



ASK Asia Consortium

ASK Asia

Erasmus Mundus Alumni Employability Study in the
Field of Agriculture and Related Life Sciences

Agriculture
Skills
Knowledge
Asia



With the support of the
Erasmus Mundus programme
of the European Union

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Abbreviations & Acronyms

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CEC	China Education Center
CIA	Central Intelligence Agency
CV	Curriculum Vitae
DAAD	Deutscher Akademischer Austausch Dienst (German Academic Exchange Service)
EM	Erasmus Mundus
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GSO	General Statistics Office
HEIs	Higher Education Institutions
HERA	Higher Education Reform Agenda
IELTS	International English Language Testing System
IFAD	International Fund for Agricultural Development
IIE	International Institute of Education
ILO	International Labour Organization
MAFF	Ministry of Agriculture, Forestry and Fisheries
MECS	Ministry of Education, Culture, and Science
MEDS	Ministry of Education and Science
MOET	Ministry of Education and Training
MoFA	Ministry of Food and Agriculture
NBSC –	National Bureau of Statistics of China

NGO	Non Governmental Organization
ODA	Official Development Assistance
QA	Quality Assurance
RGC	The Royal Government of Cambodia
SEA	South East Asia
SME	Small and medium-sized enterprises
TOEFL	Test of English as a Foreign Language
UN	United Nations
UNDP	United Nations Development Programme
WB	World Bank
WEF	World Economic Forum

Introduction

Agriculture is one of the major pillars of economic development in Asian countries. Depending on the country, from China to Myanmar, it can represent between 15 to 65% of GDP. The region is the main exporter of multiple agricultural commodities on the world market such as rice, cassava, rubber, palm oil, coffee, tea. At the same time, Europe is a major client of the same markets and trade is due to get even stronger in the future. The multiple functions of agriculture and of the management of natural resources connected to rural development in tropical and subtropical countries are attracting ever greater attention and increasingly offer job opportunities for graduates in agricultural and environmental sciences, providing their qualification effectively corresponds to the needs of this market.

The quality of the European training supply may require appropriate articulation to local Asian universities and some adaptation to local Asian contexts and environmental conditions. The question which is now arising is to know whether the supply of training that Europe has offered so far is adapted to the needs of the employers in Asia. This question is especially complex in agriculture, in so far as the quality of agricultural higher education is not only linked with the scientific quality of the graduating university; it is also linked to the adaptation of the curricula to the local contexts. In other words, agriculture is partly a “local science”. Indeed, agricultural commodities are grown on local soil, under local climatic conditions and by farmers who are members of the local society with local cultural heritages which differ from place to place. There are many examples of topics which are relevant in Asia without having the same interest in Europe and vice versa. For example, microcredit has become the major source of funding for a majority of smallholder farmers in South-East Asia. Skills needed to master such microcredit systems should therefore be important for the local job market, while, on the contrary, such skills would rarely be mobilised in European agriculture.

To contribute to a better identification of the outcomes of the training they delivered to Asian professionals in Agriculture, a number of European universities much involved in educational partnerships in Asia prepared the **project ASK Asia** (“Agriculture, Skills, Knowledge in Asia: Competences and employability of Erasmus Mundus Graduates in Agriculture on the Asian Professional Market”). The Ask Asia project was selected to be part of Action 3¹ of the Erasmus Mundus programme funded by the European Commission (EACEA) in the period from 2013 to 2015.

¹ The objective of Erasmus Mundus Action 3 project is to promote European higher education through measures enhancing the attractiveness of Europe as an educational destination and a centre of excellence at a global level. This Action provides support to activities related to the

Erasmus Mundus is a cooperation and mobility programme in the field of higher education that aims to enhance the quality of European higher education and to promote dialogue and understanding between people and cultures through cooperation with Third-Countries. In addition, it contributes to the development of human resources and the international cooperation capacity of Higher education institutions in Third-Countries by increasing mobility between the European Union and these countries. Between 2005 and 2014, Erasmus Mundus (EM) offered scholarships to students from Third-Countries to come to Europe for studies for different periods, durations, levels and degrees.

After ten years of this programme, the question was raised as to whether we could assess how the alumni of this programme perform on the professional job market for graduates and to identify specific competences and skills that provide these graduates with a comparative advantage in meeting the expectations of their employers following their education/training period. Moreover, this question was especially pertinent in Asia, considering the dynamism of both the educational sector in the region and the growth of regional economies, which are opening up new job opportunities for young professionals. Also, in such a context of growth, local/national universities have raised their levels of performance so that mobility of students to Europe can now be – or should be – organised to use forms of articulation between the home and the host universities that play best on the comparative advantages of each.

The target groups (beneficiaries) of the Ask Asia outcomes are the following:

- the EM alumni students who have benefitted from an education in Europe in the past who can show evidence of the specific skills that they acquired in Europe.
- the European universities that host Asian students (inside and outside the Erasmus Mundus programme). They can take advantage of the lessons learned from the past, insist on the comparative advantages of their training in their curriculum or/and identify what appear as weak points in their supply, and adjust their learning outcomes accordingly. Particularly, professional skills can be addressed more specifically in the training programmes, in addition to scientific capacities, so that a more coherent and specified strategy towards employability can be adopted (also in the light of the sustainability of the EM programmes).
- the Asian universities that build or would like to build double degree programmes with European universities. These can see more clearly what kind of advantages they can get from increasing the number of exchanges with European universities.

international dimension of all aspects of higher education, such as promotion, accessibility, quality assurance, credit recognition, mutual recognition of qualifications, curriculum development and mobility.

- the future Asian EM students in Europe, for whom training will be improved in relation to the professional market.

Finally, the ASK Asia project allowed European and Asian universities to discuss their comparative advantages in educational training, and how the specificities required for the Asian job market can be better taken into consideration when a part of the training is done in Europe. Based on this research skills were identified that are better acquired when at least one part of the training was performed in Europe. The results provided should not only encourage European universities to improve their academic curriculum for the Third-Country students, but also allow the European Commission to better adapt the **Erasmus+ programme** accordingly.

This study firstly describes the methodology of how the data were collected, followed by the results of the survey with EM alumni and a brief summary of the research done with employers in six selected countries (Cambodia, China, Indonesia, Mongolia, Thailand and Vietnam). The lessons learnt are enumerated as are recommendations for future improvements of the whole Erasmus+ programme so as to benefit European and Asian universities and future students participating in international exchanges. Six country studies are attached individually in the report and can also be read separately. These country studies include a description of the actual situation of the higher education systems and specific results of the research done with EM alumni and their employers in the six selected countries (Cambodia, China, Indonesia, Mongolia, Thailand and Vietnam).

Objectives

The main objective of the **ASK Asia project** (“Agriculture, Skills, Knowledge in Asia: Competences and employability of Erasmus Mundus Graduates in Agriculture on the Asian Professional Market”) is firstly to assess how the Erasmus Mundus graduates in Agriculture and related Life Sciences perform on the professional job market in Asia, and, secondly, to identify specific competences and skills that provide these graduates with a comparative advantage in meeting the expectations of their employers following the education/training period. The study is oriented to the six following countries in Asia: Cambodia, China, Indonesia, Mongolia, Thailand and Vietnam.

The specific objectives are the following:

- To evaluate the adequacy of the skills and competencies gained by Asian graduates from their education in Europe in meeting the skill and competency requirements of their employers in agricultural and life-sciences sector in Asia.
- To note the lessons learnt and good practices to be adopted by EM programmes leading to effective alumni work in light of the sustainability strategy.
- To share these results with universities having a special focus on agriculture and life-sciences in Asia or /and involved in Erasmus Mundus courses in Europe, hosting Asian students, and to address the specific needs of the professional sector in agriculture and the life-sciences sector in Asia.

Methodology

To reach the above objectives, a two-dimensional research approach was chosen, combining both quantitative and qualitative methods. In order to improve the validity and reliability of data, various data collection techniques were used, such as a study of the literature, an online survey, interviews and focus-group discussions. Individual techniques are described in detail in this chapter. In addition, this study was complemented by six separate country case studies (Cambodia, China, Indonesia, Mongolia, Thailand and Vietnam) and each study includes its specific methodology, described in detail according to the situation in the respective country.

Data collection

Based on the background literature, our own research was designed in order to return findings that fill in the gaps and complete the missing parts of already compiled studies. This study is based on (i) an online survey with EM alumni, (ii) personal interviews with their employers and (iii) testimonies of selected alumni and their employers during focus group discussions.

The online survey was targetted at EM alumni from Cambodia, China, Indonesia, Mongolia, Thailand and Vietnam who graduated between 2004 and 2013 from selected Erasmus Mundus programmes that provided study in the fields of agriculture and related life-sciences. These countries were selected due to the fact that there was already a representative number of graduates who had been studying in Europe as part of the Erasmus Mundus programme in the area of agriculture and life-sciences and, moreover, these sectors play an important role in the economy of each country.

A common database of graduates / EM participants was created by the partner universities in Asia as well as by the European coordinators of the Erasmus Mundus projects. EM projects were selected based on their orientation to provide scholarships to students coming from the 6 selected countries (Cambodia, China, Indonesia, Mongolia, Thailand and Vietnam) in the areas of agriculture and life-sciences. The list of selected EM programmes is presented in the following figure. The respondents were selected and contacted based on this database, primarily through email, secondly through social and personal networks.

