

Research Report

January 2024

Erasmus Mundus Joint Master Graduate Impact Survey 2023

Comprehensive report of results

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with the assistance of

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Survey conducted in cooperation with the

Erasmus Mundus Students and Alumni Association



Study commissioned by the

European Education and Culture Executive Agency (EACEA)

on behalf of the European Commission



**Funded by
the European Union**



INSTITUT FÜR HÖHERE STUDIEN
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Vienna

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Title

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Executive Summary

Survey setup and methodology

The Erasmus Mundus Graduate Impact Survey (GIS) 2022/23 was conducted as an online survey among all Erasmus Mundus Master Alumni who graduated in one of three double cohorts 2012/13, 2017/18 and 2021/22. For the first time, not only scholarship holders, but also alumni who did an EM Master without receiving the scholarship have been included in the survey. 3.396 responses have been collected, which were weighted to match the total distribution of gender, region of origin, field of study and cohort of all invitees and increase representativity. The survey contents continued the long-running series of EM Graduate surveys and enhanced it by currently relevant topics, such as the assessed impact of Covid-19 on studies and labour market entry.

Graduates background

Between the oldest and youngest cohort, the mobility background has shifted towards less graduates from European countries, while the number of EM alumni especially from Africa and Latin America increased. This shift is linked to changing mobility rules under the different Erasmus Mundus programme generations. The share of women differs largely by field of study, ranging from 32-41% in STEM fields including Physics, Chemistry, ICT & Engineering and Mathematics, which constitutes a gap to the remaining fields that range from 51% (Environmental and Geosciences) to 67% (Social Sciences and Humanities).

Scholarship

The role of the scholarship has shifted over time: While the share of non-scholarship holders has increased slightly between 2012/13 and 2021/22 (with a temporary peak in the middle cohort), the share of graduates that were able to rely solely on the scholarship during their EM Master has increased from 52% in 2012/13 to 63% in 2021/22. Broken down by region, the scholarship is much more often the main financial source for Alumni from the global south. The Scholarship was more often the only financial source for women than for men. Furthermore, the ratio of solely scholarship-funded and (partly) differently funded studies differs between fields of study.

EM Master: Motives and Satisfaction

The Scholarship is also the most frequently mentioned **motive** by alumni regarding why they decided for an EM Master, reported by 24% of respondents. This also contributes to the particular attractiveness of EM Masters, which is one of three condensed factors behind the motives for choosing an EM Master. Nonetheless, the second factor –international experiences associated with an EM Master – was, overall, even more important in all cohorts. The third factor, the improvement of career prospects and skills, is the least important in comparison to the other two, but still is relevant to many graduates. Regarding publicity, online search remains the most frequent way alumni learned about Erasmus Mundus, but less so for the most recent cohort (46%

for the 2012/13 cohort vs. 41% for 2021/22). Meanwhile, learning about Erasmus Mundus through students or alumni became more common (from 6% to 12%).

Assessment of EM Master Programmes by alumni

The overall satisfaction with the EM programme is relatively high, with an average rating of 4,3 out of 5 among all respondents. However, the comparison of cohorts shows a slow but steady decline from 4,5 in the 2010/11 cohort (data from the previous GIS 2020/21) to 4,2 in the most recent cohort. An analytical review of possible causes showed that their perceived improvement, labour market preparation, and resources and conditions of the EM programme impact the satisfaction of alumni. Also, STEM fields are assessed somewhat better than other fields. Even when accounting for these determinants of satisfaction, the cohort still has a significant effect on programme satisfaction.

Practical Elements as part of the EM experience

The importance of practical experience was already stressed by alumni in previous rounds of the GIS. In the current data, it can be seen that this did not fall on deaf ears: The share of alumni reporting some form of internships, industry/employer exchanges, or programme-internal practical experiences all increased between the oldest and most current cohort. However, satisfaction with each of these forms of practice differs, as does the prevalence of practical elements that were perceived as satisfying among fields of study.

COVID-19 related differences among cohorts

As the COVID-19 pandemic and related measures peaked between 2020 and 2022, the EM Masters semesters of the most recent 2021/22 cohort largely coincided with these events. As the survey outcomes show, this had no particular effect on the proportion of lecturer-instructed learning vs. self-study compared to the other cohorts but was much more visible in the share of in-person vs. online- or distance learning. With regards to the local support that EM alumni from the 2021/22 cohort received, almost all forms of support – aside from the provision of general information – were unavailable (or unknown, at least) to half or more of them.

Perceived individual impact of EM Masters

When asked to report all areas of their EM Master's impact on them personally, intercultural competencies were selected most often by 78% of alumni, followed by career (69%), personality (66%) and attitude towards the EU (62%). When further asked to choose one area among all previously reported as the one that was most impacted, career was selected most often (31%) ahead of the intercultural competencies (24%), then followed by personality (16%) and subject-related expertise (15%).

Further course of life

The ongoing connection with their EM context is, apart from contact with fellow students (which a majority of alumni foster, while other forms are only kept up by a minority of alumni), most

prevalent with former lecturers (33% through 37%), visits to host institutions (between 14% and 20% depending on purpose), or through having stayed in an EM host country. Initially after finishing their EM Master, about half of graduates are living in one of their host countries (not including those who live in a host country where they also lived before their EM Master). This share however decreases the more years pass after graduation, as graduates either return to their country of origin (47% at 11 years later) or move on to yet another country (35%). Those living in an EU country more often report career and living conditions as a reason, while those living outside the EU are more often driven by personal links to their residence country.

Employment and Career

Pathways after graduation

Within the first six months of completing their EM Master's programme, **40% of graduates had a job, 23% continued their studies and 6% combined studying and working.** A further 23% left the university, primarily in search of a job, and 9% were neither looking for a job nor employed. Graduates from younger cohorts tend to be more likely to take up employment directly after graduation (instead of continuing to study). After completing their EM Master program, 77% of physics graduates, more than half in chemistry, and slightly less than half in maths pursue further studies, primarily aiming for a PhD.

Job Search after graduation and current occupation

Recent graduates primarily sought employment within the EU (57%), experiencing shorter job search durations (compared to the 2012/13 cohort), where 30% found jobs in less than 3 months. Conversely, the 2012/13 cohort more frequently conducted initial job searches outside the EU (36%), with 31% reporting job search durations exceeding 6 months. Alumni from the 2020/21 cohort, starting their job search after graduation, were less likely to succeed compared to previous cohorts, with a success rate of 70%, possibly influenced by the challenging labour market entry during the COVID-19 pandemic. Despite these challenges, the overall success rate remains relatively high.

Among graduates who were unsuccessful in finding a job within the first six months after graduation (21% of those who searched), the most common reason cited is the challenging labour market situation in the country of job search (39%). The second most frequently cited reason is problems with visa/work permits, particularly among graduates searching in the EU (44%), while this issue is less common for those searching outside the EU.

Nevertheless, disparities in employment rates tend to diminish notably during the initial years following the completion of the EM Master, evolving into increasingly marginal differences over time. Specifically, among the graduates of the 2012/13 cohort, individuals from these groups were all employed at the time of the survey, approximately 10 to 11 years later.

Overall, one third (30%) of the currently employed graduates assume that they would not have their job without the skills and competencies they acquired at the EM Master and a further 24%

tend to agree. This means that over half of the alumni say that they would not have their current job without the skills acquired during their EM Master

Job losses and COVID-19 pandemic

The COVID-19 pandemic is cited by 17% across all cohorts as a reason for not finding a job six months after graduation. However, among those who lost their job since March 2020, the impact of COVID-19 is more pronounced. Of these graduates, 43% attribute their job loss to the COVID-19 crisis, with 19% stating that the pandemic clearly caused their job loss, whereby differences in the impact of COVID-19 are observed across cohorts.

Match between employment and education

Mismatch tendencies vary across fields. Overall, 74% of graduates experience a double match, 10% each for horizontal and vertical mismatches (“overqualified”), and 6% a double mismatch. graduates currently residing in Denmark, France, the UK, or Sweden are more inclined to report at least one mismatch, with just under 70% of graduates in these countries indicating a complete match between their knowledge, qualifications, and their current job. Notably, graduates who reside in Belgium (19%) and Sweden (17%) at the time of the survey most frequently state that they are overqualified for their job. Like the employment rate also the rate of double match rises over time.

Regarding employment-relevant skills, graduates across all cohorts often mention that their communication skills (26%) and planning and organizational skills (28%) are at a lower level than required. Language and learning skills are considered most fitting.

Satisfaction comes with a matching job

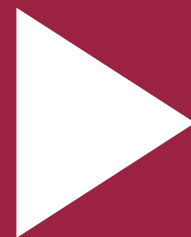
As expected, 89% of alumni whose jobs align with their qualifications and educational field express high satisfaction with their current employment. Conversely, when the job corresponds to neither the educational field nor the qualifications, only 61% of graduates report high satisfaction.

A job characteristics analysis reveals that work autonomy and the opportunity to learn new things and face new challenges are (very) important to most graduates and are largely fulfilled in their current jobs. However, social status is less important to graduates, and high earnings are lacking.

Awareness of EM Master and EMA membership

The awareness of the programmes is above average for alumni from Africa and South/ East Asia. On the other hand, they appear to be considerably less known in EU countries, North America, and Oceania. South/East Asia and Africa also have a higher proportion of active members. Overall, 5% are active members, 29% passive members, 38% not members but aware of EMA, and 30% not aware. The share of active members remains constant in a cohort comparison. Active members highly rate networking advantages through EMA, with 51% perceiving their membership as (very) advantageous for fostering social and professional networks, compared to only 10% of the passive members stating this.

1 Introduction



What is the Erasmus Mundus Graduate Impact Survey?

This report presents and discusses the results of the **2023 Erasmus Mundus Graduate Impact Survey** (GIS). The Erasmus Mundus Graduate Impact Survey is a (bi-)annual survey that has been conducted since 2007 on behalf of the European Commission's Directorate-General for Education, Youth, Sport and Culture. The central aim of the survey and the following analyses depicted in this report is the evaluation of the Erasmus Mundus Joint master's degrees (EM Master) programme. These are highly internationalised Master programmes that are organised decentrally by consortia of higher education institutions under the Erasmus+ framework of the European Union. At least three universities in three different countries are involved per EM master programme, and graduates have studied in at least two and up to four countries both inside and beyond the European Union.

Background: International study mobility within and beyond Europe

The advantages of international study mobility go far beyond individual, temporary experiences of other places and cultures. Intercultural exchange fosters the mutual integration of national societies, enhances the scope of knowledge and competencies that can be attained and benefits personal development. Therefore, the European Union along with associated countries has worked towards extending this mobility and reducing barriers and obstacles for a long time – namely in the strategic framework for European cooperation in education and training (ET 2020).

As a result, international mobility of students has largely increased both within the European Union as well as in exchange with other global regions within the past decades. The Bologna Process and the implementation of a European Higher Education Area (EHEA) that already reaches beyond EU states entrenched fundamental conditions for this mobility within Europe and adjacent regions. As one of the latest renewals of the commitment towards international study mobility, EHEA country ministers responsible for higher education committed to an inclusive, innovative, and interconnected higher education area, acknowledging the embeddedness of the area in global contexts, and planning to broaden the access for global students as a result of their 2020 conference (Rome Ministerial Communiqué, 2020).

As a branch of the Erasmus+ framework, the Erasmus Mundus Actions have, for over a decade, broadened the scope of international study mobility to reach a global level. Following its objective to combine “showcas[ing] European excellence in higher education” and “international mobility for students [...] with EU-funded scholarships” (European Commission: Erasmus Mundus Action, n.d.), the Erasmus Mundus Joint master's degrees aim at a global studentship, rather than (mainly) at students within the EHEA. The programmes stand out by being organised by higher education institutions of at least three programme and partner countries (which are also not exclusively EU countries) and by requiring students to study in at least two (in practice, often three or more) different countries (ibid.).

This report analyses the impact of participating in such programmes, the background and characteristics of its graduates and outcomes for their personal, professional, and academic life.

Report structure

This report consists of two segments:

1. the introductory and methodology sections explaining the content-related and technical background of the results (chapters 0 and 2),
2. the detailed results, which are organised in 6 thematic chapters (chapters 3 to 8)

At the end of the report there is also a glossary explaining key terms used in the analysis.



2 Methodology

2.1 Target group

The Graduate Impact Survey assesses the situation of Erasmus Mundus Alumni at different stages after obtaining an Erasmus Mundus Joint Master degree. To enable longitudinal (retrospective) comparisons, alumni of three graduation cohorts are surveyed: besides those who graduated relatively recently, alumni who concluded their Erasmus Mundus Master about 5 and 10 years ago are included. In order to achieve a sufficient number of responses for reliable, robust results, for each of these cohorts, graduates of two adjacent years were invited to reply to the survey. This results in the cohorts 2012/13, 2017/18 and 2021/22. Of those cohorts, all alumni (18,597) were invited, regardless of programme, citizenship, or other characteristics. Invitation emails were kindly sent out by the European Education and Culture Executive Agency (EACEA).

For the first time, Alumni who attended Erasmus Mundus programmes without receiving an Erasmus Mundus scholarship were also invited to take part in the survey. This allows for the comparison between scholarship holders and alumni who funded their EM Master studies through other means.

2.2 Questionnaire contents

Graduates were surveyed with an online questionnaire hosted within the EU survey tool. The questionnaire contents and methodology of the questionnaire result from a long-running development: It is based on the previous questionnaire (GIS 2020/21), which in turn was developed from the earlier questionnaires, and underwent a revision based on input from different stakeholders such as representatives of the European Education and Culture Executive Agency and the Erasmus Mundus Association. The topics covered by the survey entail:

- Details on the EM Master programme (field, host countries, financial sources, motives)
- Reception of studying in an EM Master programme (entry, satisfaction with the study experience, improvement suggestions, study experience during the COVID-19 pandemic)
- Follow-up occupation (job search, job entry, further studies, international mobility)
- Occupation at the time of the survey (job details, phases of unemployment, utilisation of skills from EM, match of employment, job satisfaction)
- Impact on personality and qualification (skills and competencies, personal and cultural development, networking)
- Erasmus Mundus Association (EMA) membership and its benefits
- Ongoing interaction with EM host countries/institutions, Europe, and the EU
- Demographic information (age, gender, citizenship, previous degrees, residence)

2.3 Data collection and protection

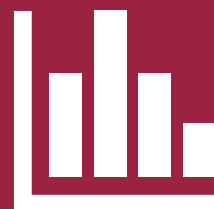
The survey ran between 12 July and 17 August 2023. Invitations and multiple reminders to participate in the survey were sent to the target group by the EACEA, while IHS was responsible for processing and the analysis of responses. This way, survey responses and personal information were kept separately from each other as a measure of ensuring respondents' anonymity. All respondents provided explicit consent to the processing of their survey responses for this report.

At the end of the field phase, 3,396 respondents had completed the questionnaire in full. This corresponds to 18.3% of those invited, which is a comparatively high response rate for online surveys, especially as some of the email addresses were more than ten years old.

2.4 Sample and weighting

The data collected was weighted using the raking method (see e.g., Lohr 2019, 169f.) to compensate for different response likelihoods among different subgroups of EM Master alumni. This was done by calculating factors (weights) for each respondent that reflect on whether their personal characteristics were over- or underrepresented in the survey when compared to the entire target group. By applying this factor to calculations of the results presented in this report, these reflect more accurately on the actual entirety of the invited alumni. The analyses are therefore representative in terms of the weighting characteristics. The following characteristics were used to weight the GIS 2022/23 data:

- **Gender:** Female graduates were slightly under-represented in the survey and thus received slightly higher weights than males.
- **Region of origin (citizenship):** The shares of most regions of origin in the survey were close to the shares among all target group alumni. Only for alumni from Africa (underrepresented) and Latin America (overrepresented), weighting had a somewhat bigger impact.
- **Field of study:** The only field noticeably underrepresented in the survey responses was social sciences and humanities (see Glossary and Definitions for field categories). The resulting overrepresentation of other fields was rather dispersed among fields, hence only amounting to 0-2% difference from the target group shares.
- **Cohort:** As seen in previous iterations of the GIS, the more recent the graduation cohort, the more responses were collected. While the share of 2021/22 graduates were almost equal to the target group share, 2017/18 graduates were slightly overrepresented, and in turn, 2012/13 graduates were underrepresented.

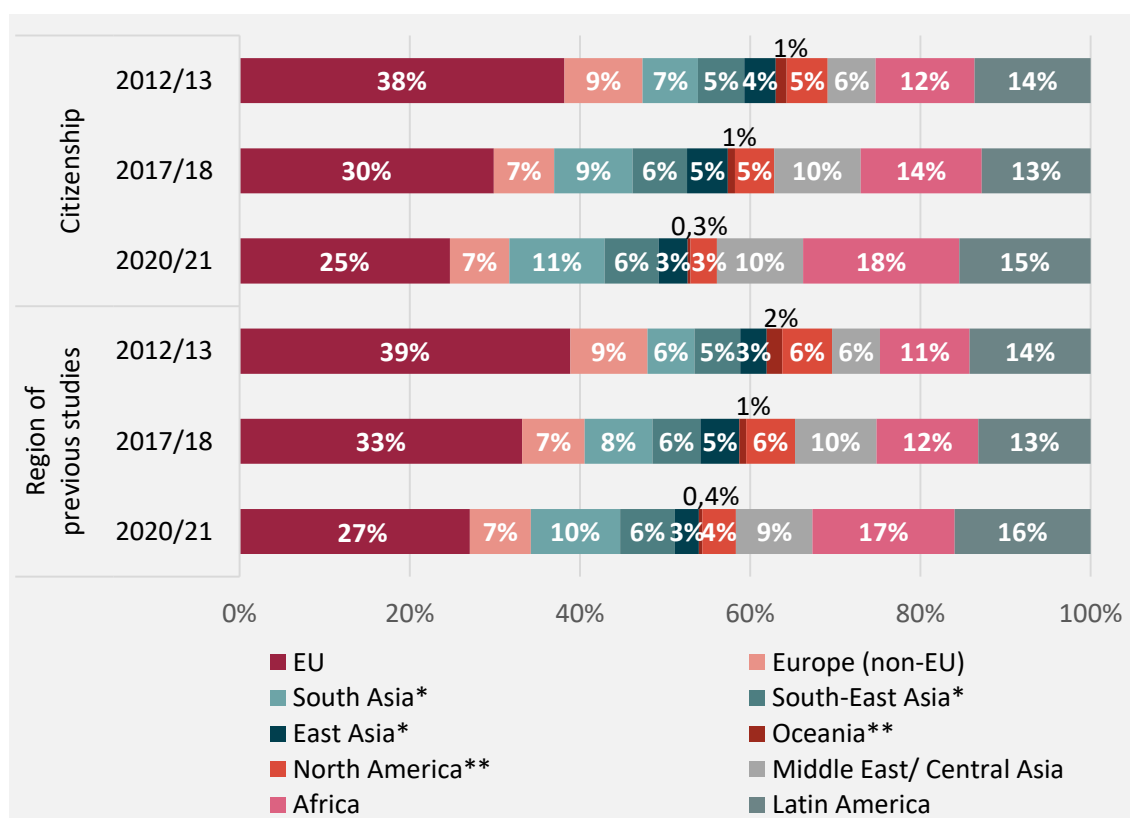


3 Graduates Background

Graduates' origin composition has shifted – fewer EU citizens over time

The Erasmus Mundus programmes are characterised by their internationality, which is expressed through the mobility between host universities that is anchored in the curricula, but also through the international student body. Figure 1 illustrates how the region of origin (citizenship) and study mobility of alumni has shifted from a previously more Europe-focused composition towards one that is more balanced: While the share of graduates from South Asia, the Middle East/ Central Asia and Africa has risen in particular, the proportion of graduates from the EU has fallen from 2012/13 to 2021/22.

Figure 1: Graduates' region of origin (citizenship) and region of previous studies before EM by cohort



*South Asia, South-East Asia and East-Asia are summarised as one region throughout the following chapters to ensure sufficient case numbers.

** Oceania and North America are summarised as one region throughout the following chapters to ensure sufficient case numbers.

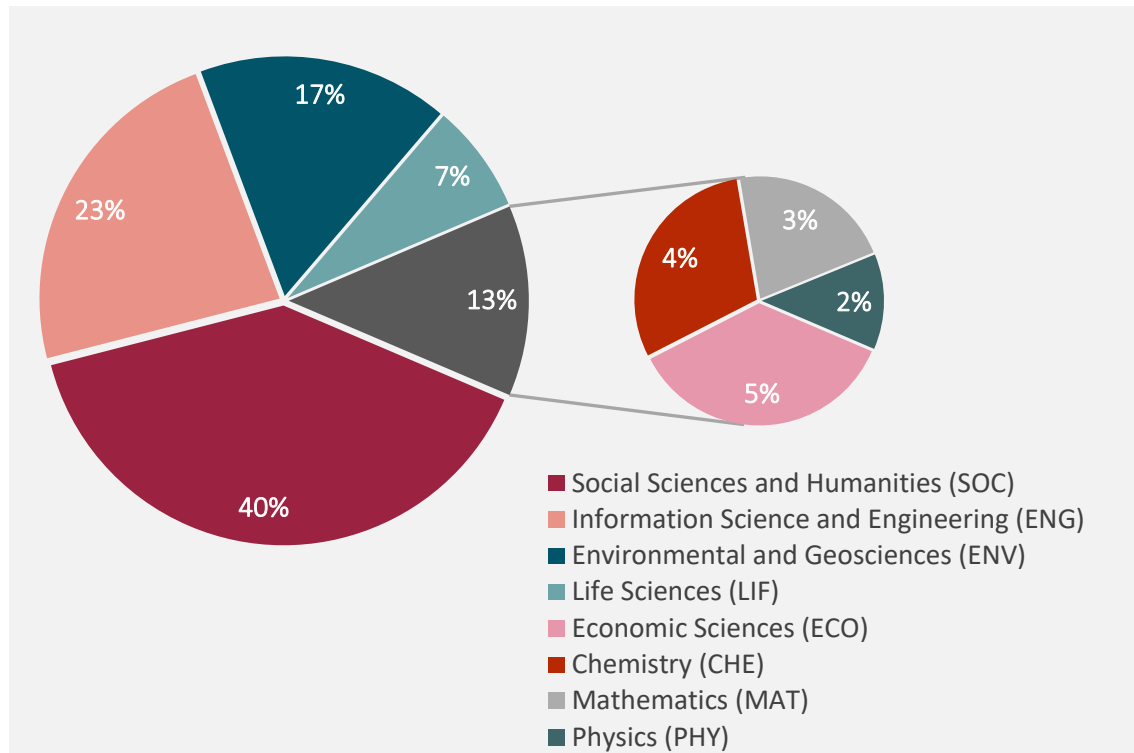
Source: EM Master Graduate Impact Survey 2022/23, all surveyed graduates (n = 3,396).

Fields of study: very diverse in size and gender distribution

As Figure 2 shows, EM Master alumni are very differently distributed among the eight main EM Master fields of study. By far the most Erasmus Mundus degrees are obtained in the field of social sciences and humanities (40%). About half as many EM Master programmes are completed in the

field of information science and Engineering, in which nearly one in five EM Master graduates has a degree (23%), followed by the field of environmental and geosciences (17%). The least frequent studied fields are economic sciences (5%), chemistry (4%), mathematics (3%), and physics (2%).

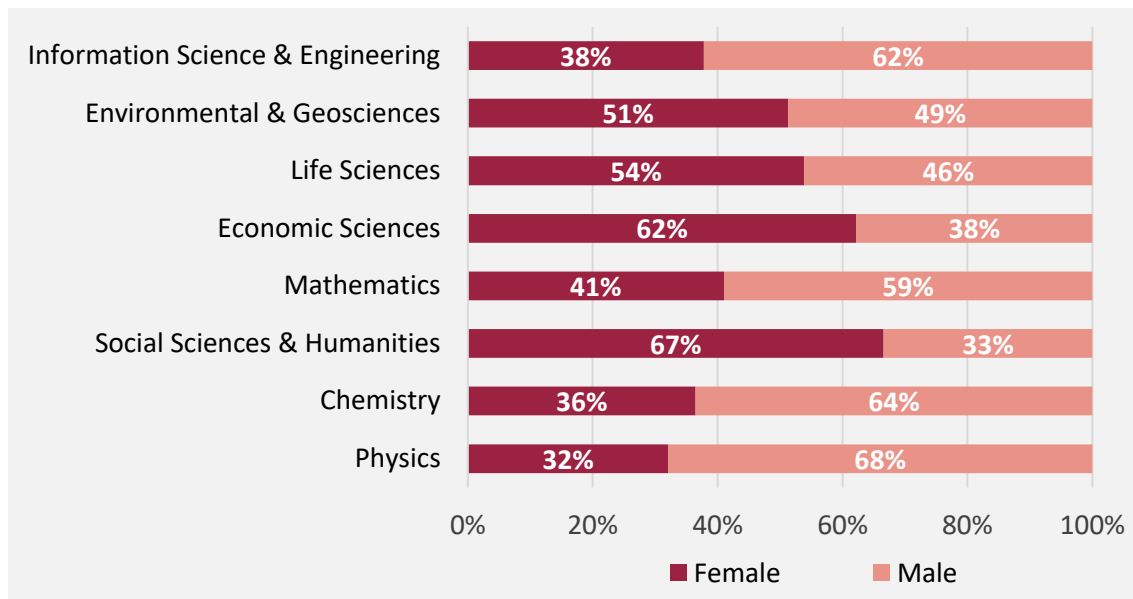
Figure 2: Distribution of fields of study among surveyed graduates



Weighted data: The distribution in the sample corresponds to the population distribution of the fields of study (see section 2.4).
Source: EM Master Graduate Impact Survey 2022/23, all surveyed graduates (n = 3,396).

Officially, fewer men (46%) than women (54%) are registered as graduates in the overall population of EM Master graduates. Against this background in particular, the so-called “gender gap” in subject choice becomes clear when analysed by field of study: there are significantly fewer female graduates in STEM subjects such as computer science, mathematics, chemistry, and physics (see Figure 3). In contrast, women study more frequently in the social sciences & humanities, as well as in economic sciences. This marks a change compared to the last GIS survey 2020/21, when the share of male graduates was higher in economic sciences. Study programmes in the fields of environmental & geosciences and life sciences are equally preferred by female and male graduates. As respondents were only asked about their formally registered sex at their higher education institution and only a few higher education institutions have recently started offering official options for non-binary gender entries, it is very likely that some non-binary students were registered as male or female. However, a third option was available in the survey (“inter/diverse/open”), but the number of cases in this category is too small to be included in the analysis by gender (n < 30; 0.5%).

Figure 3: Field of study by formally registered sex

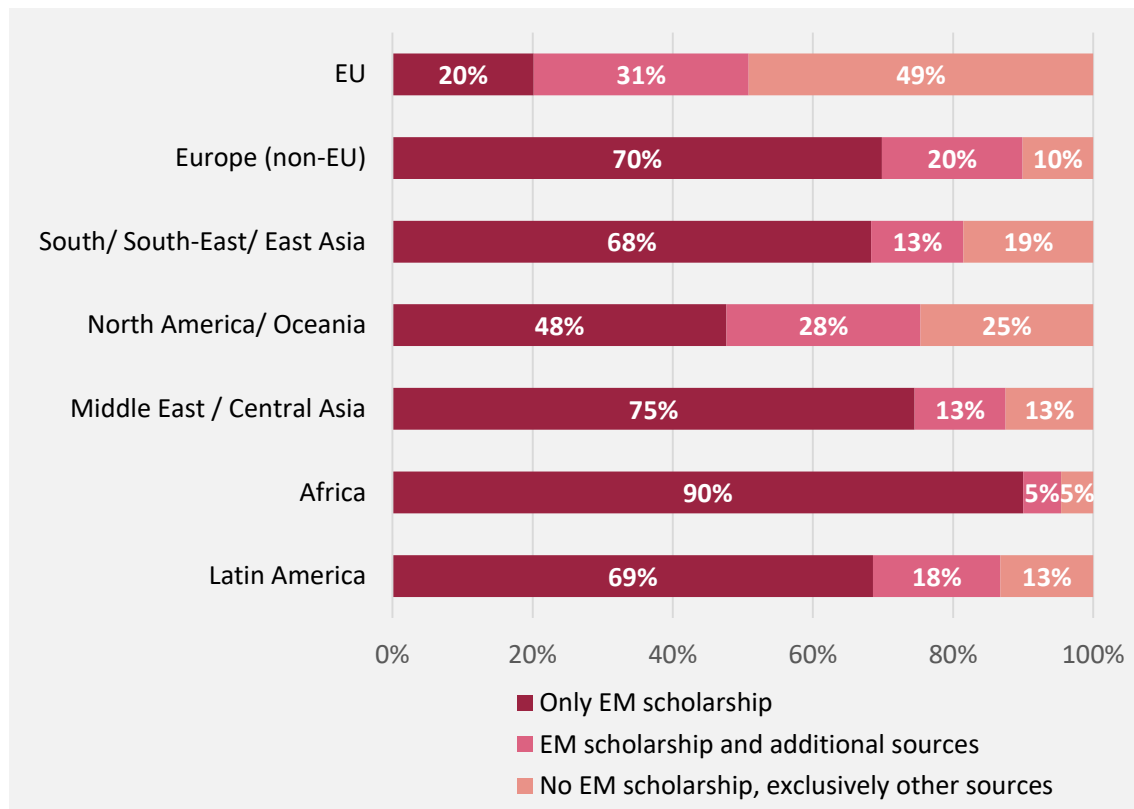


Source: EM Master Graduate Impact Survey 2022/23, n = 3,380 graduates.

Highest share of non-scholarship-holders from EU, Oceania, and North America

For graduates from most regions of origin, the Erasmus Mundus scholarship was one and often the only source of income during their EM Master studies. As Figure 4 shows, only among graduates from the EU and Oceania/ North America, a majority could (also) rely on other sources. At 90%, alumni from Africa most often solely relied on the EM Master scholarship. The other regions range between these poles, with 68 to 75% of alumni relying exclusively on the EM Master scholarship.

Figure 4: Financial sources of graduates during their EM Master by citizenship

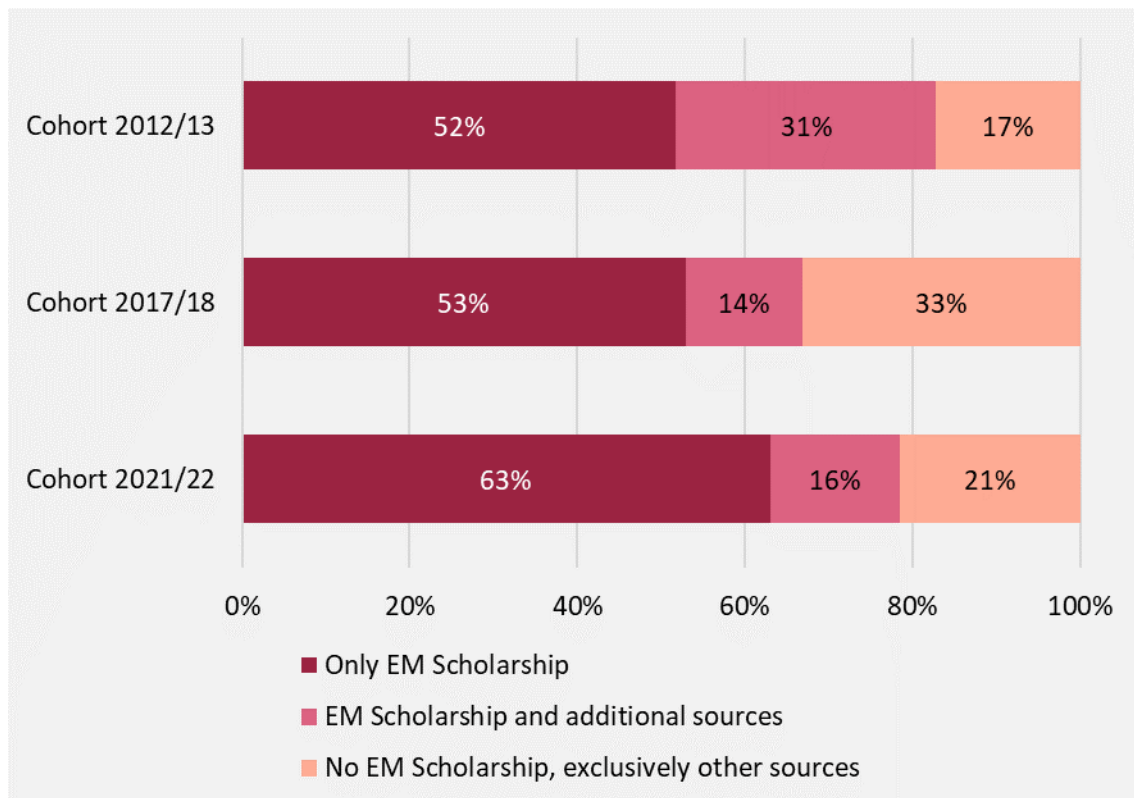


Source: EM Master Graduate Impact Survey 2022/23, n = 3,385 graduates.

