part of the team forming its technology transfer centre, where he was research consultant and technical manager, as well as research fellow within the college. He now works as an independent design consultant in operations research addressing new technology development and deployment for education, industry, and governmental agencies. He has been advisor to the European Commission on technology and good practice in education since 2004, as well as managing projects concerned with deploying ICT for education since 1999.

ANNEX 4 – FPA Summary Report template (as updated in 2012)



Education, Audiovisual and Culture Executive Agency

Erasmus Mundus and External Cooperation

FINAL SUMMARY REPORT

TO BE SUBMITTED IN THE CONTEXT OF THE

2006 ERASMUS MUNDUS FRAMEWORK PARTNERSHIP AGREEMENTS

INTRODUCTION

In the context of the above mentioned Erasmus Mundus Framework Partnership Agreements (FPA), your Erasmus Mundus Masters Course (EMMC) has been funded for 5 (plus 1) consecutive editions (/cohorts of scholarship holders), giving your consortium a comprehensive experience in the implementation and monitoring of an Erasmus Mundus joint masters programme. In accordance with the requirement specified under section IV G of the Financial and Administrative Handbook attached to the Specific grant Agreements, "*at the end of the five-year period for which a Masters Course has been selected, the co-ordinating institution of the consortium shall submit a Final Summary Report on the experience of running the Masters Course and the scholarship scheme. This Final Summary Report will cover the whole five-year period and will be a summary of the findings of the annual Final Reports.*"

This Final Summary Report is therefore distinct to the reports you have delivered hitherto. It serves a different and equally valuable purpose by drawing out and celebrating the full range of your experience (both the successes and challenges) for the benefit of the Erasmus Mundus programme and successor activities (Erasmus for All). With this report, you should therefore above all highlight your EMMC good practices, lessons learnt and recommendations for the future in a critically reflective manner. Please illustrate your report as far as possible with specific examples.

This information will be presented, in the form of a synthesis report, to all relevant instances and stakeholders with a view to improving the Erasmus Mundus programme and future activity in this area.

The report is composed of

- A narrative part (Part A) in which you and your partners will be asked to address a certain number of questions related to the consortium, the course and the participating students and scholars
- A 'facts and figures' part (Part B) concerning your joint master course and the student and scholars who participated in it.

When addressing the different elements it contains, we invite you to:

- **Take into account the original application** submitted by your consortium and selected by the Commission, keeping in mind what was written in it and explaining in the

- relevant sections, how (/why), through the implementation of the EMMCs, some aspects have evolved (/been adapted);
- **Take into consideration the consortium as a whole** and the impact of the EMMC in each of the participating HEIs. In order to do so, please circulate the report among your partners and address the questions from the perspective of each of them.
 - **Provide a brief description of good practices** developed in the framework of your EMMC, providing either a link to a website where further information is easily available, or the name of a contact person who can be contacted for additional information.

The report should be completed, signed by the legal representative of the coordinating institution, and a scanned copy of it **must be sent by email to eacea-em-consortia@ec.europa.eu by 15 October 2012 at the latest.**

We thank you in advance for your important contribution. Please contact Misia Coghlan (misia.coghlan@ec.europa.eu) if you have any questions about this Final Summary Report.

PART A: NARRATIVE PART

A.1. CONSORTIUM COMPOSITION AND COURSE MANAGEMENT

- A.1.1. Describe briefly the **management structure** in place at the end of the 2010 edition of your EMMC. Explain how this structure was defined and whether this had changed over the five successive EMMC editions. What types of interactions took place between consortium members and how effective was this? Please refer to both formal and informal interactions and describe particular challenges or success stories. How did this EMMC management structure link into the institutional management of each consortium HEI?
- A.1.2. How was **quality assurance** for your EMMC managed? Please refer to how you developed, applied and monitored the QA process. To what extent were QA measures common to all consortium HEIs (e.g. specific to your joint programme)? Give specific illustrations of the types of quality assurance issues you met and how you addressed them. Can you give any examples of 'what works' and/or 'lessons for the future' in terms of quality assurance?
- A.1.3. Explain **how the EMMC was funded** during the period covered by the report. Explain how the student participation costs were calculated, how they have evolved during the period concerned (see table under B.1), and been distributed among the consortium partners. In addition to the EM funding, specify the other sources of funding and, in particular, indicate the number, financial amount and funding source of additional student and/or scholar scholarships.