Table 1 List of European coordinators addressed during creation of the graduate database

Name of project	EM Action	Coordinator	Country
LOTUS 1	Action 2	Ghent University	Belgium
Experts 1	Action 2	University of Goettingen	Germany
EMME-East	Action 2	University of Nice Sophia Antipolis	France
MAHEVA	Action 2	Université Montpellier 2	France
LOTUS 2	Action 2	Ghent University	Belgium
Experts 2	Action 2	University of Goettingen	Germany
Mover	Action 2	University of Murcia	Spain
Areas	Action 2	Politecnico di Torino	Italy
LOTUS 3	Action 2	Ghent University	Belgium
Experts 3	Action 2	University of Goettingen	Germany
Techno II	Action 2	Université Paul Sabatier – Toulouse	France
PANACEA	Action 2	University Montpellier 2	France
GATE	Action 2	Johannes Kepler University Linz	Austria
Agris Mundus	Action 1	Monpellier SupAgro	France
IMRD	Action 1	Ghent University	Belgium
Eurasia 1	Action 2	BOKU University, Vienna	Austria
Eurasia 2	Action 2	Czech University of Life Sciences Prague	Czech Republic

Questionnaire design

The questionnaire was composed of three parts, firstly general demographic data about the respondents were collected, secondly more detailed information about the study/training period in Europe was requested, including a self-assessment of the skills and competences acquired in Europe, thirdly, respondents provided information about their current position in the labour market. In total 47 questions were included. See the Annex 1 for the full version of the questionnaire.

The questionnaire was open during the period March – August, 2014 via Lime Survey online software. Lime Survey is an open online platform enabling the creation of mailing lists, the distribution of questionnaires and the collection of data without manual intervention. Errors due to manual data transfer are thus eliminated.

The total number of EM alumni who responded to the online survey was 310; after excluding those who were not within the scope of our research, or whose length of study on EM programmes was shorter than 3 months, the final total reached 226.

Selection of employer

The second leg of the study also combined two means of research. Qualitative interviews with employers and/or human resources managers from both private and public institutions were conducted in order to assess the expectations and requirements demanded on the labour. A complementary focus-group discussion was organized with selected respondents.

Interview proceedings: Contacts for the particular institutions that employed EM graduates were obtained through the online questionnaire / EM alumni survey. A complementary array of interviews were conducted with the key employers and informants in the government, UN agencies, international and local NGOs and in selected business enterprises. The complementary respondents were chosen on the condition of being engaged in agriculture-, life-sciences- and rural development-related fields and on recommendation from local institutions. A snowball sampling technique was used throughout the research and sample size was increased based on recommendations.

The principle fieldwork was carried out by selected consultants who were fluent in the local languages. Interviews proceeded according to a semi-structured interview guideline. See Annex 2 for the full version of the interview guideline. Seven topics relating to the development of the agriculture sector, the recruitment process and the labour market were discussed. The length of the interview ranged between 45 and 90

minutes. Respondents were interviewed face to face. A resumé of the written notes was then sent back to the interviewees for additional feedback and the clarification of misunderstandings.

Workshops

Following the online survey with alumni and interviews with employers, **six national workshops** were organised in Cambodia, China, Indonesia, Mongolia, Thailand and Vietnam to discuss face to face comparative skills and competences with selected representatives of alumni and employers.

- **The national workshop in Thailand** was held on 22nd August 2014 at the Prince of Songkla University, Hat Yai, Thailand. In total 35 representatives of alumni, employers, consultants, European and Asian universities participated in the workshop. The main outputs of the online survey with alumni and the interviews with the employers were discussed.
- **The national workshop in Mongolia** was organized on 15th October 2015 at the Mongolian University of Life Sciences (MULS), Ulaanbaatar, Mongolia. At the workshop 27 representatives of alumni, employers, consultants, European and Asian universities participated in total.
- **The national workshop in China** was organized on 11th October 2014 at the Nanjing Agricultural University, China. After surveying both Chinese alumni of EU Erasmus Mundus programmes and their Chinese employers, in total 17 representatives of EM alumni, their employers, European and Asian universities participated in a workshop to discuss the relevant outcomes and draw conclusions so as to further improve and increase EU-China student and staff mobility.
- **The national workshop in Indonesia** was organized on 30th October 2014 at the University of Tadulako (UNTAD), in the context of Agriculture Career Fair Day at UNTAD. Around 150 bachelor students, 6 EM alumni, 3 alumni from other European Scholarships, staff from UNTAD (Indonesia), representatives of Indonesian companies interested in recruitment of the students and grantees, consultants, European and Asian university representatives participated in the workshop.
- **The national workshop in Vietnam** was organized on 12th November 2014 by the Hue University in Vietnam. In total 19 representatives of alumni, employers, European and Asian universities participated in the workshop and discussed the results of the survey with alumni and employers.
- **The national workshop in Cambodia** was organized on 14th November 2014 in Siem Reap, Cambodia together with a “Workshop on Academic Recognition and Credit Transfer” organized by Erasmus Mundus Action 2 coordinators. In total 21 representatives of EM alumni, employers, European and Asian

universities participated in the workshop and discussed the results of the survey with alumni and employers.

Based on the results of the online survey with EM alumni, interviews with employers and focus group discussions organized during the six national workshops, **country reports were prepared.**

A Regional workshop on the “**Employability of Erasmus Mundus graduates**” was organized from 2nd till 4th February 2015 by the Prince of Songkla University, Thailand. The main objectives of the regional workshop were (i) to discuss the draft country reports which included the results of the survey of alumni and employers, along with the focus group discussions conducted at the national workshops; (ii) to prepare conclusions and recommendations for the joint report; and (iii) to allocate tasks and times for the final version of the joint study to be prepared. All project partners’ representatives (25 persons in total, including selected consultants) participated in this workshop and experiences from the six national workshops were shared and discussed.

Lessons Learnt

Across the six countries where surveys and interviews were conducted, the messages sent by the alumni were remarkably consistent with each other. Most of the graduates valued the impact of the mobility to Europe and could recognise a very positive effect on their employment capacities. That said, this positive impact was certainly limited by a number of constraints which it would be necessary to organise action on. Along with the employers, they identified a number of attributes in graduates who followed a programme in Europe differing from what was seen as useful by both employers and the graduates themselves. Universities in Europe will face challenges, going by these results.

Studying in Europe: positive impact?

A positive perception, but little real knowledge of the European supply of training

As a general rule, the experience of studying abroad (particularly as an Erasmus Mundus grantee) is highly valued by Asian employers and graduates. Overseas experience is perceived as developing the important attributes of a globally competent employee, which recruiters recognise.

Compared to their fellows who graduated from programs taught 100% in the home country, EM graduates are:

- More likely to spend a shorter time in job search.
- Have better career advancement opportunities.
- Have better employment opportunities in higher paid jobs.

International mobility has great potential to improve particular skills in the candidates such as communication skills, presentation skills, team working skills, the ability to work with people from different cultures and, of course, language skills.

Positive appreciation of training abroad is affirmed by the policy that Asian universities develop with regard to the staff they send on mobility. Maintaining the link with the staff during their studies abroad, and making sure that these staff come back (avoiding a “brain drain”) and worse, will not look for other positions when they do get back is a major concern for the sending universities.

Very clearly, the higher the status of the sending university, the lower the risk of losing their staff. Indeed, they generally always offer a job to returning staff, and this usually works: in more than 50% of cases in the

public sector, employment is arranged before returning from a mobility. The success of the alumni in getting a desirable job and continuing to be employed in their previous workplace shows that experience in European universities is seen as highly valuable.

However, the risk of a “brain drain” or seeing graduates finally choose to work outside their university of origin is still a major concern in smaller – academically less attractive – universities. It is believed that the more the student remains in touch with his or her professional environment at home during their studies abroad, the lower the risk of this. The existence of research or institutional cooperation programmes linking the home and the host universities in parallel with the academic mobility reduces this risk.

In comparison with other OECD countries' universities

That said, these issues are most often seen as common to all foreign training, rather than being specific to the training in Europe, and are seen as even less specific to Erasmus Mundus programmes.

At the Asian university partners of the programme, Erasmus Mundus is now well known among staff and students, at least as an initiative offering scholarships to Europe, as similar programmes do to Japan, Australia or the United States. But EU universities themselves remain little known, unless a programme of cooperation in research or education exists simultaneously (or has existed in the recent past) and has created networks that are still alive.

Despite the increasing number of Asian graduates of these programmes, Erasmus Mundus remains mostly unknown by employers, Asian governments and many universities beyond the beneficiaries and the sending universities themselves. The specificities of a programme to Europe, compared to programmes to other foreign universities, are rarely noted. There can even be a negative perception of European education compared to that of Anglo-Saxon countries. Whenever it is discussed, it appears that EU University graduates are considered good at research in their academic domains of excellence, whereas graduates from other places abroad may appear to have a broader view and a higher capacity for professional adaptation.

More generally, access to information in local languages and to the enrolment procedures of EU universities are considered complex and complicated and visa procedures long and restrictive, compared to those of other places of study.

Internationalization of EU Universities

The internationalization of European Universities has been pursued intensively for at least the last two decades; however, at a departmental level, the system of education has not much changed in terms of

serving the needs of foreign students, study assistantships, administrative systems, accommodation etc. There is a need to put a greater emphasis on policy dialogue and partnership in the near future. The international perception, as is shown in our study, is that there is a need to reform the system. European Universities have an opportunity to be attractive globally as both study and research destinations. Internationalization beyond Europe has to become a strategic goal of European governments and universities; this could greatly accelerate the “Europeanization of the higher education of the world”. In as much as the current high demand for quality education lasts in the Asia region, more consolidation will be required, but this will have to link to and match the jobs on offer in the region, something which is, to a certain degree, already practised in several European countries. This can be taken as the context for the urgent need to internationalize the universities. The improvement of networking structures is of vital importance, building on effective strategies and creating greater opportunities for the students. In general, more active inter-communication on policy development in the area of higher education on bi-regional and trans-regional bases is required.