Scholarship more often sufficient to finance EM studies in recent years

The share of Alumni reporting that they were able to financially rely solely on the EM scholarship has decreased between the 2017/18 and 2021/22 cohort, as Figure 5 shows. While their share remained nearly the same between 2011/12 and 2017/18 at just over 50%, it jumped up to 63% in the latest cohort. At the same time, the share of alumni who financed their EM Master entirely without a scholarship also increased, although their share peaked in the middle cohort. The share of alumni relying on additional sources despite receiving the scholarship has decreased since 2011/12. All of this indicates that the scholarship has become more sufficient to finance the living of students during their EM Master in recent years, while the programmes still attract students that finance their studies without the scholarship.

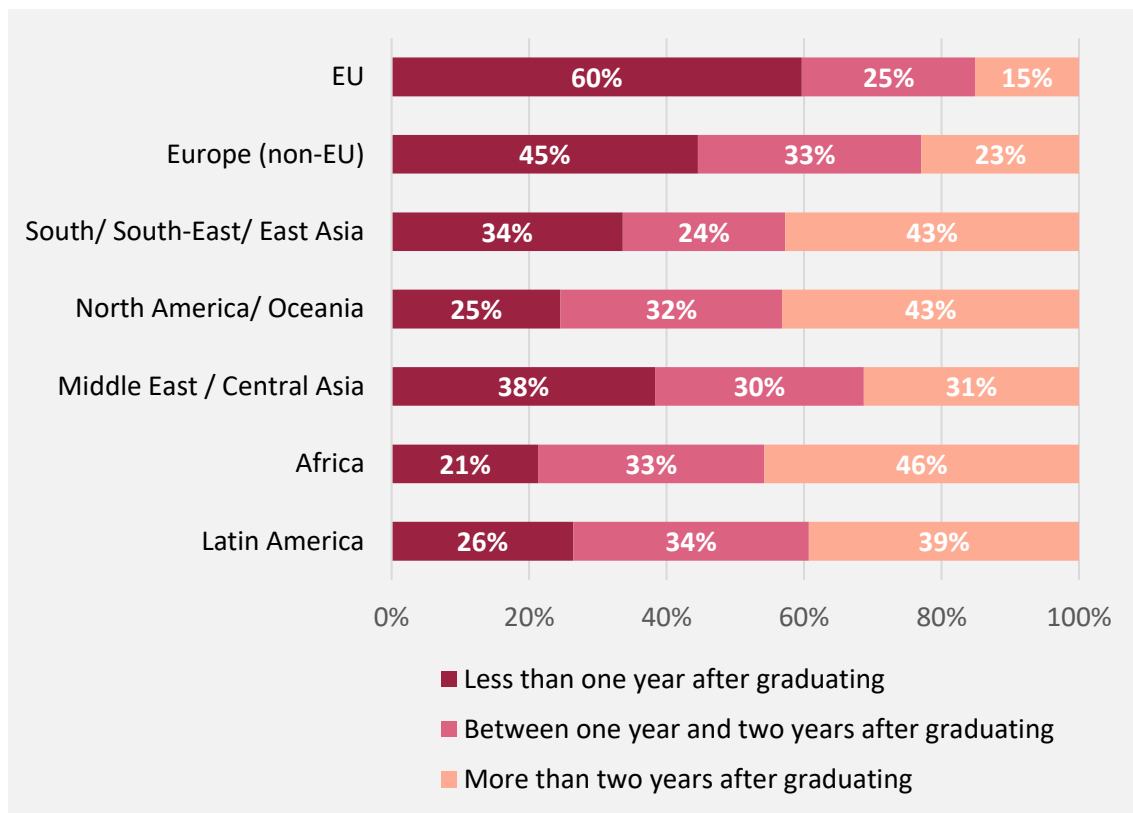
Figure 5: Financial sources of graduates during their EM Master by cohort



Source: EM Master Graduate Impact Survey 2022/23, n = 3,385 graduates.

EM alumni also differ greatly in terms of the time between graduating from their previous studies to starting an EM programme: respondents whose country of origin is in Africa, North America/ Oceania or South/ East Asia are more likely to start the EM Master programme more than two years after completing their previous studies (see Figure 6). On the other hand, almost two thirds (60%) of EM alumni from the EU start the programme less than a year after their previous studies. It could be assumed that many alumni from Africa or North America/ Oceania, for example, have already completed another master’s degree and have chosen the EM as their second degree. Hence, the difference can partly be explained by the fact that 29% of alumni from Africa already have a master’s degree before starting EM, while this is only true for 19% of respondents from the EU. However, this is not the case for students from North America/ Oceania, South/ East Asia, or Latin America. The differences in the transition period for them therefore seem to result largely from other reasons.

Figure 6: Transition time from previous graduation to start of EM Master by citizenship



Source: EM Master Graduate Impact Survey 2022/23, n = 3,294 graduates.

4 EM Master: Motives and Satisfaction



4.1 Motives for taking up an EM Master

Deciding for Erasmus Mundus: career prospects, internationality, and attractiveness of the EM Programme are the main drivers

Eventually deciding for a Master programme is often driven by an interplay of various factors. In the GIS 2022/23, alumni could select one or more options out of 15 different motives. These have been summarised into three dimensions¹ for clearer insight: international experience,² career/skills improvement,³ EM attractiveness (including the scholarship)⁴.

Figure 7 shows the average occurrence of these orientations amongst graduates from the different regions of origin. The internationality aspects of the EM Master programmes are most relevant for graduates from all regions (to a similar extent), but slightly more for graduates from the EU, North America/ Oceania and slightly less for those from Africa. Career/ skills development is the least frequently mentioned motive for graduates from all regions, but most often mentioned by alumni from Africa. The attractiveness of EM lies between these two dimensions, albeit with greater differences between the regions: This motive is rarely mentioned by alumni from the EU, North America/ Oceania, but significantly more often by graduates from Africa, the Middle East, and Central Asia. For alumni from these regions, it is even the most important motive of the three dimensions.

¹ By applying Principal Component Analysis (PCA), 3 underlying dimensions were identified based on the answers of the responding graduates.

² Including "opportunity to receive a joint/ multiple degree(s)", "live in different countries", "experience different educational systems" and "multicultural study and social environment".

³ Including "deepen my knowledge in this particular field", "opportunity to develop different soft skills", "benefits for my career/employment opportunities in my home country", "benefits for my career/employment opportunities outside my home country", "upskill myself for the job held prior to EM".

⁴ Including "academic level of EM universities", "scholarship", "reputation of EM".

Figure 7: Average mention of motives for choosing an EM degree programme on a scale of 0-to-5* by region of origin



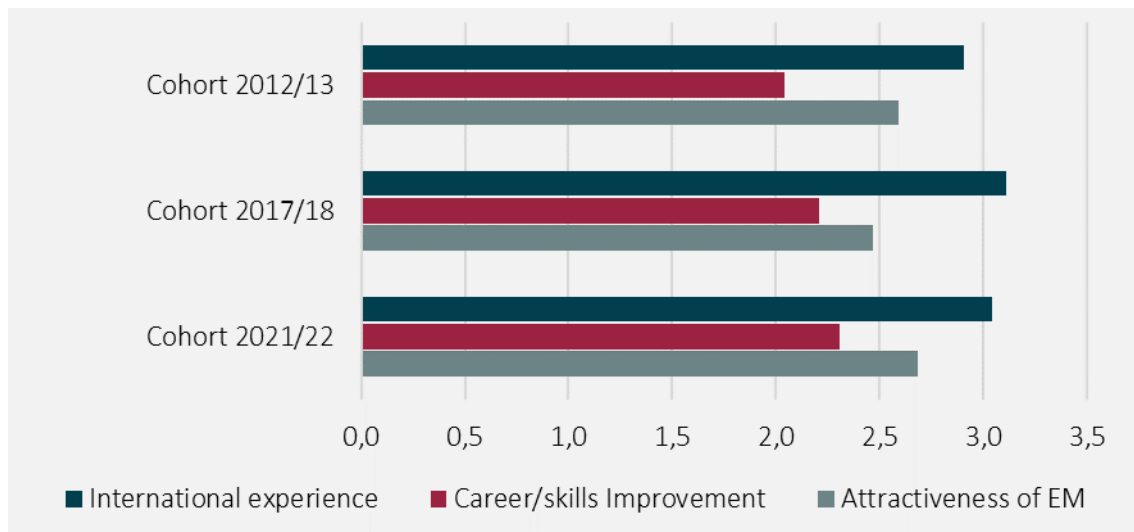
* The Scores of the Principal Component Analysis were normalised and transformed to a 0-5 scale; with a 5 indicating that a graduate selected every reason that represents the respective category.

Source: EM Master Graduate Impact Survey 2022/23, all surveyed graduates (n = 3.396)

The naming of these three central motive dimensions has hardly changed in the three cohorts analysed in recent years (see Figure 8). Only career/ skills development became slightly more important from cohort to cohort.

There are also few differences by field of study. International experience is rated equally important by all graduates but is mentioned less frequently by physicists. Career/ skills development is mentioned particularly frequently by graduates of environmental and geosciences and the attractiveness of EM is particularly important in the life sciences, whereas in mathematics, social sciences, and humanities it is mentioned somewhat less frequently.

Figure 8: Average mention of motives for choosing an EM degree programme on a scale of 0-to-5* by cohort

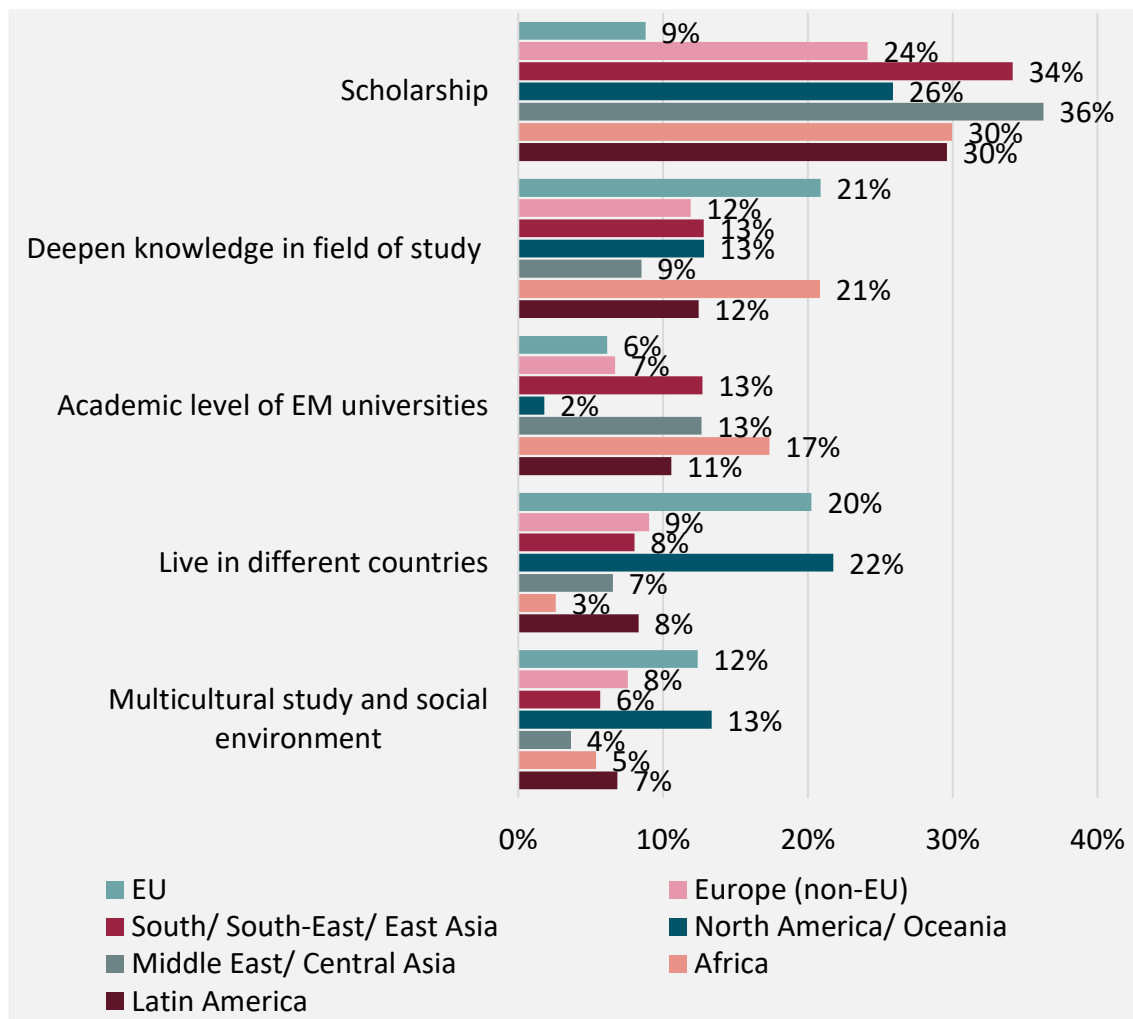


* The Scores of the Principal Component Analysis were normalised and transformed to a 0-5 scale, with a 5 indicating that a graduate selected every reason that represents the respective category.

Source: EM Master Graduate Impact Survey 2022/23, all surveyed graduates (n = 3.396)

However, looking at the five most frequently mentioned motives for participating in an EM Master by region of origin, some differences become apparent (Figure 9): Scholarship as a motive is mentioned most frequently (on average by 24%), particularly by alumni from the Middle East/ Central Asia and (South)East Asia (more than a third), but rarely by graduates from the EU (9%). The second most important motive for graduates was to deepen their specialist knowledge (Ø 16%), with graduates from the EU and Africa noting this particularly frequently (21% each). Living in different countries, on the other hand, was a central motive especially for alumni from the EU and North America/ Oceania (>20%) but is hardly mentioned by Africans (Ø 11%). The academic level of the host universities is named especially by Africans, while for alumni from North America and Oceania, it played almost no role at all (Ø 10%). A similar pattern emerges for multicultural study and social environment as reasons (Ø 8%).

Figure 9: Five most frequent motives for choosing an EM Master programme by region of origin



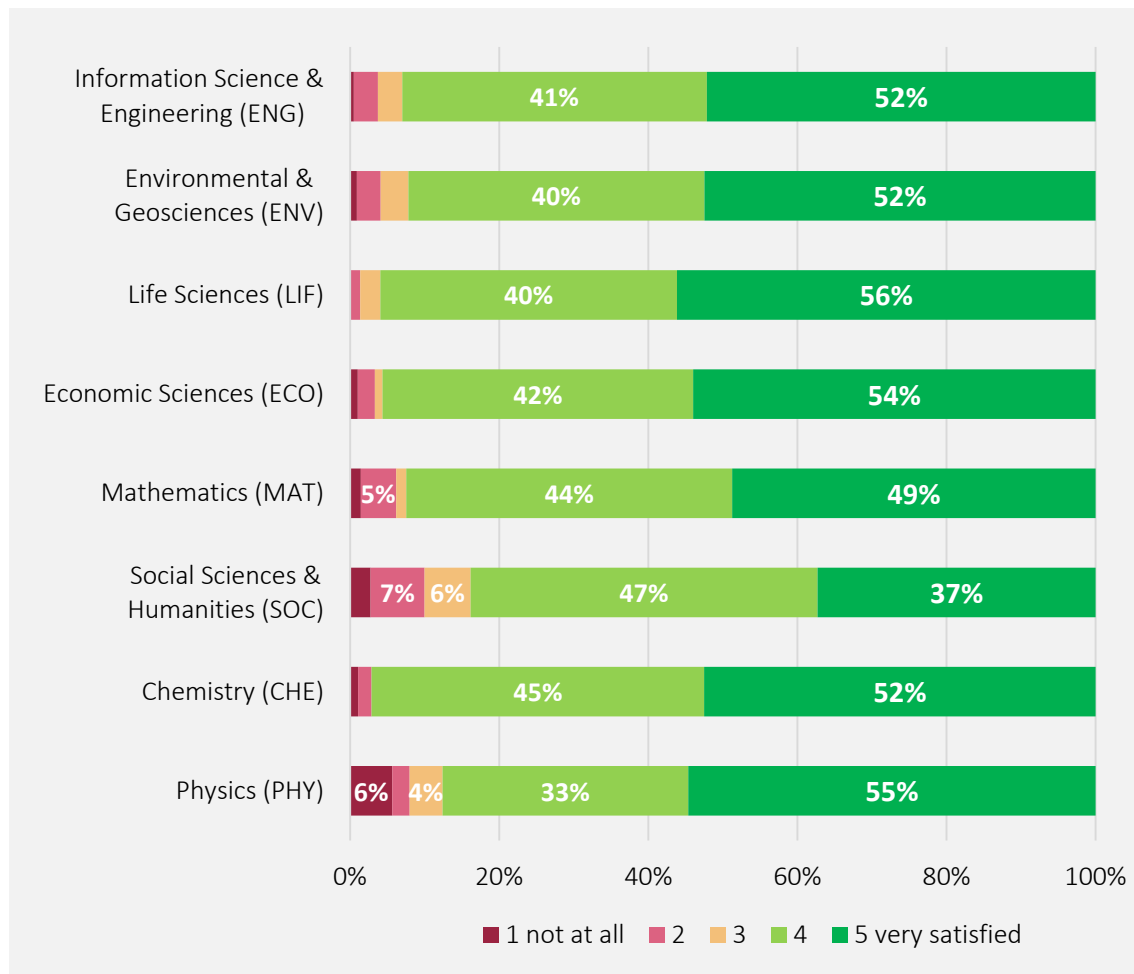
Source: EM Master Graduate Impact Survey 2022/23, all surveyed graduates (n = 3,250).

4.2 Programme satisfaction

Overall, 90% of all graduates in the three surveyed cohorts are (very) satisfied with their EM Master programme (see Figure 11). This is a remarkably high figure. With the exception of social sciences and humanities (84%), all fields of study achieved satisfaction levels of over 90%, in chemistry even 97% (see Figure 10). These values differ slightly from the last GIS, in which chemistry graduates had the lowest satisfaction rate.

Overall satisfaction is lowest among graduates from the EU, North America/ Oceania, and Latin America (all just under 90%), and highest among alumni from Africa (95%).

Figure 10: Overall satisfaction with EM Master programme by field of study



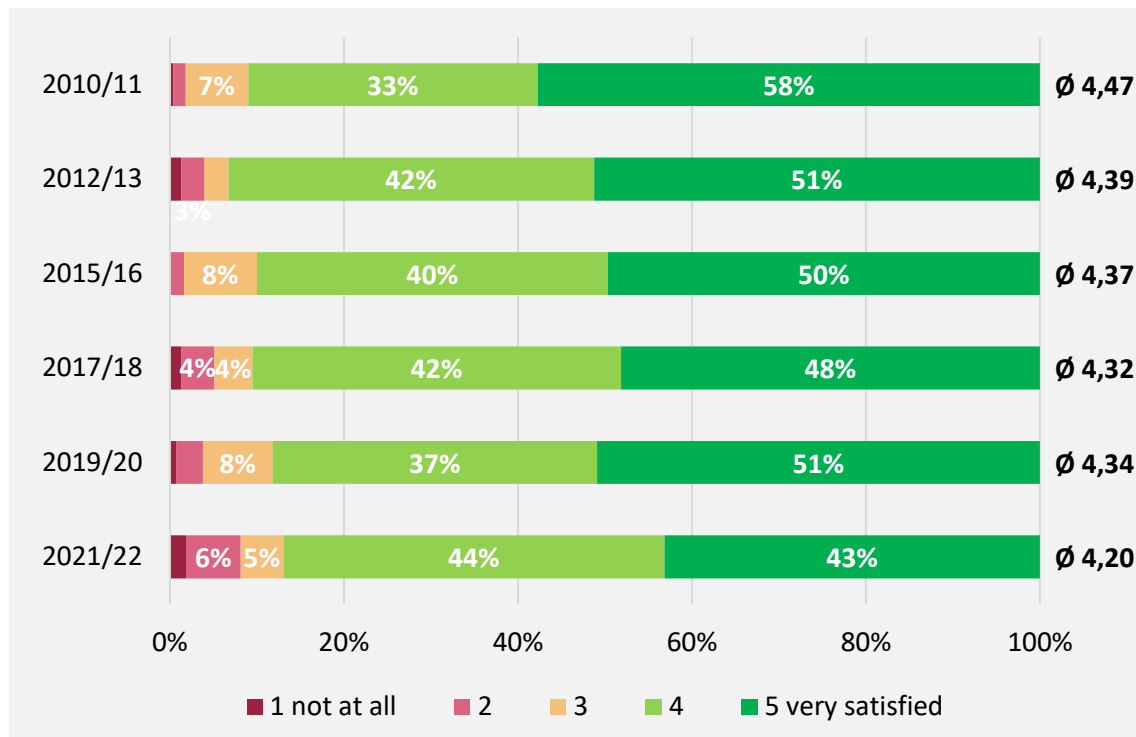
Values below 4% not shown here.

Source: EM Master Graduate Impact Survey 2022/23, all surveyed graduates (n = 2.909)

Slight decline of overall satisfaction over time on a generally high level

Despite the generally very high level of satisfaction, satisfaction has fallen slightly over the last ten years, as can be seen in Figure 11. This trend appears robust even when the cohorts surveyed in the previous GIS 2020/21 (when only scholarship holders were surveyed) are taken into account. Only future Graduate Impact Surveys will show whether this is due to the study-restricting effects of the Covid pandemic or a longer-term trend.

Figure 11: Overall satisfaction with EM Master programme by cohort



Values below 4% not shown here.

Source: EM Master Graduate Impact Survey 2020/21 (cohorts 2010/11; 2015/16; 2019/20), n = 2,011. EM Master Graduate Impact Survey 2022/23 (cohorts 2012/13; 2017/18; 2021/22), n = 2,909 graduates.

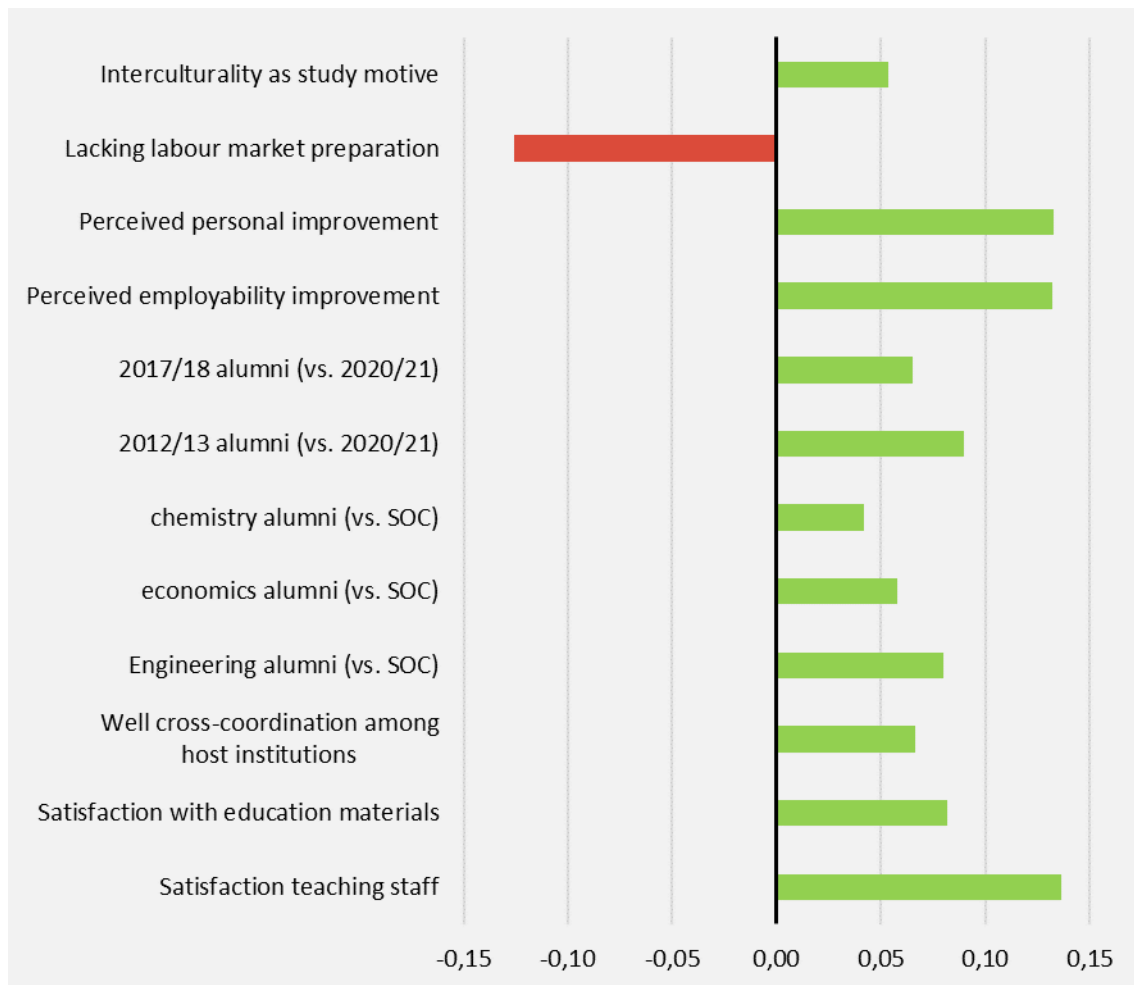
What are reasons for the slow, but steady decline in satisfaction? A multivariate regression analysis can be used to assess whether cohorts have become more critical, or dissatisfied, over time, or if other factors have changed over the years that result in less satisfaction with the EM Master programmes over time. The following possible characteristics were included as potential factors in the model (marked in bold if a significant influence on the overall satisfaction with EM Master could be identified):

- Gender (no significant impact)
- Having received the EM scholarship (no significant impact)
- **Average satisfaction with teaching staff (over all semesters)**
- **Average satisfaction with educational materials (over all semesters)**
- **Number of aspects where all host universities were well coordinated**
- ***Field of study (Social Sciences and humanities as comparative category; significant difference in some of the other fields)***
- Cohort
- **Graduate would recommend studying in EU over other world regions**
- **Perceived employability improvement from EM Master**
- **Perceived personal improvement from EM Master**
- **Perceived lack of labour market preparation in EM Master**
- Region of origin (no significant impact)
- **Extent of intercultural motives as motives for choosing an EM Master**
- Extent of academic and employability motives for choosing EM Master (no significant impact)
- Extent of EM-specific motives for choosing EM Master (no significant impact)

Figure 12 shows the relative impact of factors that have been identified as having a significant impact on the average programme satisfaction. A multivariate regression model shows the influence and effect size of one factor while controlling for all other factors in the model (in our case, for example, the assessment of the quality of the teachers by graduates with the same gender, age, field of study, region of origin, etc.). The effect size is standardised (so that the different influencing factors with different units can be compared) and can vary from -1 to 1 (standardised Beta).

The perceived improvement of personality and employability, the lack of labour market preparation (negative impact), and a satisfying teaching staff have the biggest relative impact on how graduates assess their EM Master programme. Other factors that tend to **improve the satisfaction rating** are interculturality study motives, an EM Master programme in chemistry, economics, or engineering (compared to social sciences and humanities), a good cross-coordination of host institutions and satisfaction with the provided educational materials. With respect to the cohort, despite adjusting for a lot of possible alternative explanatory factors, time still shows an impact on satisfaction, as being part of the older cohorts correlates with a higher satisfaction rating.

Figure 12: Statistically significant factors influencing the retrospective study satisfaction and their effect size (multivariate regression)

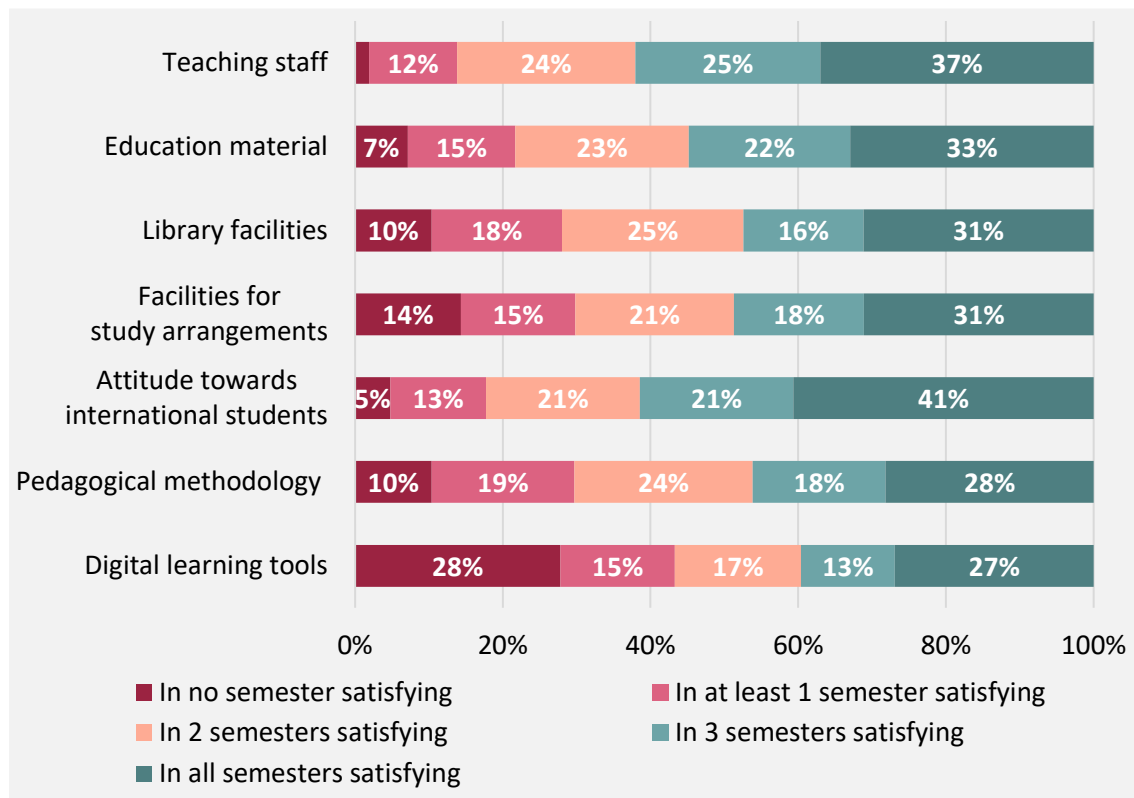


Source: EM Master Graduate Impact Survey 2022/23 (cohorts 2012/13; 2017/18; 2021/22), n =2,065 graduates. X-Axis: Relative effect size (Standardised Beta) of the respective characteristic on the Y axis. Adjusted R²: 0.226.

Mixed feedback for teaching and contents

As students of the EM Master programme usually study at up to four universities, it makes sense to survey satisfaction with various aspects per semester. Figure 13 shows that the attitude towards international students and the teaching staff are rated best; just under two thirds are satisfied with these in at least three out of four semesters. The lowest level of satisfaction is shown for digital learning tools (28% not satisfied in any semester, 15% only satisfied in one semester), although the youngest cohort (2021/22) is already significantly more satisfied than earlier cohorts. In addition, only around 30% are satisfied in a maximum of one semester with the facilities for study arrangements, the pedagogical methodology, and the library facilities.