A.2. COURSE STRUCTURE AND IMPLEMENTATION

- A.2.1. Describe briefly (and, if possible, in the form of a graph) the **structure of the course** followed by the 2010 cohort of EM scholarship holders, taking into account the mandatory mobility component, distinguishing between the joint/common aspects and the

specific specialization tracks. If applicable, specify the periods/activities allowing contact (/joint activities) between students from different cohorts. What percentage of the courses delivered in the EMMCs were shared with local students? What were the key challenges for course integration? Describe any changes to the content or structure of the EMMC over the successive editions.

- A.2.2. Specify and describe any **internship/work placements** undertaken by EM scholarship holders. Were these mandatory or optional? How many ECTS credits were allocated to the internship/placement (if any)? What type(s) of organisations hosted your students? Were these organisations part of your consortium? What financial or other contribution was provided by the hosting organisation? How were these internships/work placements selected and subsequently evaluated? Is it possible to report any impact on employability of EM graduates directly or indirectly connected to these internships/placements?
- A.2.3. Describe briefly the **performance evaluation mechanisms** defined to monitor the students' performance during their EMMC studies (i.e. performance evaluation methodology, grading scale(s) and, if applicable conversion scales used; periodicity of the tests/exams held, required thresholds, re-sit possibilities, etc.)
- A.2.4. What **ICT tools and services were used by consortium members for teaching and/or learning purposes** (e.g. access to the courses bibliography and support material, delivering of online teaching, sharing students' individual projects/work/results between mobility hosts, etc.)?
- A.2.5. To what extent have **non-academic organisations** been involved in the course implementation and/or evaluation? For example, with respect to participation in the delivery of the course (delivery of specialised seminars, workshops, etc.) and/or its evaluation (evaluation and revision of course content). How effective was this contribution? Did the nature of non-academic involvement change over the five successive editions of your EMMC? Please share any success stories, lessons learnt and recommendations for the future.
- A.2.6. Describe how you managed **recognition and degree awarding mechanisms** over the five successive editions of the EMMC. What challenges and/or success stories did you encounter (please give examples)? If applicable, explain the progress made towards the delivery of a joint degree and/or joint diploma supplement.

A.3. STUDENT AND SCHOLAR PARTICIPATION

- A.3.1. Comment on the first **table in section B.2** with respect to the level (/nature /quality) of scholarship demands, the take-up rate of EM scholarships offered, the participation of European students and the graduation rate. For this last aspect explain the most frequent reasons for non-graduation and, if applicable, the corrective actions taken to address them, providing specific illustrations.

- A.3.2. Describe the **overall profile** (/main characteristics) of the **non-European students enrolled in the EMMC** during the period covered by the report (geographic origin, academic level, age, gender, etc.)
- Was the **level of the enrolled students** homogeneous in terms of existing qualifications (degrees obtained, academic or linguistic skills, etc.) and capacity to cope with a new socio-cultural environment, or were there disparities? In the latter case, how did you cope with these disparities (e.g. adapting your admission requirements, revising the training and/or performance evaluation methods, providing different type of individualised support, etc.)?
 - If applicable, explain how these characteristics differed from the population of non-European students traditionally hosted in the participating HEIs.
- A.3.3. Describe the **course promotion and awareness raising strategies** among the target student and scholar populations during the period covered by the report. If applicable, explain how under-representation of some regions / continents was addressed. Please provide information on quantifiable impacts these strategies have had.
- A.3.4. Describe what tailored **student services** were available for your EMMC scholarship holders, with specific examples (e.g. visa, housing, other support and counselling). What activities / measures were put in place to facilitate the **integration of EM scholarship holders in the local student community**? Explain the social **networking facilities** put at the disposal of the EM scholarship holders? What type of ICT facilities were offered to them for this purpose? Did the EMMC create a specific alumni association? What impact has this had? Please provide URL links to alumni websites if available.
- A.3.5. Do you have information on **post-graduation activity** amongst the EM scholarship holders concerned by this report? Describe how you collect this information and what type of data is collected. For example, how many found a **job after graduation** - if applicable, specify if in Europe or in their home country. How many EM graduates continued their studies at PhD level?
- A.3.6. Comment on the scholar table in section B.2 if applicable. During the period covered by the report, please explain briefly the consortium strategy to attract high level **scholars**, the selection procedure implemented, the specific contribution of these scholars to the EMMC (contribution to the content, monitoring/supervising/evaluating students work, evaluating the course content and/or structure, etc). If applicable, explain how the consortium has maintained links with the invited scholars and their home HEIs, and the added value this has brought to it.
- A.3.7. During the period covered by the report has your consortium hosted EM scholarship holders (students or scholars) with special needs? If yes, please describe the case(s) concerned and the measure taken by your consortium to address these special needs.

