European Commission

The Erasmus Impact Study Regional Analysis

A Comparative Analysis of the Effects of Erasmus on the Personality, Skills and Career of students of European Regions and Selected Countries

Education and Culture

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CHE Consult GmbH

CHE Consult Prague s.r.o.

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Disclaimer

The team

Project leader:

Uwe Brandenburg, PhD (CHE Consult GmbH)

Research team leader:

Dana Petrova (CHE Consult GmbH)

Research team members (in alphabetical order of surnames):

Martina Bugárová (CHE Consult Prague s.r.o.)

Michal Kunc (CHE Consult Prague s.r.o.)

Šimon Stiburek (CHE Consult Prague s.r.o.)

Pavla Tůmová (CHE Consult Prague s.r.o.)

Consortium Leader

CHE Consult GmbH

Consortium Partner

CHE Consult Prague s.r.o.

Abbreviations

CIMO	Centre for International Mobility, Finland
DG EAC	Directorate-General for Education and Culture
EIS	Erasmus Impact Study
HE	Higher Education
HEI	Higher Education Institution
memo©	Monitoring Exchange Mobility Outcomes
OECD	Organisation for Economic Co-operation and Development
PRE / *ex ante*	Data collected before departure
POST / *ex post*	Data collected after return
WP	Work placement

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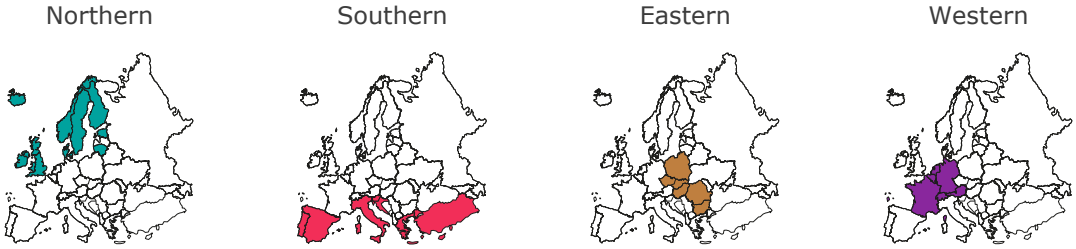
Executive Summary

What is the objective and methodology of the Erasmus Impact Study Regional Analysis?

While the original Erasmus Impact Study (EIS) published in 2014 looked at aggregated data at the European level, this new study analyses the regional trends in the effects of student mobility under the Erasmus programme on employability, skills, careers and social lives. The analysis is based on the four regions of Europe:



Although this report uses and applies the same raw data and methodology as in the original EIS, it adds some new aspects of analysis. **In total, the sample for this study analyses 71,368 individual responses.**

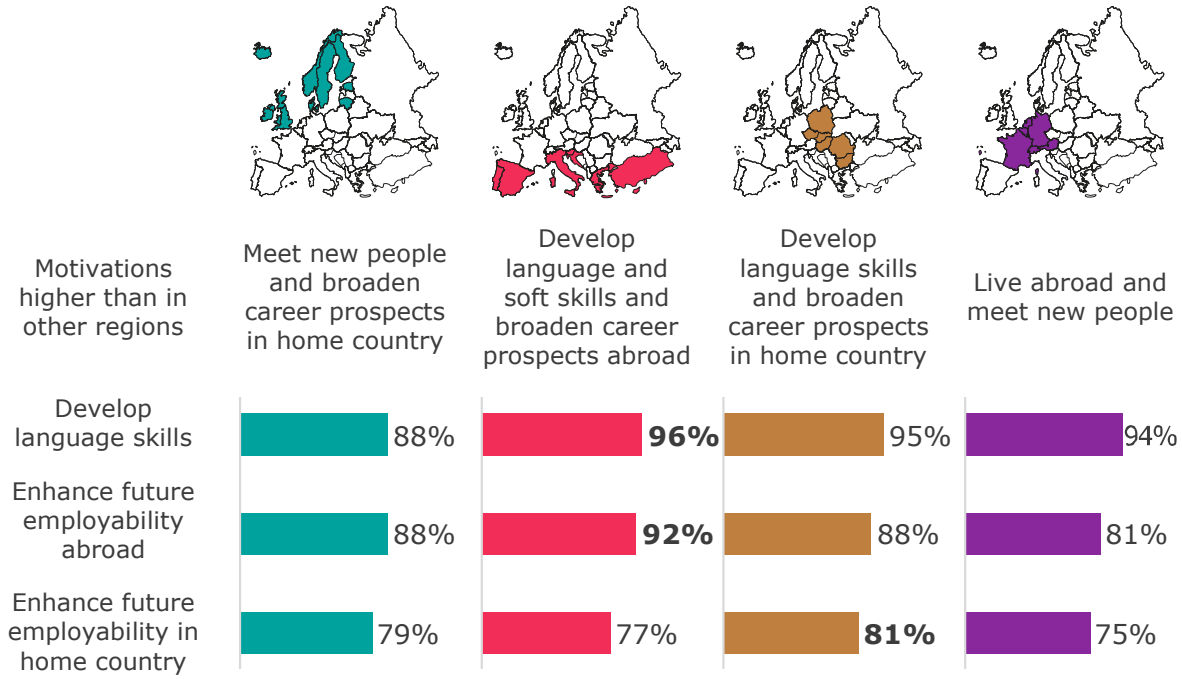
Why do students take part in Erasmus?

Overall, at least 90% of Erasmus students in all regions participate in Erasmus in order to experience living abroad, meet new people, learn or improve a foreign language and develop their soft skills. Just after comes in all regions the wish to enhance employability abroad (87%), which is more important than employability at home (77%).

Still, motivations of students can differ depending on the region. While living abroad and meeting people are of similar importance for students in all regions, they play a much bigger role for Northern-European students than other motivations, as well as for Western-European students, together with developing language skills.

In Eastern Europe, on the other hand, students primarily choose to go abroad to improve their foreign language skills as well as to broaden their career prospects. Students in Southern Europe wish to develop their language and soft skills and, of all the regions, they have the highest motivation to go abroad in order to increase their future employability abroad.

Regional results for reasons to go abroad



The award of an Erasmus grant also plays a role, especially in Eastern Europe where 68% of students claim that the possibility to receive a grant is one of the major reasons to go abroad.

Erasmus appears to be much more selective in Eastern Europe (where 20% of applications are rejected) and Southern Europe (19%), whereas a substantially lower number of Erasmus applications is rejected in Western Europe (9%) and Northern Europe (7%).

A lack of financial support prevents 53% of students in Southern Europe and 51% in Eastern Europe to take part in Erasmus, which is a much higher share than in the other two regions. Financial barriers are even higher for students from a non-academic family background[1] – 57% (Southern Europe) and 54% (Eastern Europe) of students from a non-academic family background do not participate in mobility for this reason. This is why additional financial support is provided to students from a disadvantaged background since the start of Erasmus+ in 2014. The largest share of Erasmus students from a non-academic family background can be found in Southern Europe (50%).

How does Erasmus increase employability?