Figure 13: Satisfaction with different aspects of study conditions at host universities

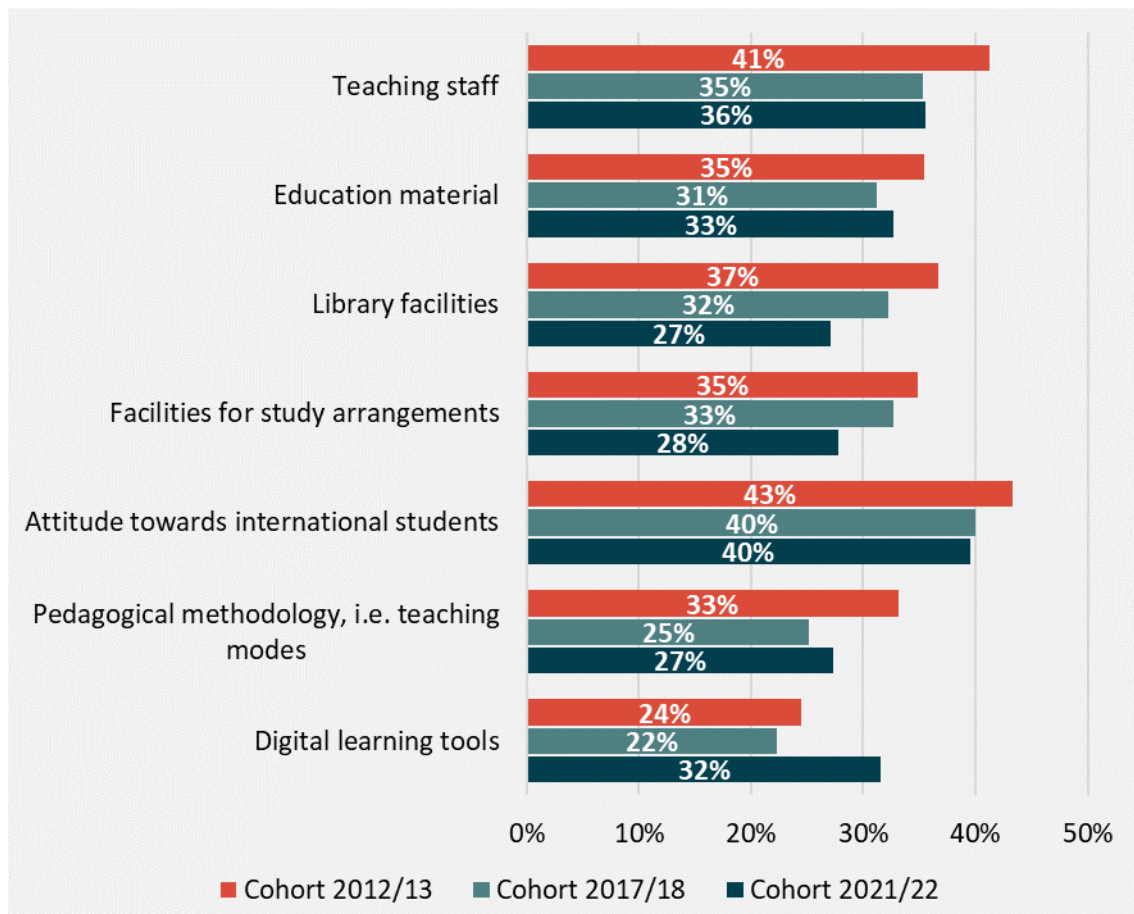


Source: EM Master Graduate Impact Survey 2022/23, n = 3,233 graduates.

Declining share of wholly satisfying study conditions

In all aspects surveyed, a comparison of the cohorts shows a decline in the proportion of graduates who were satisfied in all four semesters of their EM Master (see Figure 14). The decline in satisfaction from the 2012/13 cohort to the 2021/22 cohort is strongest for library facilities at minus 10%-points, but also clearly for facilities for study arrangements (minus 7%-P), teaching staff (minus 6%-P), and pedagogical methodology (minus 6%-P). Only alumni from the most recent cohort are significantly more satisfied with digital learning tools than their colleagues who studied ten years earlier (+7%-P).

Figure 14: Share of graduates reporting satisfying conditions in all four semesters by aspect and cohort



Source: EM Master Graduate Impact Survey 2022/23, n = 3,233 graduates.

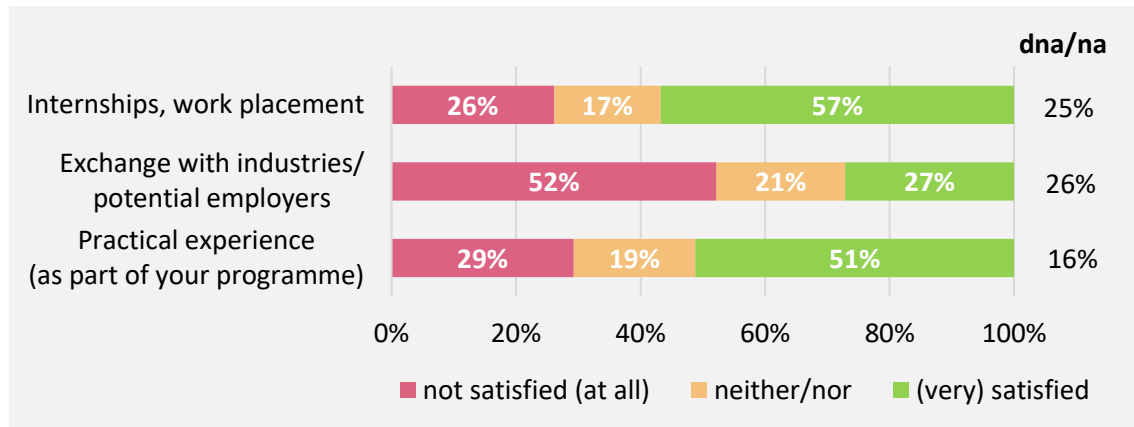
More and more EM Master studies include practical elements and satisfaction with them is increasing

As seen in the previous section, professional aspirations and networking are aspects that run close behind the most reported motives for choosing an EM Master and belong to the most mentioned amongst graduates from certain regions of origin. However, in previous GIS, one of the biggest criticisms of EM Master programmes was that they offered too little practical experience and contact with potential employers. This criticism is also voiced in the GIS 2022/23 (see Chapter 8), but the picture has changed somewhat: more than half of those surveyed are (very) satisfied with internships and practical experience during their studies, but only a quarter are satisfied with the exchange with potential employers (see Figure 15).

Nevertheless, it must be taken into account that a good quarter state that there were neither internships nor exchanges with employers during their studies (dna/ na: does not apply/not applicable), while only 16% said the same about practical experience. It is worth noting that these proportions are decreasing from cohort to cohort, meaning that practical elements are being integrated into more and more programmes. For internships, the proportion of dna/ na falls from

28% (2012/13 cohort) to 22% (2021/22 cohort), for contact with employers from 32% to 23%, and for general practical experience from 19% to 12%. Satisfaction with the (increased) opportunities is either constant across the cohorts (internships, contacts with employers) or decreasing (practical experiences) – which could also be due to the Covid pandemic.

Figure 15: Satisfaction of graduates with different practical and labour market related elements in their EM Master (only graduates who had such opportunities during their studies)



Rating on a 1-to-5-point scale here shown as 1+2 = not satisfied (at all), 3 = neither/nor, 4+5 = (very) satisfied.

Dna/ na: Does not apply/ not applicable (not part of my EM).

Source: EM Master Graduate Impact Survey 2022/23, 3,245/ 3,238/ 3,251 graduates (in order of the three listed aspects).

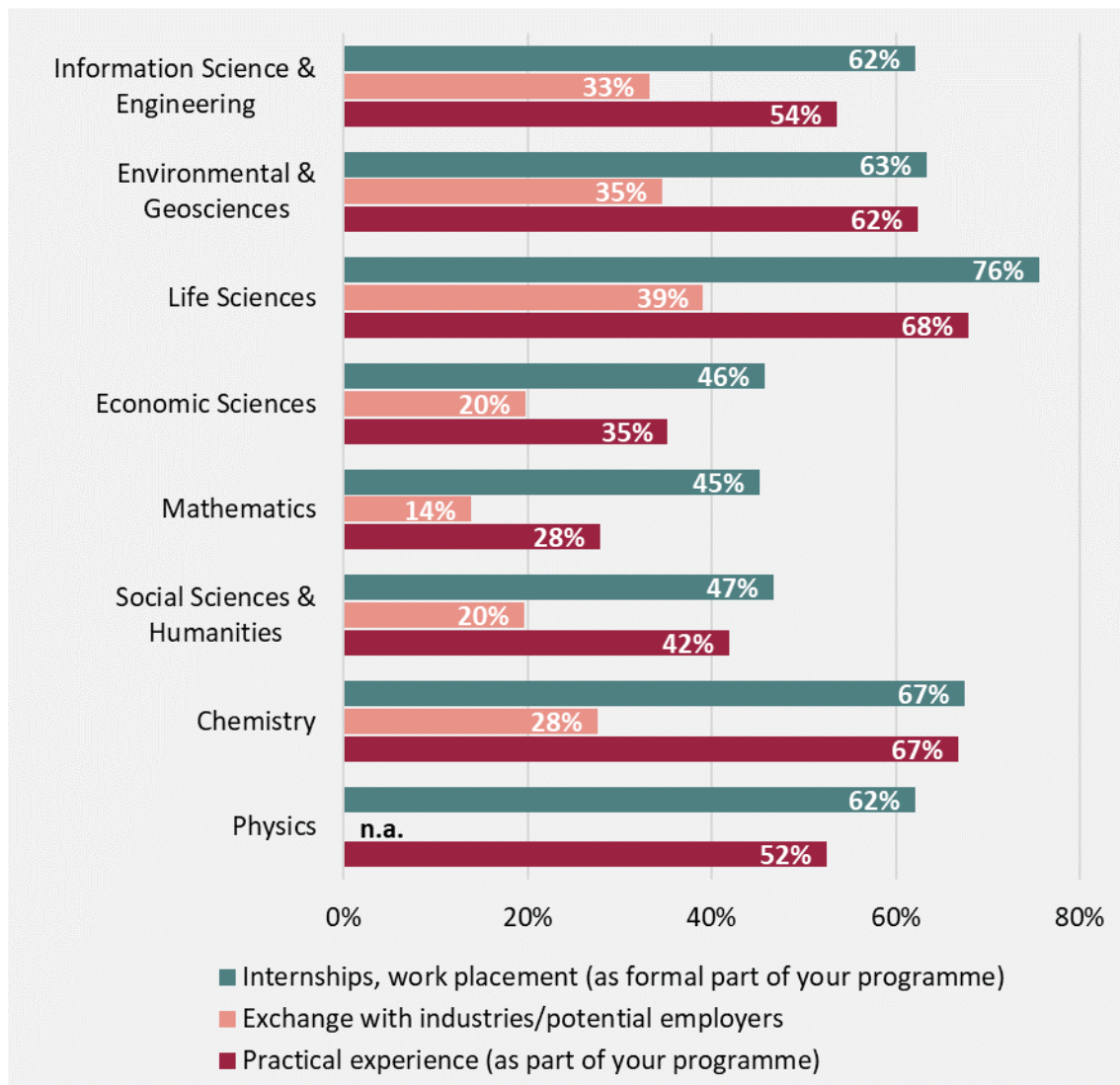
If graduates had such opportunities during their studies, it was primarily graduates of the natural sciences, especially the life sciences, but also chemistry, physics, and environmental and geosciences, who are particularly satisfied with the internships offered and the practical experiences during their studies (see Figure 16). The majority of IT alumni and engineers are also (very) satisfied. But sometimes significantly less than half are satisfied with the internships and practical study elements offered in economics, mathematics and the social sciences and humanities.

Satisfaction with contact with potential employers is lowest in all fields of study. At least a good third is satisfied with such contact among graduates of life sciences, environmental and geosciences, as well as IT and engineering sciences – i.e., studies that are relatively industry-related. Satisfaction is very low with a maximum of 20% in economics, social sciences & humanities, and especially mathematics.

However, the quota of practical opportunities must also be taken into account: Internships are offered least frequently in mathematics (33%) and economics (32%), while only 13% report their availability in chemistry. The lack of contact with the labour market is noted quite frequently in all fields of study, but particularly often in physics (41%) and mathematics (36%), and least often in chemistry (21%). Practical experience was also rare in mathematics and, to some extent, in economics, social sciences and humanities, while only 8% of graduates in environmental and geosciences as well as life sciences state that they had no practical elements in their studies.

This shows that in the fields of study in which practical elements were integrated into the course, graduates are significantly more satisfied with what is on offer. In fields where there were significantly fewer such offers, alumni are also significantly less satisfied with the existing offers.

Figure 16: Share of very satisfied graduates with different practical and labour market related elements in their EM Master by field of study (only graduates who had such opportunities during their studies)



Rating on a 1-to-5-point scale here shown as 1+2 = not satisfied (at all), 3 = neither/nor, 4+5 = (very) satisfied.

n.a.: not available due to too few cases.

Source: EM Master Graduate Impact Survey 2022/23, 3,245/ 3,238/ 3,251 graduates (in order of the three listed aspects).

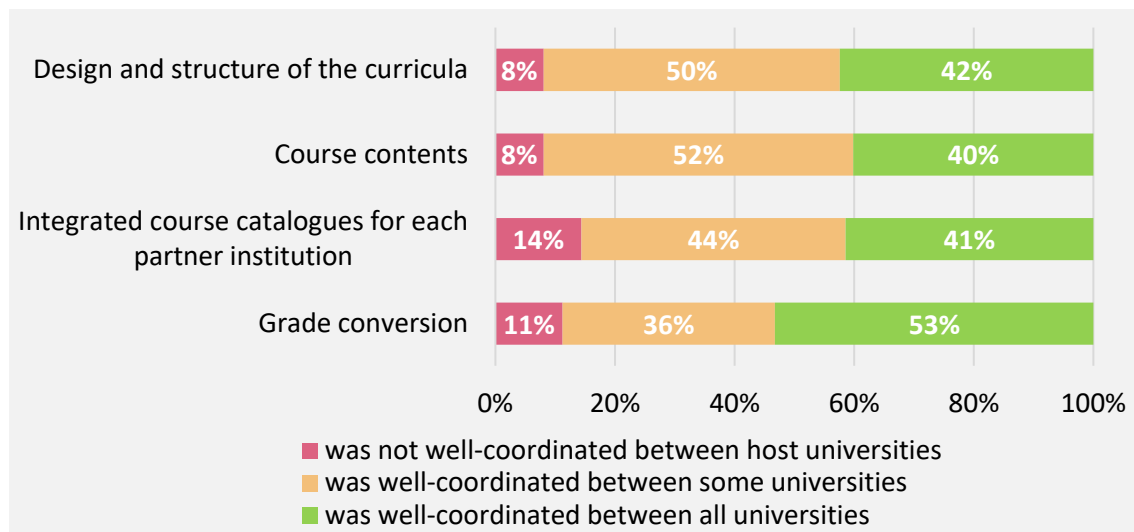
4.3 Coordination between universities and degree recognition

Wish for a more integrated course catalogue between universities

Given that all joint master’s degrees involve studying at multiple higher education institutions, effective coordination between these institutions is vital for ensuring programme quality.

Graduates were surveyed regarding the level of coordination among their host institutions concerning four aspects. Overall, graduates seem to have rather satisfactory experiences with the coordination between their universities. Even though around half of the graduates rate most aspects as ‘only’ well-coordinated between a few universities, around 40% are also satisfied with the coordination across all (often four) of their universities. Figure 15 shows that the aspect “integrated course catalogue” is rated the worst, with 14% stating that the courses were not well coordinated between any of their universities. In terms of the organisational coordination of degree conversion, the largest proportion of respondents rate it as well-coordinated across all universities, although 11% also state that this did not work well between any of their universities.

Figure 17: Assessment of coordination and integration between host institutions



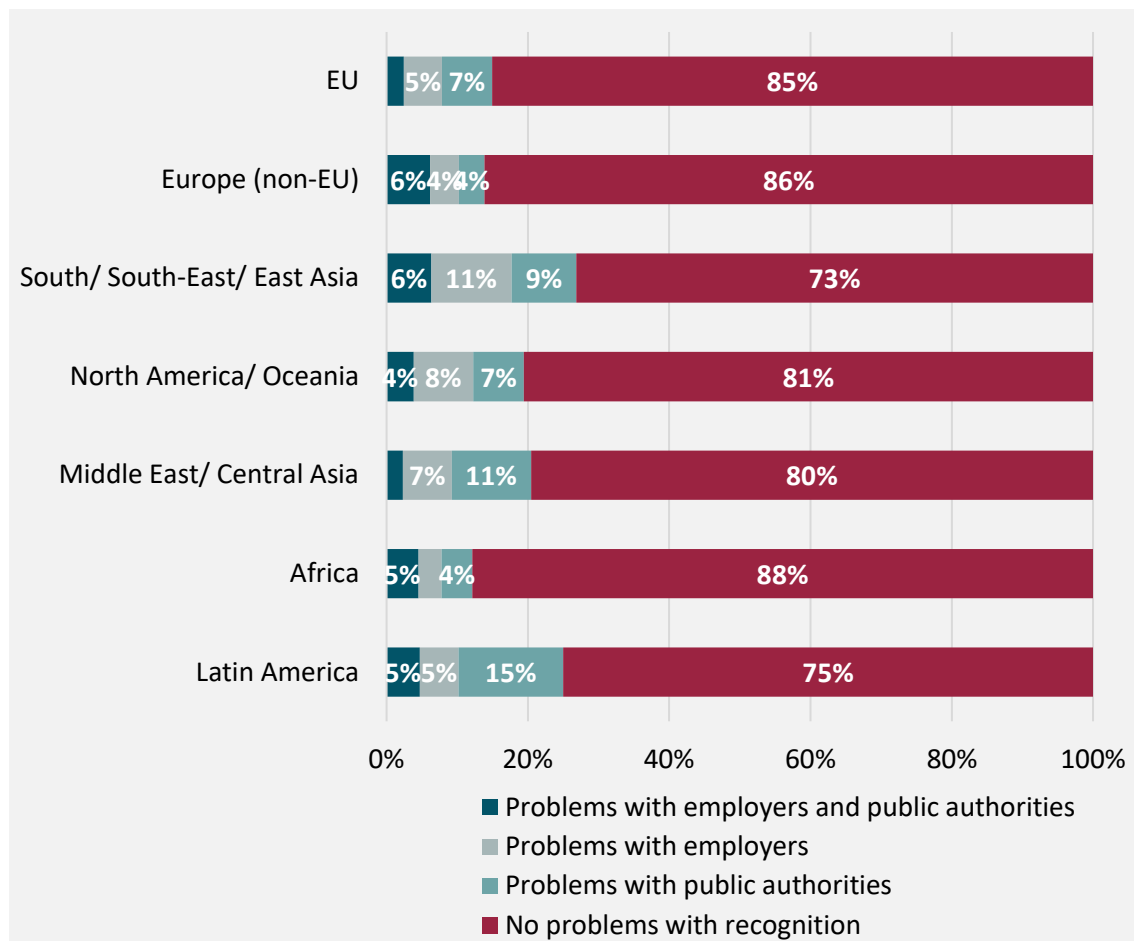
Source: EM Master Graduate Impact Survey 2022/23, n = 3,214/ 3,210/ 3,187/ 3,196 graduates (in order of listed aspects).

Rarely problems with the recognition of the degree

Since the EM master’s degree is a very special degree, as it is studied at up to four different institutions, a decisive aspect for the alumni’s entry into the labour market and the quality of the EM programmes is whether alumni with an EM degree have any problems with recognition. Overall, across all fields, cohorts, and world regions, the vast majority (83%) have not experienced any problems – neither on the labour market nor with other public institutions to which the degree must be submitted. Nevertheless, 8% say they have experienced problems with the latter, and slightly fewer (6%) say they have encountered scepticism from employers. Only 3% had obstacles with both authorities.

As in the last round of the GIS, an analysis of graduates’ current place of residence and the problems they have experienced with the recognition of their degree to date shows that alumni in South/ East Asia experienced the most problems, most frequently with employers (11%). In contrast, alumni in Latin America have most frequently experienced problems with public institutions such as government offices (15%). Graduates currently living in Africa (88%), or Europe (EU and non-EU) appear to have experienced the least problems – although it cannot be clearly concluded that the problems were also experienced in their current place of residence.

Figure 18: Problems with EM Master diploma recognition by region of current residence



Values below 4% not shown here.

Source: EM Master Graduate Impact Survey 2022/23, n = 3,227 graduates.

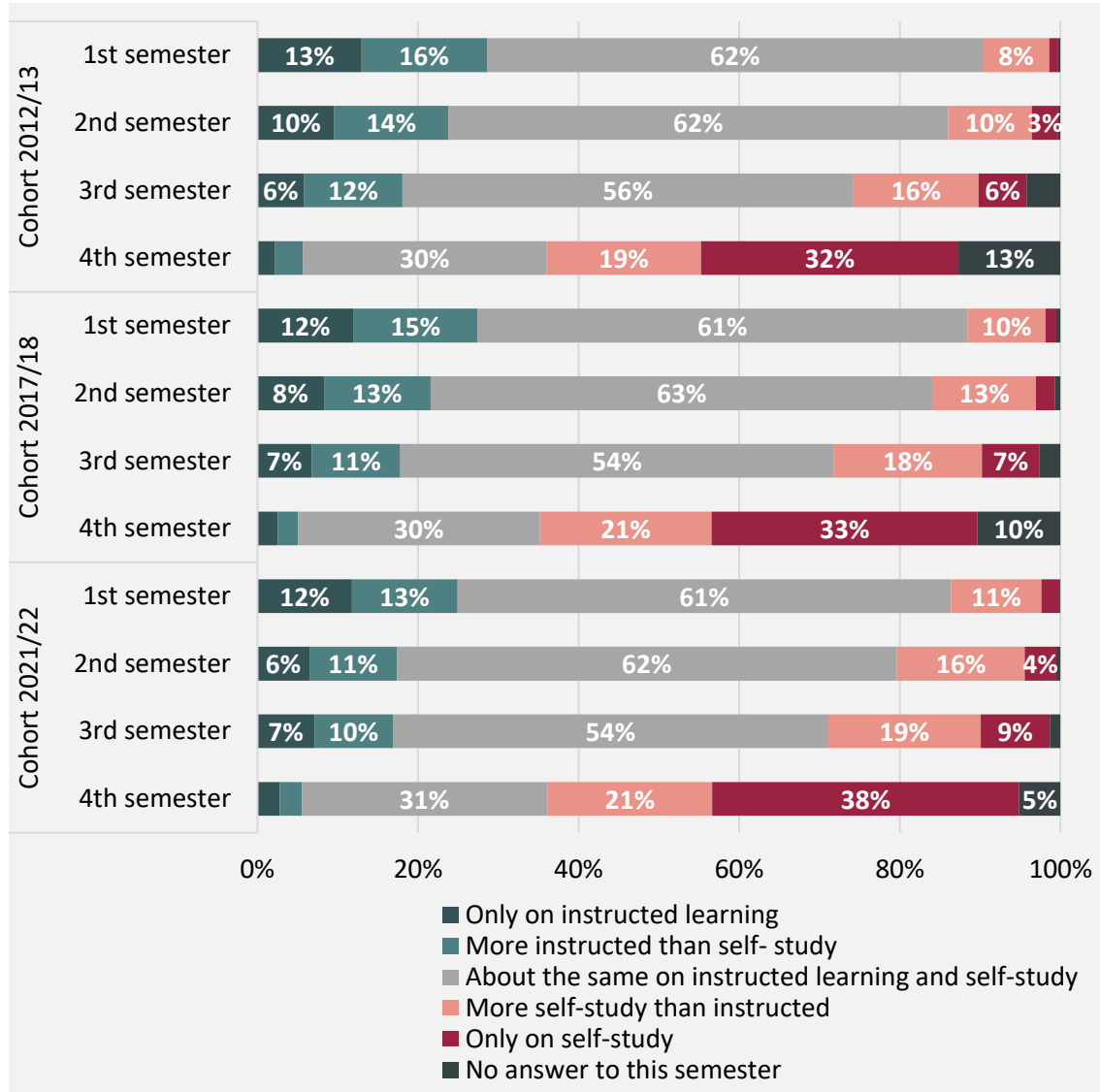
4.4 Organisation of teaching and the COVID-19 pandemic

Time spent on lessons and learning alone is largely balanced – except for the last semester

In this round of the Graduate Impact Survey, graduates were asked for the first time about the ratio of their study time spent on instructed vs. self-study. In Figure 19 it can be seen that across all cohorts, the fourth semester is different from the first three semesters. The proportion of courses and lectures decreases rapidly what presumably reflects the fact that the fourth semester is primarily intended for the final thesis in almost all degree programmes. The rating of the fourth semester is also characterised by the fact that many students did not give an answer, which may be because some EM Master programmes are less than four semesters long. Overall, there is a clear trend that the proportion of instructed learning decreases with increasing semesters. It is also evident that the majority of respondents in the first three semesters state that a balance between instructed vs. self-study prevailed in their degree programme (more than 60%). More

graduates in the first semesters tend to state that they spent more time in taught studies than in self-study, which then reverses over time.

Figure 19: Time spent on instructed vs. self-study by semester and cohort



Values below 4% not shown here.

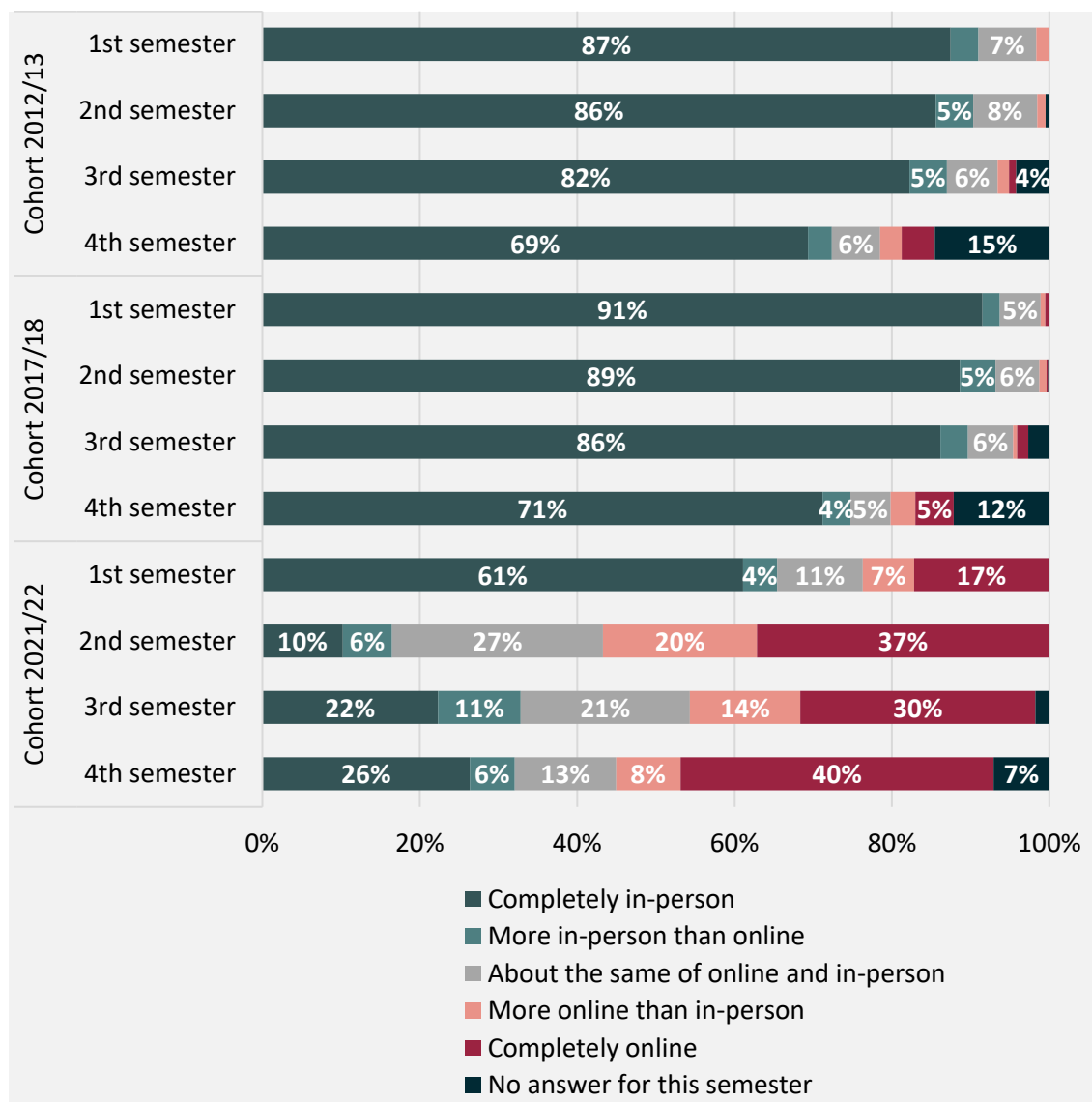
Source: EM Master Graduate Impact Survey 2022/23, n = 827/ 960/ 1,388 graduates (in order of cohort 2012/13 to 2021/22).

The COVID-19 pandemic has brought online teaching to EM Master programmes

Likewise for the first time, EM Master graduates were asked about the ratio of face-to-face to online teaching time, which was prompted by the significant influence of the COVID-19 pandemic and is clearly reflected in Figure 20. If the results shown in Figure 19 are also taken into account, it can be seen that the ratio between self-study and teaching in the 2021/22 cohort does not differ from the other cohorts – the pattern remains the same, it does not shift towards self-study, which would be assumed, but obviously online teaching has taken place accordingly.

Figure 20 clearly shows that the proportion of online teaching for the 2021/22 cohort increases rapidly from the second semester onwards. This cohort includes all those who completed their EM in 2021/22, i.e. they studied in the middle of the COVID-19 pandemic in 2019/2020. This period coincided with a time of strict contact restrictions during the pandemic. Even during this phase, 43% apparently still held some of their courses in person – in particular activities such as laboratory courses, which cannot easily be switched to online teaching. From the third semester onwards, the percentage of in-person attendance gradually increases, but no longer reaches the pre-pandemic distribution.

Figure 20: Ratio between in-person vs. online teaching by semester and cohort



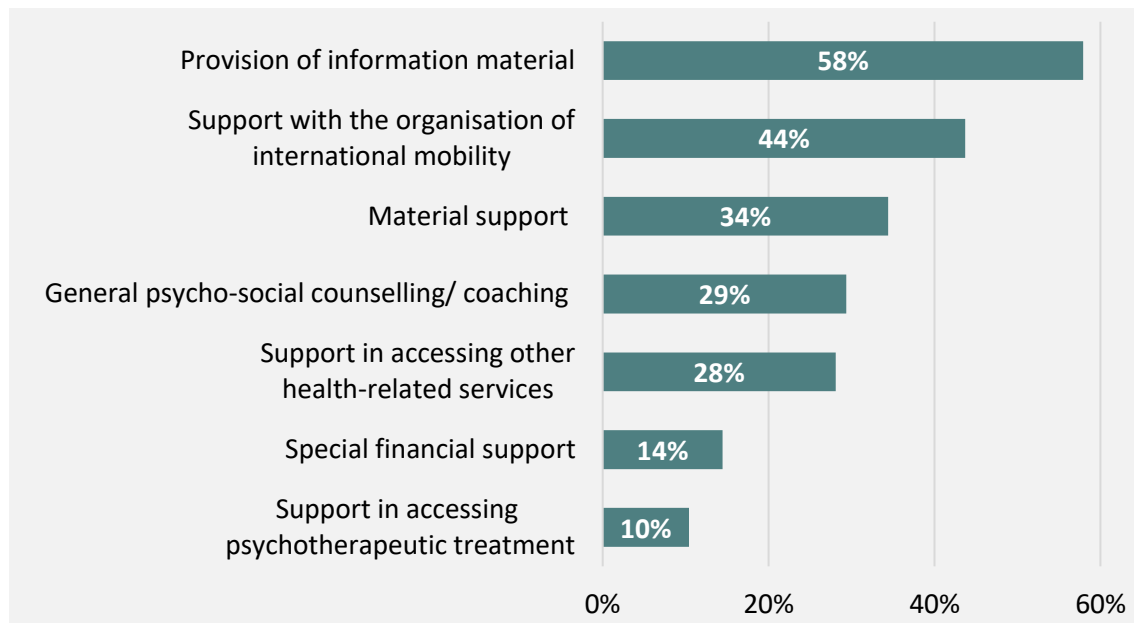
Values below 4% not shown here.

Source: EM Master Graduate Impact Survey 2022/23, n = 830/ 963/ 1,393 graduates (in order of cohort 2012/13 to 2021/22).

To gain an even better understanding of the impact of the Covid-19 pandemic, alumni of the 2021/22 cohort were also asked what support was available from their universities (see Figure 21). More than half of graduates state that their universities provided them with information

material (58%), and some were able to receive support in organising their international mobility (44%). Just one third received support in material form or in the form of psychosocial counselling or other health-related services. Only a few students at that time were able to access financial support (14%) or support for accessing psychotherapeutic treatment. Overall, therefore, EM universities appear to have limited themselves to the distribution of information.