A.4 PROGRAMME IMPACT AND COURSE SUSTAINABILITY

- A.4.1. Please explain, taking into account all consortium partners, the **impact** of the EM programme in general and the EMMC in particular on their institutional internationalisation strategies, and in particular on aspects such as:
- The institution and/or department (/faculty) visibility at regional, national or international level

- The academic and research links with the consortium partners
 - The links with non-European Universities
 - The level of resources (financial, human) dedicated to internationalisation
 - The design and implementation of joint courses
 - The delivery of joint (double / multiple) degrees
 - The number and profile of non European students hosted in the institutions / departments concerned.
 - The level and quality of services offered to (non European) students
 - The number and profile of non European scholars invited in the institutions and the departments concerned
- A.4.2. If applicable, describe how the EMMC has contributed to change **the way the academic discipline(s) concerned were taught** in the participating institution from the content, pedagogical, methodological, etc. points of view (e.g. did it contribute to a broader interdisciplinary approach, to a more international / European approach, to a different balance between theory and practice, to the usage of new teaching and learning approaches, etc.)
- A.4.3. What impact did the **changes introduced in the second phase of the programme** (EM II) have on your consortium and the management of your EMMC? These changes included the possibility to include non-EU HEIs in the consortium, the award of scholarships for EU students and scholars, involvement of associated partners, progressive decrease in number of scholarships and the decentralisation of insurance arrangements. Please compare earlier and later editions of your joint programme in this respect. Please also describe any synergies that may have been created with the introduction of Erasmus Mundus Joint Doctorate programmes.
- A.4.4. If **no further EU funding has been awarded to your EMMC beyond the period covered by this report**, please describe whether and how the joint course has been maintained. What strategy do you have to ensure continued sustainability of your joint programme? Is it financially viable in a longer term perspective? What alternate funding is available? Have any adaptations have been made to the content or structure of the joint course in order to achieve sustainability?
- A.4.5. In your opinion, to what extent has the first phase of the programme (EM I) been successful in achieving its initial aims and objectives? These aims and objectives are listed below. Based on your experience, please let us know which of these you believe has been the **most** successful through to the **least** successful. You should rank each item by attributing a number from 1 to 6.

	Rank each item from 1 (aim and objective least successfully achieved) to 6 (aim and objective most successfully achieved)
Enhance the quality of European higher education by fostering cooperation with third countries in order to improve the development of human resources and to promote dialogue and understanding between peoples and cultures;	
Promote structured cooperation between higher education institutions and an offer of enhanced quality in higher education with a distinct European added value, attractive both within the European Union and	

beyond its borders, with a view to creating centres of excellence;	
Contribute to the mutual enrichment of societies by developing the qualifications of women/men so that they possess appropriate skills, particularly as regards the labour market, and are open-minded and internationally experienced through promoting mobility for the most talented students and academics from third countries to obtain qualifications and/or experience in the European Union and for the most talented European students and academics towards third countries;	
Contribute towards the development of human resources and the international cooperation capacity of higher education institutions in Third Countries through increased mobility streams between the European Union and Third Countries;	
Improve accessibility and enhance the profile and visibility of European higher education in the world as well as its attractiveness for third-country nationals and citizens of the Union	