Based on the memo© approach, EIS measured the level of six selected personality traits of students referred to as "memo© factors"[2]: "Tolerance of Ambiguity", "Curiosity", "Confidence", "Serenity", "Decisiveness" and "Vigour" (problem-solving skills) before and after mobility. Across Europe, 93% of the surveyed employers confirmed that the six traits were indeed important for the recruitment and professional development of their employees. This was even the case for a remarkable

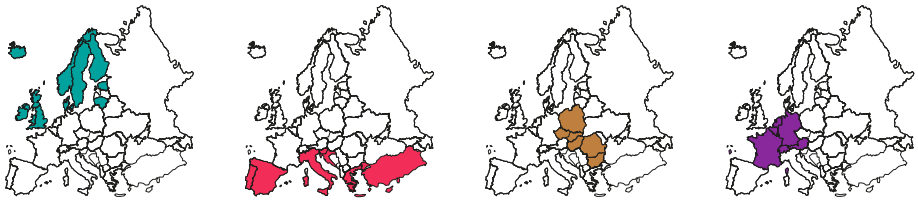
[1] Family background of a student is defined as "academic" if at least one of the parents attended university.

[2] For a further description of the factors, please see Annex: Methodology and Design

98% of employers in Northern Europe, where the personality traits were valued the most by employers.

Employers in Northern Europe also value other employability-related skills more than employers in other regions. They place more emphasis on the top 5 skills – "Ability to Adapt and Act in New Situations", "Analytical and Problem-solving Skills", "Communication Skills", "Planning and Organisational Skills" and "Team Working Skills" – than employers elsewhere. For employers in the Eastern region, "Communication Skills" seem particularly important, whereas "Team Working Skills" are on the top of the list for employers in Southern and Western Europe.

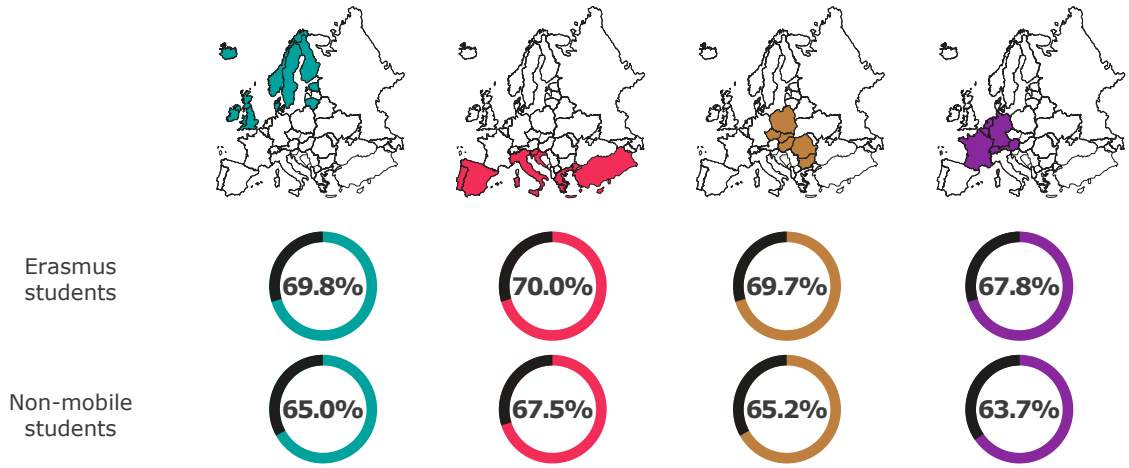
Relevance of personality traits and skills for recruitment



Relevance of personality traits for employers	98%	94%	90%	90%
Most important skills for employers	Team Working Skills 100% Communication Skills 100%	Team Working Skills 95% Planning and Organisational Skills 95%	Communication Skills 98%	Team Working Skills 97%

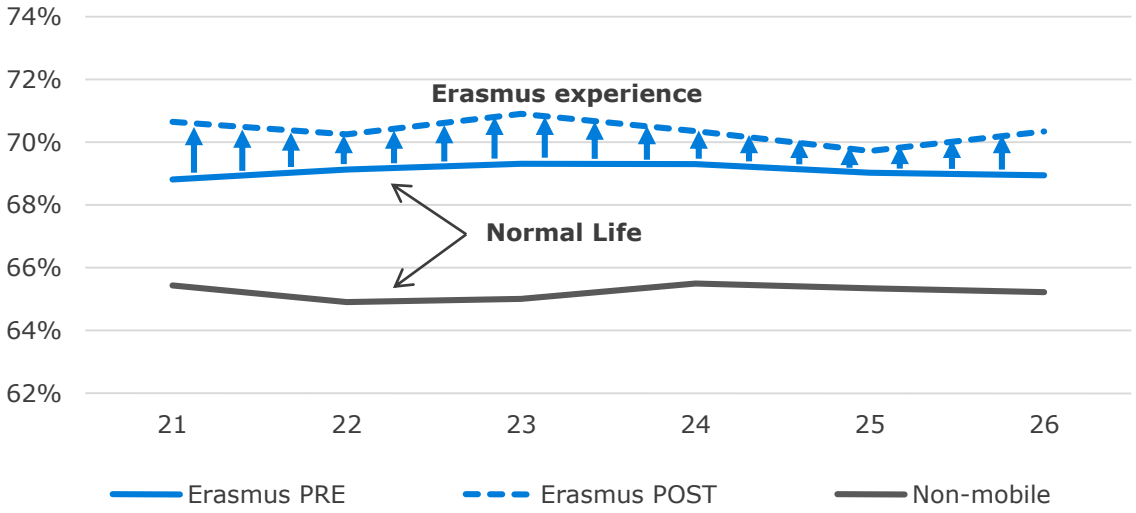
Having confirmed the relevance of the personality traits and skills related to employability, EIS analyses the impact of mobility on these traits and skills. Erasmus students show higher values for the six personality traits than non-mobile students – even before going abroad. This is valid for all four regions.

Pre-departure memo© values for Erasmus and non-mobile students



The mobility experience itself also brings about a positive change to the personality traits of Erasmus students. **The average change achieved in six months through the Erasmus programme can be considered equivalent to a personality change that would normally happen over four years of life without Erasmus experience.**

Memo© total values of Erasmus students before and after mobility compared to non-mobile students across age groups, on average across all regions



However, the level of improvement varies depending on the regions. Students from Eastern Europe have the highest memo© factors upon their return from Erasmus (71.2%), particularly in "Tolerance of Ambiguity". Students from Western Europe also show the same level of improvement, starting from the lowest memo© scores across all regions and improving in five out of six factors. In contrast, students from Northern Europe increase their memo© factors with Erasmus the least. This can be due to the fact that other forms of international experience prior to tertiary education are quite common among students from Northern Europe, which may reduce the possible effect of Erasmus during their higher education studies. Students from Southern Europe also show limited improvement in their memo© factors, except for "Decisiveness". This can be explained by the fact that they show the highest values before their departure.

Interestingly, in all regions, work placements tend to improve "Analytical and Problem-solving Skills" significantly more than studies.