Figure 21: COVID support from universities, only graduates from the cohort 2021/22



Source: EM Master Graduate Impact Survey 2022/23, n = 1,473 graduates from cohort 2021/22.

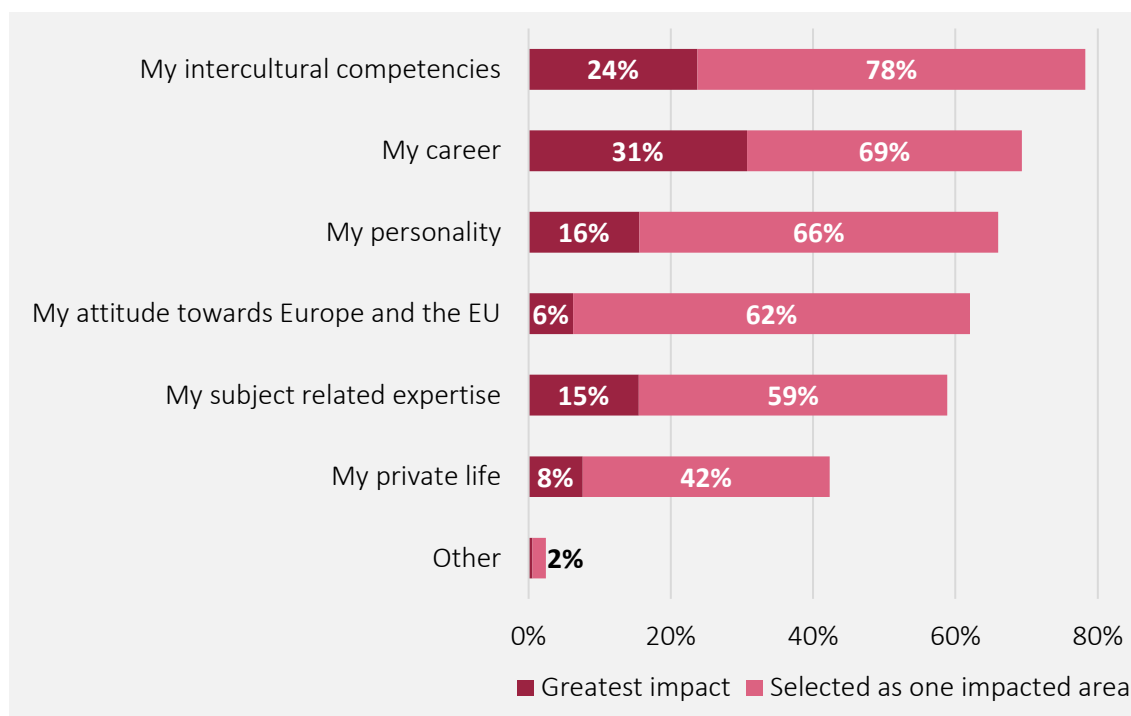


5 Personal Impact

5.1 Greatest area of impact (self-assessed)

Graduates were asked to indicate which areas of their personal lives have been influenced by the EM Master programme and which of the selected areas they feel have been influenced most by their study experience abroad. As Figure 22 shows, intercultural competencies are most frequently perceived, by almost 80% of graduates, as having been strengthened by the Erasmus Mundus (EM) experience. Slightly fewer (69%) state that their career has been significantly influenced by the EM programme. However, one third of all graduates state that the programme has had the greatest impact on their career (31%). It should be noted that the order of importance of the areas has not changed since the last round of the GIS 2020/21, not even in the areas that were perceived by the respondents as the strongest impacted. This indicates a certain continuity in the influence of the EM Master programmes, which underpins this result.

Figure 22: All areas (multiple choice) and greatest area (single choice) of personal impact of Erasmus Mundus



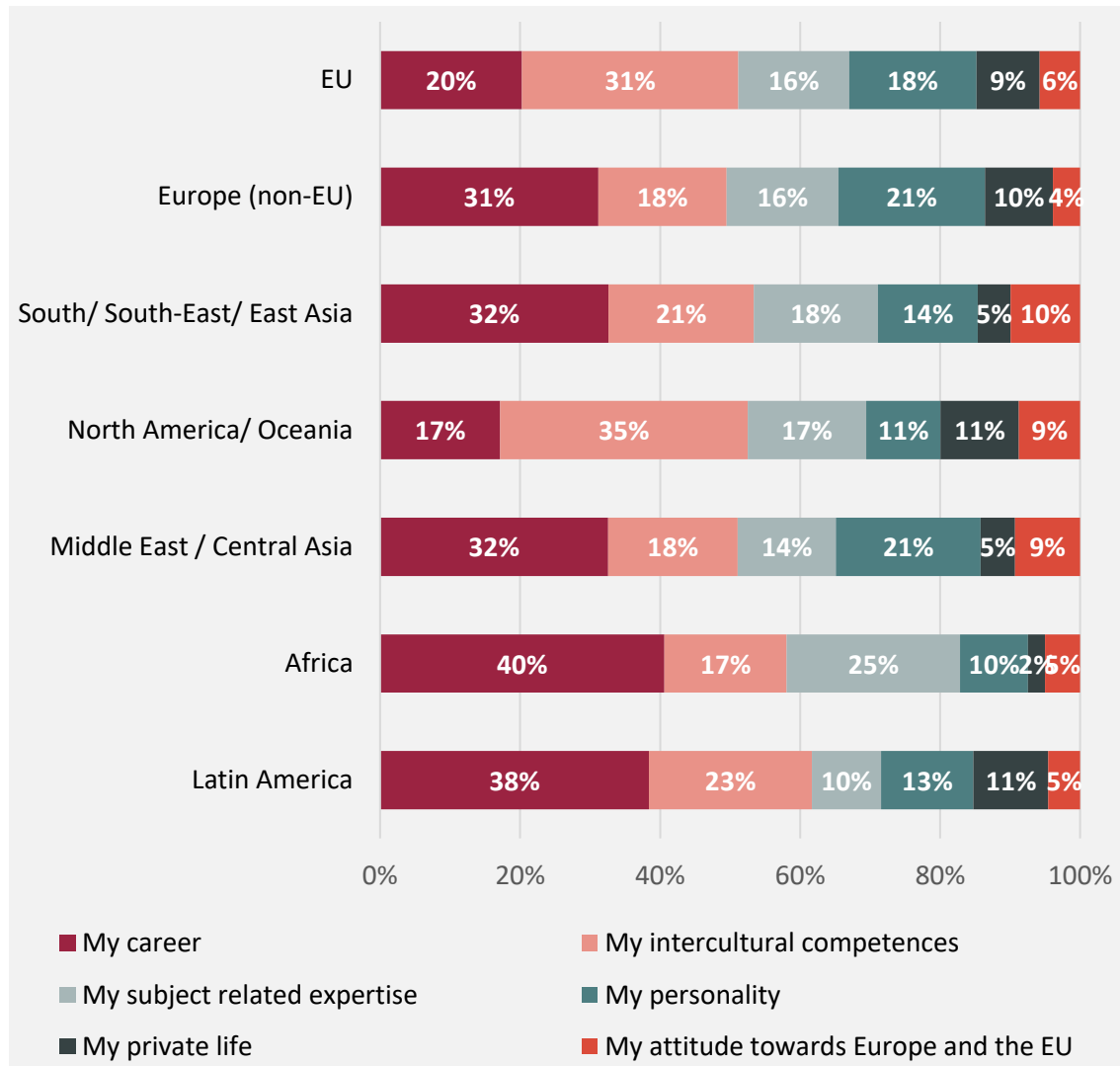
Source: EM Master Graduate Impact Survey 2022/23, n = 3,241 graduates.

A closer look reveals that there are clear differences in the mentioned areas of impact, depending on graduates' region of origin.

The majority of graduates see the greatest impact of the EM Master programme on their career. This is particularly true for students from Africa (40%) and Latin America (38%), but also most graduates from Asia (32%) and European non-EU countries (31%) note the most significant impact in this area. Alumni from EU countries and North America/ Oceania see an impact primarily

on their intercultural skills. Graduates from Africa most often report the most significant impact on their subject-related expertise (25%), whereas alumni from other regions do so less frequently.

Figure 23: Greatest area of personal impact of Erasmus Mundus by region of origin



Source: EM Master Graduate Impact Survey 2022/23, n = 3,128 graduates.

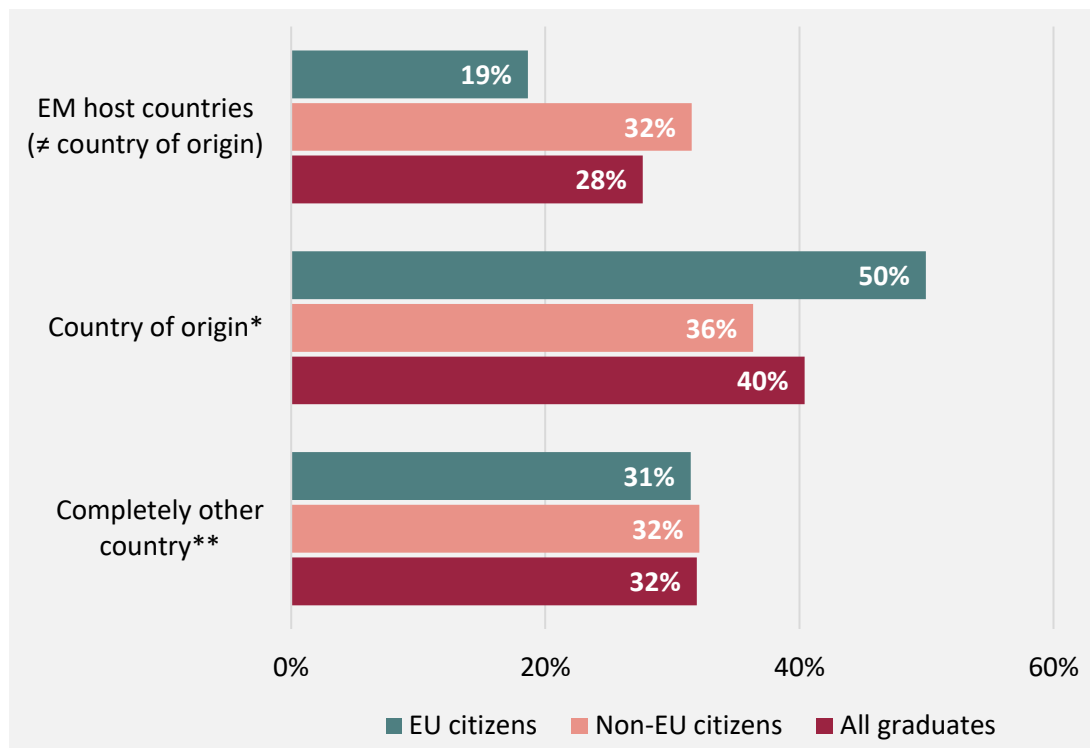
5.2 Impact on the further course of life

The personal significance of the EM Master programmes for graduates goes far beyond the subject-specific content; it also lies in the connections that these programmes create for EM students with new locations and social networks. These new connections, as well as the opportunities that arise from an academic degree in the various fields of study, also open up other perspectives on a new place of residence. Consequently, this segment will explore the post-graduation residence destinations of EM Master graduates.

Non-EU citizens return to their countries of origin less often

Alumni of EM Master programmes tend to maintain an international profile even after their graduation. As Figure 24 shows, on average 28% of alumni lived in one of their host countries at the time of the survey (not counting those for whom said host country is also their country of origin). This share is lower for EU citizens than non-EU-citizens, as their countries of origin are much more often EM Master host countries. 32% continued their international journey to a country they neither originated from, nor studied in during their EM Master – here, there is almost no difference between EU- and non-EU-citizens.

Figure 24: Place of residence at the time of the survey by EU or non-EU citizenship



* Graduates who live in a country which is both their country of origin and one of their former EM Master host countries are counted under "country of origin".

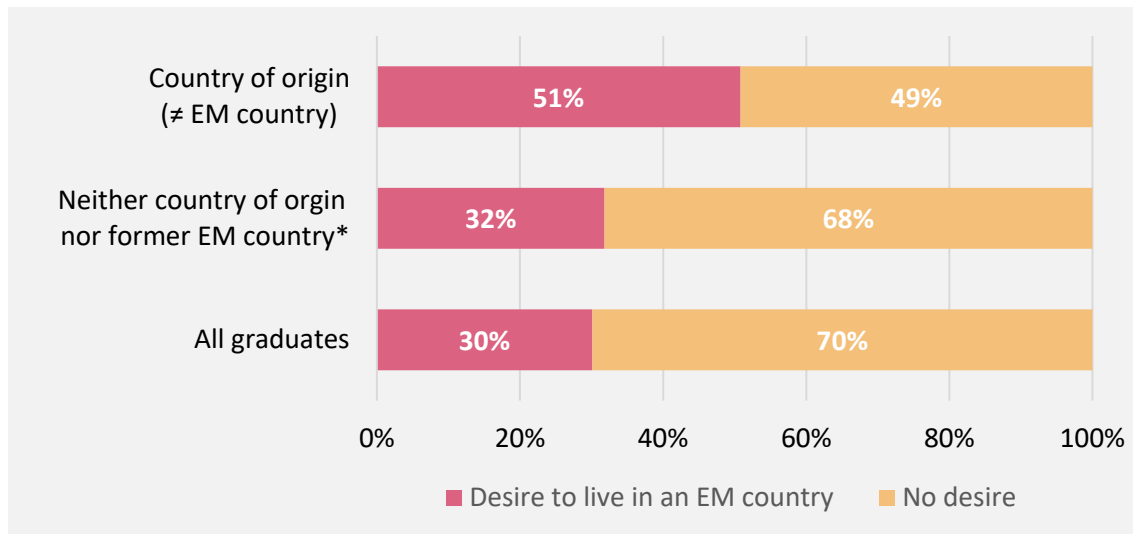
** Graduates who neither live in their country of origin, nor in one of their EM Master host countries.

Source: EM Master Graduate Impact Survey 2022/23, n = 3,371 graduates.

Returners seek living in an EM host country more often

Although 28% of EM Master graduates already stayed or returned to live in one of their former host countries, the share of graduates who wish to relocate to such a country among the rest is considerably high. Figure 25 shows that half (51%) of graduates who returned to their country of origin express the wish to live in a previous EM Master host country. This wish is also held by a third (32%) of alumni who, after graduating, live in a country that is neither their country of origin nor one of their EM Master host countries.

Figure 25: Share of graduates who “would like to live in one of their EM Master host countries but have not yet had the opportunity to do so” by current place of residence



* Graduates who neither live in their country of origin, nor in one of their EM Master host countries.

Source: EM Master Graduate Impact Survey 2022/23, n = 3,104 graduates.

The longer ago the EM, the more graduates return to their countries of origin

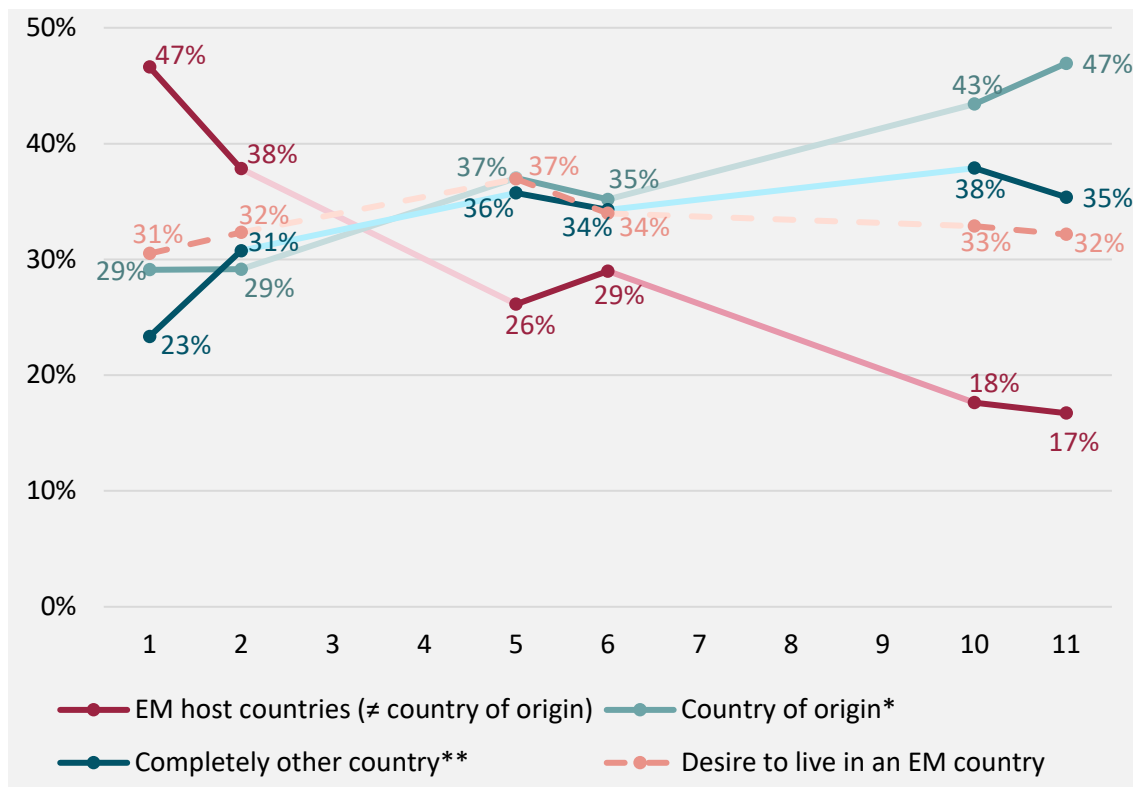
When looking at places of residence over time (see Figure 26), a more differentiated picture emerges. While one year after graduation almost every second graduate (47%) still lived in an EM host country, five years later this only applies to around one in four (26%) graduates. 11 years after graduation, only about one in six (17%) graduates is still living in the former EM host country.

The reverse is true for people who live in a completely different country, i.e., neither in an EM host country nor in their country of origin. While 23% lived in such a country one year after graduation, the proportion rises to 35% eleven years after graduation.

For the majority of graduates, however, a tendency can be seen – the more years have passed since graduation, the more likely they are to return to their countries of origin. Eleven years after graduation, almost half of surveyed graduates without EU citizenship returned to their country of origin (47%).

Contrary to these developments, the desire to live in an EM country has remained almost constant over the past 10 years and is expressed by around one in three respondents without EU citizenship.

Figure 26: Residence country of graduates without EU citizenship by years since graduation



Pale Lines: No data available for time spans between sample cohorts – lines show long term tendency. Exact values for the actual cohorts in between might differ.

* Graduates who live in a country which is both their country of origin and one of their former EM Master host countries are counted under “country of origin”.

** Graduates who neither live in their country of origin, nor in one of their EM Master host countries.

Source: EM Master Graduate Impact Survey 2022/23, n = 2,384 graduates without EU citizenship.

Figure 27 provides an insight into the reasons why graduates live in their current place of residence. A distinction is made between places of residence within the EU and places of residence in non-EU countries. In addition, the figure provides information on why graduates who express a desire to live in one of their former EM host countries currently live in another country.

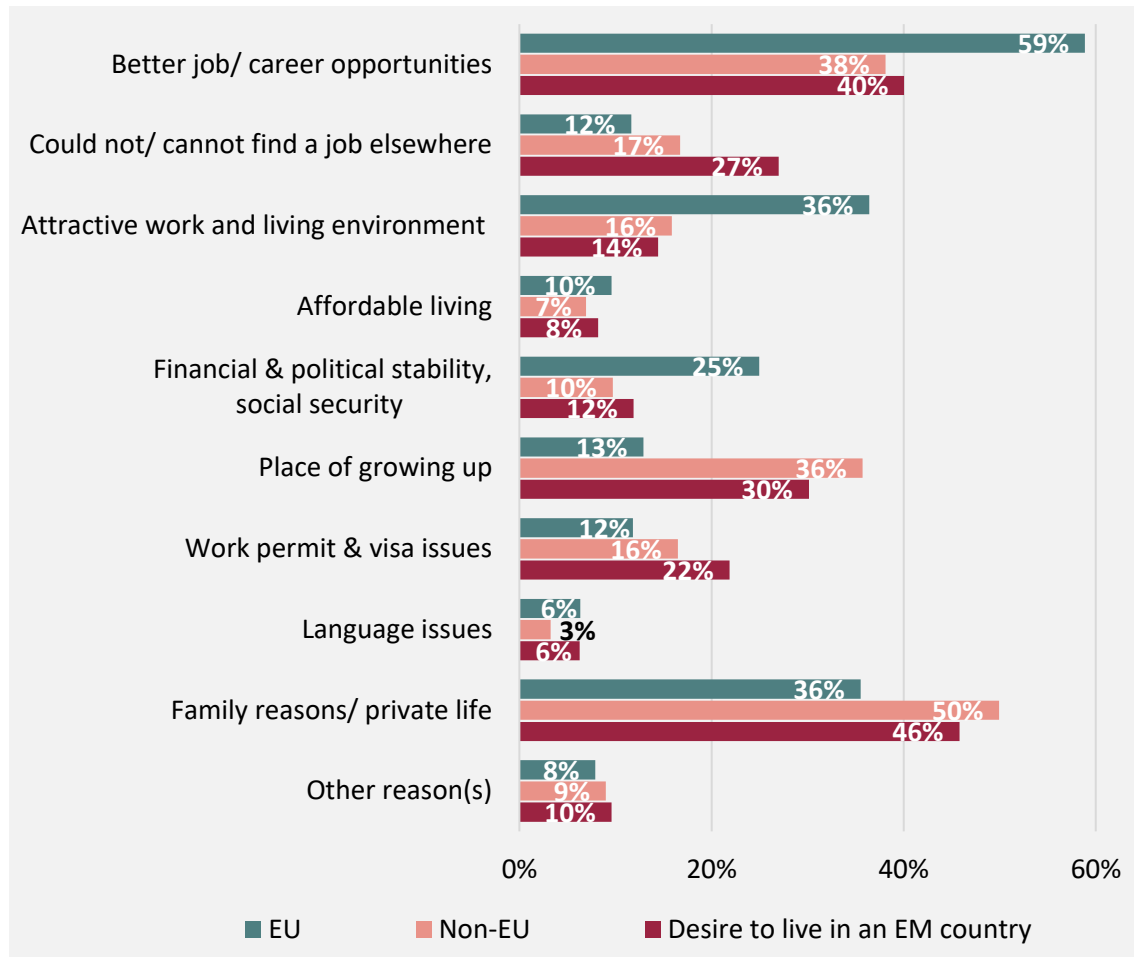
Graduates who live in the EU do so primarily for professional reasons, as they see better career opportunities as well as working and living conditions for themselves within the EU. Family reasons are also frequently cited, as well as financial and political stability.

On the other hand, the decision to live in a non-EU country appears to be dominated by reasons related to family or private life. For example, this group of alumni frequently state that they chose to live in the place where they grew up. A social network in the country of origin could also be the reason why a relatively large proportion of these respondents see better job and career opportunities in their current country of residence.

Graduates who express an aspiration to live in a (different) EM country also largely report family and social reasons. For this group, however, structural conditions such as work permits and visas

also play an important role. This could also be the reason why around one in four respondents (27%) state that they were unable to find a job elsewhere.

Figure 27: Reasons for choice of current residence country (EU vs. non-EU) and reasons why graduates would prefer to live in one of their former EM host countries



Source: EM Master Graduate Impact Survey 2022/23, n = 3,376 graduates EU/non- EU citizens, n = 907 graduates who would rather live in an (other) EM host country.

5.3 Engagement with Europe and the European Union

EM alumni were surveyed about their ongoing interactions with places and individuals in the context of their EM studies. The following section outlines the results obtained from this set of questions.

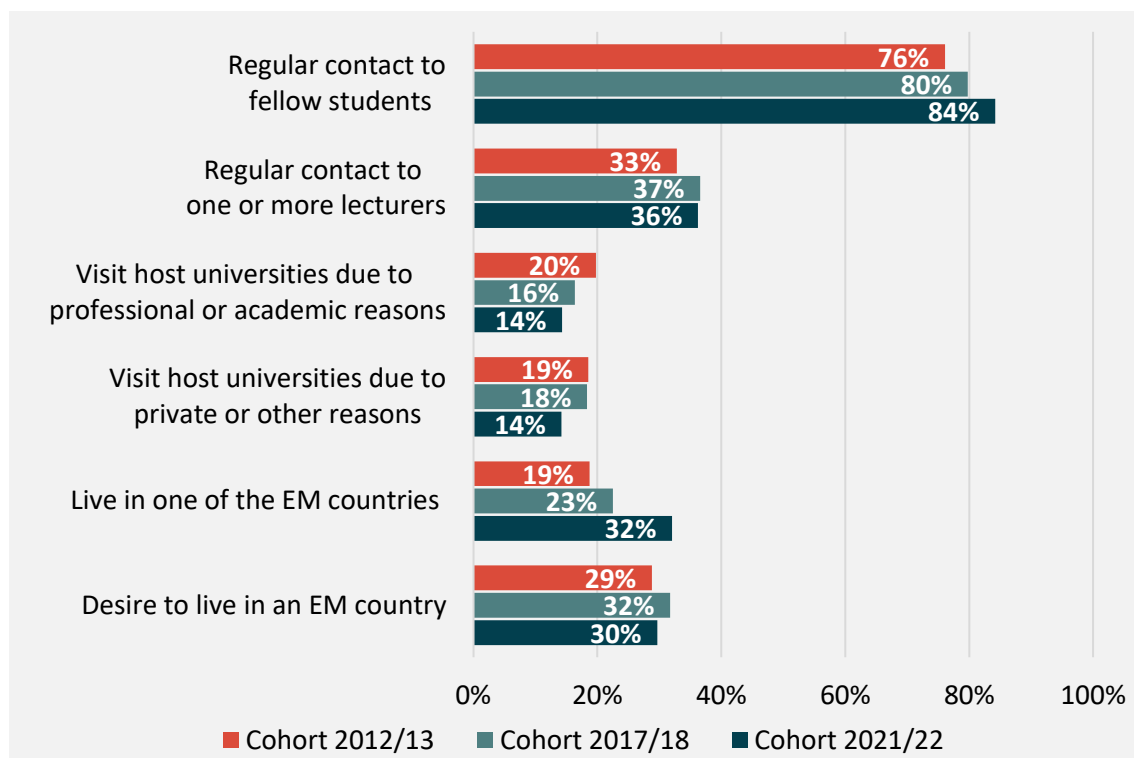
Personal contact decreases over time – but contact increases for professional reasons

In order to analyse what type of contact the different cohorts maintain with their former EM host countries, graduates were asked six questions covering contact with individuals, institutions and

their (desired) place of residence. As Figure 28 shows, the majority (84%) of alumni from the most recent cohort 2021/22 maintain contact with former fellow students. Additionally, more than one third of them (36%) also stay in touch with former lecturers. Although alumni from earlier cohorts comparatively report maintaining contact with former classmates less frequently, their interaction with lecturers remained nearly unchanged. Additionally, former cohorts more frequently report remaining in contact with their previous universities, especially for professional or academic reasons.

As already discussed in the previous chapters, it can also be seen here that the share of people who still live in an EM country is higher, the more recent their graduation is. Nevertheless, the aspiration to live in an EM country remains nearly constant across cohorts.

Figure 28: Ongoing interaction with host countries and EM affiliates after graduation, by cohort

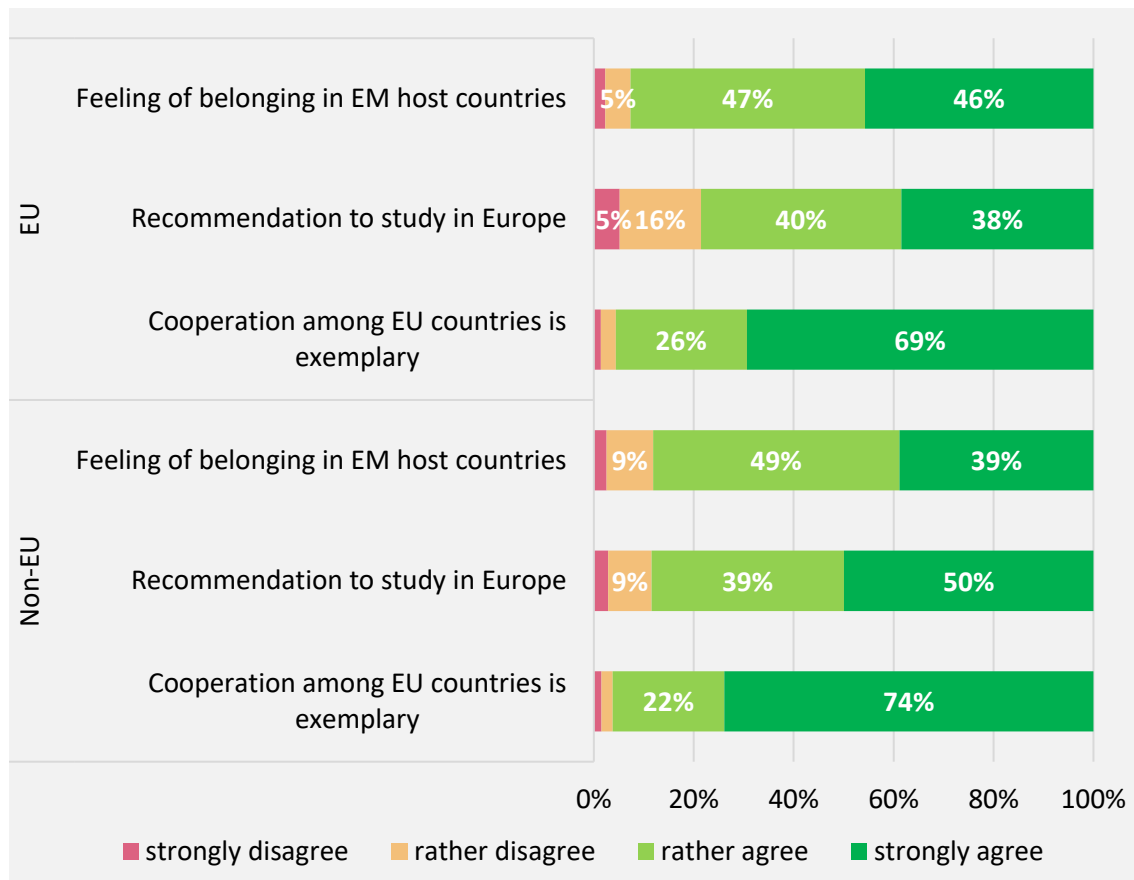


Source: EM Master Graduate Impact Survey 2022/23, n = 3,118 graduates.

Non-EU-Citizens more convinced of European conditions

Additionally, alumni were asked more general questions about their assessment of the EU and Europe as an educational destination. Figure 29 shows the three corresponding questions, categorised by the respondents' origin, distinguishing between those originating from EU member states and non-EU countries. As expected, non-EU citizens exhibit a somewhat diminished sense of belonging to their respective EM host countries. However, they are significantly more inclined to recommend pursuing academic studies in Europe. They are also more likely to strongly agree with the statement that cooperation between EU countries is exemplary.