A.5. FINAL REMARKS

- A.5.1. In your opinion, which are the most relevant / important / striking elements which illustrate the success and impact of your EMMC?
- A.5.2. In your opinion, which are the most problematic elements encountered in the implementation of your EM MC which require further attention and future corrective actions?
- A.5.3. Would you like to indicate additional lessons learnt drawn from the funded editions covered by this report?
- A.5.4. How would you rate the level of support received from the different stakeholders involved in the programme implementation (i.e. European Commission, Executive Agency, National Structures in the participating countries, EU Delegations and EU Embassies in the third-country students' home countries, etc.)? What recommendations would you like to make in order to improve this support?
- A.5.5. Would you like to make any recommendation for future Erasmus Mundus activities/future EU programme activity for joint degrees?

PART B: FACTS AND FIGURES

B.1. BASIC DATA

Framework Partnership Agreement (FPA) Reference
Number: _____

Title of Master Course (Acronym) : _____

Number of ECTS: _____

Students Participation Costs (/tuition fees)

Cohort	Common Student Participation Costs / Tuition Fees per academic year (in €)	
	European	3rd Country
2006		
2007		
2008		
2009		
2010		

(please comment under A.1.3)

Tuition language(s): _____

(if applicable, please explain in section A.2.1 the changes occurred in the tuition language(s) since the beginning of the course)

Degree(s) awarded :

(for each successive cohort, specify the name of the degree(s) awarded to each successive cohort by each of the degree awarding HEIs as well as the date at which this degree (paper copy) was actually awarded)

Year of Specific Agreement (/cohort)	Name of the degree awarding HEI	Name of the degree (and number of ECTS)	Date of award of paper copy of degree certificate/diploma
2006			
2007			
2008			
2009			
2010			

Year of Specific Agreement (/cohort)	Degree + Diploma Supplement (multiple answers allowed)				
	Joint Degree Yes / No	Double Degree Yes / No	Multiple Degree Yes / No	Diploma Supplements Yes / No	Joint Diploma Supplement Yes / No
2006					
2007					
2008					
2009					
2010					

B.2. STUDENT AND SCHOLAR PARTICIPATION

		2006	2007	2008	2009	2010	total
A	EM student scholarship applicants						
B	EM student scholarships (category A) offered by the EM programme						
C	EM student scholarships (category B) offered by the EM programme						
D	EM student scholarship holders (category A) actually enrolled						
E	EM student scholarship holders (category B) actually enrolled						
F	Other third country students enrolled						
G	Other European students enrolled						
H	Total students enrolled						
I	EM scholarship holders graduated						
J	Other enrolled students graduated						
K	Total graduated students						
L	EMMC course units shared with local student population (in number of ECTS credits)						

Please complete the table and comment on it in section A.3.1 as appropriate

	Scholar's Name⁷	Nationality	HEI(s) visited	Dates of visit	Duration in weeks
2006					
2007					
2008					
2009					
2010					

Please complete the table and comment on it in section A.3.6 as appropriate

SUPPORT DOCUMENTS TO BE PROVIDED

- ✓ Facsimile of the last (/2010 cohort) EMMC degree(s) awarded
- ✓ Facsimile of the (Joint) Diploma Supplement

BENEFICIARY DECLARATION

I, the undersigned, hereby irrevocably declare that:

- the information contained in this report is accurate and in accordance with the facts
- the information has been checked and approved by the consortium partners

Signature of the beneficiary's legal representative⁸

Name.....

Position:.....

Date:.....

⁸ *if the signatory is not the legal representative (as indicated to the Agency) add a valid document confirming their authorisation to sign on his/her behalf*

Education, Audiovisual & Culture Executive Agency
Erasmus Mundus and External Cooperation

Write to us:

Tempus Programme
Avenue du Bourget, 1 (BOUR 02/029)
1140 Brussels
Belgium

Phone: +(32 2) 296 1655

Fax: +(32 2) 292 1328

Visit us:

Rue Colonel Bourg, 135-139
1140 Brussels
Belgium

Website:

http://eacea.ec.europa.eu/erasmus_mundus

General questions about the programme:

EACEA-erasmus-mundus@ec.europa.eu



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