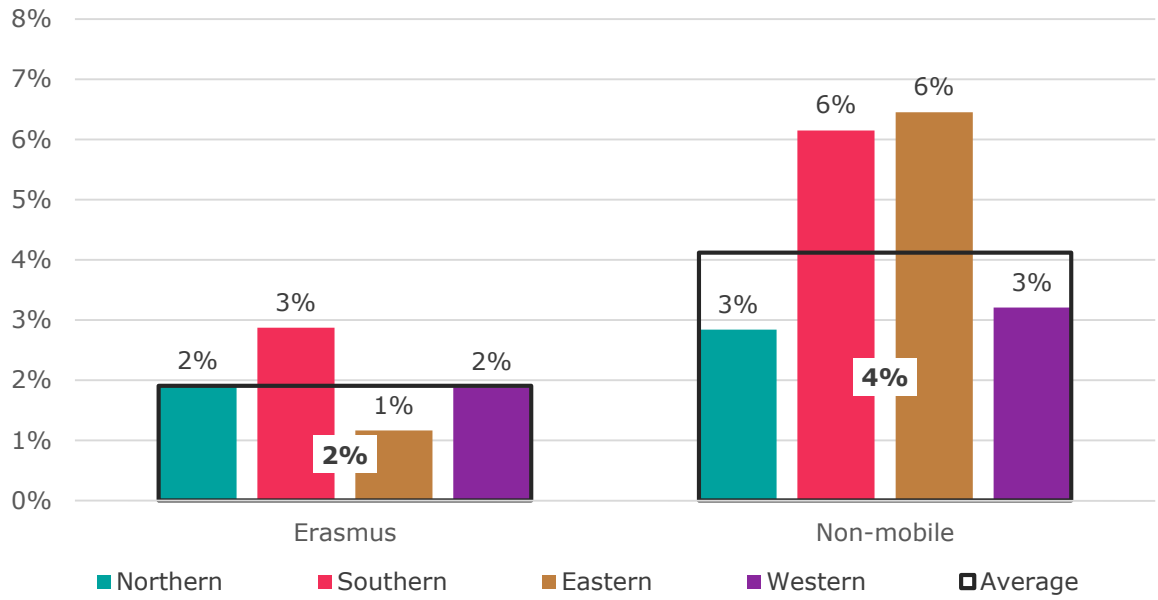
When comparing measured effects with student perceptions, Erasmus students from Eastern Europe seem to be more accurate when assessing their own development than students in other regions, as their perceived improvement is quite consistent with the measured effects. The largest difference between perceptions and measured effects can be found in Southern Europe, where students perceive greater gain than what memo© measures. Western European students are less optimistic than other regions regarding the expected improvement of their personality through a mobility experience and become the most positively "surprised" by the impact of their experience. The highest share of Erasmus students who perceived an improvement of their personality traits was observed in Spain, Portugal, Romania, Bulgaria, the United Kingdom and Estonia.

How does Erasmus influence future careers and social lives?

In addition to skills, the EIS also analyses the impact of mobility on working life and careers.

Employment rates are positively affected by mobility. Astonishingly, students in Eastern Europe reduce their risk of long-term unemployment by 83% by taking part in Erasmus. In Southern Europe, former Erasmus students are half as likely to experience long-term unemployment compared to those that do not go abroad. At the country level, this advantage of Erasmus alumni over non-mobile alumni is highest in Hungary and Portugal.

Long-term unemployment of Erasmus and non-mobile alumni (more than 12 months after graduation)

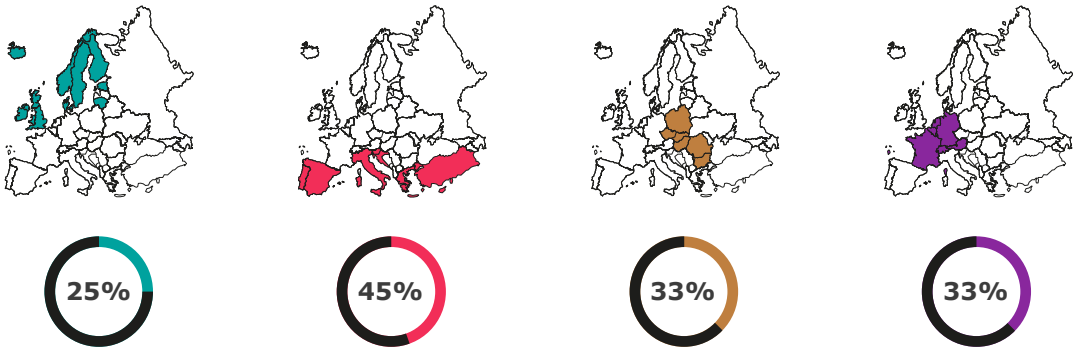


Even five to ten years after graduation, the unemployment rate of mobile students is lower than for non-mobile students. Again, the largest difference is to be found in Southern Europe with 56% less Erasmus alumni experiencing unemployment than non-mobiles.

Work placements seem to have a particularly direct positive impact on finding a job, with one in three Erasmus students on average offered a position by their host

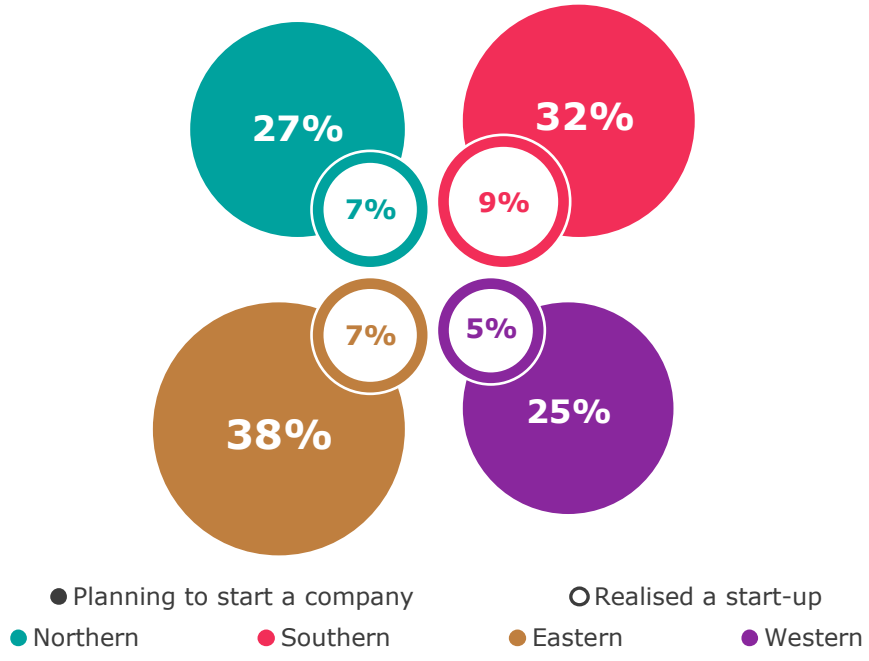
company. In Southern Europe, this share even goes up to almost one in two students, with Italy (51%) and Portugal (47%) at the top.

Job offer through a work placement abroad, Erasmus alumni



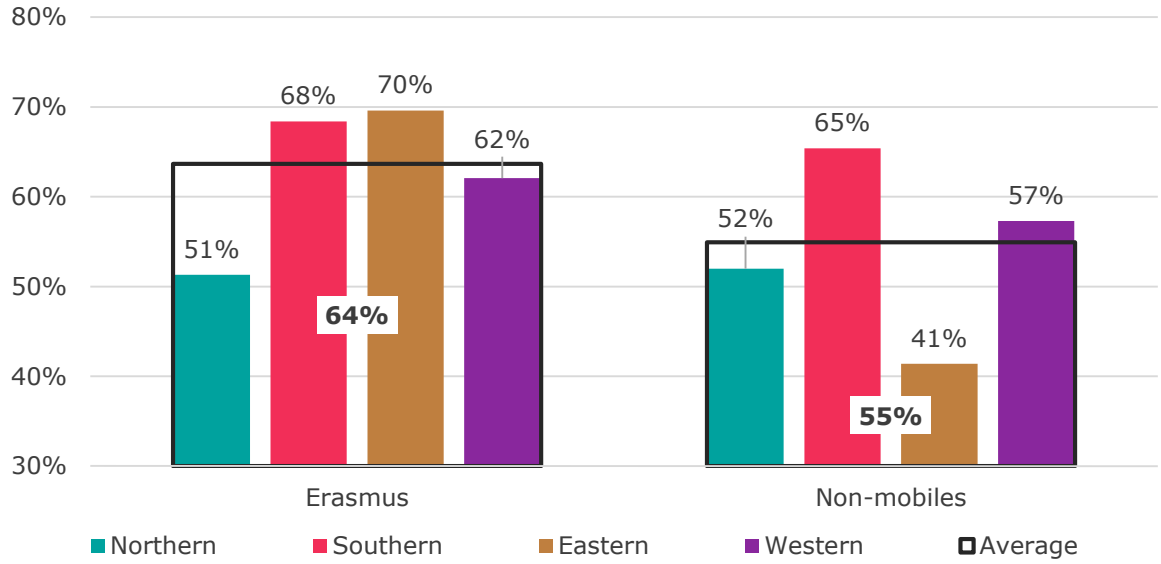
The mobility experience also fosters an entrepreneurial spirit. This is particularly the case for Eastern Europe, which has the highest ratio of alumni definitely planning to create a start-up (38%), as well as for Southern Europe, where almost one in ten graduates with Erasmus traineeship experience has already done so.