Figure 29: Assessment of Europe and the EU as a place to study by citizenship



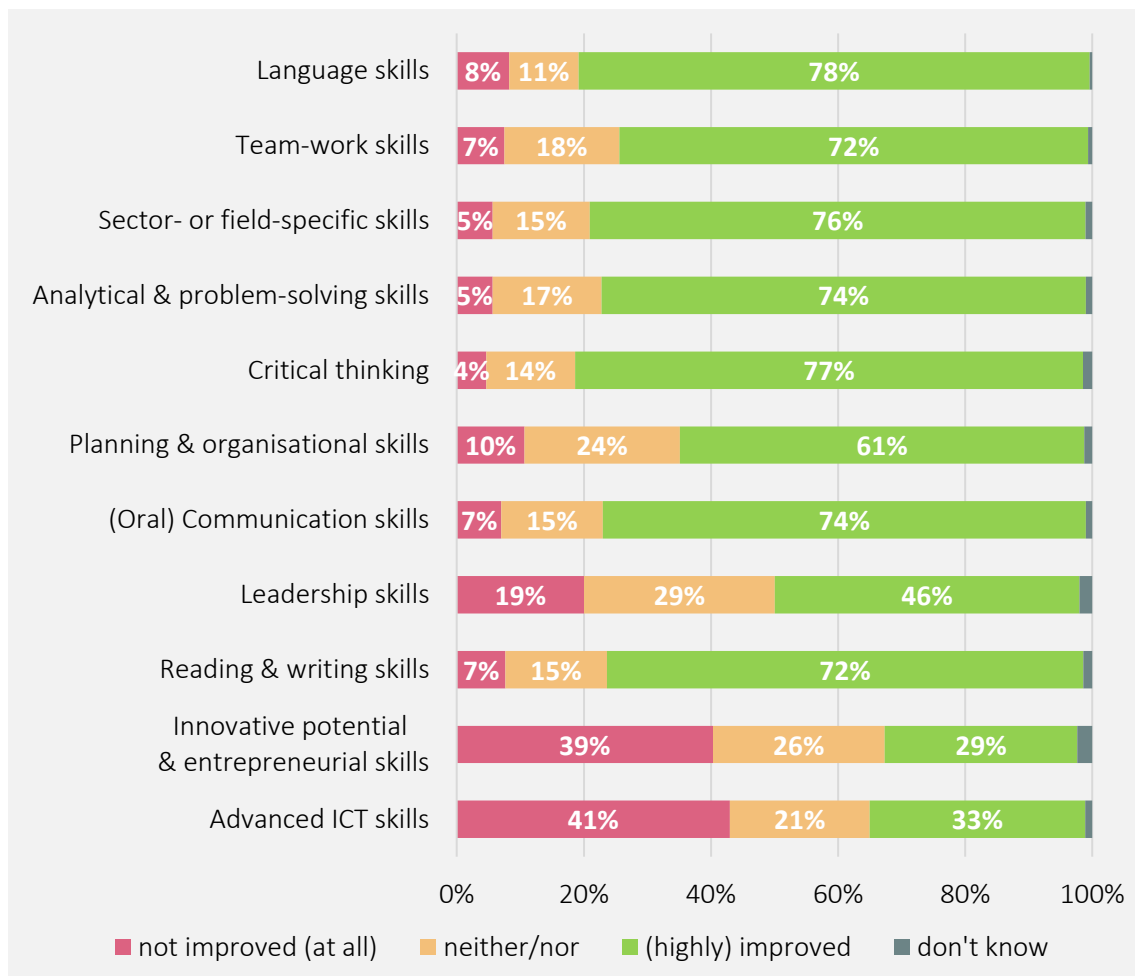
Values below 5% not shown here.

Source: EM Master Graduate Impact Survey 2022/23, n = 969/ 947/ 952 graduates with EU citizenship, n = 2,242/ 2,230/ 2,230 graduates with non-EU citizenship (in order of the three listed aspects).

5.4 Competencies and personality development

Before examining the career outcomes of EM Master graduates, this section addresses the development of their competencies and personalities. Figure 30 illustrates the self-perceived improvements in employment-related skills resulting from the EM Master programme among graduates currently employed. Similar to the findings in the previous survey (GIS 2020/21), two areas stand out as having significantly improved for a large portion of graduates: On the one hand, linguistic skills (including language, reading, and writing) have seen notable enhancement; on the other hand, skills related to cognition and knowledge (sector- or field-specific skills, problem solving, critical thinking) have similarly improved significantly. While leadership skills and organisational skills have improved for many, they have not shown the same degree of progress as the aforementioned two areas. Corresponding with the outcomes of the prior Graduate Impact survey, graduates once again indicate relatively limited improvement in innovative potential and entrepreneurial skills, as well as advanced ICT skills. This observation may be attributed to the stronger connection of these skills to specific academic disciplines.

Figure 30: Self-assessed improvement in various employment-relevant skills through EM Master (only graduates in employment)

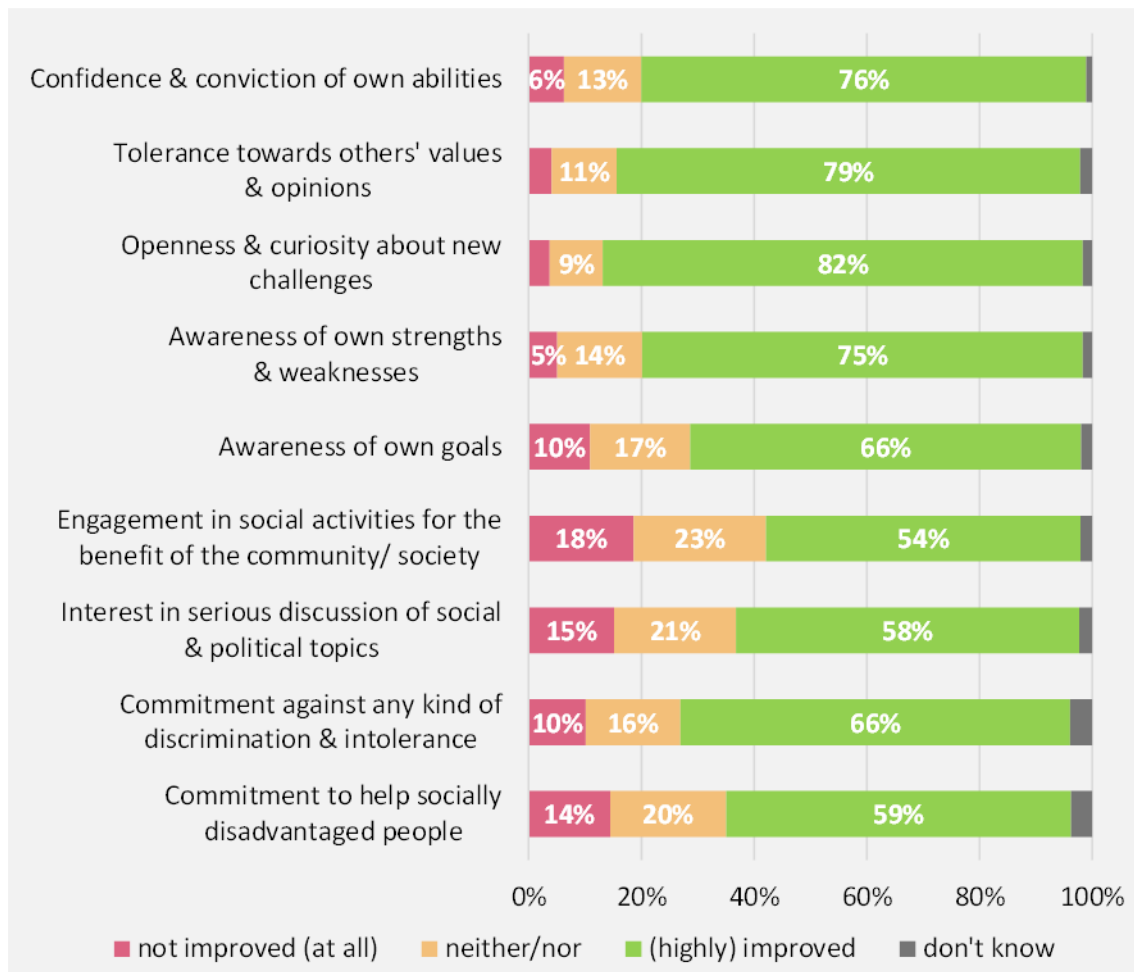


Values below 4% not shown here.

Source: EM Master Graduate Impact Survey 2022/23, n = 2,583 - 2,609 graduates in employment (missings depending on item).

Figure 31 shows how graduates perceive the improvement of their personal and intercultural competencies through their EM Master programme. Almost all respondents note a (strong) improvement in their openness and curiosity about new challenges. Similarly, nearly all graduates see a positive development in their self-perception, especially regarding confidence and conviction in their own abilities, as well as awareness of their own strengths and weaknesses. Slightly fewer, but still the majority (66%), report an improved awareness of their own goals. In terms of commitment to social justice, two out of three graduates (66%) report that their commitment against any kind of discrimination and intolerance has (strongly) improved. Slightly fewer, namely three out of five individuals (59%), perceive a similar development in their commitment to help socially disadvantaged people. While the areas of engagement in social activities for the benefit of the community/ society and interest in serious discussion of social and political topics are those in which alumni most frequently state that no improvements have taken place, at the same time more than half still perceive (strong) improvements in these domains.

Figure 31: Graduates' assessment of personal and intercultural development through EM Master



Source: EM Master Graduate Impact Survey 2022/23, n = 3,253 – 3,279 graduates (missings depending on item).

6 Employment and Career Impact



6.1 Career pathways after graduation

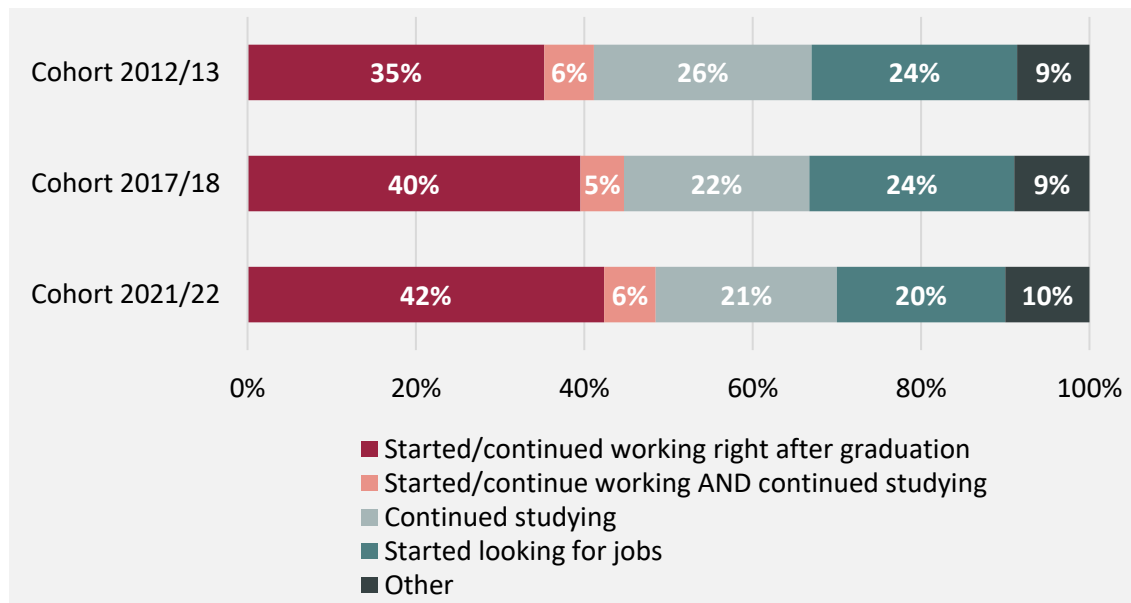
The opening segment of this chapter will delve into the first half-year post-graduation, illustrating the choices made by graduates, such as pursuing further education (enrolling in doctoral programs, internships, or training), entering the workforce, engaging in an extended job search, or opting for entirely different career paths.

Recent cohorts remained less often in higher education after EM Master

Looking at the activity in the first six months after graduation, slightly less than half of graduates had already (found) a job when they finished their EM Master programme (around 40% across all cohorts). A comparatively large proportion of 23% remained at the university to continue their studies, with only around 6% combining studying and working. A further 23% left the university and mainly looked for work in the first 6 months after graduation and 9% neither looked for work, were in employment or pursued further studies. Of the graduates who obtained their EM degree in 2021/22, slightly more entered the labour market directly – across the cohorts, there is a slight trend indicating that graduates from younger cohorts take up employment more frequently straight after graduation (see Figure 32).

A comparison between female and male EM Master graduates shows that graduates registered as female more frequently work right after graduation (41% female vs. 38% male) or look for jobs (25% vs. 20%), while graduates registered as male are much more likely to continue their studies without working (18% vs. 28%).

Figure 32: Main activities⁵ in the first 6 months after EM graduation by cohort



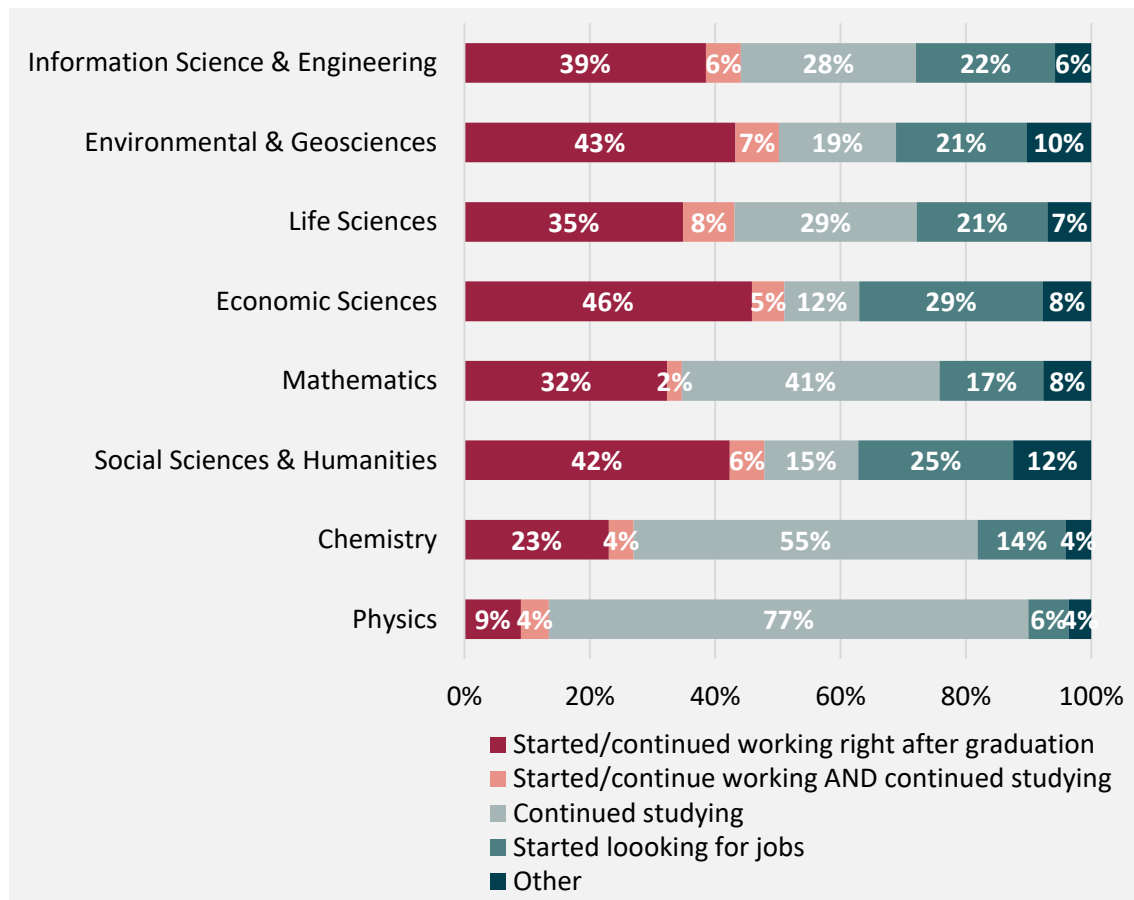
Source: EM Master Graduate Impact Survey 2022/23, n = 880/ 1,024/ 1,475 graduates (listed in order of cohorts from 2012/13 to 2021/22).

Natural sciences alumni seek PhD more often than other disciplines

Very pronounced differences in activities in the first six months after graduation can be found with regard to the fields of study. Graduates in the subject groups of chemistry, physics, and mathematics in particular are much more likely to take up further studies after their EM degree – it is striking that 77% of all physics graduates in EM Master programmes do so, more than half in chemistry and slightly less than half in maths (see Figure 33). This reflects the fact that a PhD is much more common and required in these fields. In contrast, graduates of economics and social sciences & humanities are much less likely to go on to further studies and are much more likely to take up work or look for a job right after graduation.

⁵ Graduates categorized as working and/or studying in the first 6 months may have additionally searched for (other) jobs, reported unemployment, or engaged in “other” activities. Graduates who reported job search in the first 6 months after graduation may have also reported “other” activities. Graduates who are categorised as “other” stated that they are not employed, are not looking for a job or were pursuing further studies. Instead, they may have chosen to take a voluntary break from studies/employment, possibly for family or health reasons or because of military service. Furthermore, this category includes graduates who have either completed an internship or applied for one.

Figure 33: Main activity⁶ in the first 6 months after EM graduation by study fields



Source: EM Master Graduate Impact Survey 2022/23, n = 3,378 graduates.

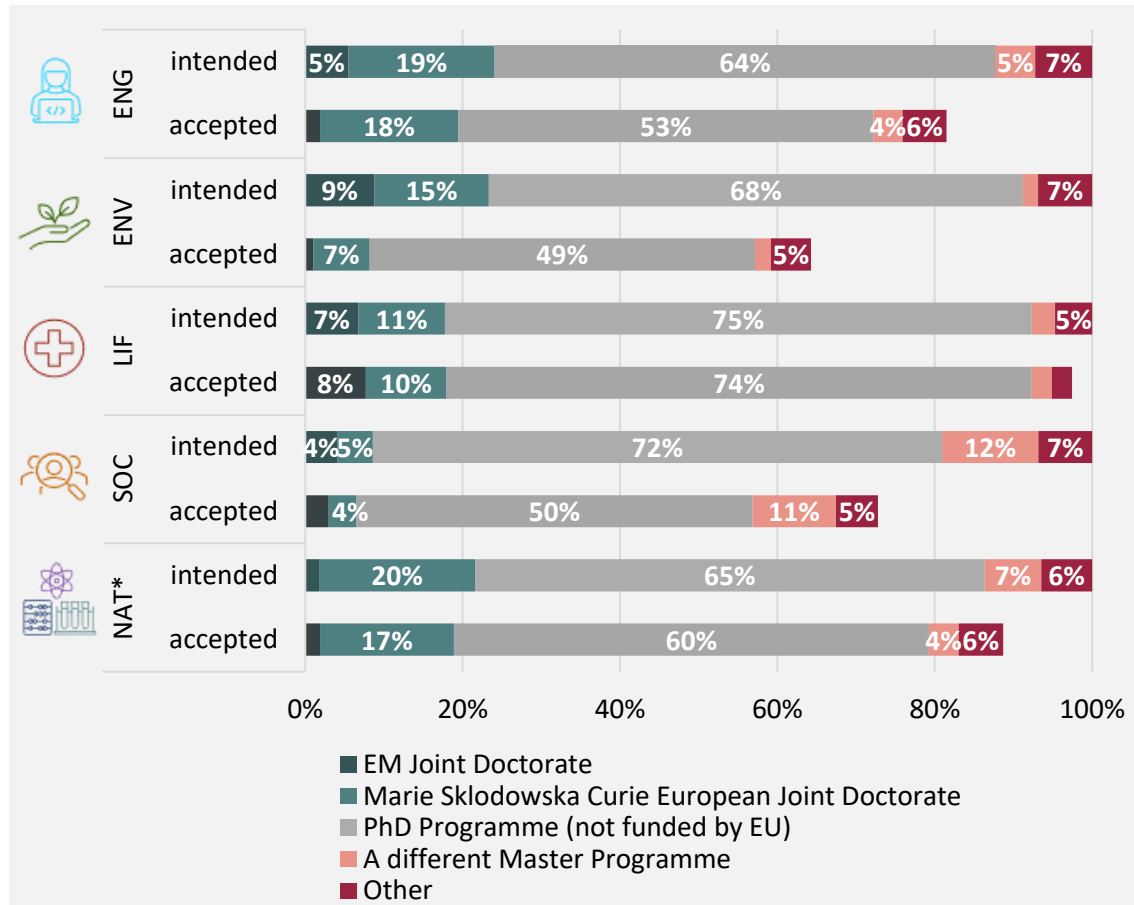
Life sciences, natural science, and engineering most successfully apply for PhD studies

Regarding further academic pursuits, the predominant trajectory for EM graduates involves transitioning into a PhD programme. Approximately 32% of surveyed graduates indicate their engagement in or application for additional study programmes after their EM studies. Across all fields of study, 76% of applications for further studies proved successful, with a predominant inclination toward non-EU funded Ph.D. programmes. Figure 34 delineates varying levels of competitiveness across fields, revealing that not all graduates expressing intent to initiate another programme were subsequently accepted. Notably, within the life science domain, the success rate for applications is notably high at 98%. Following closely are graduates in natural sciences (mathematics, chemistry, physics) with an 89% success rate, and information sciences and engineering with 82%, demonstrating success in starting PhD studies. Conversely, in the fields of social sciences & humanities and environmental & geosciences, the landscape is notably more competitive, with approximately 20% of non-EU funded PhD programme applications facing unsuccessful outcomes. This trend may be attributed to a potential scarcity of available PhD positions or a perception that

⁶ The same series of activity categorisation as for Figure 32 applies (see footnote 5)

EM graduates in these fields may not be as well-prepared to compete for existing positions compared to their STEM counterparts. Consequently, in the realm of social sciences & humanities, opting for another master's programme emerges as a more prevalent choice, constituting 12% of responses.

Figure 34: Intended and realised further studies by programme and study field



Values below 4% not shown here.,

ENG: information science & engineering, ENV: environmental & geosciences, LIF: life sciences, SOC: social sciences & humanities. *NAT: Aggregated shares for graduates of maths, physics, and chemistry programmes (too few cases to display these fields separately); ECO (economics) not displayed (too few cases).

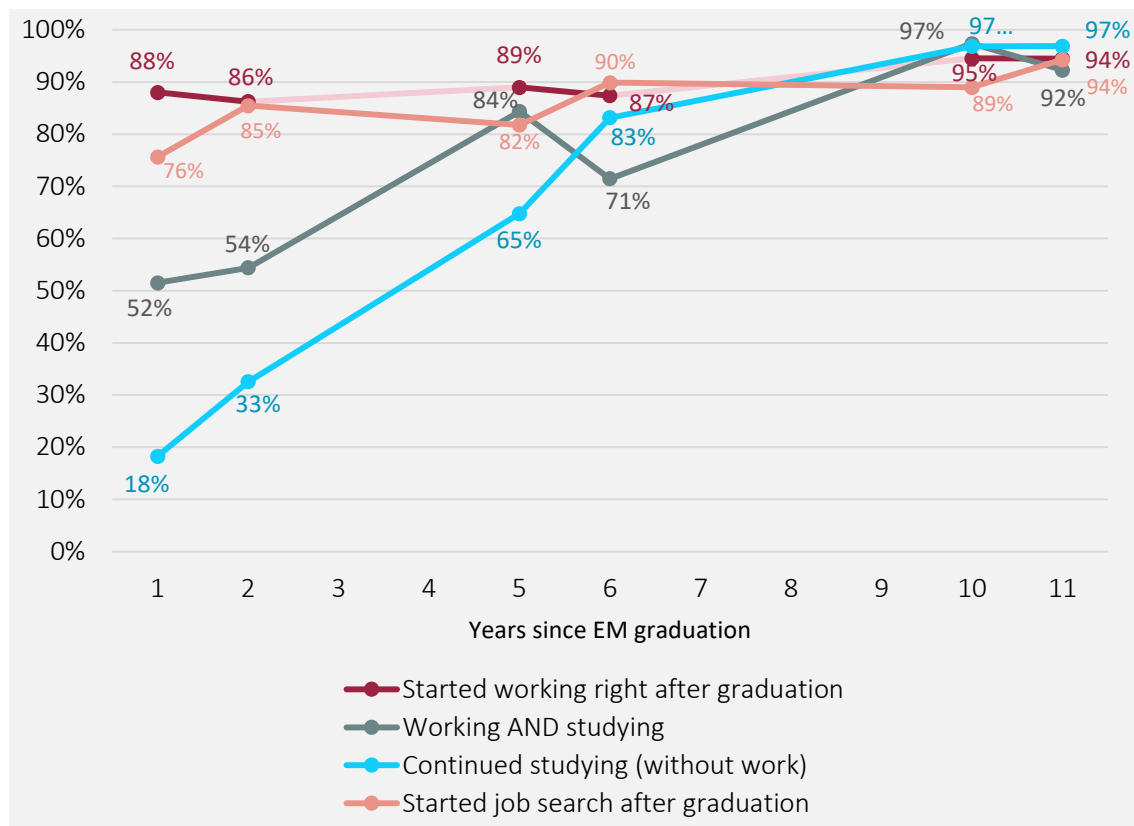
Source: EM Master Graduate Impact Survey 2022/23, n = 484 graduates who applied for further studies in the listed study fields successfully (accepted); n = 491 graduates who applied for further studies in the listed study fields (intended).

Those who do not immediately enter the workforce catch up later

The existing labour market scenario for graduates depends on the actions taken after graduation. Nevertheless, disparities in employment rates tend to diminish notably during the initial years following the completion of the EM Master, evolving into increasingly marginal differences over time. Figure 35 delineates the labour market status of four distinct groups based on the time elapsed since graduation: those initially employed right after graduation, those who worked and studied, those who pursued further studies without concurrent employment, and those who commenced a job search. All the analysed groups in Figure 35 were (self-)employed at time of survey in summer 2023.

Of those who graduated in the year 2021/22 and immediately entered the workforce, 88% remained employed at the time of the survey. In contrast, only 18% of individuals from this cohort who pursued further studies without concurrent employment were employed at the time of the survey (approximately 1-2 years later). However, with the passage of time, it becomes evident that graduates who decide to study, work, or engage in an extended job search post-graduation all gradually converge towards being in (self-)employment. Specifically, among the graduates of the 2012/13 cohort, individuals from these groups were all employed at the time of the survey, approximately 10 to 11 years later.

Figure 35: Proportion of graduates in (self-)employment at the time of survey (summer 2023) by years since graduation and activities in the first six months



Pale Lines: No data available for time spans between sample cohorts – lines show long term tendency. Exact values for the actual cohorts in between might differ.

Source: EM Master Graduate Impact Survey 2022/23, n = 2,437 graduates in employment.

6.2 Prospects and success of first job search

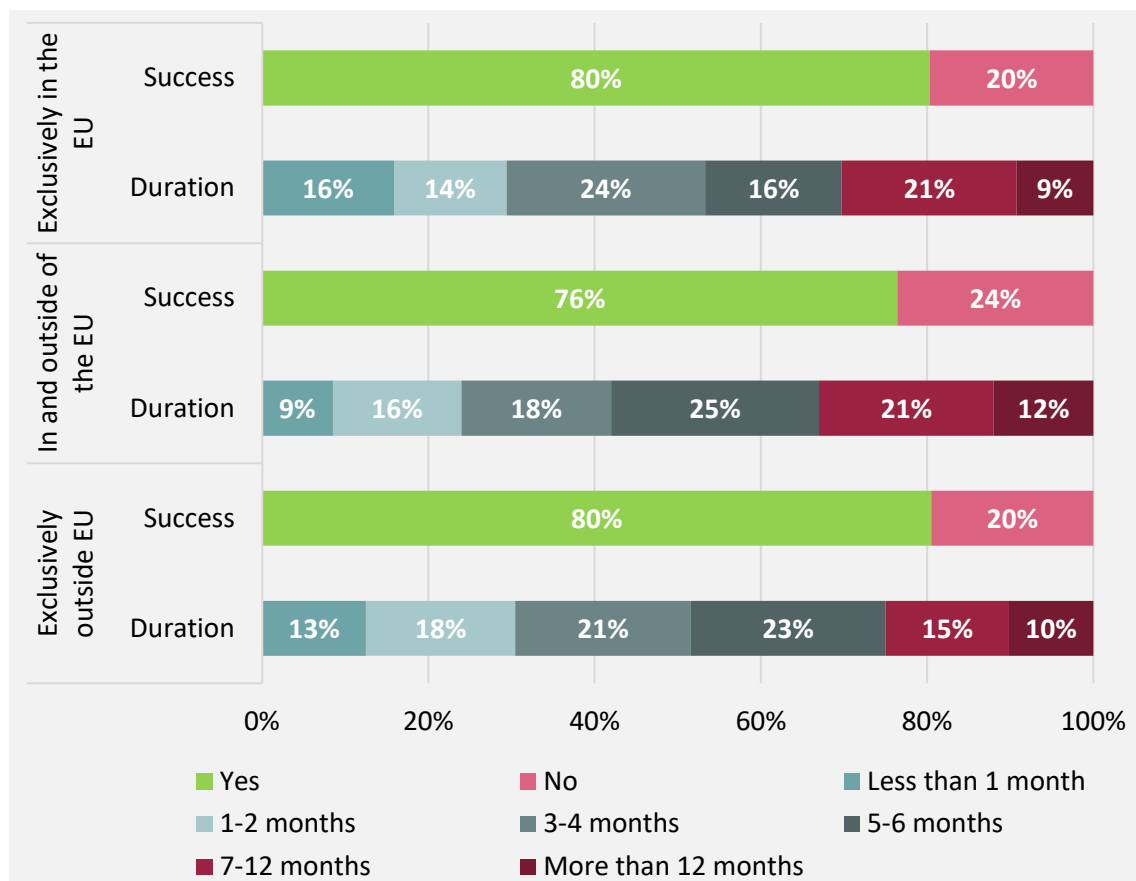
Job search: regions seem to have little influence on the success rate

Most graduates who neither continued studying nor had already started working after finishing their EM Master began a job search. For 79% of all graduates who did so, this first job search (that is, a period of job search started within the first half-year after graduating from the EM Master)

was successful. A majority of graduates considered EU countries during their main search,⁷ 51% exclusively. 19% have searched exclusively outside the EU and 30% in both regions. Countries in Western Central Europe were mentioned most often, with Germany, the Netherlands, France, Belgium, and Spain being the most mentioned EU countries and the United Kingdom as the most mentioned non-EU country.

While in the last round of GIS 2020/21, an exclusive search within EU countries was considered the least promising, this round appears to have the lowest, yet very high, success rate for those searching both within and outside the EU (76%). For those who search in both regions, the duration of the search tended to be slightly longer compared to graduates who searched in only one of the two. This suggests that other factors, such as the field of study, may be more influential (see Figure 38).

Figure 36: Success and duration of first job search by regions of job search (only graduates who started it within 6 months after graduation)



Non-EU countries: All countries of the world that are not members of the European Union.

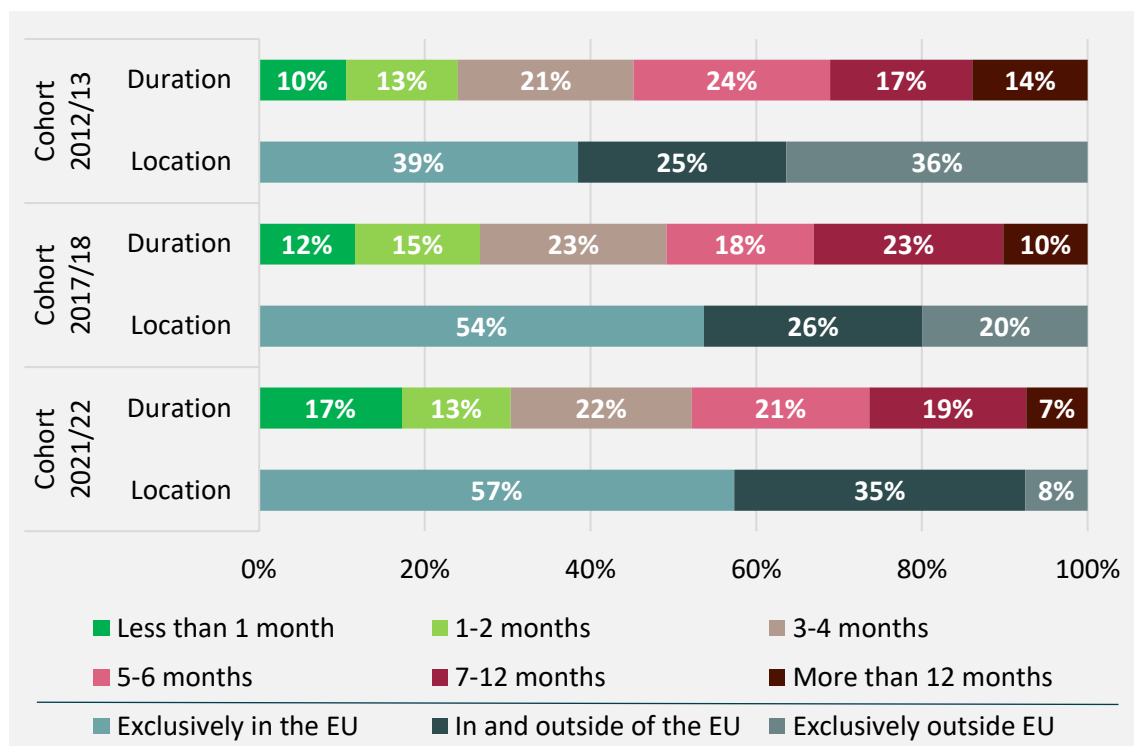
Source: EM Master Graduate Impact Survey 2022/23, n = 860 graduates who searched for a job in the first six months after graduation (success), n = 675 graduates who searched for a job in the first six months after graduation and found one (duration).