Advantages offered by local training

That said, one should acknowledge that a number of Asian universities are increasingly gaining a reputation for providing a quality education and becoming comparable with their overseas counterparts in some fields.

Further, studying at local universities can present a number of professional advantages vis-à-vis going abroad, such as going on an Erasmus Mundus programme. Indeed, EM programmes seem to be more successful in preparing students for academia and research positions but less so in preparing them for agribusiness and technical jobs in agriculture.

Local universities are often seen as more knowledgeable concerning the domestic business environment, labour market dynamics and the local culture. On the other hand, EM programmes mainly focus on theory which is not necessarily relevant or related to local real-world problems. This may be a handicap for jobs offered in small companies which cannot support in-house complementary training of the employees they recruit, who must then become operational immediately. However, universities (as employers), or bigger companies from the private sector, may not consider this critical, since such missing capacities are generally quickly acquired in the first months of professional experience.

Local universities often mention that the existence of research links between them and the foreign universities can help increase the relevance of training abroad to local economic contexts.

Valued competences

Both employers and graduates generally agree that training abroad in Europe leads to certain capacities that are more rarely encountered when students study at their home universities only.

The capacity to adapt and the capacity to learn

Results of the surveys show that graduates most often work *de facto* in various sectors *outside of their domain of study*. Even if, in the local universities, they were offered positions in the same disciplinary area as the topic on which they did their MSc. Thesis, or even their PhD, most often they will have to teach topics that are far from what they were directly trained in. In the private sector, the distance is even broader, and a graduate will rarely work directly in the domain in which he or she has been trained.

The consequence of this is that the acquisition of *capacities of adaptation* and the *capacity to learn* are more valued than the *knowledge* acquired in Europe.

Indeed, training in Europe is generally seen as favouring these greater capacities. The methods of teaching abroad give more responsibilities to the students to develop their own learning than local universities encourage. Considerably more personal and/or teamwork is required from the students when they are in Europe, and their active participation in training is a must. A number of the horizontal capacities that we shall detail below, and that are so obviously appreciated, are linked not to the *content* of the teaching in Europe, but much more to the *methods of teaching and learning*.

Beyond the impact on the individual capacities of the graduates, a number of Asian universities show a great interest in having EM graduates develop such a style of pedagogy and methods of teaching within their own walls.

This said, the integration of Asian students into this kind of learning is not an easy task. Many Asian graduates express the anxiety they have experienced faced with the importance given to group work in their European university, to which they often had little exposure before, compared with European students on the same courses. As a result, they tend to form specific Asian sub-groups whenever they can, which in turn does nothing to facilitate their social and cultural integration, or they join a group with other ex-pat nationalities, and then tend to participate very little (sleeping member).

English language skills

The mastery of English as a language of communication and scientific endeavour is seen as a major advantage for those who have studied abroad. This is assumed to open up a higher number of specific opportunities during their professional life. This question of the English language mostly explains why countries where English is the national language, and not only the language of training (US, UK, Australia), are often preferred by the students.

However, an insufficient level of English may also limit excellent candidates applying for mobility to Europe. Greater efforts to adapt the supply of training in Europe to these conditions could enlarge the basis on which the selection is made. This should include:

- Early announcement of the selection so that the home universities can facilitate intensive courses of English for the selected candidates;
- Summer courses in English language in Europe, prior to the start of the academic year (including training for cultural and social integration into the host country).

Technical skills: not a priority

Surprisingly, purely technical capacities acquired in the training in Europe are not held as a major advantage of the EM graduates, despite the fact that EU Universities often see themselves as “excellent” in their domain of expertise. Many employers consider that on the job-training and professional experience, combined with the personal capacity of the graduate to understand and learn quickly easily fulfil their real-world needs. This confirms the importance that needs to be given to the basics of scientific method and scientific thinking rather than to any specific body of knowledge in itself.

Horizontal and soft skills: a must

Whereas technical skills are not considered as constituting any major comparative advantage for the graduates from Europe, a number of capacities often called “horizontal skills” or “soft skills” are, on the contrary, especially prized by both the employers and the graduates themselves. These competences are related to capacities for *management, communication, analytical and critical thinking, creativity and innovation*, and finally *behavioural capacities* such as *leadership* and *self-confidence*, none of which directly correspond to the topic of the training offered in Europe but rather to competences acquired through the experience of studies, and life, during the mobility period.

To the question “why do you choose to employ graduates from Europe in your company/University?”, the academic reputation of the university comes far below horizontal capacities. This is not really surprising from the employers of the private sector, as European Universities are not really known by them. But, more surprisingly, when the employers are themselves Universities which should be more sensitized to the academic excellence and scientific qualities of staff graduated in Europe, horizontal capacities also come first and the reputation of the University in Europe only ranks 4/5.

Asian universities unanimously explain this position by the fact that graduates coming back from Europe will very soon be given responsibilities that require these management and horizontal capacities, and hence these are even more important than pure academic level.

Whatever importance these skills have from the point of view of the employers, the European universities may be in different positions to offer them. In most cases, the academic system ignores them, and no evaluation of the students will be offered in this regard. This obviously corresponds to a lack of assessment, transparency and information being provided to the sending universities. There is a general lack of information in this regard: Asian universities have no real possibility of identifying the position of each EU university with regard to the pedagogical methods and culture that might allow students build these capacities. How are we to communicate better on the pedagogical orientation of the universities and not just on the disciplines of academic excellence?

Practical experience: the skill most demanded

Regrets are often expressed that practical experience is not recognised enough during academic training in Europe, at least by classical Universities. Internships, when they exist, are not supervised enough or just not valued or credited enough in world programmes, at either graduate or post graduate levels. Even more, in many cases internships are not accessible to Third Country students who do not have work permits. *“Our Company sends fresh employees off for training and/or provides in-house training for them which costs money; therefore we value candidates who have proven practical experience”* (an interviewee).

This should lead the EC to devise programmes that would encourage universities to offer tutored practical training such as summer courses, especially for Third Country students who follow a 2-years MSc in Europe.

Relevance of supply to changing professional needs

Facing a global decline of interest by students in agriculture, professionals in the sector along with Asian universities regret that newly emerging, more attractive topics are not more clearly offered by EU Universities. There is a growing demand for trained graduates in topics like:

- Agribusiness
- Agricultural economy, farm management, accounting and finances
- Agriculture extension and advisory services
- Project planning, monitoring and evaluation
- Nutrition and food safety specialists

Reintegration: outputs on the job market

In a large majority of cases when they get back EM alumni from agricultural disciplines work in the public sector in pre-arranged positions. The salaries they are offered are not higher than those of other staff since public salaries grids generally do not take this academic training into account. However, they have a better chance of further career development.

In a number of cases, however, reintegration into the home university or into the public sector is not that easy. The graduates have lost a number of their former networks within the sending university and those with their European university and classmates have just been cut. The position is not easy. It is clear that beyond and after the scholarships, alumni lack continuous support from their former European professors, and likewise lack being integrated into professional networks in their disciplines. There is a risk that, lacking the means to maintain active cooperation, any emerging scientific community between the graduates and their major supports in EU universities will erode little by little...On the other hand, building up professional networks in each major discipline, gathering these networks together regularly in Europe to keep the alumni within scientific proximity of the EU university where they have been along with such things as offering competitive calls for joint research could obviously help to keep this community and those networks alive.

Resumé of the alumni survey and country studies

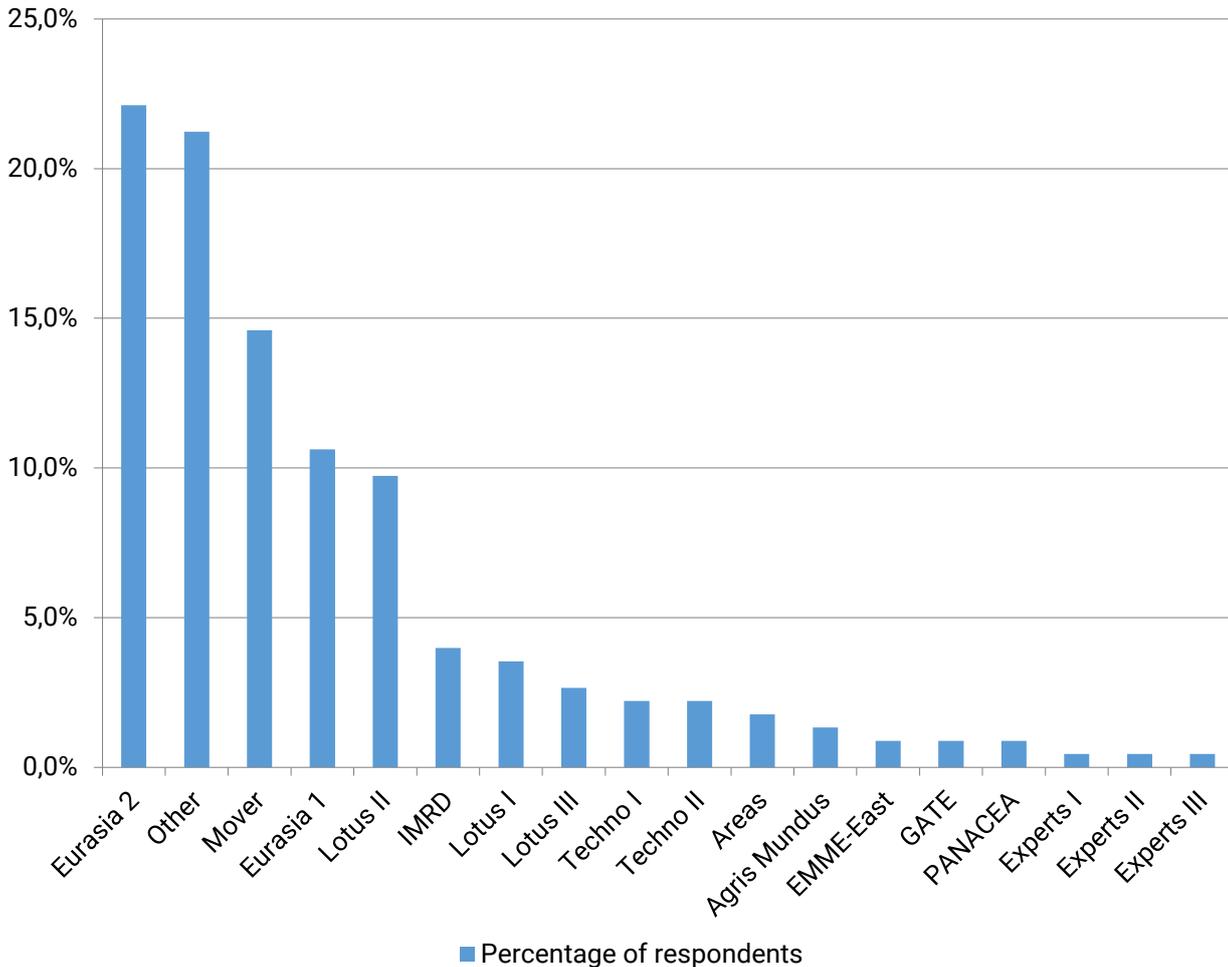
Results of the Erasmus Mundus Alumni survey