Start-ups realised or planned by Erasmus alumni



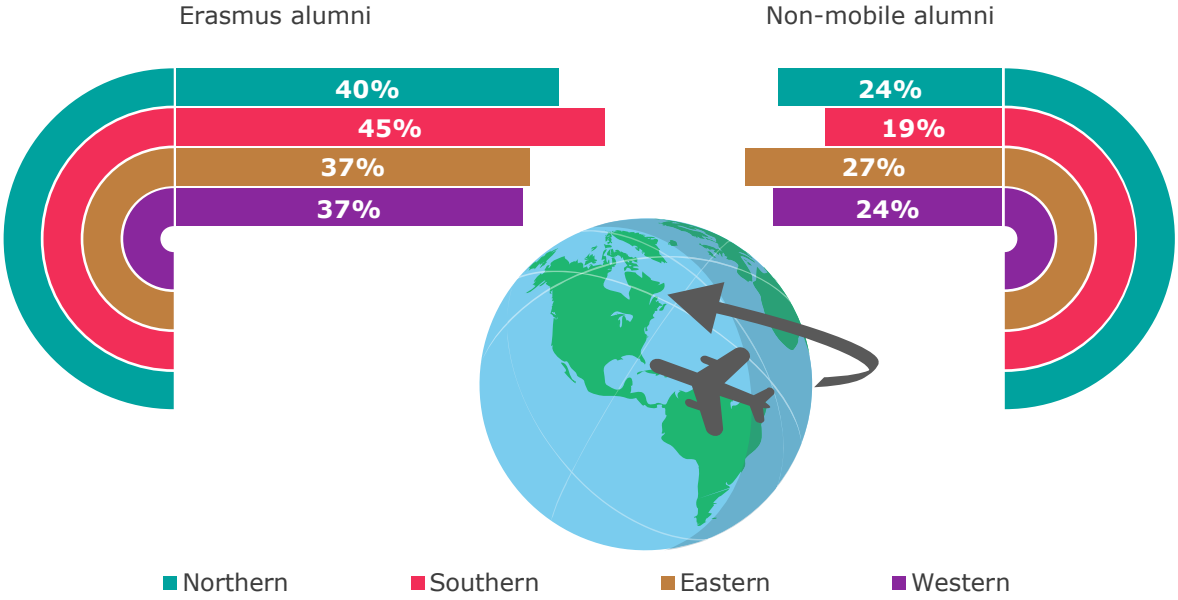
Five to ten years after graduation, significantly more Erasmus alumni (64%) than non-mobile alumni (55%) hold a management position. The difference is especially large in Eastern Europe (70% compared to 41%), in particular in Hungary, where more than nine out of ten Erasmus alumni hold a managerial position, more than twice the figure for non-mobile alumni. Furthermore, 50% of Bulgarian employers claim to give higher salaries to recently hired employees if they are internationally experienced.

Alumni in management positions five to ten years after graduation



Erasmus promotes labour mobility after graduation. Of the Erasmus alumni, 40% had moved country at least once since graduation compared with 23% of non-mobile alumni. In addition, 93% (compared with 73% of the non-mobile students) could envisage living abroad. Former Erasmus students are also more than twice as likely to change their employer as non-mobile alumni. Erasmus students from Southern Europe in particular become mobile later in life and are more than twice as likely to move from one country to the other than their non-mobile counterparts.

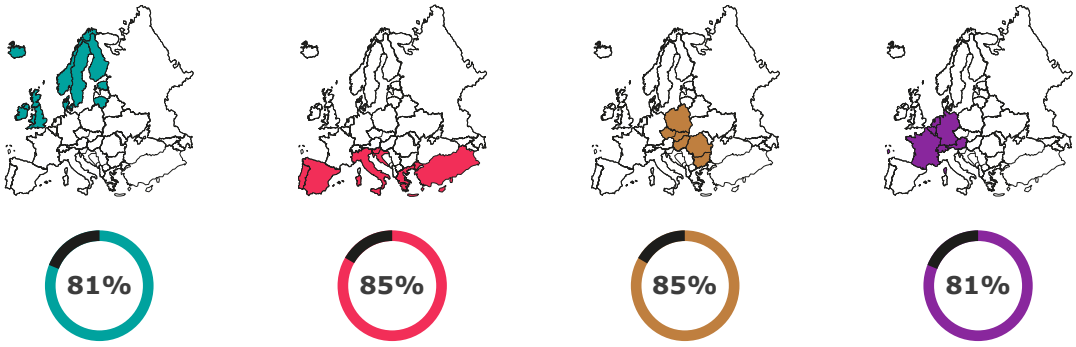
Alumni that have changed their country of residence or work at least once after graduation



How does Erasmus influence relations to Europe and personal life?

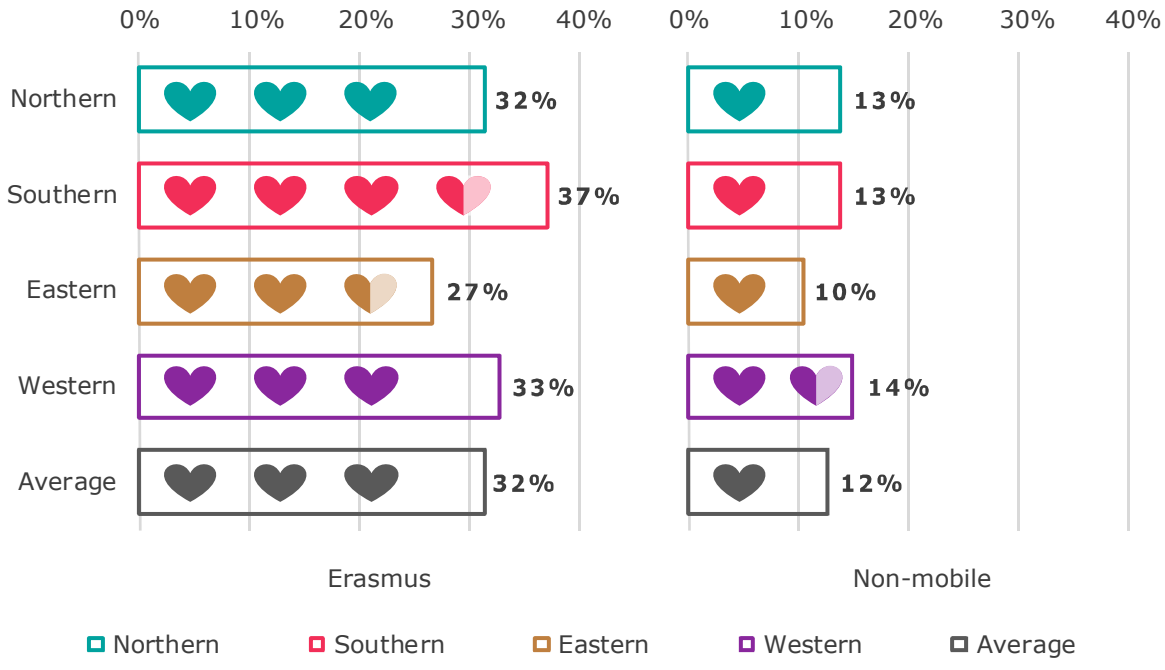
In all regions, Erasmus students as well as alumni feel significantly more related to Europe than non-mobiles. It is remarkable that the share of Erasmus students and alumni that relate strongly to Europe is very similar in all regions. More than 80% feel that their European attitude has been strengthened by mobility. This perception is especially strong in Southern and Eastern Europe (each 85%), with Bulgaria (90%), Portugal (89%) and Italy (87%) at the top, followed by the United Kingdom with 88%.