⁷ Graduates were asked to name up to three countries in which they mainly looked for jobs.

Older cohorts searched for jobs more internationally

An examination across cohorts reveals that recent graduates have predominantly sought employment within the EU (57%), requiring relatively less time compared to graduates from the 2012/13 cohort (30% finding jobs in less than 3 months). Graduates from the 2012/13 cohorts, in contrast, more frequently conducted their initial job searches exclusively outside the EU (36%), with 31% reporting a job search duration exceeding 6 months.

Figure 37: Time until first professional job and region of job search after EM Master graduation by cohort (only graduates who found a job)



Non-EU countries: All countries of the world that are not members of the European Union.

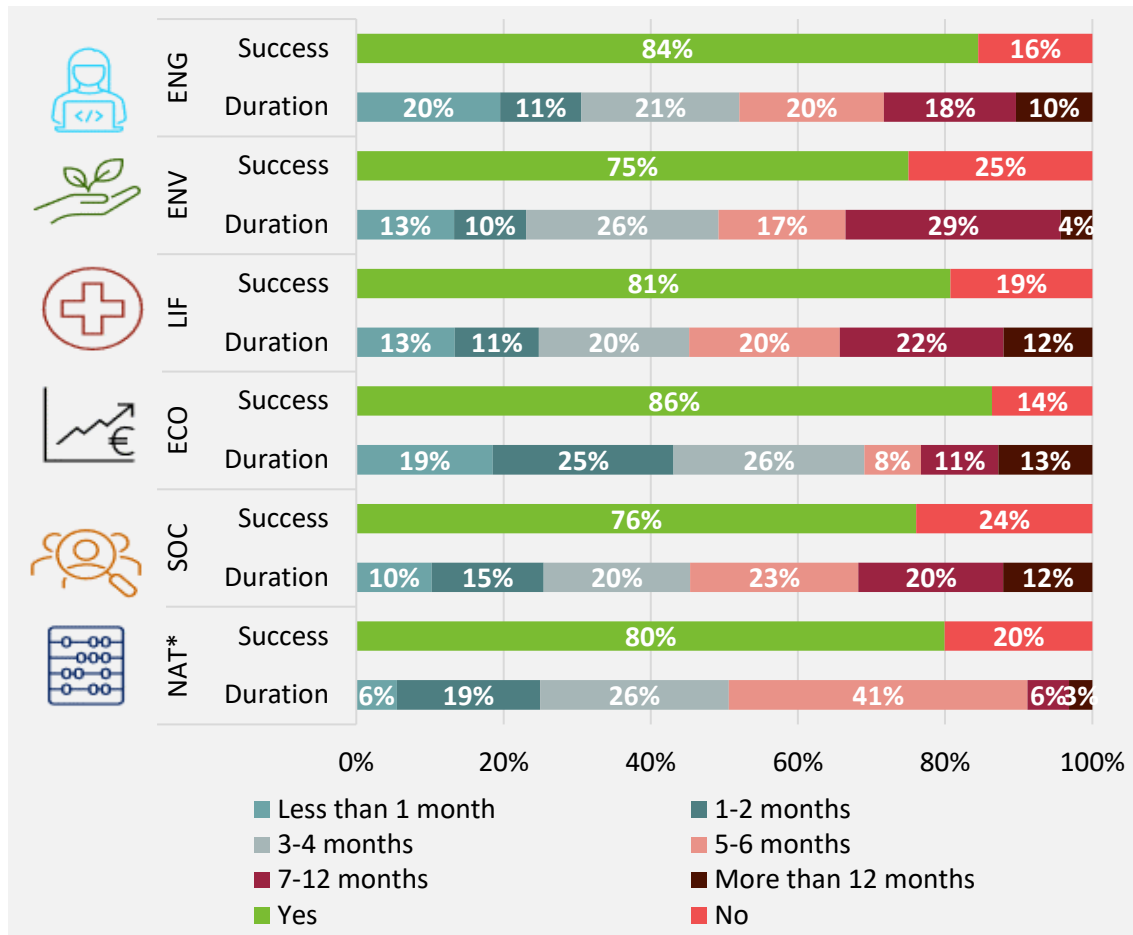
Source: EM Master Graduate Impact Survey 2022/23, n = 842 graduates who searched for a job in the first six months after graduation and found one, n = 682 graduates who searched and found a job and indicated a country of job search.

Smoother labour market entry for economic science alumni

Figure 38 delineates two aspects: first, whether graduates who sought a professional job within the first 6 months after graduation were successful or not (success). Secondly, the duration taken by those who were successful to secure a professional job (duration). It becomes evident that graduates in the fields of environmental & geosciences and social science & humanities encounter the greatest challenges in securing employment, as slightly less than one third did not achieve success within the initial six months. Conversely, graduates in the field of economic sciences exhibit the highest success rate, with 86% finding a job in their first post-graduation job search. Additionally, the duration of job searches in this field is comparatively brief, as 44% found a job within less than three months. In contrast, half of the successful environmental & geosciences

graduates spent more than four months in job search, with 33% of them extending it beyond 6 months.

Figure 38: Success and time until first professional job after EM graduation by study field



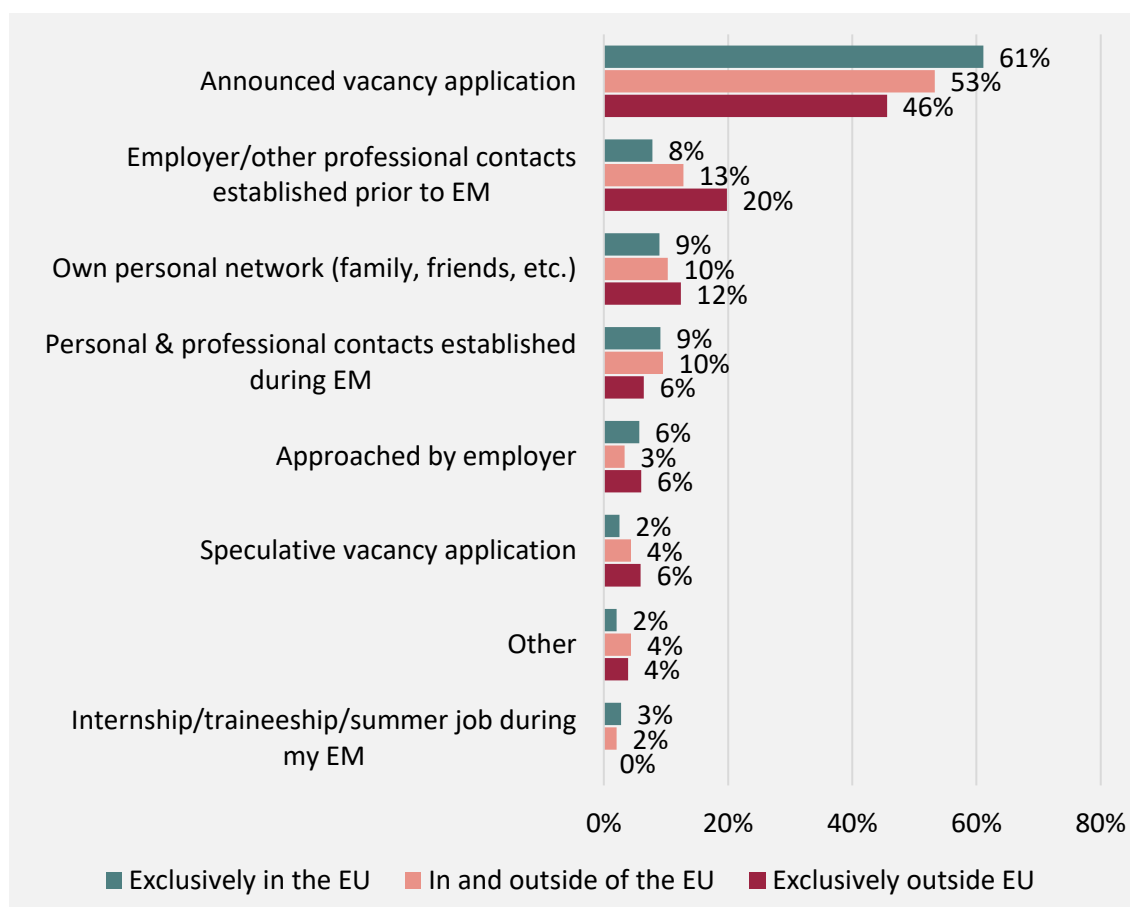
ENG: information science & engineering, ENV: environmental & geosciences, LIF: life sciences, SOC: social science & humanities.
*NAT: Aggregated shares for graduates of math, physics, and chemistry programmes (too few cases to display these fields separately).

Source: EM Master Graduate Impact Survey 2022/23 n = 842 graduates who searched for a job in the first six months after graduation and found one (duration), n = 1,075 graduates who started/ continued looking for a professional job (success).

The classic job advert remains promising

The most promising option for finding a job lies in applications for advertised vacancies, with a somewhat greater success in EU countries compared to non-EU countries (Figure 39). Among graduates who exclusively searched outside the EU, professional contacts emerged as the second-most utilised source, while personal & professional networks established during EM Master were prominent for those searching (partly) within EU countries.

Figure 39: Information sources for successful job search by regions of job search



Non-EU countries: All countries of the world that are not members of the European Union.

Source: EM Master Graduate Impact Survey 2022/23, n = 673 graduates successfully searched for a job 6 months after graduation.

Less success for African and Latin American alumni and youngest cohort

Alumni from the 2020/21 cohort who started searching for a job after graduation were much less likely than the previous cohorts observed to succeed. 70% had found a job during their initial search, as opposed to 84% in the 2017/18 cohort and 87% in the 2012/13 cohort. It can be inferred that a more challenging labour market entry due to the COVID-19 pandemic contributes to some of these differences.

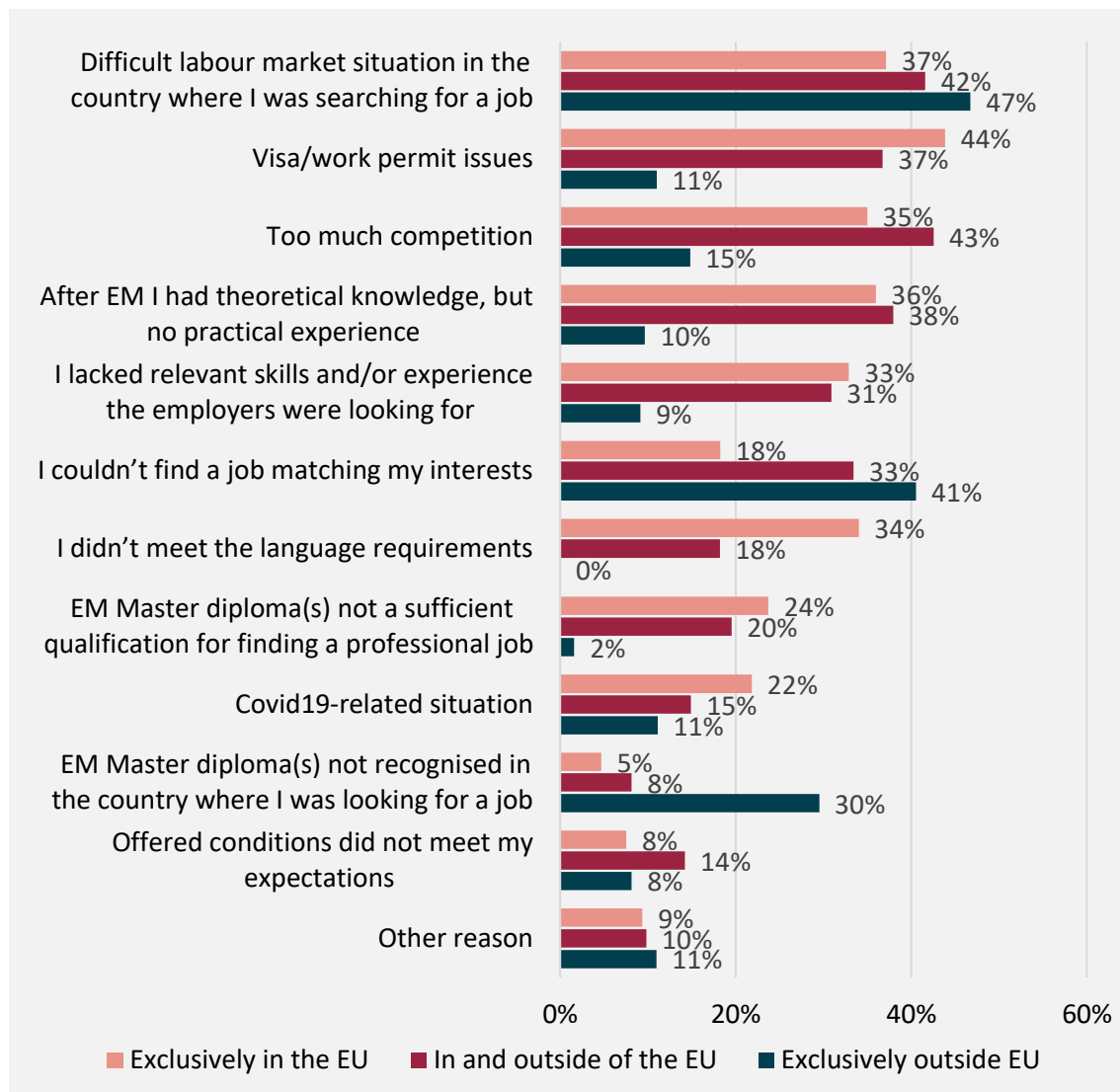
An analysis considering citizenship and success in the first post-graduation job search reveals that graduates from Africa and Latin America experienced less success. Even when limiting the analysis to older cohorts, alumni from Africa (80%) and Latin America (81%) demonstrated lower overall success compared to the average (86%). In contrast, alumni from the EU and North America/Oceania achieved the highest success rates (both 88%). However, it should be noted that the success rate is generally at a high level, regardless of the graduates' country of origin.

Visa/work permits cause problems when looking for a job in the EU

If graduates had been unsuccessful in finding a job in the first six months after graduation, they were asked what they thought the reasons for this might be. The most common reason cited by

all graduates who were unsuccessful (21% of all who searched for a job within the first six months after graduation) is a difficult labour market situation in the country of job search (39%), particularly graduates who had searched exclusively outside the EU (47%, see Figure 40). The second most frequently cited reason is problems with visa/work permits but is cited much less frequently by graduates who searched outside the EU; most graduates had problems with this when they searched in the EU (44%). Too much competition is also cited as a reason for not finding a job within the first six months of graduation, particularly by graduates looking for a job within the EU. Graduates who primarily looked outside the EU were more likely to have problems finding a job that matched their interests or to experience problems with employers recognising their degree. However, only 10% overall state that they had problems with recognition. Graduates who searched exclusively outside the EU had no problems with language requirements, and a lack of relevant skills was less likely to be a barrier to finding a job for them (9%) than for graduates who (also) searched in the EU.

Figure 40: Reasons for unsuccessful first job search after graduation by region of job search



Order of aspects by overall frequency, top 1 reason is at the top.

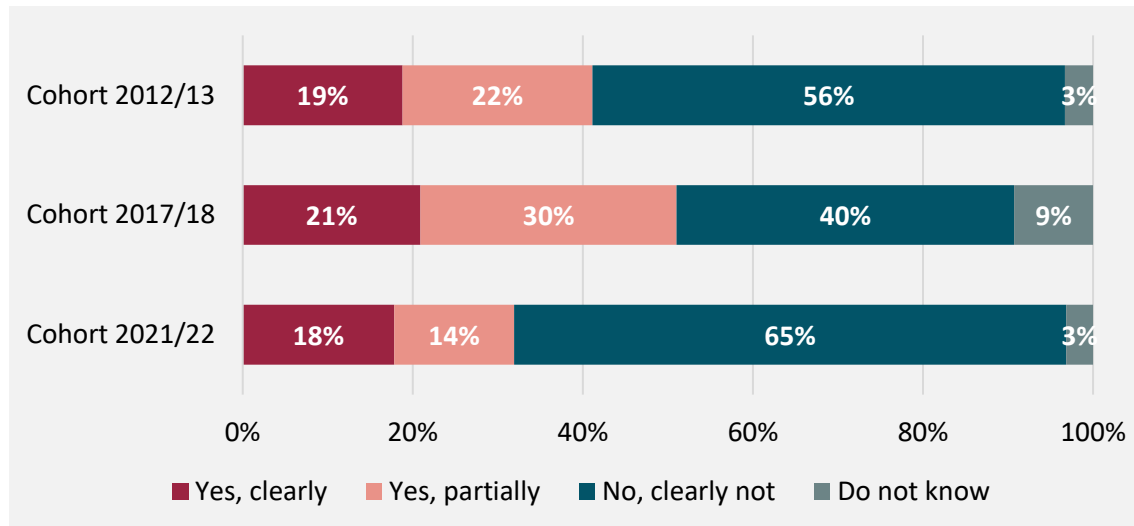
Source: EM Master Graduate Impact Survey 2022/23, n = 176 graduates with unsuccessfully searched for a job in the first 6 months after graduation.

Half of job losses of alumni from cohort 2017/18 are attributed to the COVID-19 pandemic

While the Covid-19 pandemic is cited by 17% across all cohorts as a reason for not finding a job six months after graduation (see also Figure 40 by region of job search), an analysis among those who have lost their job since March 2020 shows that Covid-19 clearly has changed the labour market situation of EM graduates. 43% of those graduates state that their job loss since the pandemic in March 2020 can be linked to the Covid-19 crisis – of whom 19% report that the pandemic has clearly caused their job loss. There are also clear differences by cohort (see Figure 41). Those who graduated in 2021/22 and have been employed since then, but those who had already lost their job by the time of the survey are less likely to state that the Covid-19 pandemic was a reason

for their job loss. Graduates from the 2017/18 cohort in particular state that Covid-19 pandemic was the reason for their job loss. A part of the explanation for this may be that this cohort was more affected by the crisis because these graduates were among the younger employees at the time of the crisis and were therefore more likely to have lost their jobs than graduates of the older 2012/13 cohort. On the other hand, the 2021/22 cohort appears to be less affected, as the “peak phase” of the pandemic was already over by the time they graduated.

Figure 41: Job loss due to the COVID-19 pandemic by cohort



Source: EM Master Graduate Impact Survey 2022/23, n = 289 (86/ 123/ 80, listed by cohort) graduates who lost their job since start of COVID-19 pandemic in March 2020.

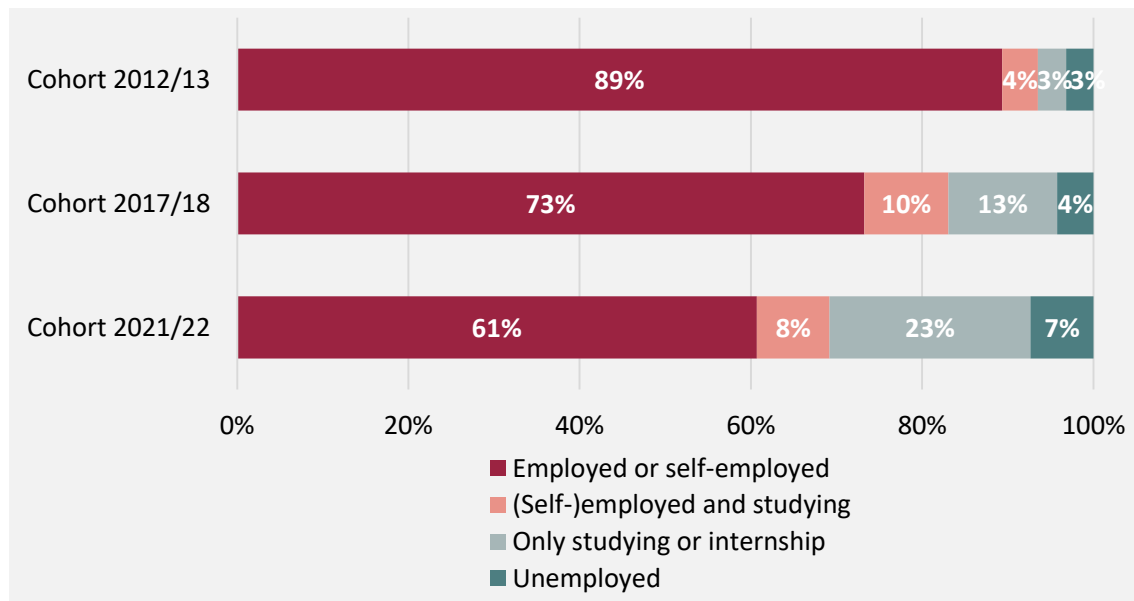
6.3 Current occupation

Employment rate increases as time passes since graduation – except for physics graduates

As is evident from preceding sections, a predominant proportion of graduates from each cohort promptly entered or retained employment in the initial months post-graduation. The remaining alumni primarily pursued further studies or engaged in job searches. Consequently, the prevalence of graduates in employment rises with the passage of time since the EM graduation date, driven by the completion of further studies and the eventual fruition of job searches. Figure 42 illustrates that two thirds of graduates of the most recent cohort 2021/22 are already employed — 61% exclusively and 8% alongside further studies. Nevertheless, 7% of graduates from this cohort report unemployment at the survey time. However, this unemployment rate, along with the proportion of graduates pursuing further studies, diminishes in cohorts with more distant graduation dates, reflecting a higher rate of employment among graduates in these cohorts. The bar for the 2012/13 cohort underscores that 89% of graduates are employed a decade after their EM graduation.

A comparison between female and male graduates shows that women are 8%-points more likely to be in employment shortly after graduation than men (73% vs. 65%, including additional studying), but this changes around five or six years after graduation. Men are then slightly more likely to be in employment than women (82% vs. 85%), and this ratio does not change after about 10 years (93% vs. 94%). A decade after graduation, male graduates are still slightly more likely to be studying, mainly while working, (9% vs. 6%) and female graduates are a bit more likely to be unemployed (2% male vs. 4% female).

Figure 42: Occupation at time of survey (summer 2023) by graduation cohort



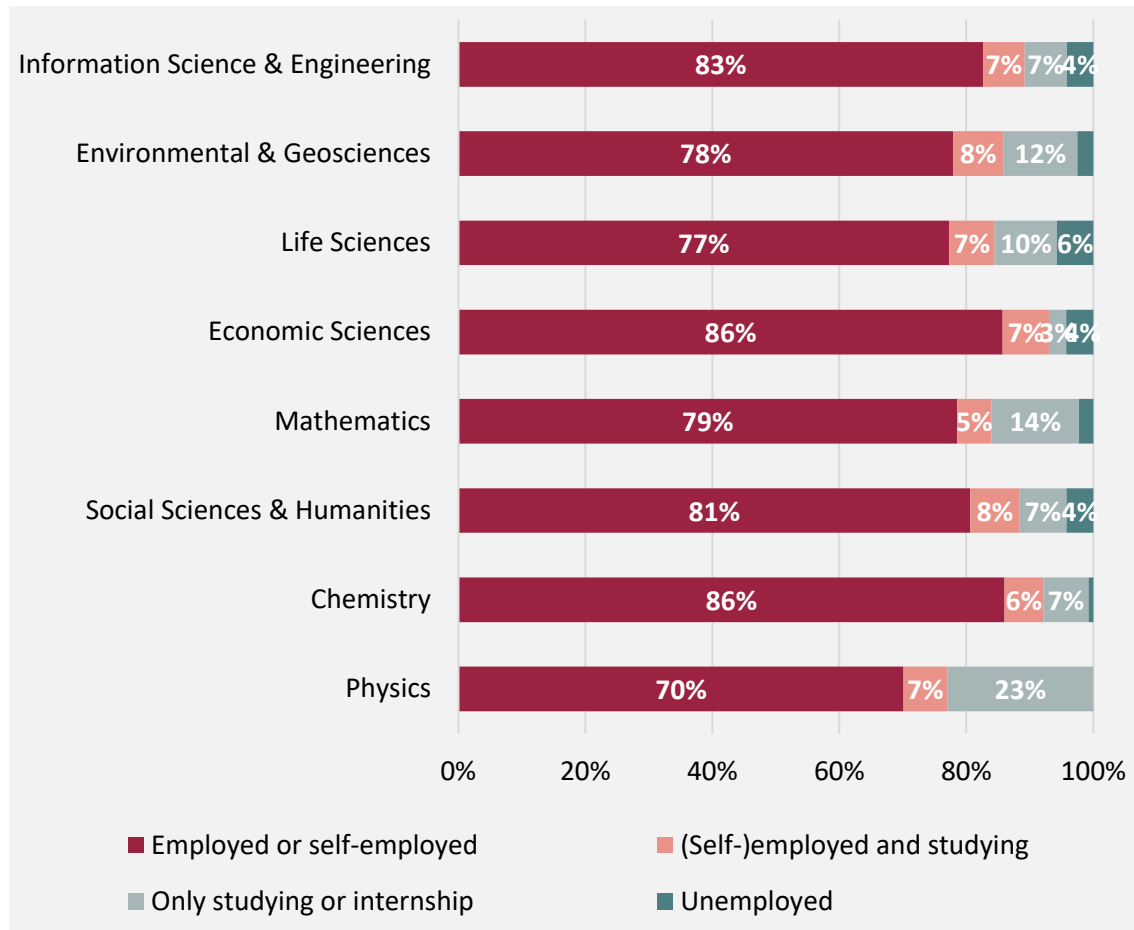
Source: EM Master Graduate Impact Survey 2022/23, n = 3,367 graduates (2012/13: n = 879; 2017/18: n = 1021; 2021/22: n = 1,466).

Alumni residing in their country of origin five to eleven years post-graduation exhibit the highest employment rate at 92% (including those who are working and studying). This contrasts with individuals living in one of their EM host countries, where the employment rate is 87%. The lowest employment rate is observed among graduates who reside neither in one of their former EM host countries nor in their country of origin, standing at 85%, with a higher proportion engaged in simultaneous study and employment. Notably, graduates from Africa (82%) and the Middle East/Central Asia (86%) have slightly lower employment rates compared to the overall average (88%).

Examining the same categories by field of study reveals notable differences, especially when focusing on the two oldest cohorts to account for long-term effects rather than the challenges associated with entering a more difficult labour market. Notably, graduates in physics exhibit a substantial 30% engagement in internships five to eleven years post-graduation. Within physics, 23% are exclusively in a studying phase, but there are no unemployed physics graduates. A similar trend is observed in mathematics, albeit less pronounced, where 16% of graduates are still studying. In both of these study fields a high frequency of pursuing doctoral studies can be observed (see Figure 33). However, chemistry with a high proportion of doctorates, as in maths and physics, falls out of this correlation because in chemistry the highest proportion of employed graduates

can be observed (86%) and only 13% who are also studying (alongside). The proportion of individuals concurrently studying and working is relatively constant across all subjects. In addition to chemistry, there is a high proportion of economics graduates in employment (86%).

Figure 43: Current occupation of cohort 2012/13 and 2017/18 by study fields

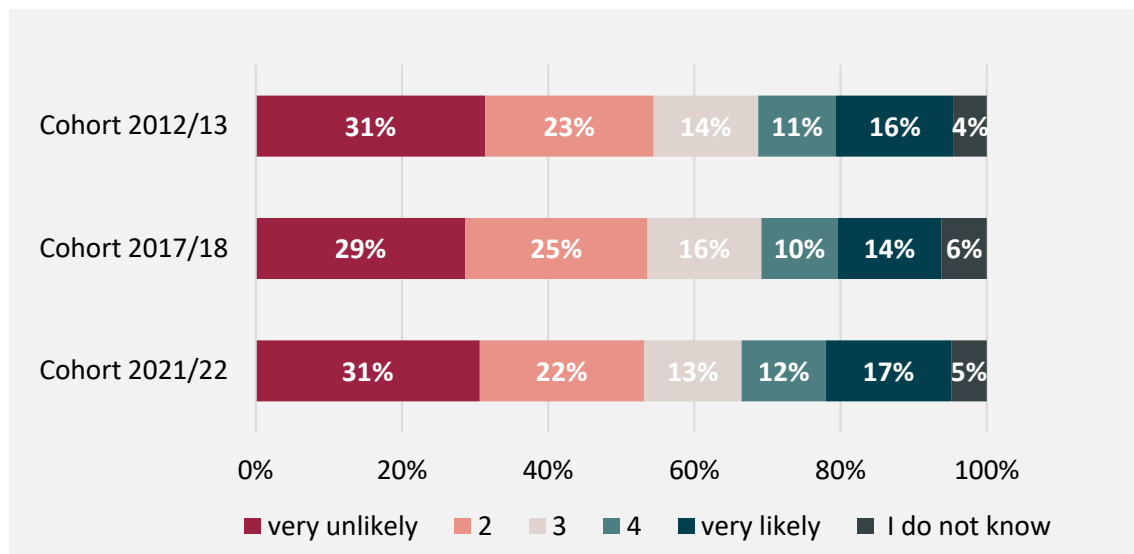


Values below 4% not shown here.

Source: EM Master Graduate Impact Survey 2022/23, n = 1,911 only graduates of cohort 2012/13 and 2017/18.

Graduates also were asked to assess whether they think they would have their current job without the skills they acquired during their EM Master programme. Overall, one third (30%) of the currently employed graduates assume that they would not have their job without the skills and competencies they acquired at the EM Master and a further 24% tend to agree. This means that over half of the alumni say that they would not have their current job without the skills acquired during their EM Master (see Figure 44). There are no major differences in the cohort comparison.

Figure 44: Assessment of whether graduates would have their current job without the skills acquired during the EM Master by cohort



Source: EM Master Graduate Impact Survey 2022/23, n = 2,644 only employed graduates.

6.4 Education-employment match

When gauging the efficacy of an educational programme in preparing graduates for the labour market and career, multiple outcomes come into consideration. Beyond mere job attainment, the programme’s impact can be further discerned by evaluating the utility of its content in facilitating success in the labour market for its graduates. The alignment between a graduate’s education and their job can be appraised along two dimensions: firstly, by comparing the educational level (e.g., bachelor’s, master’s, or PhD level) with the most suitable level for their current job (vertical match), and secondly, by assessing whether the job necessitates knowledge of the thematic field studied (horizontal match). Consequently, a job can fully match one’s education (in content and level of education), only match vertically, only match horizontally, or not match the education attained at all.

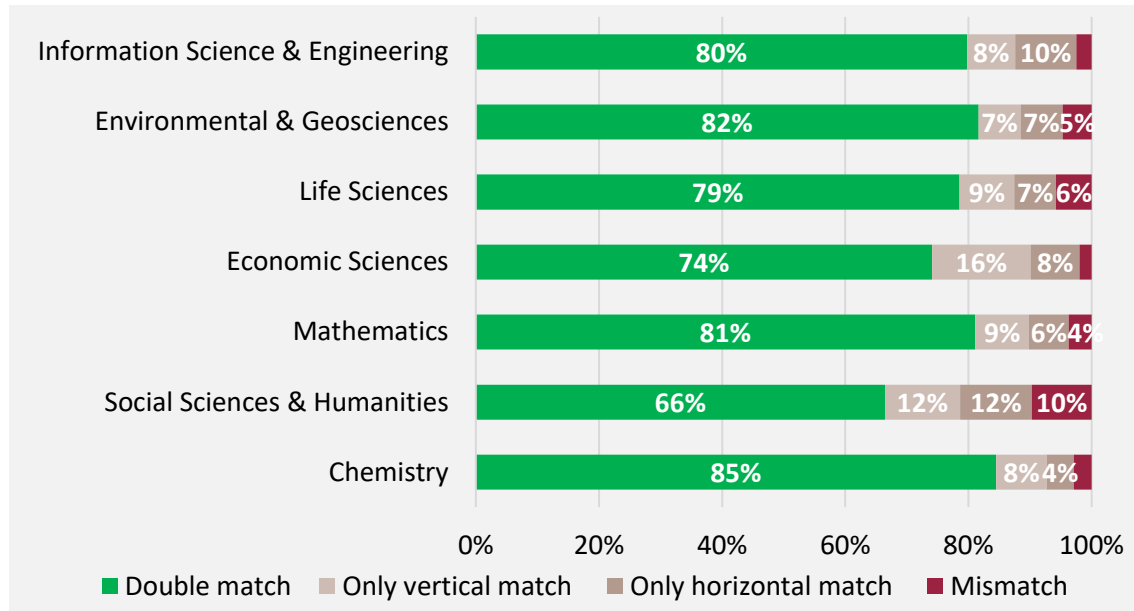
Overall, 59% of graduates across all fields and graduation cohorts state that they were in “matching employment”, i.e., they report a double match between their job and their qualifications, as well as their field-specific knowledge. For 15% of graduates there is either an overqualification (vertical mismatch) or their work is not related to their field of study (horizontal mismatch). For a further 5% there is no match at all (double mismatch). At the same time, 5% are unemployed and 16% are not part of the labour force.