This chapter gives an overview of the responses of all graduates/alumni from all Asian countries analysed. The total number of respondents was 226, excluding those who were not within the scope of our study or whose length of study through the EM programme was shorter than 3 months. The number of respondents per country was as follows: Cambodia - 52 respondents, China - 55 respondents, Indonesia - 38 respondents, Mongolia - 16 respondents, Thailand - 31, and Vietnam - 34 respondents. The results include general demographic information about the alumni, their study background, professional experience and skills gained through the programme. The current employment situation of EM alumni in the field of agriculture and related life-sciences is also described. Statistical results are expressed in percentages.

Sampled alumni characteristics

The age of respondents varied in relation to the level of study. The majority of respondents were found to be in the age group 20-25 years, followed by the group at 26 to 30 years. This can be readily associated with the larger number of Master's and Bachelor's programmes and the lower provision of doctoral and post-doctoral positions in the EM programmes analysed. Nearly 70 percent of the respondents came from urban areas, 32 percent of the respondents were of rural or suburban origin - with an equal percentage of respondents for each of these two groups. The gender of alumni was equally distributed within the overall group of respondents.

The majority of respondents (48 percent) declared they participated in Master's level programmes. 27 percent of the respondents participated in Bachelor's programmes, while 14 and 11 percent participated in Doctoral and Post-Doctoral programmes respectively. The length of study was related to the level of study and to the offer of the programmes made by the exchange universities. While doctoral programmes were financed for the full three-year periods (36 months), Master's and most of the Bachelor's study programmes were financed for one semester or two semesters, or for a full two-year period. Accordingly, the most frequent lengths of study were 10 months (28 percent of respondents), 24 months (24 percent) and 6 months (17 percent). The majority of studies were financed through the Eurasia 2 project (22 percent), followed by the Mover project (15 percent) and Eurasia 1 and Lotus II (11 percent, 10 percent respectively). 21 percent of the respondents mentioned other programmes, among which were EMMA, EMECW, EU-NICE, One More Step (figure 1).

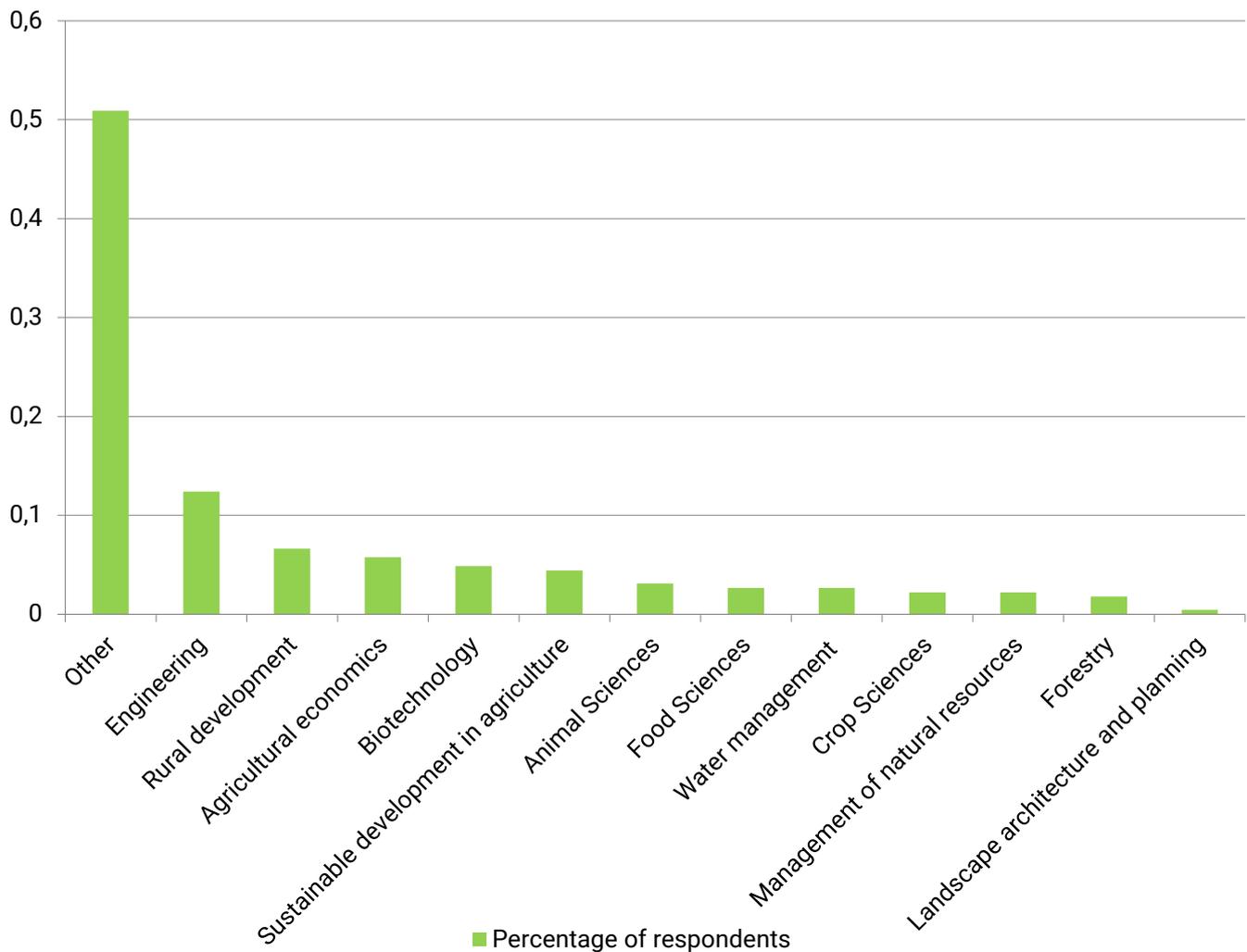
Figure 1 Distribution of EM projects

The largest number of alumni studied in France, followed by Belgium and Germany. In third place were Italy, the Czech Republic and Poland. The reasons for choosing a country were mainly: interest in a particular university, the opportunity to get to know the country (culture, history etc.), and the offers promoted by the home university. The distribution across the EU countries was also related to the offers of study programmes at the selected universities. This was the most influential factor for choosing a particular university and thus the country. We can assume that choosing a particular country and university also depends on an existing cooperation between Asian and European universities.

Of the fields of study suggested by the questionnaire, just half of the respondents chose one of the offered fields. The other half did not find their field of study and chose the option 'other'. The high percentage of "other" fields of study was caused by the fact that all fields of study at Life Science universities within the framework of EM programmes were included in this category of research, while in the individual country studies, which are attached to this report, respondents studying in non-agricultural fields (though at Life Science universities) were not included in this research.

Thus among the agricultural fields of study Engineering, Rural Development and Agricultural Economics were the most frequently chosen, as well as Environmental Studies (environmental economics, engineering, management, policy, and protection), while among the other non-agricultural fields were mostly Business Studies, International Economics and International Relations.

Figure 2 Study fields in Europe



Students had various reasons for studying in Europe. They mentioned that the academic level of the universities was the most important criterion. They were attracted by the chance to experience life and studies in Europe and used the opportunity to get a scholarship. The least important reason, mentioned by just four respondents, was the availability of multiple degrees. The results show that the main reason for choosing a particular university was the offer of study programmes at the selected university. This was mentioned by 50 percent of respondents. Other reasons (such as the offers proposed by their home university, the ranking of universities, recommendations, research activities etc.) do not seem to have been

as significant and were quite equally rated. Students chose a country for their studies mainly for a particular university and out of interest in the country (culture, history etc...). The reason for choosing a country was also significantly connected with the offers provided by the home universities. Generally, alumni did not have serious problems with integration in the host country in Europe, perceiving their acceptance mostly as good or perfect.