Perceived improvement of European attitude through mobility



Erasmus also influences the private life. At the time of the survey, 32% of the Erasmus alumni had a life partner of a different nationality than their own, nearly three times more than among non-mobile alumni (13%). Graduates from Southern Europe are most frequently found in international relationships (37%). Looking at individual countries, most Erasmus alumni in transnational relationships were observed in the United Kingdom (57%) and Austria (52%).

Alumni with life partners of a different nationality



1 Introduction

The Erasmus Impact Study (EIS) focused on two areas: the impact of Erasmus on the internationalisation of HEIs and on the skills and employability of students. We identified various effects of student mobility under the Erasmus programme: EIS showed positive effects on employment, career opportunities and the personality traits relevant for employers, as well as substantial influence of Erasmus on students' social lives. EIS also revealed how Erasmus encouraged students to change countries and employers, and affected their European attitude and identity.

The original EIS showed aggregated results at the European level and provided initial insight into the diversity behind the overall averages for a few selected cases only. This follow-up analysis focuses on the differences that exist at the regional level as well as at the country level wherever a country was an outlier in its region. In order to do so, it was necessary to restrict the analysis to the third chapter of EIS, i.e. focusing on the effects on students.

Apart from this, the new analysis relies on the methods and data of the original EIS. Whilst no additional data mining, surveys or interviews were included, due to the more detailed level of analysis, some patterns and focuses were changed and samples regrouped. In some cases, analyses were not repeated unless they provided specific, differentiating information at the country or regional level. As comparable data was not available at the regional or country level, the comparison to other studies has not been included.

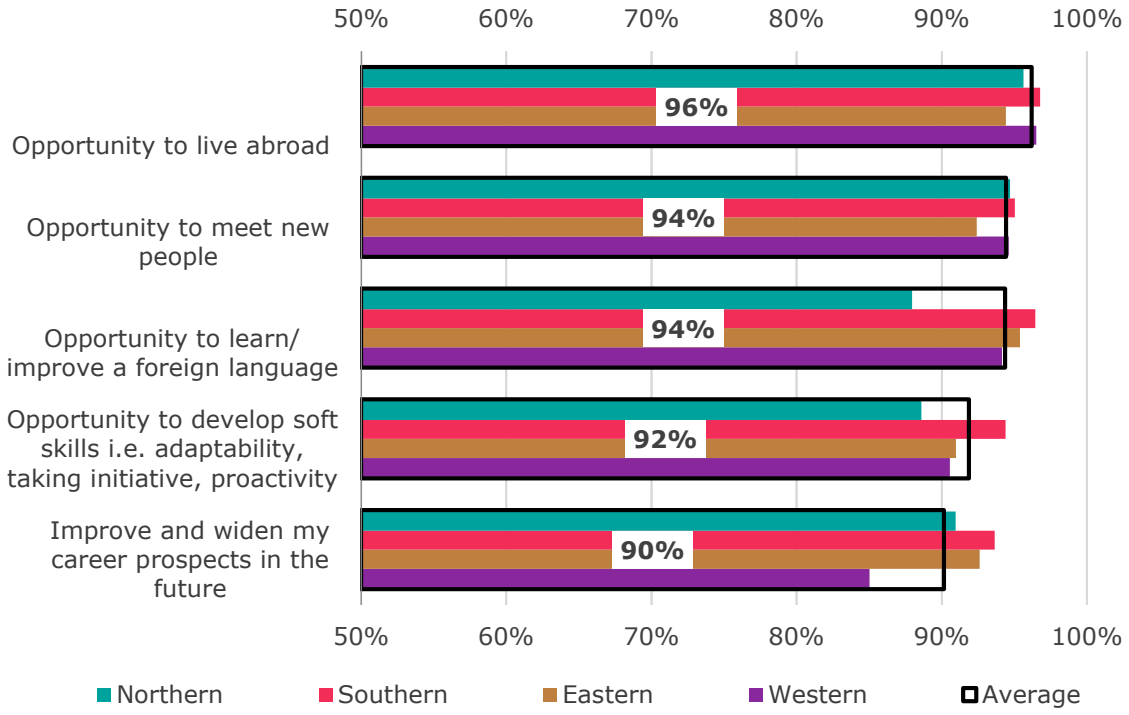
The entire methodology is combined in the Annex of this study.

2 Reasons for Mobility: Why students want to go abroad – or not...

2.1 Reasons to go abroad

This chapter analyses the reasons students decide to go abroad as well as those that prevent them from participating in mobility schemes. In the EIS, mobile students were asked to evaluate the importance of 19 items in the decision-making process. Non-mobile students were asked about 24 separate items representing barriers to mobility.

Figure 2-1 Top 5 most common reasons for participation in student mobility programmes abroad, perspective of Erasmus students, by region



The average across the regions demonstrates that all top five reasons were considered important by at least 90% of Erasmus students, with only minor differences between the individual regions. In Southern Europe, 9% more students saw mobility as a way to improve and broaden their career prospects than in Western Europe. Similarly, 9% more students in Southern Europe than in Northern Europe considered the opportunity to improve their language skills a compelling reason to go abroad.

For 93% of students from Southern Europe, improved career prospects are an important reason

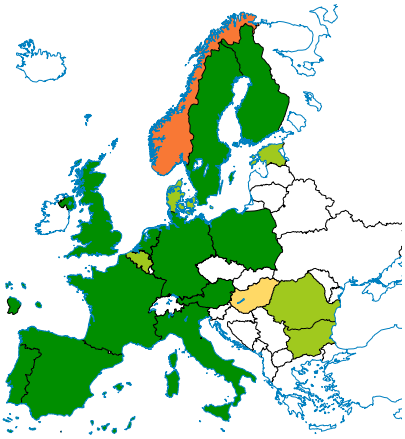
Although the reasons selected were similar across the regions, the ranking of these top five reasons differed. For example, whilst the opportunity to live abroad was the most frequent reason for students in Western, Southern and Northern Europe, in Eastern Europe this reason came second to language learning. The importance assigned to improved career prospects as a result of mobility ranked third in Northern and Eastern

Students from Eastern Europe are particularly interested in improving their foreign language skills through a stay abroad

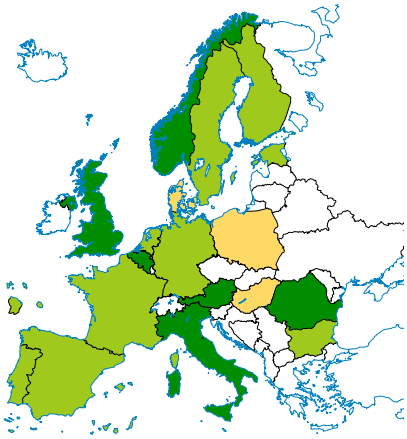
Europe. In Southern Europe, this reason ranked fifth, although the score was higher than in all the other regions.