A mismatch is more likely for graduates in the social sciences & humanities

An examination of these categories encompassing educational level, content match, and the current job of graduates across various study fields reveals that graduates in social sciences & humanities exhibit the lowest likelihood of achieving a complete match (66%). Vertical and horizontal mismatches, along with a double mismatch, occur with comparable frequency in this field.

Notably, chemistry graduates most frequently demonstrate a double match (85%). Additionally, it is noteworthy that graduates in economic sciences most commonly assert that their field of education does not match their job (only vertical match, i.e. horizontal mismatch, 16%). Generally, a vertical match appears to be more prevalent than a horizontal match.

Figure 45: Education-employment (mis)match by study field



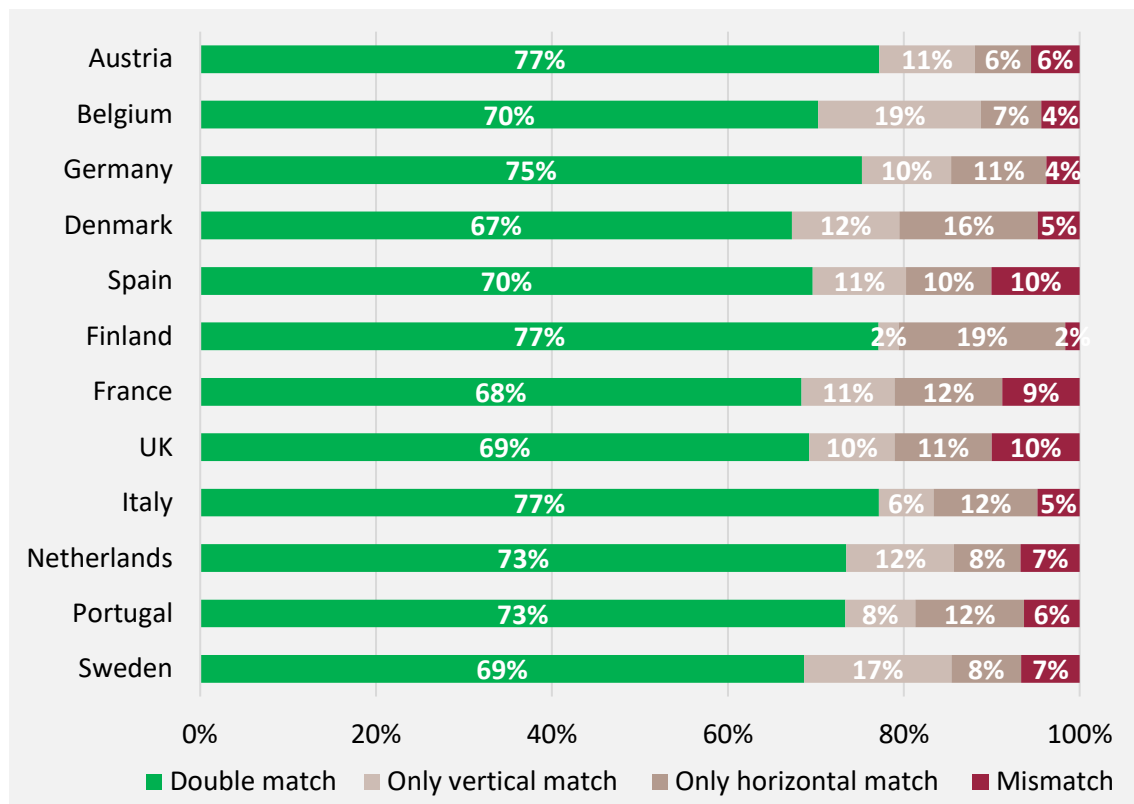
Values below 4% not shown here.

PHY (physics) not displayed (too few cases).

Source: EM Master Graduate Impact Survey 2022/23, n = 2,568 graduates in employment.

Figure 46 shows that graduates currently residing in Denmark, France, the UK, or Sweden are more inclined to report at least one mismatch, with just under 70% of graduates in these countries indicating a complete match between their knowledge, qualifications, and their current job. Notably, graduates who reside in Belgium (19%) and Sweden (17%) at the time of the survey most frequently state that they are overqualified for their job. Conversely, a horizontal mismatch—indicating a job in a different field of study—is most prevalent in Finland (19%) and Denmark (16%). Graduates in Spain and the UK report, with 10% of those residing there, most often a complete mismatch. On the other hand, graduates in Finland, Italy, and Austria appear to be the most likely to have a job aligning with their qualifications and knowledge.

Figure 46: Comparison of education-employment (mis)match between EM graduates by current place of residence in a European country*



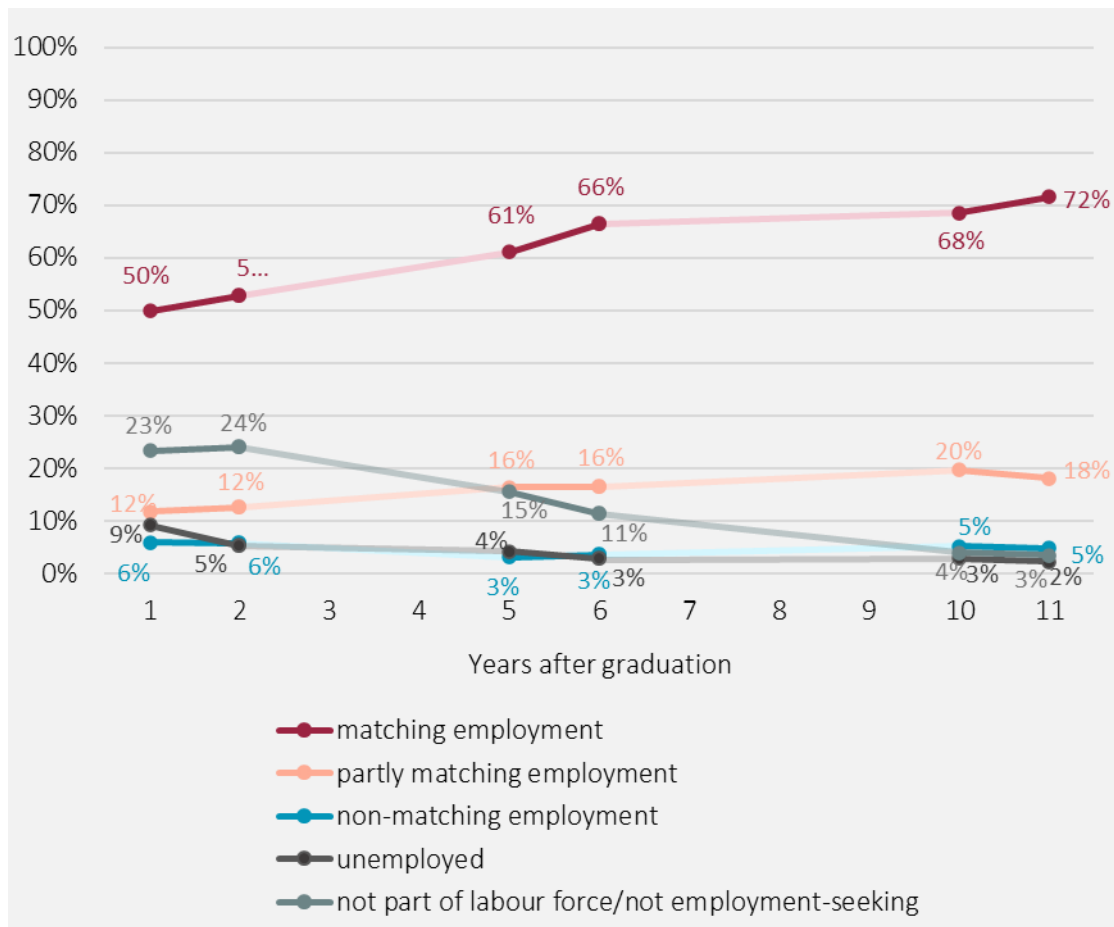
*Countries which are members of the European Union and UK.

Source: EM Master Graduate Impact Survey 2022/23, n = 1,536 employed graduates with current country of residence in one of the listed countries.

Employment rate and employment match rises over time

When looking at the development of the fit between job and education by cohort, i.e., by years that have passed since graduating from the EM Master programme, it becomes clear that there is a difference between the youngest cohorts and the others in particular. Younger graduates are more likely not to be looking for work and are also more likely to have a job that does not fit. However, the proportion of graduates with a suitable job increases over time, and the proportion of unemployed graduates also decreases over the years, whereby the share with only partly matching employment increases as well (see Figure 47).

Figure 47: Education-employment (mis)match compared to unemployment rate by years after graduation



Pale Lines: No data available for time spans between sample cohorts – lines show long term tendency. Exact values for the actual cohorts in between might differ.

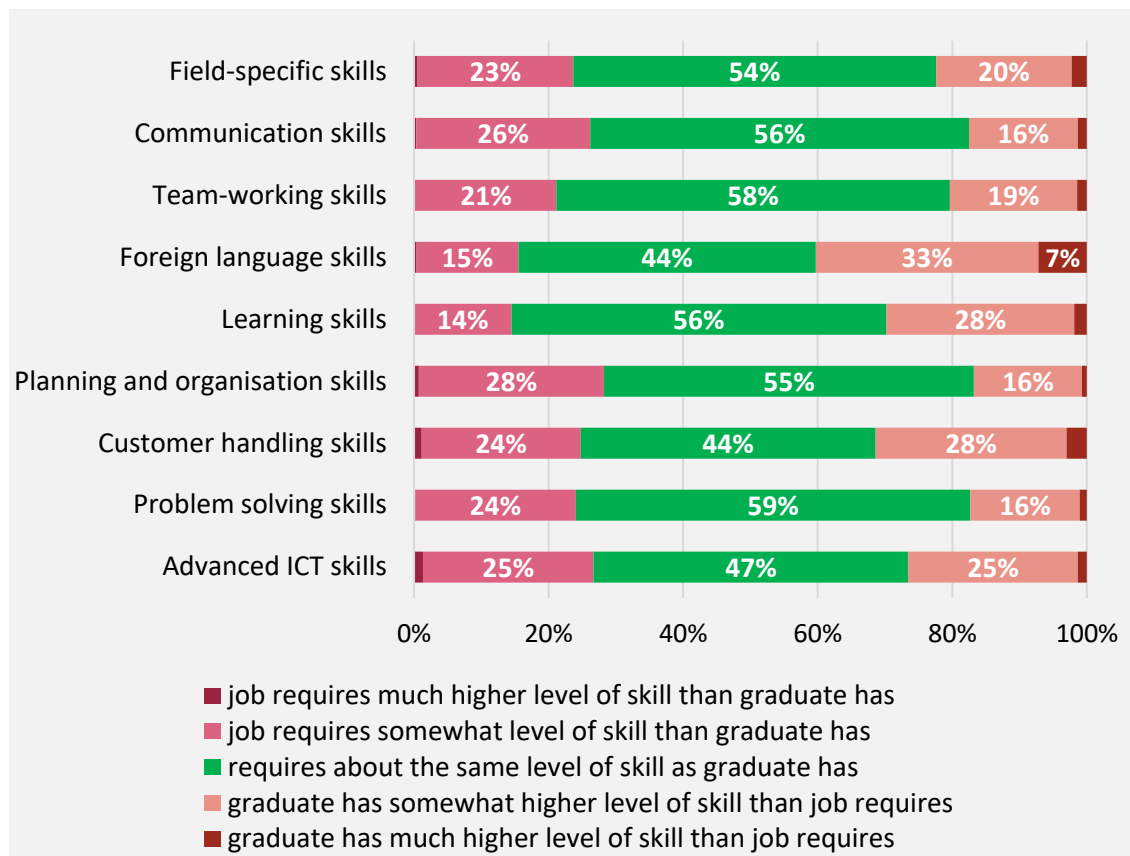
Source: EM Master Graduate Impact Survey 2022/23, n = 3,254 graduates.

Employment-relevant skills: language and learning skills most fitting

For a more nuanced examination of the alignment between graduate skills and job requirements, graduates were asked to assess their proficiency in nine types of skills and to compare them to the demands of their current job. Figure 48 delineates, for each skill, the proportion of graduates who rated their own proficiency as (much) higher, the same, or (much) lower than what their current job necessitates.

As in the last round of GIS 2020/21, graduates most frequently report possessing fitting or higher levels of learning skills (86%) and foreign language skills (84%) as required in their current jobs. Across all cohorts, graduates most commonly assert that their communication skills (26%) and planning and organizational skills (28%) are at a lower level than what is required. This pattern also aligns with the findings from the previous round of GIS, where these skills were identified as the most lacking ones.

Figure 48: Graduates' assessment of their own skill levels, compared to skill requirements of their current job



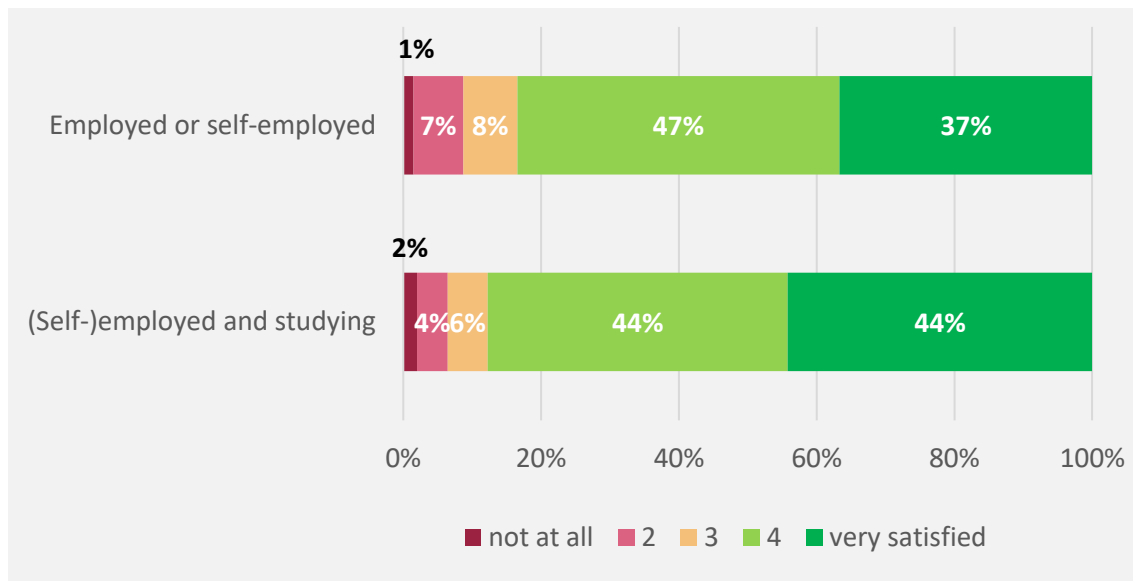
Values below 4% not shown here.

Source: EM Master Graduate Impact Survey 2022/23, n = 2,532 to 2,598 graduates in employment (missings depending on item).

6.5 Satisfaction with current occupation

Considering the satisfaction of graduates with their current employment reveals that those who are (self-)employed and pursuing further studies more frequently express a high level of satisfaction compared to those who have completed their studies and are solely (self-)employed.

Figure 49: Satisfaction with current occupation by main occupation



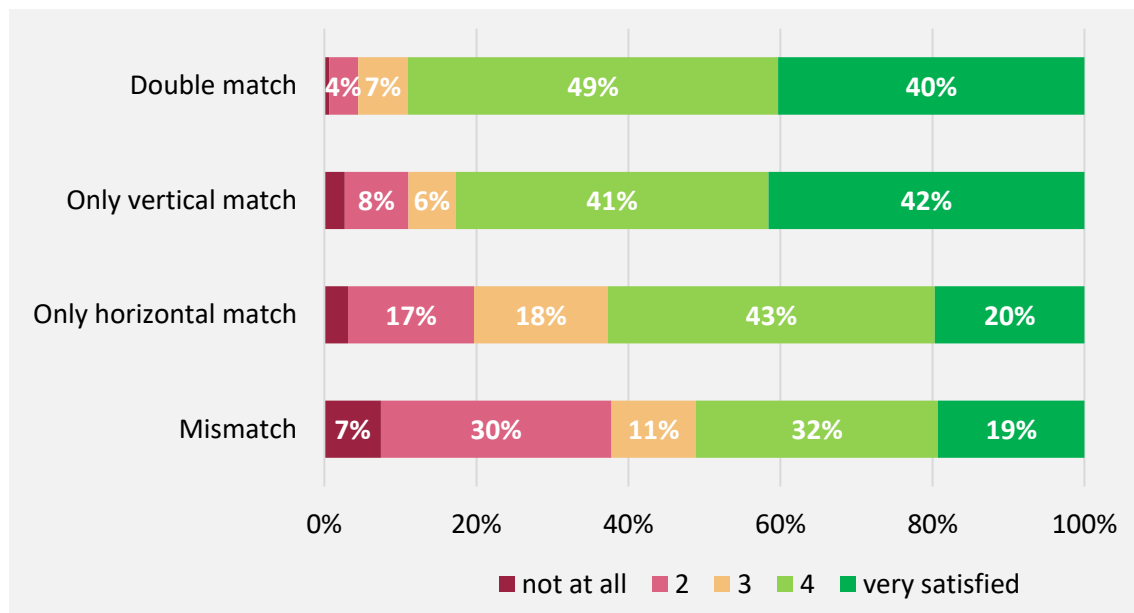
Source: EM Master Graduate Impact Survey 2022/23, n = 2,324 employed graduates.

However, employed graduates are more satisfied the more time has passed since graduation: while 78% of the graduates of the cohort 2021/22 are (very) satisfied, 85% graduating in 2017/18 and 89% in 2012/13 are satisfied with their current occupation.

Satisfaction comes with a matching job

Figure 50 illustrates the significance of the match between education and employment for satisfaction with the present job. As expected, most alumni (89%) whose job matches their qualifications and educational field express (very) high satisfaction with their current employment. When the job only partially corresponds to their education, graduates with a vertical match (83%) more frequently indicate (strong) satisfaction compared to their counterparts with a horizontal match (63%). In cases where the job corresponds neither to the educational field nor to the qualifications, only 61% of graduates report (strong) satisfaction with their job.

Figure 50: Overall satisfaction with current occupation by education-employment (mis)match (only graduates in employment)

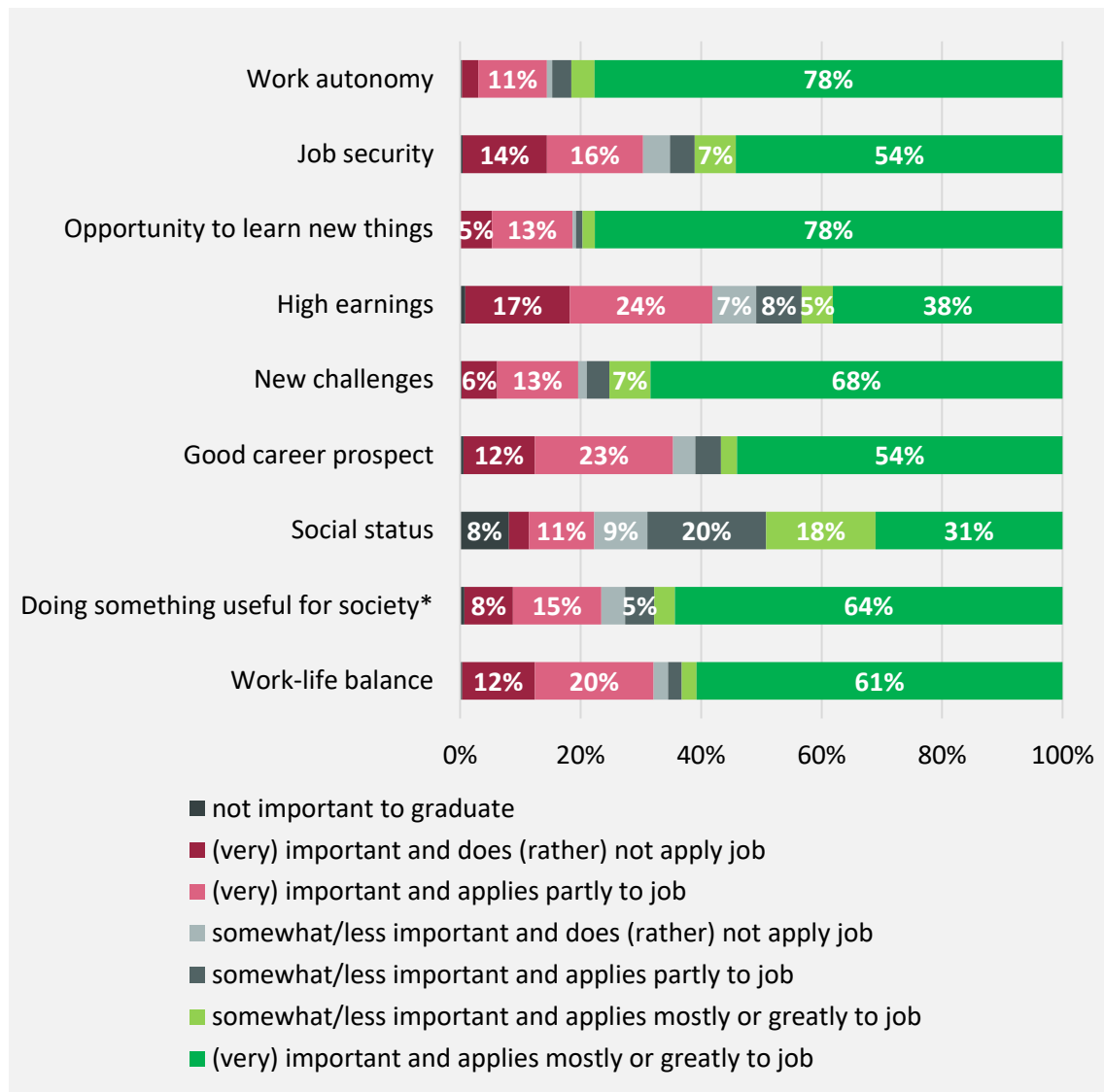


Source: EM Master Graduate Impact Survey 2022/23, n = 2,224 graduates in employment.

Job characteristics: social status less important and high earnings lacking

Alumni were also asked to indicate which job characteristics are personally relevant to them and to what extent these are fulfilled in their current positions. It was found that work autonomy and the opportunity to learn new things and face new challenges are (very) important to most graduates and are also largely fulfilled in their current jobs. On the other hand, a relatively higher proportion of graduates prioritise high salaries, career prospects, job security, and a suitable work-life balance, across cohorts and fields of study. However, these aspects seem to be the least fulfilled. In addition, to many, the social status associated with the job is not as important.

Figure 51: Importance and fulfilment of job characteristics



Source: EM Master Graduate Impact Survey 2022/23, n = 2,576 to 2,605 graduates in employment (missings depending on item).



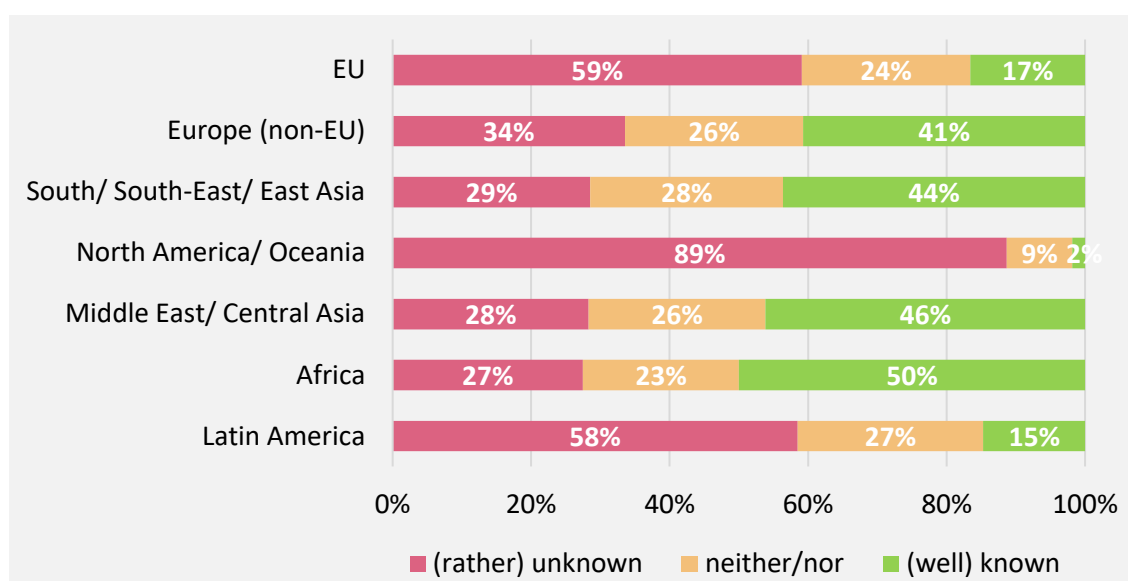
7 Awareness of EM Master and EMA Membership

7.1 Public profile of EM Master and access

Awareness of EM Master varies greatly between regions of the world

The greatest differences in awareness of the EM Master programmes can be seen between the different regions of origin of the graduates. As Figure 52 shows, the awareness of the programmes is above average for alumni from Africa and South/ East Asia. On the other hand, they appear to be considerably less known in EU countries, North America/ Oceania. Overall, according to EM Master graduates, awareness of Erasmus Mundus programmes has fallen almost everywhere in the world since the last Graduate Impact Survey (GIS).

Figure 52: Graduates' assessment of the awareness of EM Master programmes among students in their home country by region

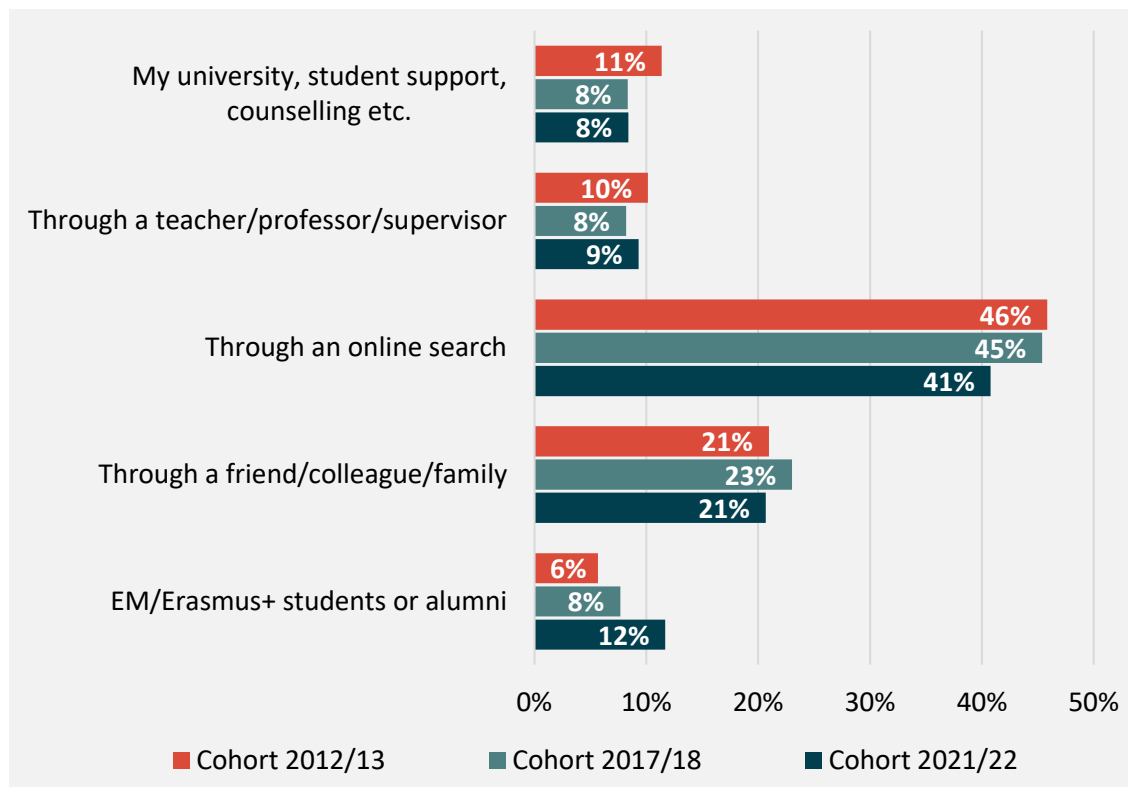


Source: EM Master Graduate Impact Survey 2022/23, all surveyed graduates (n = 3,382)

More learn about EM Master from alumni, but online search dominates

When it comes to awareness of EM programmes, there is also the question of how alumni found out about their master's programme. It turns out that the most popular source of information – even 11 years ago – is and remains online search. It is also striking that graduates from the most recent cohort have increasingly learned about the programmes from other alumni. This could be an indication of the effectiveness of the EMA's work.

Figure 53: Finding out about EM Master – primary sources of information (5 most frequently mentioned) by cohort



Question wording: How did you find out about the Erasmus Mundus programme? Please select your primary source of information. Not displayed options (due to low shares): newspaper or magazine; social media; higher education fair, conference, or other higher education event; other sources.

Source: EM Master Graduate Impact Survey 2022/23, n = 3,385.

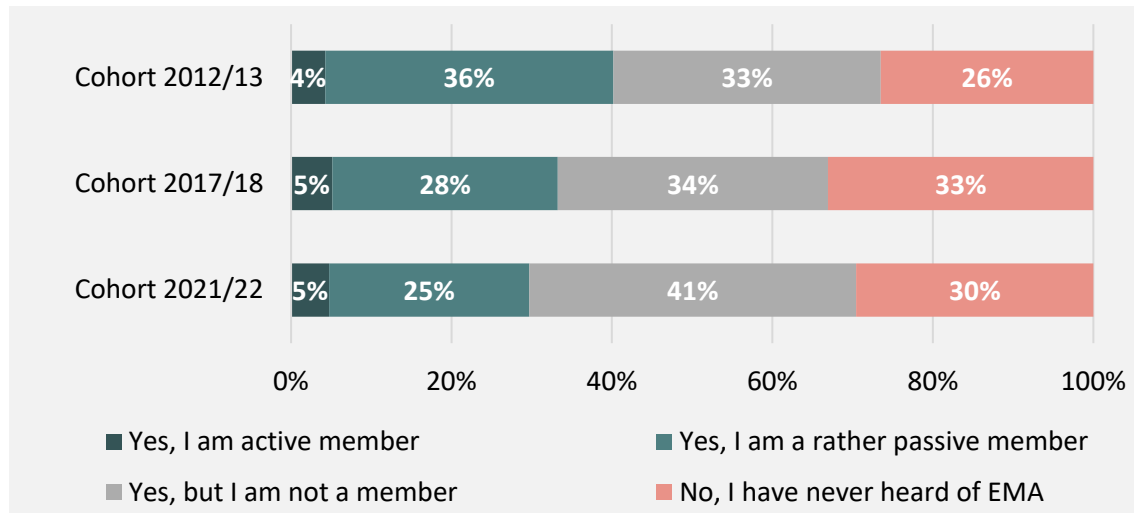
7.2 EMA Membership

The Erasmus Mundus Association (EMA) is the official student and alumni organisation for the Erasmus Mundus Joint Master Degrees, founded in 2006. The GIS 2022/23 featured questions on the awareness of the EM Master in general and the reception of the EMA membership, as well as advantages of being an EMA member, which will be presented in the upcoming section.

34% of survey participants reported being a member of the EMA, which is around 20% less than in last GIS 2020/21, when 55% of the respondents reported to be a member. Figure 54 indicates that the 2012/13 cohort has the highest proportion of EMA members with 40%, followed by the 2017/18 cohort with 33%, and the 2020/21 cohort with 30%. However, this comparison has to be viewed with great caution, as there are numerous factors that may skew this insight. On one hand, being an EMA member might increase the awareness of the Graduate Impact Survey due to promotion that non-members did not receive (as much). On the other hand, the proportion of respondents who never heard of EMA is higher than in the previous GIS implementation. One explanation for this could be that more alumni only join the association a longer time after graduation. However, compared to the most recent GIS, the proportion of those who have never

heard of it is significantly larger. The proportion of EM graduates reporting that they had never heard of EMA at all is at its highest in the 2017/18 cohort. Nevertheless, the share of those who see themselves as active members is constant over time.