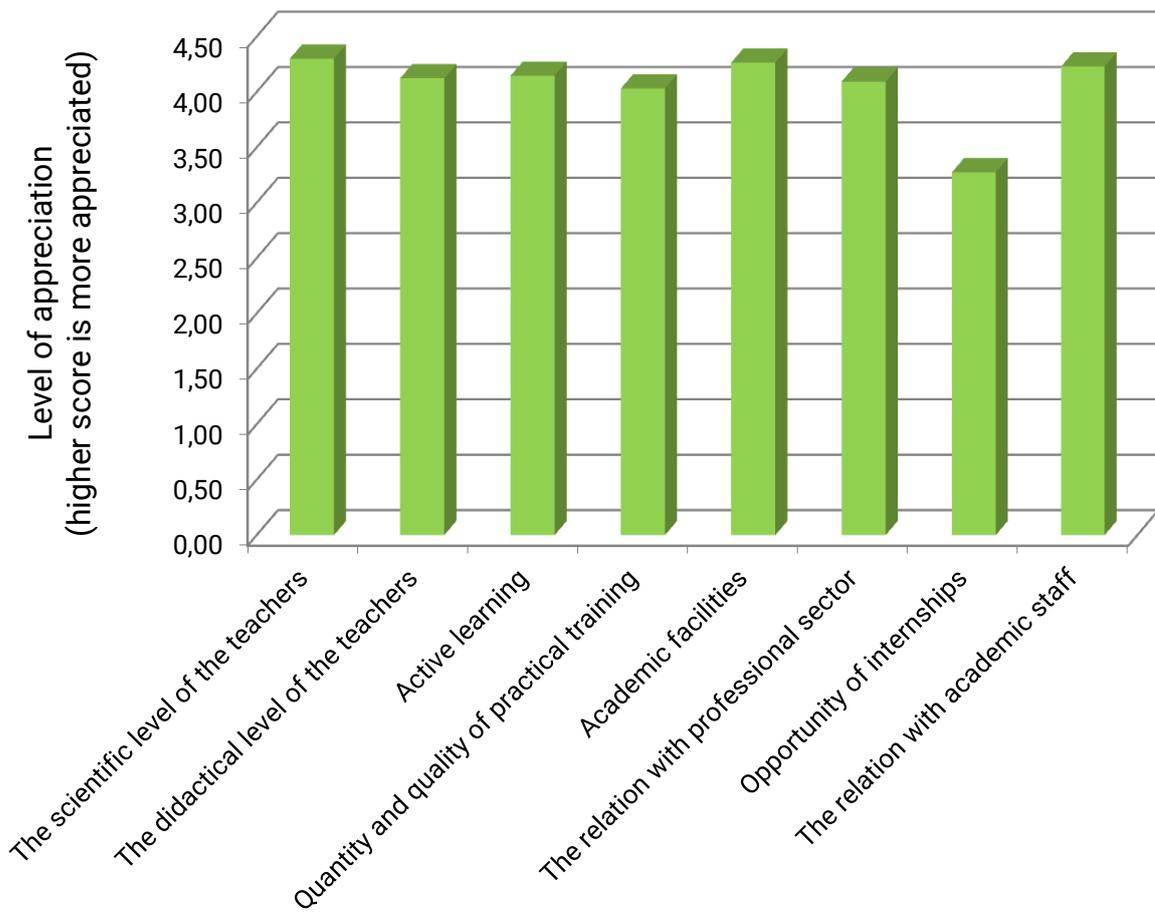
Knowledge and professional skills of graduates

Some students in the group analysed had study, work or research experience abroad before participating in the EM programme. 32 percent stated that they had some experience, mostly short term experience, lasting no longer than one year (in most cases lasting up to 6 months). They had various experiences, mainly in other Asian countries, the USA, European countries and Australia. More than half of the alumni (66 percent) gained some professional experience during their studies, most of them via training/internships (38 percent), others via student jobs (20 percent) or volunteer work (8 per cent). The majority of internships were mandatory internships, required by the universities. The majority of the alumni returned back to their home countries after the end of the EM scholarships. 16 respondents stayed in Europe after their EM mobility, half of this group applied for another scholarship, half found a job in Europe.

Alumni were asked to assess how their skills and competences developed during their studies in Europe. The results show that all the skills or competences that were evaluated developed to some extent. None of the skills and competences evaluated was considered as remaining the same or worsening. The stay in Europe significantly improved independence, the capacity to adapt to new situations and to learn, and the self-confidence of the respondents. Computer skills showed the least improvement. As for languages, English was the language considered to have improved the most (by 94 percent), followed by French (40 percent).

The European way of teaching and learning was evaluated positively by the respondents, with balanced results and a moderate appreciation of the scientific level of the teachers. Students mostly missed not having opportunities for internships offered by universities. The results are shown in figure 3, with scale starting at zero, and five being the highest score.

Figure 3 Alumni appreciation of European teaching and learning



Employment

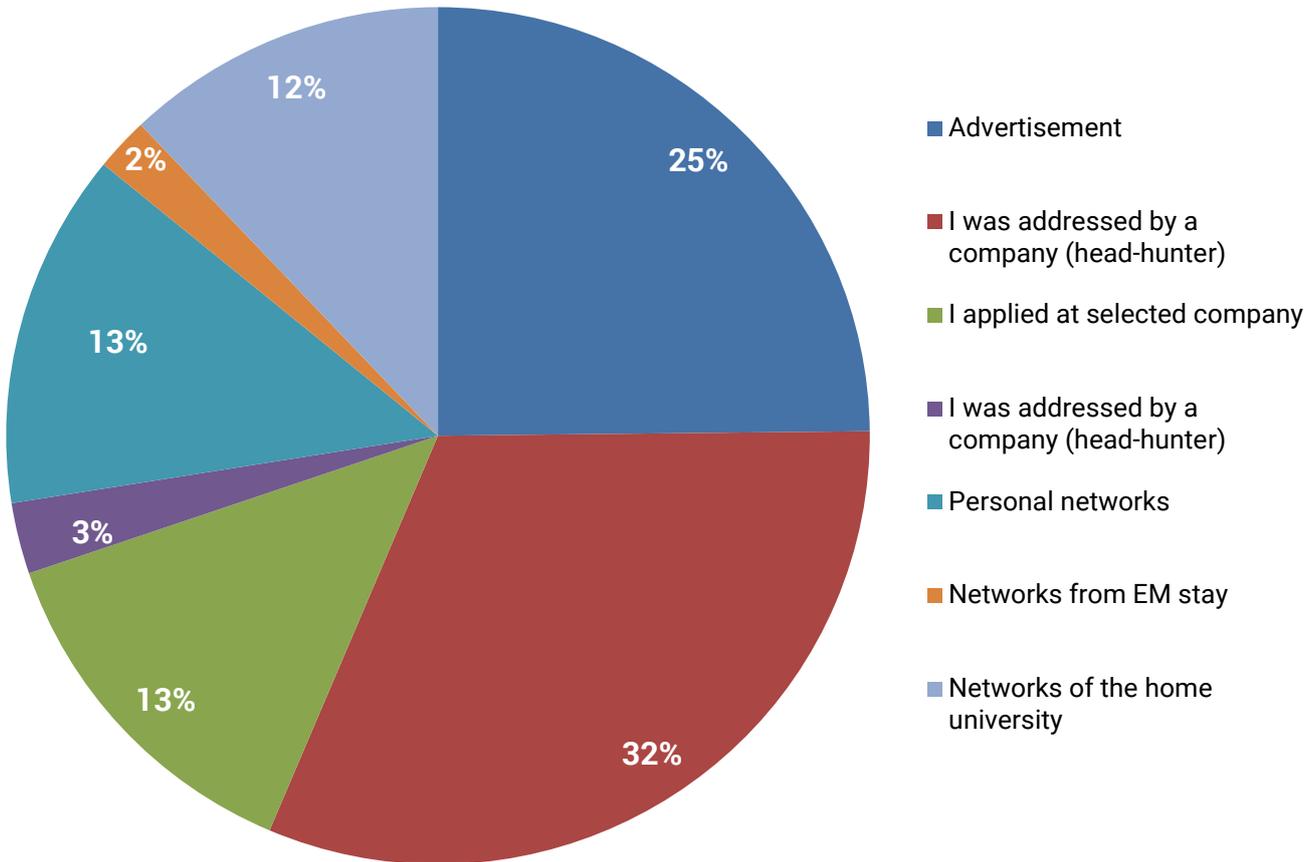
Nearly half of the alumni (46 percent) had worked before leaving for the EM mobility. Of this group more than half maintained their position until their return from the EM programme. It can be assumed that employers support their employees to gain experience abroad and to upgrade their education, especially those working in the public sector.

At the time of conducting this study 67 percent of the respondents were working. Those who were not working were looking for a job for a period shorter than 3 months. For 60 percent of the working respondents this was their first position after they returned from the EM mobility. Nearly half of them had already arranged the job before their return.