Figure 2-2 Top 5 common reasons for participation in student mobility programmes abroad, perspective of Erasmus students, by country

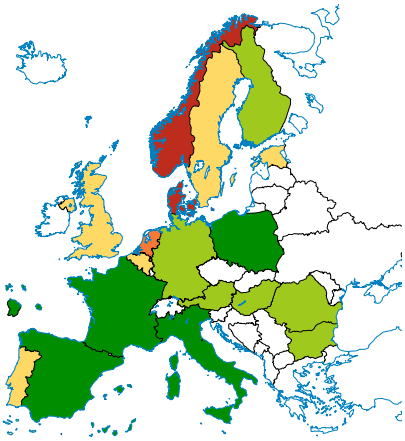
Opportunity to live abroad



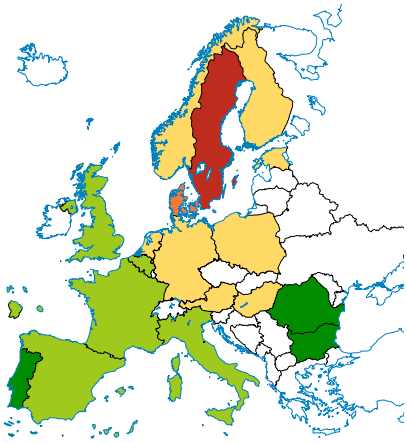
Opportunity to meet new people



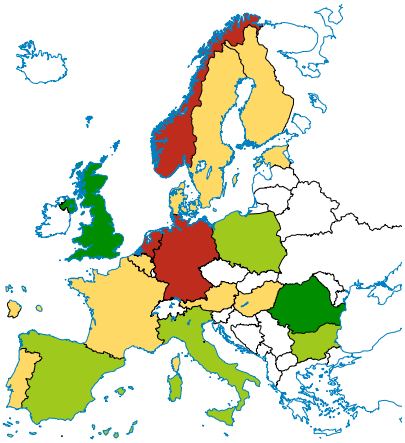
Opportunity to learn / improve a foreign language

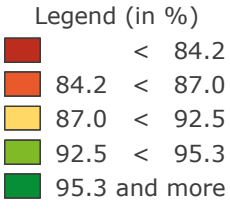


Opportunity to develop soft skills



Improve and widen my career prospects in the future





In every country, each of the top five reasons was confirmed as relevant by more than 80% of the Erasmus students. However, the perceived importance and rank order of the reasons varied across the individual countries. Furthermore, the rankings did not always follow the regional patterns. In Northern Europe in particular, there was a substantial variance of results across the individual countries.

In terms of career prospects, an exceptionally high percentage of students in Romania and the United Kingdom agreed to the importance of this factor, whereas significantly fewer students considered this reason important in Germany and Norway.

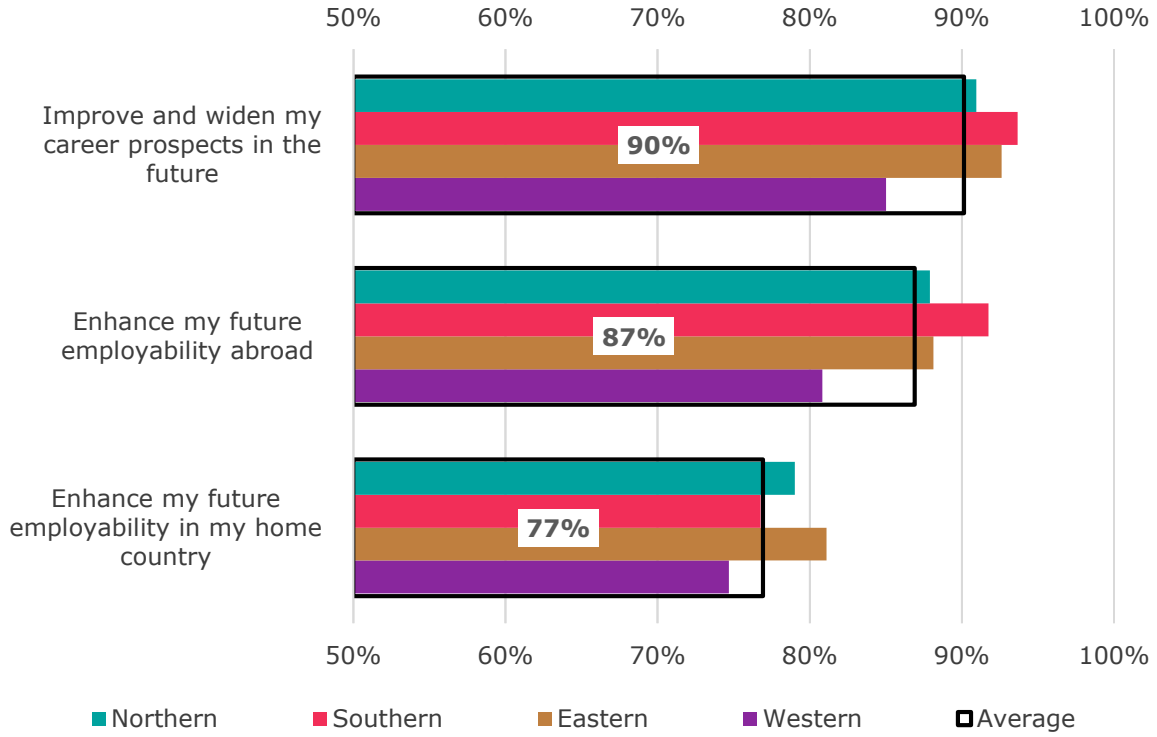
Figure 2-3 Top 10 reasons for participation in student mobility programmes abroad, highest and lowest levels of agreement, perspective of Erasmus students, by region[3]

The tag cloud shows that Southern Europe was most frequently the region with the highest level of agreement for any of the reasons to go abroad. In other words, compared to the other regions, students from Southern Europe selected a much higher number of reasons to go abroad and these reasons were important to a larger proportion of students. The other three regions showed similar results, with Northern Europe representing the lowest level. A large difference between Southern Europe and Northern Europe was especially evident for "opportunity to learn / improve a foreign language". Some of the other reasons for going abroad were more equally mentioned across the regions. For instance, "opportunity to meet new people" was highly important to both the region with the highest level of agreement (Southern Europe) and that with the lowest (Eastern Europe), as illustrated by the similar sized fonts.

Southern European students have the largest variety of reasons to go abroad

[3] In the tag cloud, each reason is displayed in the colours of the regions with the highest and lowest levels of agreement, i.e. the largest and smallest proportion of Erasmus students that agree with the relevance of a particular factor in their decision to go abroad. The font size represents the importance of the reason in the respective region, relative to all the reasons. For example, "opportunity to live abroad" was more important in Southern Europe than in the other regions and was also that region's most important reason. It was the least relevant reason in Eastern Europe but nonetheless was still considered highly relevant, resulting in a large font size.