Figure 54: EMA membership and awareness by cohort

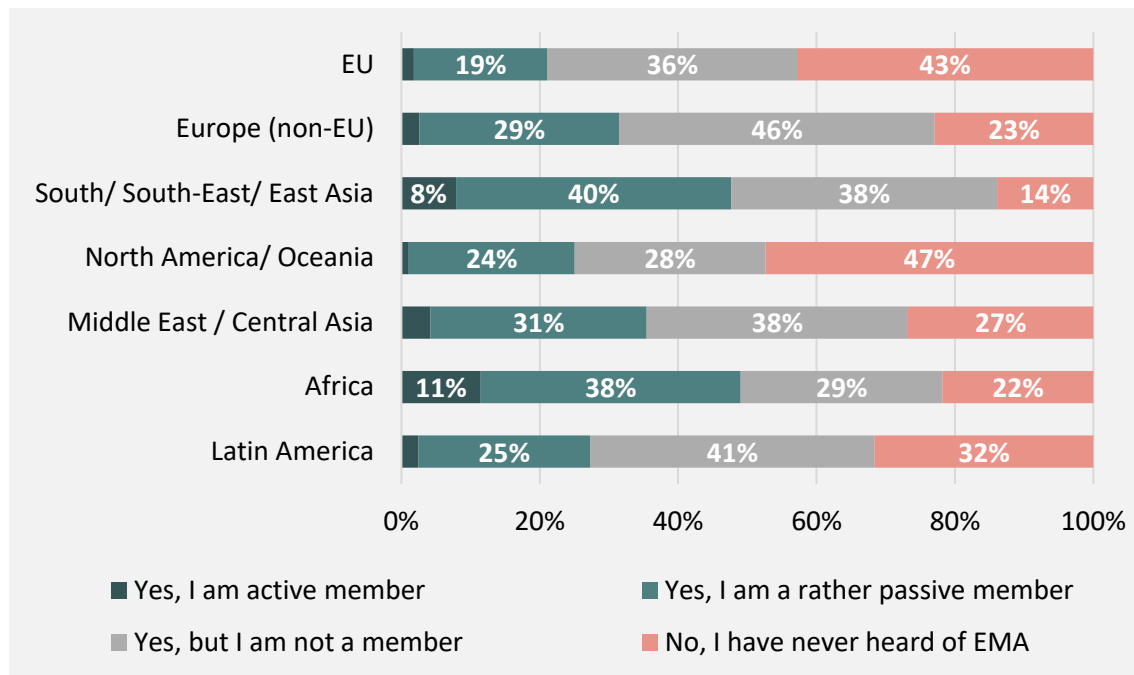


Source: EM Master Graduate Impact Survey 2022/23, n = 3,245 graduates.

Higher proportion of active members in South/ East Asia and Africa

The distribution or composition of the demographic characteristics of EMA members has not changed significantly compared to the last Graduate Impact Survey. Firstly, male graduates report more often to be EMA members (39%) and active as well (7%), compared to female alumni (29%/2%). Secondly, older age groups participate more in the organisation, with graduates 37 years old or older showing the highest share in members (44%) as well as in active members (7%). And thirdly, participation in the EMA varies considerably between regions of origin, as Figure 55 shows. South/ South-East/ East Asian (8%) and African (11%) graduates report active memberships much more than average. Graduates from those regions also reported an above-average awareness of the EM Master programmes in their home countries (Figure 52). Regions where the EM Master programmes are least known are in turn also the regions with the lowest shares in (active) EMA members: the EU, the Americas and Oceania. Enhanced activity in these regions might increase both the awareness of Erasmus Mundus and attractiveness to actively participate in the association.

Figure 55: EMA membership and awareness by region of origin



Values below 5% not shown here.

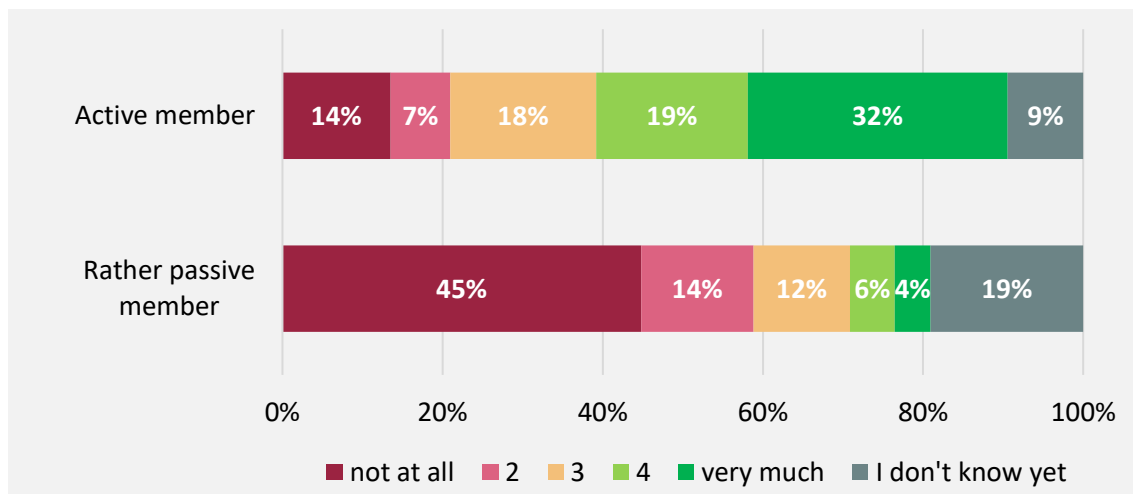
Source: EM Master Graduate Impact Survey 2022/23, n = 3,245 graduates.

Active members rate networking advantages through EMA much higher

Inclusion in an alumni association presents a networking opportunity. However, the efficacy of this opportunity is intricately linked to the extent of graduates' engagement with their membership. As depicted in Figure 56, 51% of active members perceive their membership as (very) advantageous for fostering social and professional networks, in stark contrast to the mere 10% acknowledgment from relatively passive members. A notable 59% of passive members found their membership unhelpful in this regard. This dynamic is not solely attributed to a deficiency in offers for EMA members but is inherently associated with their own passivity.

Two significant implications emerge from this observation: First, active participation in the EMA opens avenues for members and could thus be actively promoted. Second, exploring strategies to engage and facilitate increased participation among less active members may enhance their ability to derive greater benefits from EMA activities.

Figure 56: Assessment of EMA membership being advantageous in regard to social and professional networks by membership activity



Source: EM Master Graduate Impact Survey 2022/23, n = 1,061 graduates with EMA membership who gave an assessment.



8 Suggestions for improvement from alumni

As part of the questionnaire, graduates were asked to respond to open-ended questions, explaining their assessments in more detail and making suggestions for improvements that could help to increase the attractiveness of their EM Master programme. In this way, respondents were able to address other important topics that they felt were not or only insufficiently addressed in the questionnaire. Around 40% of the respondents used this opportunity. These findings from the graduates' open comments cannot be used for a quantitative analysis but provide valuable qualitative insights to detect relevant aspects beyond the standardized questions and gain a better understanding and contextualization of the quantitative results.

Almost half of all graduates who responded to the open question made suggestions for improvements regarding **practical relevance and career impact** of the EM Master programmes – which matches the quantitative analyses in chapter 4.2 from page 28 onwards. Graduates do not feel adequately prepared for the labour market and would like to see more training in practical skills, particularly in the areas of IT and programming languages, but also concerning soft and language skills. Suggestions for enhancing the career impact of Erasmus Mundus include increased support for students seeking internships or full coverage of internships which fit into the curriculum. In particular, graduates demand more career guidance, for example information about possible career paths or application training and guidance for those students who want to enter the labour market. Moreover, graduates also demand more opportunities to network with potential employers.

More than a third of all respondents who made an open comment also mention the topic of **raising awareness of and promoting the EM Master programmes** (see also the quantitative analyses in chapter 7). They also see a **lack of information** about the programmes in general, about the entry requirements and the application process. For this reason, respondents suggested investing more in promotion and publicity, e.g., through EU or Erasmus representatives, Erasmus Mundus alumni, social media, education fairs or social and information events. Public communication from alumni about their positive experiences (“testimonials”), e.g., in the form of short interviews on social media, can also help to give interested parties a better insight – according to the alumni.

Potential for improvement is also frequently seen in connection with **financial support**. Graduate generally plead for scholarships to be made more accessible and increased. Some graduates also indicate the **need for better support and guidance** in general, for example for visa applications or for how to find an adequate accommodation. For a **better integration** and to feel more welcome, some respondents wish for (more) organised social activities at the host universities.

Some graduates criticise the lack of a **practical orientation** of the degree programmes as well as the general content of the lectures in the curriculum and the limited range of courses on offer. The **curriculum should be more flexible** for the participants of the programmes, so that they can choose their own courses. Critical remarks are occasionally made about the English language skills

and didactic abilities of some lecturers. However, graduates also perceive very different language skills among the participants of the programmes. While some respondents suggest that more attention should be paid to the selection of programme participants, others felt it is necessary to achieve greater inclusion and diversity.

Finally, respondents thematised the collaboration between the host universities: some criticised the communication and coordination between the institutions (see also chapter 4.3). There should be a **better coordination between the host universities** regarding the curriculum content. In this context, problems with recognition and delays in the delivery of their diploma are also mentioned.

In addition, from the graduates' point of view the **quality of the universities varies greatly**. Some institutions should increase their academic level to be more competitive. However, the graduates also suggest an **expansion of the collaborations**, for example to offer a wider range of programmes, more host universities, and the possibility of further studies (PhD).

9 Glossary and Definitions

Alumni and graduates are terms used synonymously in this report. Both, in this report, refer to persons who successfully completed an Erasmus Mundus Joint master's degree in one of the years 2012, 2013, 2017, 2018, 2021 or 2022 and is described in all results presented in this report.

Education-employment match indicates whether a graduates' field and level of education is adequate for their current job. Survey respondents in employment were asked whether their EM Master programme was in a field relevant for their current job. Respondents were also asked to assess what level of education (Bachelor, Master, PhD) would be most appropriate for their current job. This information was compared to the respondents' highest educational level. Thereby, 4 main categories can be differentiated:

- **(double/full) match** when a graduate works in a job that requires both his/her own educational level and training in the field studied
- **(only) horizontal match** (and vertical mismatch) when a graduate is overqualified in terms of educational level (e.g., Bachelor/Master/PhD level), but works in a job that requires training in the field studied
- **(only) vertical match** (and horizontal mismatch) when a graduate works in a job requiring their level of education (e.g., Bachelor/Master/PhD level), but no training in the field studied (or requires no particular field)
- **(double/full) mismatch** when a graduate works in a job he/she is overqualified for and that does not require training in the field studied (or requires no particular field)

Jobs that do not require a particular field at all indicate a horizontal mismatch. Jobs that would require a *higher* level of education/training do *not* indicate a vertical mismatch.

Region/country of origin is determined based on the self-reported first citizenship of graduates. Countries were categorized into 8 global regions based on geographic, socioeconomical and cultural closeness. For 44 graduates who did not report their citizenship, the country of birth was used for categorization instead. This approach assumes that the citizenship reflects best which region influences graduates' backgrounds.

Fields of study refer to the 8 official disciplinary fields to one of which every EM Master programme is assigned. Programmes that may apply to multiple fields are assigned to their main field. Abbreviations and icons are used to refer to the fields throughout most of the report figures:



ENG – Engineering and information sciences



ENV – Environmental and geosciences



LIF – Life sciences



ECO – Economic sciences



MAT – Mathematics



SOC – Social sciences and humanities



CHE – Chemistry



PHY – Physics

10 Appendix Tables

10.1 Citizenship

Citizenship in 8 regions (missing values imputed with country of birth)

		Total n	Europe - EU	Europe - non-EU	South- and East-Asia	Oceania	Middle East/Central Asia	Africa	North America	Latin America
Age	< 30 years	1.008	34%	9%	21%	0%	11%	11%	3%	10%
	30 - 33 years	1.047	27%	6%	21%	1%	10%	16%	4%	16%
	34 - 36 years	845	32%	6%	19%	1%	8%	14%	4%	15%
	37 years or older	496	23%	8%	15%	1%	6%	24%	5%	17%
Sex	Male	1.690	34%	10%	18%	1%	8%	10%	5%	14%
	Female	1.690	25%	5%	21%	1%	10%	22%	3%	14%
Field of study	ENG	915	25%	6%	23%	2%	14%	12%	3%	16%
	ENV	633	22%	3%	27%	0%	8%	20%	4%	16%
	LIF	277	23%	7%	21%	2%	8%	21%	4%	15%
	ECO	131	37%	16%	11%	0%	7%	18%	3%	9%
	MAT	104	40%	11%	15%	2%	16%	4%	2%	11%
	SOC	1.165	36%	9%	14%	0%	7%	15%	5%	13%
	CHE	126	22%	12%	25%	0%	7%	18%	1%	15%
	PHY	45	32%	9%	28%	0%	9%	7%	0%	14%
Region of origin (citizenship)	Europe (EU)	995	100%	0%	0%	0%	0%	0%	0%	0%
	Europe (non-EU)	240	0%	100%	0%	0%	0%	0%	0%	0%
	South/ South-East/ East Asia	674	0%	0%	100%	0%	0%	0%	0%	0%
	North America/ Oceania	156	0%	0%	0%	15%	0%	0%	85%	0%
	Middle East / Central Asia	320	0%	0%	0%	0%	100%	0%	0%	0%
	Africa	336	0%	0%	0%	0%	0%	100%	0%	0%
	Latin America	675	0%	0%	0%	0%	0%	0%	0%	100%
Financial source(s)	solely EM scholarship	1.918	11%	9%	23%	1%	12%	24%	3%	17%
	EM scholarship + others	658	48%	8%	13%	1%	6%	4%	6%	13%
	no EM scholarship	809	61%	3%	15%	1%	5%	3%	4%	8%
Cohort	2012/2013	731	38%	9%	16%	1%	6%	12%	5%	14%
	2017/2018	1.192	30%	7%	20%	1%	10%	14%	5%	13%
	2021/2022	1.473	25%	7%	21%	0%	10%	18%	3%	15%
	TOTAL	3.396	30%	8%	19%	1%	9%	15%	4%	14%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 3.396 Graduates

10.2 Reliance on EM scholarship

		Financial sources			
		Total n	Only EM Scholarship	EM scholarship + others	no EM scholarship
Age	< 30 years	1.004	56%	15%	29%
	30 - 33 years	1.044	59%	15%	26%
	34 - 36 years	844	55%	24%	21%
	37 years or older	493	58%	26%	16%
Sex	Male	1.684	52%	20%	28%
	Female	1.685	62%	18%	19%
Field of study	ENG	911	60%	22%	18%
	ENV	631	69%	15%	16%
	LIF	276	63%	20%	16%
	ECO	130	44%	27%	29%
	MAT	103	44%	16%	41%
	SOC	1.163	49%	18%	32%
	CHE	126	74%	17%	9%
	PHY	45	58%	25%	17%
Region of origin (citizenship)	Europe (EU)	994	20%	31%	49%
	Europe (non-EU)	239	70%	20%	10%
	South/ South-East/ East Asia	670	68%	13%	19%
	North America/ Oceania	154	48%	28%	25%
	Middle East / Central Asia	319	75%	13%	13%
	Africa	335	90%	5%	5%
	Latin America	674	69%	18%	13%
Financial source(s)	solely EM scholarship	1.918	100%	0%	0%
	EM scholarship + others	658	0%	100%	0%
	no EM scholarship	809	0%	0%	100%
Cohort	2012/2013	728	52%	31%	17%
	2017/2018	1.190	53%	14%	33%
	2021/2022	1.467	63%	16%	21%
TOTAL		3.385	57%	19%	24%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 3.385 Graduates,

10.3 Reasons for choosing an EM Master

Factor scores, 1 = lowest possible, 5 = highest possible

		Total n	International experi- ence	Career/skills Improve- ment	Attractiveness of EM
Age	< 30 years	1.008	3,1	2,2	2,5
	30 - 33 years	1.047	3,1	2,3	2,6
	34 - 36 years	845	3,0	2,1	2,6
	37 years or older	496	2,8	2,3	2,6
Sex	Male	1.690	3,1	2,2	2,5
	Female	1.690	2,9	2,3	2,7
Field of study	ENG	915	3,0	2,2	2,7
	ENV	633	3,1	2,4	2,8
	LIF	277	3,0	2,3	2,9
	ECO	131	3,0	2,2	2,5
	MAT	104	3,2	2,0	2,4
	SOC	1.165	3,1	2,2	2,4
	CHE	126	3,0	2,3	2,8
	PHY	45	2,7	1,9	2,8
Region of origin (citizenship)	Europe (EU)	995	3,2	2,1	2,0
	Europe (non-EU)	240	3,1	2,1	2,8
	South/ South-East/ East Asia	674	3,0	2,3	2,9
	North America/ Oceania	156	3,2	2,2	2,1
	Middle East / Central Asia	320	3,0	2,2	3,0
	Africa	336	2,7	2,5	3,0
	Latin America	675	3,0	2,2	2,7
	Cohort	2012/2013	731	2,9	2,0
2017/2018		1.192	3,1	2,2	2,5
2021/2022		1.473	3,0	2,3	2,7
TOTAL		3.396	3,0	2,2	2,6

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 3.396 Graduates,

10.4 Overall satisfaction with EM Master programme

		Total n	1 not at all	2	3	4	5 very satisfied
Age	< 30 years	851	2%	6%	5%	45%	42%
	30 - 33 years	909	2%	6%	4%	39%	49%
	34 - 36 years	719	1%	3%	4%	44%	49%
	37 years or older	430	2%	2%	3%	44%	49%
Sex	Male	1.412	2%	5%	5%	46%	42%
	Female	1.484	1%	4%	3%	39%	53%
Field of study	ENG*	798	0%	3%	3%	41%	52%
	ENV	540	1%	3%	4%	40%	52%
	LIF	249	0%	1%	3%	40%	56%
	ECO*	114	1%	2%	1%	42%	54%
	MAT	85	1%	5%	1%	44%	49%
	SOC*	969	3%	7%	6%	47%	37%
	CHE*	112	1%	2%	0%	45%	52%
	PHY	42	6%	2%	4%	33%	55%
Region of origin (citizenship)	Europe (EU)	841	3%	6%	5%	47%	39%
	Europe (non-EU)	211	0%	4%	5%	41%	49%
	South/ South-East/ East Asia	572	1%	3%	3%	45%	48%
	North America/ Oceania Middle East / Central Asia	124	2%	10%	2%	43%	44%
	Africa	276	1%	6%	3%	38%	52%
	Africa	285	0%	1%	4%	42%	53%
	Latin America	600	2%	5%	5%	38%	50%
Financial source(s)	solely EM scholarship	1.662	1%	4%	4%	38%	53%
	EM scholarship + others	577	3%	4%	4%	47%	43%
	no EM scholarship	663	3%	7%	5%	51%	33%
Cohort	2012/2013*	651	1%	3%	3%	42%	51%
	2017/2018*	1.009	1%	4%	4%	42%	48%
	2021/2022*	1.249	2%	6%	5%	44%	43%
	TOTAL	2.909	2%	5%	4%	43%	47%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 2.909 Graduates.

Text formatting of break groups indicates whether a relationship between the break group and the overall study satisfaction was found in the regression analysis (see section 4.2):

Italic: No significant effect of characteristic on mean satisfaction rating.

***** Significant effect of characteristic on mean satisfaction rating

No formatting: not included in regression analysis

10.5 Greatest personal impact of EM Master

		Total n	My career	My subject-related expertise	My personality	My private life	My intercultural competencies	My attitude towards Europe and the EU	Other
Age	< 30 years	920	32%	16%	17%	7%	22%	5%	1%
	30 - 33 years	964	31%	14%	16%	8%	24%	7%	0%
	34 - 36 years	788	28%	16%	16%	7%	25%	7%	1%
	37 years or older	456	28%	21%	11%	6%	25%	8%	0%
Sex	Total	3.128	30%	16%	15%	7%	24%	7%	1%
	Male	1.558	27%	14%	17%	9%	27%	6%	1%
	Female	1.555	34%	19%	14%	6%	20%	7%	1%
	Total	3.113	30%	16%	15%	7%	24%	7%	1%
Field of study	ENG	851	34%	13%	16%	7%	21%	7%	0%
	ENV	581	34%	17%	16%	5%	22%	6%	0%
	LIF	255	34%	21%	14%	6%	21%	3%	1%
	ECO	119	31%	16%	15%	3%	24%	10%	1%
	MAT	92	32%	13%	16%	11%	20%	8%	0%
	SOC	1.078	24%	17%	15%	8%	28%	7%	1%
	CHE	111	39%	19%	15%	5%	14%	8%	0%
	PHY	41	41%	15%	5%	12%	21%	7%	0%
Region of origin (citizenship)	Europe (EU)	906	20%	16%	18%	9%	31%	6%	1%
	Europe (non-EU)	225	31%	16%	21%	10%	18%	4%	0%
	South/ South-East/ East Asia	615	32%	18%	14%	5%	21%	10%	1%
	North America/ Oceania	140	17%	17%	11%	11%	35%	9%	1%
	Middle East / Central Asia	294	32%	14%	21%	5%	18%	9%	1%
	Africa	296	40%	25%	10%	2%	17%	5%	1%
	Latin America	652	38%	10%	13%	11%	23%	5%	0%
Financial source(s)	solely EM scholarship	1.782	36%	17%	15%	6%	20%	5%	0%
	EM scholarship + others	608	22%	16%	13%	9%	30%	9%	1%
	no EM scholarship	733	21%	15%	18%	9%	29%	7%	1%
Cohort	2012/2013	680	27%	16%	16%	8%	27%	6%	0%
	2017/2018	1.102	29%	15%	17%	7%	23%	8%	1%
	2021/2022	1.346	33%	18%	14%	7%	22%	6%	1%
	TOTAL	3.128	30%	16%	15%	7%	24%	7%	1%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 3.128 Graduates,

10.6 Residence after EM master

		Total n	moved to EM host country	returned to EM host country*	returned to country of origin	moved to another country
Age	< 30 years	997	35%	10%	24%	31%
	30 - 33 years	1.039	32%	7%	28%	33%
	34 - 36 years	841	20%	8%	37%	35%
	37 years or older	494	20%	6%	46%	28%
Sex	Total	3.371	28%	8%	32%	32%
	Male	1.678	27%	8%	33%	31%
	Female	1.677	28%	8%	31%	33%
	Total	3.355	28%	8%	32%	32%
Field of study	ENG	909	32%	6%	25%	37%
	ENV	622	31%	5%	33%	30%
	LIF	276	26%	4%	35%	35%
	ECO	129	23%	7%	38%	32%
	MAT	103	33%	16%	18%	33%
	SOC	1.162	24%	11%	37%	28%
	CHE	126	33%	6%	26%	34%
	PHY	44	25%	5%	14%	55%
Region of origin (citizenship)	Europe (EU)	987	19%	24%	26%	31%
	Europe (non-EU)	239	34%	2%	25%	39%
	South/ South-East/ East Asia	668	26%	1%	40%	33%
	North America/ Oceania	154	19%	4%	54%	24%
	Middle East / Central Asia	317	40%	2%	21%	36%
	Africa	332	31%	1%	40%	28%
	Latin America	674	37%	1%	30%	32%
Financial source(s)	solely EM scholarship	1.904	31%	3%	33%	33%
	EM scholarship + others	656	25%	11%	31%	33%
	no EM scholarship	804	22%	19%	31%	29%
Cohort	2012/2013	730	16%	9%	39%	35%
	2017/2018	1.184	24%	9%	32%	35%
	2021/2022	1.457	37%	7%	28%	28%
	Total	3.371	28%	8%	32%	32%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 3.371 Graduates,

10.7 Activities in the first 6 months after EM graduation

		Total n	Started/continued working	Started/continue working and studying	Continued studying (without working)	Started looking for jobs	Other
Age	< 30 years	1.001	37%	6%	25%	21%	11%
	30 - 33 years	1.043	40%	6%	22%	21%	11%
	34 - 36 years	842	39%	5%	23%	26%	8%
	37 years or older	493	44%	7%	20%	23%	7%
Sex	Male	1.683	41%	5%	18%	25%	10%
	Female	1.681	38%	6%	28%	20%	8%
Field of study	ENG	911	39%	6%	28%	22%	6%
	ENV	627	43%	7%	19%	21%	10%
	LIF	276	35%	8%	29%	21%	7%
	ECO	128	46%	5%	12%	29%	8%
	MAT	103	32%	2%	41%	17%	8%
	SOC	1.164	42%	6%	15%	25%	12%
	CHE	125	23%	4%	55%	14%	4%
	PHY	45	9%	4%	77%	6%	4%
Region of origin (citizenship)	Europe (EU)	990	39%	5%	20%	22%	14%
	Europe (non-EU)	238	39%	5%	24%	23%	8%
	South/ South-East/ East Asia	671	38%	5%	27%	23%	7%
	North America/ Oceania	155	44%	7%	10%	30%	8%
	Middle East / Central Asia	316	34%	6%	25%	26%	9%
	Africa	334	44%	7%	25%	18%	7%
	Latin America	675	40%	8%	22%	24%	6%
	Financial source(s)	solely EM scholarship	1.912	39%	6%	26%	21%
EM scholarship + others		655	39%	8%	22%	23%	8%
no EM scholarship		805	40%	4%	17%	25%	14%
Cohort	2012/2013	728	35%	6%	26%	24%	9%
	2017/2018	1.185	40%	5%	22%	24%	9%
	2021/2022	1.466	42%	6%	21%	20%	10%
TOTAL		3.128	30%	16%	15%	7%	24%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 3.128 Graduates,

10.8 Employment status during survey

		Total n	Employed or self-employed	(Self-)employed and studying	Only studying or internship	Unemployed
Age	< 30 years	996	59%	11%	24%	6%
	30 - 33 years	1.043	70%	9%	16%	5%
	34 - 36 years	841	82%	4%	8%	5%
	37 years or older	489	82%	6%	7%	4%
Sex	Total	3.369	72%	8%	15%	5%
	Male	1.682	73%	8%	13%	6%
	Female	1.673	71%	8%	17%	4%
Field of study	ENG	908	73%	8%	14%	5%
	ENV	625	67%	8%	20%	5%
	LIF	274	68%	8%	19%	5%
	ECO	129	78%	8%	7%	6%
	MAT	104	77%	7%	14%	2%
	SOC	1.161	75%	7%	11%	6%
	CHE	124	55%	13%	31%	2%
	PHY	44	54%	11%	34%	0%
Region of origin (citizenship)	Europe (EU)	988	79%	6%	10%	5%
	Europe (non-EU)	238	76%	9%	12%	4%
	South/ South-East/ East Asia	666	69%	8%	18%	5%
	North America/ Oceania	155	81%	7%	8%	4%
	Middle East / Central Asia	319	69%	10%	14%	7%
	Africa	329	59%	7%	26%	8%
	Latin America	674	73%	9%	14%	4%
Financial source(s)	solely EM scholarship	1.902	68%	8%	18%	5%
	EM scholarship + others	657	77%	8%	11%	4%
	no EM scholarship	802	78%	6%	10%	6%
Cohort	2012/2013	728	89%	4%	3%	3%
	2017/2018	1.183	73%	10%	13%	4%
	2021/2022	1.458	61%	8%	23%	7%
	TOTAL	3.369	72%	8%	15%	5%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 3.369 Graduates,

10.9 Education-employment match

		Total n	double match	Only vertical match	Only horizontal match	double mismatch
Age	< 30 years	489	75%	9%	9%	7%
	30 - 33 years	527	71%	11%	13%	5%
	34 - 36 years	388	70%	12%	11%	6%
	37 years or older	185	67%	12%	10%	11%
Sex	Total	1.589	71%	11%	11%	7%
	Male	798	69%	13%	11%	8%
	Female	785	75%	9%	11%	5%
	Total	1.583	71%	11%	11%	7%
Field of study	ENG	474	80%	7%	12%	2%
	ENV	258	79%	8%	7%	6%
	LIF	110	80%	9%	6%	5%
	ECO	68	70%	21%	7%	2%
	MAT	61	82%	9%	6%	4%
	SOC	546	61%	15%	13%	11%
	CHE	49	82%	6%	7%	5%
	PHY	23	61%	0%	25%	14%
Region of origin (citizenship)	Europe (EU)	711	69%	13%	11%	7%
	Europe (non-EU)	118	71%	12%	12%	6%
	South/ South-East/ East Asia	205	83%	7%	8%	3%
	North America/ Oceania	42	51%	23%	13%	14%
	Middle East / Central Asia	161	78%	8%	9%	5%
	Africa	72	67%	9%	16%	9%
	Latin America	280	72%	8%	11%	8%
Financial source(s)	solely EM scholarship	766	76%	8%	11%	6%
	EM scholarship + others	366	67%	14%	11%	9%
	no EM scholarship	455	68%	14%	11%	7%
Cohort	2012/2013	375	69%	14%	11%	7%
	2017/2018	556	73%	12%	11%	5%
	2021/2022	658	72%	9%	11%	8%
	TOTAL	1.589	71%	11%	11%	7%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 1.589 Graduates in employment during survey

10.10 Overall job satisfaction

		Total n	1 Not at all	2	3	4	5 Very satisfied
Age	< 30 years	611	2%	8%	10%	45%	35%
	30 - 33 years	728	1%	7%	7%	47%	37%
	34 - 36 years	621	2%	7%	7%	44%	39%
	37 years or older	373	1%	6%	6%	50%	37%
Sex	Male	1.142	1%	7%	8%	48%	36%
	Female	1.181	2%	7%	7%	44%	39%
Field of study	ENG	647	1%	4%	6%	45%	44%
	ENV	414	1%	7%	6%	46%	40%
	LIF	181	1%	5%	8%	50%	35%
	ECO	99	2%	5%	4%	54%	35%
	MAT	78	0%	5%	8%	46%	41%
	SOC	817	2%	10%	10%	46%	31%
	CHE	72	0%	5%	3%	50%	41%
	PHY	25	0%	8%	0%	33%	58%
Region of origin (citizenship)	Europe (EU)	737	1%	6%	8%	46%	38%
	Europe (non-EU)	177	1%	6%	8%	43%	42%
	South/ South-East/ East Asia	447	1%	6%	7%	51%	35%
	North America/ Oceania	110	1%	13%	7%	36%	44%
	Middle East / Central Asia	211	1%	7%	6%	51%	34%
	Africa	175	3%	10%	12%	44%	32%
	Latin America	476	2%	7%	6%	46%	39%
Financial source(s)	solely EM scholarship	1.262	1%	6%	8%	46%	38%
	EM scholarship + others	482	2%	6%	8%	44%	40%
	no EM scholarship	585	1%	9%	7%	49%	34%
Cohort	2012/2013	602	1%	4%	5%	46%	43%
	2017/2018	844	1%	7%	7%	48%	37%
	2021/2022	887	2%	9%	10%	45%	33%
	TOTAL	2.333	2%	7%	8%	46%	37%

Source: Erasmus Mundus Graduate Impact Survey 2022/23, n = 2.333 Graduates in employment during survey

11 Bibliography

EHEA (European Higher Education Area) Ministerial Conference, 2020: Rome Ministerial Communiqué.

https://ehea2020rome.it/storage/uploads/5d29d1cd-4616-4dfe-a2af-29140a02ec09/BFUG_Final_Draft_Rome_Communique-link.pdf

European Commission: Erasmus Mundus Action,

<https://erasmus-plus.ec.europa.eu/programme-guide/part-b/key-action-2/erasmus-mundus>

European Commission: ET2020 - Strategic framework for European cooperation in education and training.

https://ec.europa.eu/education/policies/european-policy-cooperation/et2020-framework_en, 12.10.2021

European Education and Culture Executive Agency of the European Commission (EACEA)

(2021): Erasmus+ Programme, Statistical factsheets on the achievements of the Erasmus Mundus Joint Master Degrees (2014-2020)

Lohr, Sharon L. (2019). Sampling: Design and Analysis (2nd ed.). Chapman and Hall/CRC.

<https://doi.org/10.1201/9780429296284>