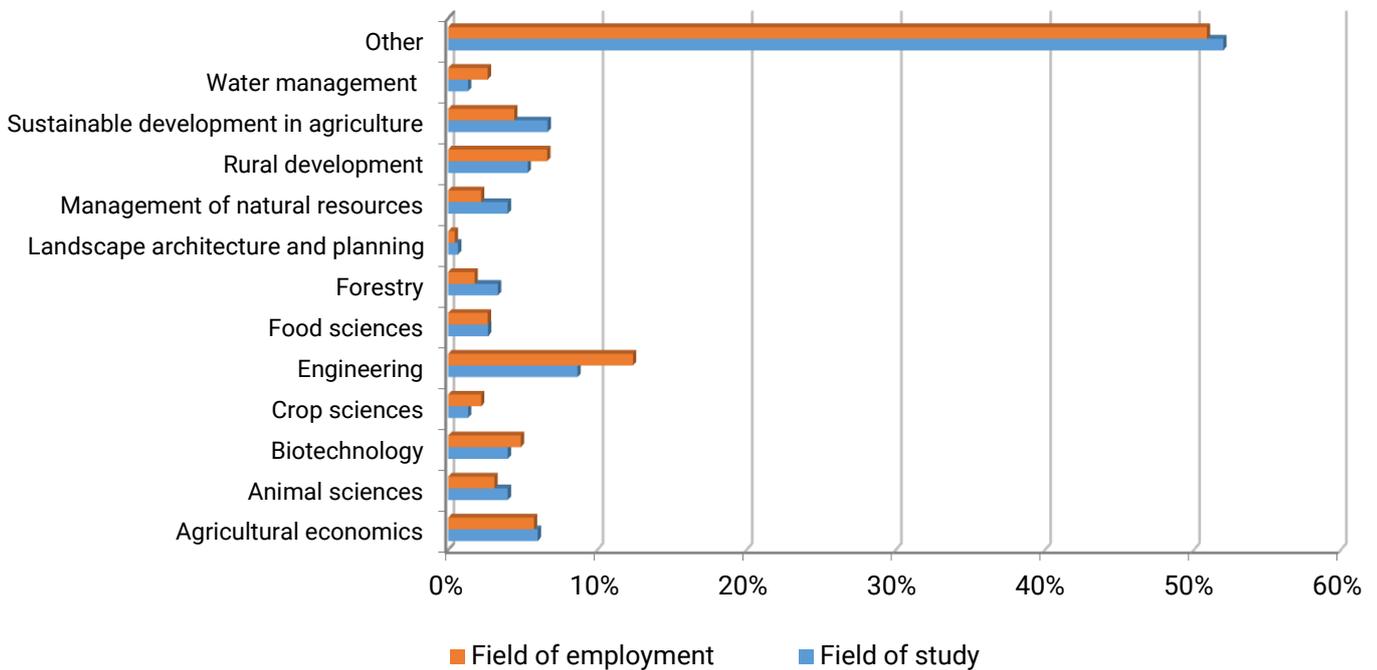
Almost half of the respondents who were employed while carrying out this analysis had already arranged a job before returning back home. Thus they did not have to look for a job upon arrival. The biggest share, almost one third (32 percent) of alumni who were employed at the time of the survey stated they were approached by a company and found a job this way. A second group responded to advertisements and

went through a typical recruitment process. Except for those with jobs already arranged, the others needed in most cases up to 3 months to find a job.

Figure 4 How did the alumni find a job



Results show that the majority of the alumni (68 percent) were employed in the public sector, mostly universities, ministerial bodies and research institutes. There, they had been supported to improve their education and gain experience abroad. This assumption is supported by results from the survey asking about current job positions. Alumni were mainly working as academically qualified employees. Nearly a quarter of the respondents work in the private sector, and a small minority in NGOs. As was already mentioned, alumni worked mainly as academically qualified employees with a prevalence of positions without any management function. There was also a considerable number of research assistants. The other positions amounted to just a few percentage points per category. The specialist fields of employment were very diverse and there was no strong prevalence of any field. When comparing the field where alumni found their jobs, it strongly corresponded with the fields they had studied in Europe (see figure 5).

Figure 5 Fields of study and current employment of alumni

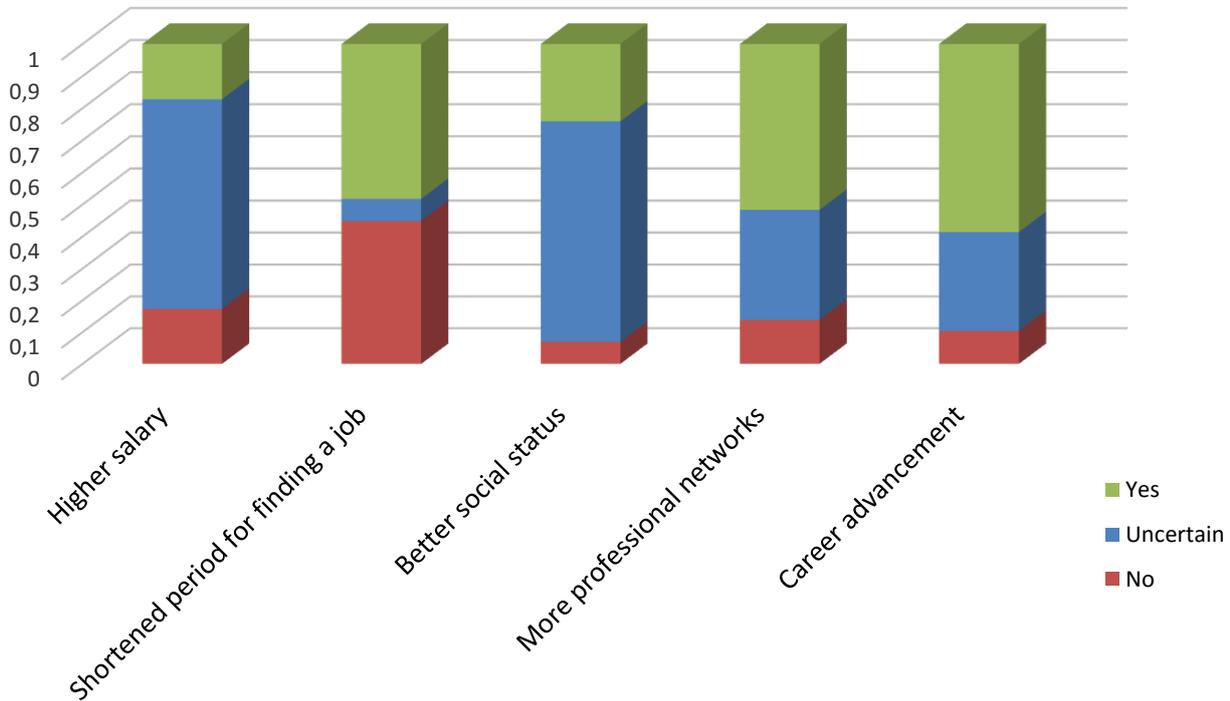
Alumni had various working positions and each of them required specific sets of skills and competences. Based on the evaluation of skills made by alumni, respondents ranked responsibility as the most required competence in their work. Other skills and competences, such as the ability to solve problems, analytical capacity and synthesis, capacity to learn and work in a team were also perceived by alumni as very important for successful employment. On the other hand, computer skills and interaction with other people and cultures were not perceived by alumni as crucial skills in the professional environment of the Asian job market.

The perception by alumni of their position on the labour market

The alumni were asked to compare the advantage(s) of having studied in Europe to those of other graduates who stayed in their home universities. The results are shown in figure 6. They had three possible answers, depending on how they perceived their advantages compared to other graduates.

The majority of respondents believed that their European mobility helped them in the advancement of their careers, in establishing professional networks and improving their social status. They were not strongly convinced about any advantage in finding a job in a shorter period of time, and they think that they were not offered a higher salary than other graduates.

Figure 6 Advantages of EM alumni



In general, the alumni agree that the EM mobility programme helped them to find a job and to develop their career. They mostly confirmed that there was a demand for jobs with their specializations in their country. Their stay was beneficial in gathering professional contacts with academic staff. On the other hand, they were not very successful in making contacts within the private sector, NGOs nor with local authorities.

Many of them were working in the field they studied and appreciated the chance to apply the knowledge, skills and experience gained through their studies in Europe. Their EM mobility experience was valued by their employers. They felt encouraged to learn new things and upgrade their competences and knowledge so as to develop their career.

Various reasons were perceived by alumni as influential in their employability, depending on the type of job involved. They mentioned diverse skills and competences - as listed above - being required for their specific positions. In general, it can be concluded that their experience from the EM mobility was very important in this regard. Many of them believe that language skills, knowledge gained thanks to the EM programme, research capacities, independence, communication, ability in problem solving and self-confidence are the most important factors influencing their employability.

Resumé of country studies

Cambodia

Main findings showed that EM alumni expressed satisfaction with their position on the labour market after the mobility programme was terminated. The reasons for successful employment varied among respondents. It was often reported as being thanks to their competence, qualifications in their specific field, research skills and their knowledge of a foreign language (particularly English) that were enhanced or built up during the mobility programme. By some it was considered that the degree obtained in Europe in it self was a guarantee of a successful career. Particularly the soft skills such as the ability to work in a team, self-confidence, independence at work, innovative thinking, flexibility in performing different tasks and social communication were seen as key elements in their employability.

Feeling grateful for the opportunity of studying abroad, alumni showed a tendency to convert the knowledge and experience they had gained and contribute to their country's development, despite low salaries, particularly in the public sector. Being exposed to a different environment could cause change in their approach to social communication, which was not always perceived positively by employers in Cambodia. In addition to orientation and preparatory courses prior to arrival in the hosting country, re-adaptation courses before returning to their homeland would help facilitate their reintegration into their home society.

Results showed that graduates with European study or research experience are very competitive and their skills and competences are highly valued by the employers on the Cambodian labour market. However, the established recruitment process for public sector, especially for higher education institution which open for general BSc, MSc, PhD, looking at only general background rather than academic performance and output-based, with early age restriction. This practice could cost of losing opportunity for high quality human resources to become permanent government officer building the capacities of public institutions.

Results showed that even experienced EM alumni could advance in academic and policy research skills so as to be able to conceptualize, theorize and discuss issues academically sufficiently to become politically relevant. Their research and analytical skills usually improved during the mobility abroad unlike among graduates of Cambodian institutions who were found to be insufficient in analysis, synthesis and creativity. With the internationalisation of the labour market, a knowledge of English in both oral and written forms is required. This is often an obstacle for local graduates whose language skills are limited compared to alumni with experience from abroad.