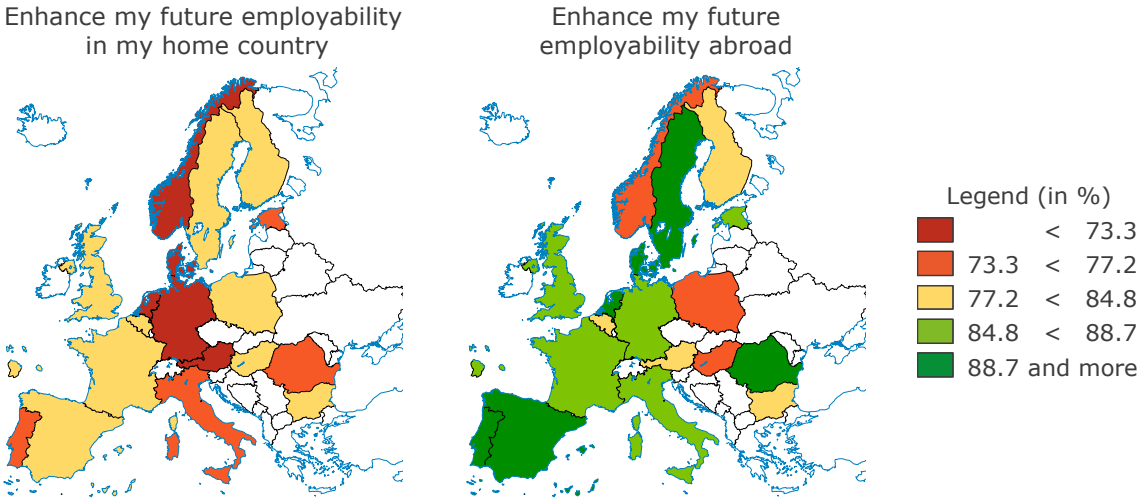
Figure 2-4 Employability-related reasons for participation in student mobility programmes abroad related to employability, perspective of Erasmus students, by region



Among the available reasons for going abroad, three were related to employability. In addition to "improve and widen my career prospects in the future", which ranked in the overall top five, the other two focused on enhancing future employability abroad as well as in the students´ home country. On average, a greater proportion of students across all regions went abroad in order to enhance their employability abroad rather than in their home country (87% versus 77%). The largest difference between these two reasons was identified in Southern Europe with 15% of students in favour of the international labour market. As we will see, this coincided strongly with subsequent results demonstrating that mobile alumni from Southern Europe sought employment abroad more often than those from other regions and viewed moving abroad as a way to avoid unemployment. In contrast, Erasmus students from Eastern Europe placed more emphasis on the benefits of a period abroad on employability in their home country. Students from Western Europe consistently rated the relevance of employability below the average for the four regions. Nonetheless, at least three quarters of these students agreed that all three employment reasons were relevant for their decision regarding mobility.

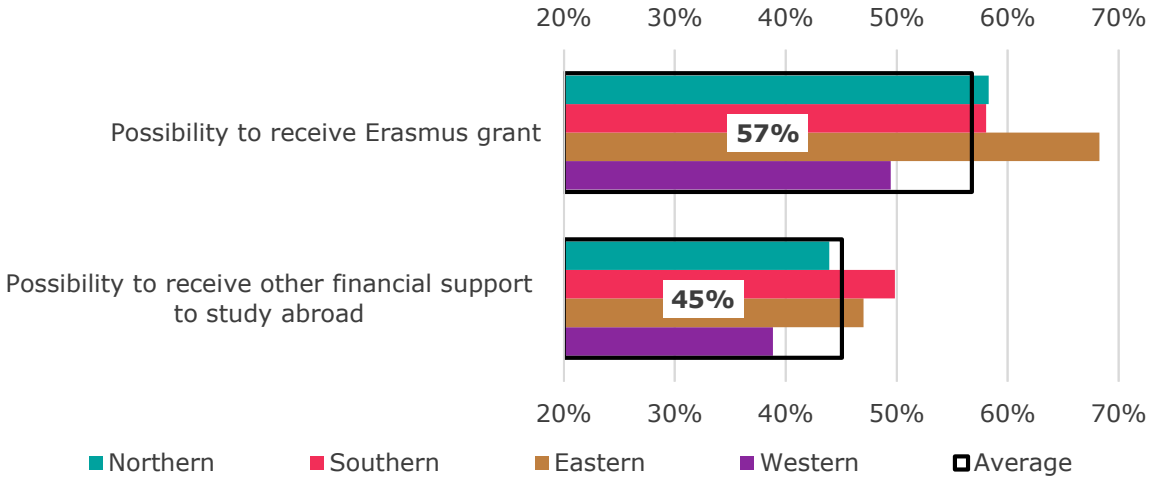
81% of Eastern European students view mobility as a way to enhance employability in their home country – a larger share than in any other region

Figure 2-5 Reasons for participation in student mobility programmes abroad related to employability, perspective of Erasmus students, by country



At the country level, the importance of employability abroad was particularly evident in Spain, Portugal, Romania, Sweden, Denmark and the Netherlands. In every country except Poland and Hungary, the benefits of employability abroad were favoured above employability at home. Poland was also among the countries where employability at home was of greater focus (in accordance with the general Eastern European pattern), together with Bulgaria, France, Finland and the United Kingdom, with agreement levels above 80%. The United Kingdom and Norway both deviated from their regional pattern. The United Kingdom showed the highest values for both reasons, while Norway rated among the lowest.

Figure 2-6 Reasons for participation in student mobility programmes abroad related to financial support availability, perspective of Erasmus students, by region



In addition to reasons of employability, financial reasons influence the decision to go abroad. On average, all regions demonstrated that an Erasmus grant was generally more important (57%) than other financial support (45%). An Erasmus grant

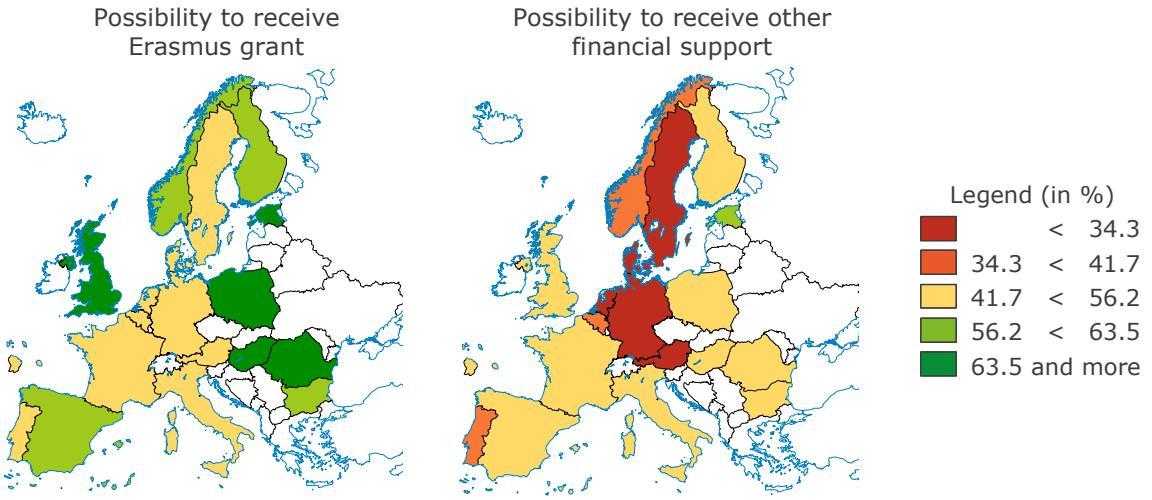
Erasmus grants are especially important for students from Eastern Europe (68%)

was especially crucial for Erasmus students from Eastern Europe. 68% of these students agreed that it was a major reason to go abroad.