There is a high demand for human resources in specific fields of agriculture and rural development in Cambodia, provided for by only a small amount of highly skilled competitive labour. A contrary shift in

graduates' study preferences has been noted in Cambodia. Hence it is crucial to attractively promote life-sciences and agriculture not only at the production stage but along the whole value chain. It has been shown that in some areas of expertise there is still a mismatch between market demand and supply. It is hard to fill positions requiring technically trained students. There was a demand for applicants trained in farm management and agricultural economics; hard to fill positions were found in extension services, monitoring and evaluation and sustainable agriculture activities. With a high prevalence of malnourished people in Cambodia, food security and nutrition should be advanced. A comprehensive system of vocational training and linkage among technicians, producers, traders and exporters should be built up.

There is a need to develop high quality and capable human resources to improve competitiveness during Cambodia's drive for socio-economic development and to ensure the continuity of any development. With a large supply of young, dynamic workers, Cambodia faces the challenge of using its full potential to transform the new generation into a productive labour force by, among other things, providing good quality education that will correspond to the demands of the market.

China

Agriculture is an important pillar of the Chinese economy as it accounts for 10% of China's GDP with an annual growth rate of 8 percent, and contributes to more than half of total national employment. However, the agricultural growth that China has achieved cannot yield sufficient jobs to meet the demand of the growing number of job seekers. The job market in agriculture and related life-sciences is becoming fiercely competitive.

The main findings from the online questionnaire show that EM alumni have distinguished themselves in the labour market by their ability to be independent, their adaptability to new environments, and their communication and language skills. They believe that, compared to locally educated graduates, they can better advance their careers, typically with a shorter period for finding jobs.

From the viewpoint of employers, although two thirds of them prefer to hire employees with international experience, what they value most is practical experience. The employers confirm that the EM programme has had positive impacts on the graduates, i.e., EM graduates are likely to spend shorter times looking for a job, obtain further career advancement and get highly paid jobs. Yet they also found that graduates were not well equipped to meet the needs of the job market.

Findings from the focus group discussion indicated that EM graduates are perceived to have developed a more global prospective, better critical thinking skills and the capacity to learn and adopt new solutions. Meanwhile, the EM alumni in the workshop recognised the contribution of their overseas study experience on the job market and in international networking.

Despite the benefits of the EM programme, there is more that EM could do to improve its effectiveness. Firstly, Chinese EM students should be provided with increased work practice programmes within EU countries and more career training to bridge the gap between academic programmes and work requirements. Secondly, offices could be established to promote EM programmes among key agricultural universities in China and attract more Chinese students. Thirdly, information concerning the Chinese agricultural labour market should be collected to help Chinese EM students be better prepared to fit job requirements.

Indonesia

In recent years the Indonesian job market also benefitted from returning Erasmus Mundus graduates from various European countries. In recent decades Indonesia has undergone many economic and educational reforms. Strategic plans have focussed on the achievement of food security, the reduction of poverty, the provision of employment and the sustainable utilisation of natural resources. The mainstays of educational reform are an increase in access to education, improvements in the quality of education and better governance of the sector. Even though many reforms and development projects have been carried out, there are still some challenges to be faced, such as replacing insufficient infrastructure and reducing corruption. The World Bank (2014) noted Indonesia's focus on supporting the Ministry of National Education's Strategic Plan, which includes the development of tertiary education. The strategic plan for 2005-2009 was built on 3 main pillars: increased access to education, improved quality of education (e.g. teacher quality guidelines) and better governance of the sector. According to the WB (2013), the agricultural sector generates 14.4% of GDP. The agricultural labour force is 35.1% of the total employment base (WB, 2012), excluding the informal sector. Unemployment rates are decreasing, but according to the World Bank (2013) youth unemployment (between 15 and 24 years old) rates are above the average level of the country.

Nowadays, many Indonesian companies tend to be multidisciplinary and cooperate internationally. Employers interviewed mentioned changes in agricultural land management and technological development, the expansion of biotechnology and energy resources. They therefore seek more multidisciplinary employees with international experience. Export oriented companies are demanding staff with global experience, with good communication skills as well as English language skills. Employers in the private sector look for graduates with a knowledge of basic agronomy who are able to work in teams as well as work independently; practical experience or technical know-how is not seen as critical because these companies usually train their employees in their own training centres, despite the fact that the graduates would appreciate any increased opportunity to participate in internships or practical training in Europe to increase their employability. Employers value much more the experience of exchange as such, because these graduates are responsible and are able to use foreign languages on a daily basis. The above-listed skills and competences are, based on the study results, met by EM graduates. Being an EM graduate gives one the opportunity to have a better career and higher social status.

Some employers commented on improvements in how graduates view business and in their business style of thinking. Advantages of local graduates accrue - according to employers - in their domestic networks and abilities to use local or tribal languages. Overall the employers who work with EM graduates have found creative and loyal employees with initiative, who are able to use foreign languages, offer new ideas and interact internationally through their networks. Networks created during the EM programme in Europe are

especially useful in the university sector. University employers value it if their employees have been inspired by European teaching techniques, such as participatory teaching or putting more focus on team work. During the common discussion with the graduates it was suggested that it would be good to organize preparatory courses before the exchange in the selected country starts. The graduates would appreciate learning some basics of the local languages to be able to participate later in any internships which may require it and then some basics of cultural and social customs to prevent misunderstandings. Creating a buddy system can help with integration into the host society and an alumni association could also be used by employers when seeking employees with special skills.

Mongolia

The development of any country depends on the accumulation of knowledgeable, skilful, and capable human resources. As a national economy becomes more knowledge-based, employment is characterized by an increasing demand for more highly-skilled workers. Obtaining experience through studying abroad is one way to build up these resources and achieve successful employment of them.

In Mongolia, most of the employers do not strongly differentiate between alumni who graduated abroad or at home. However, they agree that studying abroad has a big impact on the graduates' capabilities, and consequently on their employability. The results show that education, knowledge of languages and practical experience - particularly abroad - are the most important factors for recruitment. Candidates having good English communication skills are really advantaged in getting a better job and in their career progression. However, practical experience and the capacity to apply knowledge in practice seem to be the factors often missing in candidates' backgrounds.

Employers mostly see EM alumni as advantaged, compared to the local graduates. Alumni with European experience are found to be more active, motivated to work and knowledgeable in technical subjects. Moreover, their capacity to do analysis and synthesis improved as well as their knowledge of English language. Opportunities for a promising career exist for alumni. However, this depends on each individual's capacity: a candidate should distinguish himself/herself in terms of their own ability, initiative and job performance to show the advantages of their having had a European education. In the discussion with employers, time management, research skills, responsibility, the capacity for analysis and synthesis, and the capacity to apply knowledge in practice were considered the most important abilities required by the employers. These findings indicate that soft and critical thinking skills are valued assets for job seekers on the professional market.

EM alumni feel that participation in the programme helped them to develop their competences and become competitive in the domestic labour market. A majority of the currently working alumni found a job in the public sector and thus they contribute to capacity building in public institutions. Research showed that responsibility is the most important competence required in a range of positions. Contrarily, the ability to interact with different people and cultures is less valued in the professional environment.

Today, as the agricultural sector of Mongolia is developing towards becoming more integrated and intensified, new job opportunities and new positions are opening up, requiring outstanding specialists in the job market with competitive scientific knowledge, professional skills, foreign language ability, and the capability to develop agriculture into competitive agri-businesses via innovation in all aspects of

sustainable development. To conclude, though obtaining an education in the home country is beneficial, EM alumni are more advantaged thanks to the capabilities that they acquire via the European experience, which, it can be seen, consequently results in them acquiring higher social status. Being an EM alumni is a good starting point for a career.

Thailand

In recent years, the Thai job market has also benefitted from Erasmus Mundus (EM) graduates returning from various European countries. This study aims to analyse how they performed on the local job market and whether they met the expectations of the employers. To conduct this study, we conducted (1) a quantitative online questionnaire among Indonesian EM graduates, (2) qualitative personal interviews with selected employers of EM graduates and (3) a common discussion of the resulting issues.

In recent decades, Thailand has gone through many reforms and has had to face economic crises, natural disasters and riots, all of which influenced the stability of the country. In 1997-1998 it was touched by the Asian Financial Crisis and, according to the Library of Congress (2007), the country stabilized only in 2002. Later, in 2008, the Global Economic Crisis started. GDP (real growth) was influenced by the above mentioned factors and the rates were highly volatile. The agricultural sector of the country creates 12% of GDP (WB, 2013) employing 39.6% of the labour force (WB, 2012). According to the CIA (2014), Thailand benefits from strong export industries and agricultural exports. The Overseas Development Institute (2011) mentions that Thailand is a prime example of successful agriculture development in an industrializing country. The structure of agricultural regions vary, leading to different demands for labour. The southern parts of the country are partly focused on agro-industry, while the northern ones are more focused on rice production. Unemployment rates in Thailand are among the lowest in the world; according to the WB (2013) the unemployment rate reached 0.7%. Enrolment rates in higher education in agriculture and related life-science fields in Thailand are 2.4% of the total number of students. According to the ICDE (2015) one of the main challenges facing the students is the low level of their English language.

According to our results, employers were above all pleased by the level of English of EM graduates in comparison with local graduates. The graduates themselves also saw English as a crucial skill which positively influences their employability. Both employers and EM graduates agreed on the importance of a sense of responsibility. Preferences in skills differ by sector of employment; the private sector employers are rather more interested in computer skills, self-confidence and the ability to interact with other cultures. Public sector employers have much higher demands; the most desired skills are the ability to “make your way through”, creativity, and the ability to apply knowledge in practice. Among the skills which are overall in high demand, but apparently not much improved during EM, were time management, the capacity for analysis and synthesis and team work.

Graduates were not satisfied with the lack of opportunities to do an internship. PhD graduates complained about the lack of time and called for an extension of the duration of their scholarships; others mentioned

problems with the local language. Even though some of the graduates had done internships elsewhere, employers declared themselves not to be satisfied with their application of knowledge in practice and recommended implementing some practice-oriented study programmes. A mismatch in the supply of graduates and their quality was mentioned several times by the employers.

Employers also thought that graduates were lacking business entrepreneurial skills, economic perspective and social responsibility. These abilities are now highly sought-after, as the development of the agricultural sector is tending to be more and more multidisciplinary. The development of science and technology and the combination of related fields is leading to greater economic development, according to the employers. Fields which are now growing include agribusiness, agro-tourism and agro-industry in general, consequently adding value to local production is now seen as a prerequisite for sustainability.

To conclude, even though local graduates have their own advantages (e.g. in local networks or familiarity with the working environment), EM graduates benefit from a shorter period of job search, having better chances for career advancement and consequently possible better social status. Employers especially value, apart from English language skills, EM graduates' world view, open-minded way of thinking, creativity and ability to come up with new ideas. Networks built during an EM stay can bring new contacts and ideas useful to companies. According to employers career advancement is not an effect of being an EM grantee, but reflects personal characteristics, such as the ability to accept criticism and the ability to adapt to the work environment. The EM graduates think that EM does not ensure a better work life, but may facilitate a good starting position on the job market.

Vietnam

Since economic reforms and land policy were implemented, the Vietnamese economy has been striving to become industrialized. The country's transformation to a market-oriented economy has brought many opportunities for skilled labour, particularly by opening the market to private business. On the other hand, recent population growth has placed enormous pressure on the Vietnamese labour market. The unemployment rate among young people aged 15-24 has increased to 34.9%, with significant regional differences particularly for skilled agricultural labour. More positions are appearing in North and Central Vietnam and most of the competent labour is available there, as opposed to the south, where opportunities for skilled agricultural workers are lacking.

The number of foreign investors contributing to the development of various sectors of the national economy has increased. As the Vietnamese economy has been expanding in recent years, the amount of government funding has decreased and co-financing projects is required. One of the sectors in the focus of local government and international investors is higher education. Education and training play an important role in satisfying demand on the labour market. But, with an increasing quantity of students enrolled in domestic courses, quality is no longer guaranteed. Higher education has been highly internationalized by providing numerous mobility opportunities around the world. Erasmus Mundus, as one of the widely recognized programmes, has financed many Vietnamese students and staff in agriculture and related life-sciences, building up their capacities in European institutions.

The main findings showed that the EM programme helped to enhance the capacities of Vietnamese alumni, who become very competitive and were able to stand out on the domestic labour market. Being exposed to different and often dynamic structures in Europe can bring new ideas and more efficient approaches to institutional settings in Vietnam and thus increase productivity. However, with an increasing number of scholarships offered to Vietnamese students around the world, competition is increasing. The general image of European higher education needs to be raised so that the quality of EU education is valued equally to that in USA or Australia.

With a range of job opportunities opening in the private sector, often providing its employees with higher salary and incentives, the public sector is facing difficulties keeping competent employees. Moreover, alumni working at universities and research institutions often lose motivation upon returning to Vietnam due to the lack of the necessary facilities and laboratory equipment. Hence they cannot continue research in their field of interest. The need persists for support in material and academic resources and utilities. Some employers, particularly in the public sector, believed that local graduates still have their own advantages in better understanding the local situation and working conditions. Students who travel abroad

miss the opportunity of creating local networks which those who stay in Vietnam do, giving them a clear advantage once they enter the labour market. Thus the focus should be put, not only on preparatory courses prior to EU arrival, but also on pre-departure activities that would make the reintegration process easier.

One component that was found insufficient was the opportunity for internships during the EM programme. Based on evidence from the alumni survey, the chance to use the full potential of the mobility was limited due to the fact that not enough practical experience in the form of professional internships was offered. Practical work should be included not only in the EM programme but in Vietnamese universities as well, as an obligatory part of the curriculum. Active participatory learning techniques need to be incorporated in the didactic approach that is applied in the home universities to allow students to actively contribute to the educational process.

Conclusions and recommendations

Conclusions

Overall, there are common positive impacts of Erasmus Mundus scholarships on the future careers of the alumni. The main feedback of the EM alumni indicated a high appreciation of soft skills gained over the course of their study such as in interpersonal relationships, intercultural communication skills, leadership skills, working in teams and the ability to adapt to different working conditions. Apart from the scientific knowledge and any degree obtained, alumni definitely improved their language skills which helped them tremendously build up or increase their self-confidence. Another important personal improvement was self-realization of their own potential. The enhancement of personal performance in these key dimensions led to better job opportunities after returning to their countries.

From the feedback given by the alumni, the following points for improvement have been distilled, which points could best be addressed when drafting new calls for future Erasmus Mundus scholarship programmes:

- Sometimes there is a mismatch in the fields of study between home and EU universities.
- Alumni complain of a lack of (= expect more) practical knowledge and professional experience e.g. via internships.
- Often research towards a thesis cannot be continued in the home country due to the regulations of the EACEA (A scholarship cannot be paid during data collection in their home country).
- Re-adaptation and reintegration, after coming back from EU study, to the local system in each country can be stressful and confusing.
- Often the connection to the home institute (e.g. research grant agencies) is lost during the mobility.
- There is a wrong (negative) perception of EU education compared to that of Anglo-Saxon countries (EU education is considered as mainly oriented to research and that it is difficult).
- Difficulties in getting visas to study in European countries still pose constraints for many would-be scholarship holders and/or applicants.

Recommendations

The participating partners extensively and seriously discussed strategies for improvement of the Erasmus Mundus programme in order to respond to the real needs and capacity building requirements of our Asian partners. The recommendations listed below are, however, not restricted to Asia, and are to be considered as general recommendations for the overall improvement of the Erasmus Mundus (Erasmus+) programme.

1. Soft skills

There should be a process to develop horizontal soft skills from the orientation onwards, during the course of study, internship programmes and farewell activities. Both EM alumni and employers indicated that the gaining of soft skills is the biggest advantage of intercontinental mobility.

2. Integration and re-adaptation of students to their home country

EM alumni, as well as their employers, have indicated that the alumni with long-term experience abroad need help with reintegration and re-adaptation to their country both culturally and with regard to professional ethics and expectations. This is evident especially in the public sector, including state universities and research organizations. The mechanisms to assist alumni should include:

- Good supervision, mentoring and research collaboration during the scholarship programme
- Support for research costs, allowing that at least some part can to be done in the home country (also for reintegration reasons)
- Re-adaptation programmes/ Farewell programme
- Mechanisms to keep students informed and connected with their home institution during the study such as co-supervision, joint research projects, etc.
- Retention of students/staff of the university who engaged in cooperation projects. This is an important part of planning that contributes to capacity building in the participating universities.

It would be advisable to include provisions and stipulations in these respects in future EM calls.

3. Tackling the misperception of EU education (compared to Anglo-Saxon systems)

Greater effort towards public relations stressing the quality of EU higher education should be given a high priority so as to tackle the misperception that EU education is inferior in any way to that in the US and the UK. This can be done via different promotional activities, such as are widely (effectively) organised by the

above mentioned Anglo-Saxon countries. The alumni could also help to improve the perception of EU education in Asia, as referred to in point 7 below (alumni networking).

4. *Practical training (Internships abroad, sandwich programmes, joint training programmes between North-South universities)*

Practical experience acquired during a Master's or Ph.D. course linked to industry and the private sector would be most beneficial to all parties. This is because, although Master's and Ph.D. students may be good at research, not every graduate will get a job as a researcher, therefore practical training can be very important. EM alumni and private industry employers have indicated that this is one of the fields where mobility could be more effective, and an opportunity alumni specifically expect to benefit from during their mobility to the EU. The training could be initiated via the development of joint projects between EU and Asian universities to reform the education to involve active training activities and opportunities for internships which could run during the summer break after the end of the programmes, perhaps in Asian companies in the EU.

5. *Preparatory courses for incoming students*

Preparatory courses can be developed for students selected to go to the EU in their home country, including pre-departure preparation in terms of culture and language (English), in addition to an orientation week after arriving in Europe. The same is true after they return home in terms of reintegration. As the first is already often offered by the programme receiving the students in the EU, special focus should be given to the latter.

6. *Promotion of European Higher Education*

Strongly linked to recommendation number 3, marketing is very important for success in attracting students to EU universities. Different promotional activities can be implemented such as tours of EU educational establishments for both the universities and the students to develop their general ideas on EU education. An attractive website that is easy to access is another powerful tool to disseminate information about and impressions of EM programmes and EU universities. The EU should create an Erasmus Mundus educational brand through collective actions, generating a common sense of ownership of the programmes to make graduates feel proud of being a part of the programme. Follow-up and monitoring activities on all the promotional strategies should also be in place in order to improve their success.

7. *Alumni networking*

An active alumni community is an important component in the promotion of EU education. Alumni can direct Asian students interested in intercontinental mobility towards Europe. Therefore, a strong network of

alumni and alumni policy should be created and expanded in Asia. The goal should be to create a feeling of belonging to the “Erasmus Mundus community”. Generally we perceived a lack of ownership among EM alumni. There should be support for alumni to create networking and collaboration opportunities after returning to their home countries. Alumni events should be devised and staged on a continuous basis.

8. *Joint research promotion*

Home country research should be considered for inclusion as part of the training. Due to the fact that the research at EU universities usually takes four years, the Ph.D. scholarship should be extended to four years. Funding for laboratory costs should also be provided.

9. *Visas*

Visa procedures should be easier and the number of required documents should be reduced. The different visa requirements of various EU member states and the difficulty and costly operation needed to obtain a visa (and often also a residence permit) have demotivated more than one strong candidate and even caused some grantees to have to decline a scholarship once offered.

References

Annex I. and Annex II. available online at: <http://askasia.culs-prague.eu/>