Although other sources of financial support ranked behind the Erasmus grant in all regions, half of the Erasmus students from Southern Europe still agreed that these other means were relevant to them.

Erasmus students from Western Europe considered both these financial reasons less important than students from other regions. Nonetheless, half still claimed to need the Erasmus grant, while 39% claimed to need other financial support. These results therefore reflect economic differences between the regions. As Erasmus grants do not aim to cover the students' full cost of living, students seek other financial support. This is particularly relevant for countries experiencing more difficult economic situations. It is also apparent that the need for additional funding is related to household income. This is substantially higher in Northern and Western Europe than in Southern or Eastern Europe, making parents in the latter two regions less able to provide financial support. According to Eurostat, the median annual net income of households of countries in Northern and Western Europe often surpasses those of Southern Europe by more than a third and is generally at least twice that of Eastern European households.

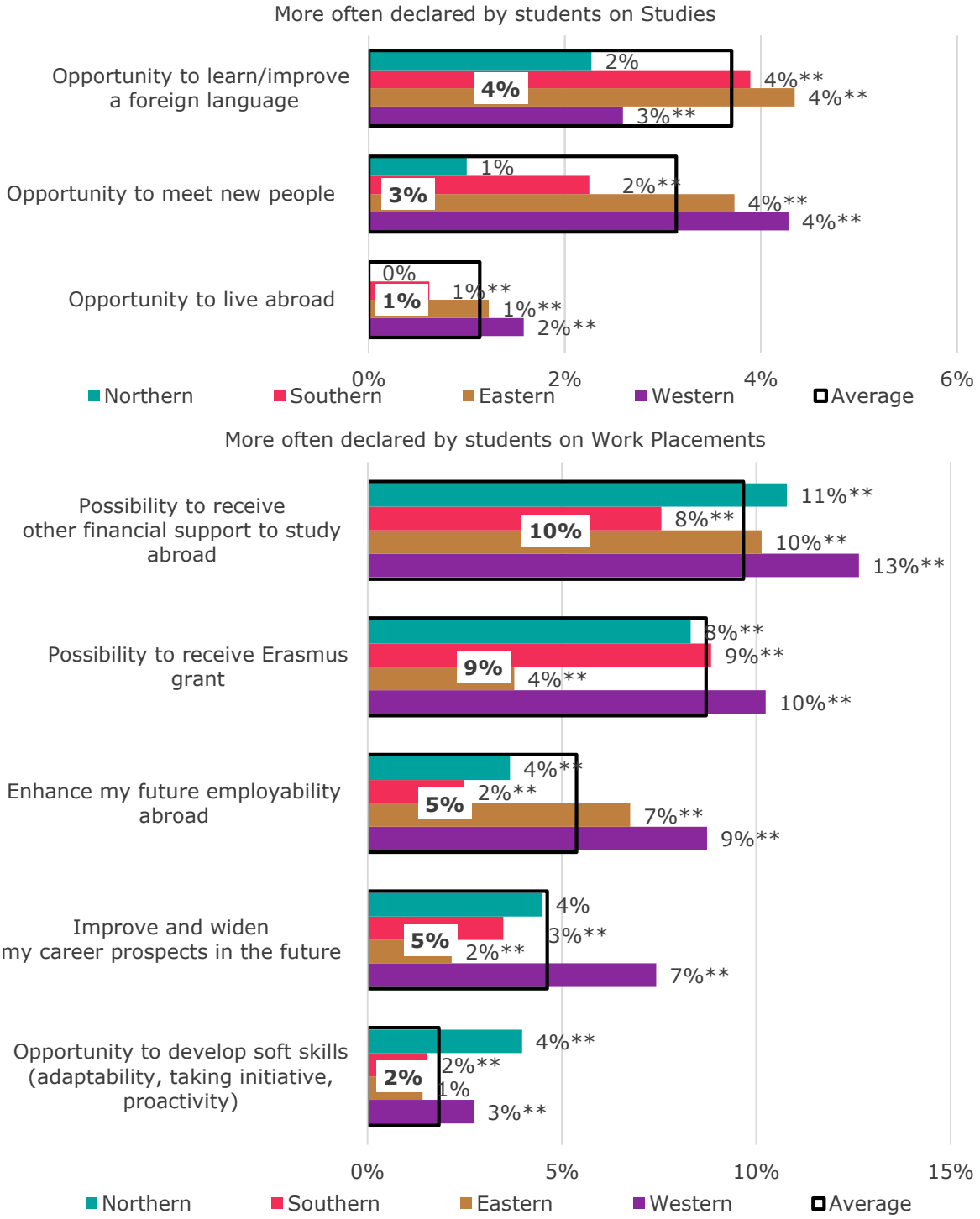
Figure 2-7 Reasons for participation in student mobility programmes abroad related to financial support availability, perspective of Erasmus students, by country



In the individual countries, the share of Erasmus students that agreed that the availability of financial support was important for their decision to go abroad ranged from 27% (other sources, Denmark) to 71% (Erasmus grants, Hungary). In each country, Erasmus grants were considered more relevant for Erasmus students than the other sources of funding. Nevertheless, in some countries more than half of the students relied on other funds as well – most prominently in Estonia (63%) but also in Hungary (54%), Spain (53%), Romania (52%), France (52%) and Bulgaria (51%). The Erasmus grants influenced students' decisions most frequently in Hungary (71%), Estonia (69%), Romania (68%), Poland (67%) and the United Kingdom (64%), and least often in Denmark, the Netherlands and Germany.

Erasmus grants are specifically important for students from Hungary, Estonia, Romania, Poland and the United Kingdom

Figure 2-8 Differences in reasons for participation in Erasmus actions, studies vs. work placements, perspective of Erasmus students, by region[4]



[4] Substantial differences between two independent groups (e.g. mobile and non-mobile students, Erasmus and non-mobile students, students on studies and work placements) are marked with two asterisks (**). For more information please check the subchapter "Significance" in the Annex: Methodology and Design.

For the majority of the reasons and across all regions, there were statistically significant differences between Erasmus students on studies and on work placements. In almost all regions, Erasmus students going abroad for studies were more inclined to select socially focused reasons (the opportunity to live abroad, improvement of languages or meeting new people). Students on work placements focused more directly on career-related reasons, especially future employability and career prospects as well as job-related soft skills.

Students on work placements are much more concerned about career-related reasons to go abroad than those on studies

The differences were most remarkable regarding financial conditions. In all regions, students going abroad for work placements declared that the possibility to receive an Erasmus grant or other source of financial support was substantially (and significantly) more important to them than students going abroad for study.

The difference between students going abroad for studies and for work placements was typically the largest in Western Europe, especially regarding other financial support (38% of the Erasmus students going abroad for studies considered this relevant compared to 50% on a work placement). In addition to the financial reasons, substantially more Erasmus students on work placements than on studies abroad considered "improve and widen my career prospects in the future" (84% of the Erasmus students going abroad for studies compared to 92% on a work placement) and "enhance my future employability abroad" (74% of the Erasmus students going abroad for studies compared to 80% on a work placement) relevant.

2.2 Reasons not to go abroad

In terms of the reasons why non-mobile students did not go abroad, we identified and analysed three groups, each consisting of four to five of the most important reasons:

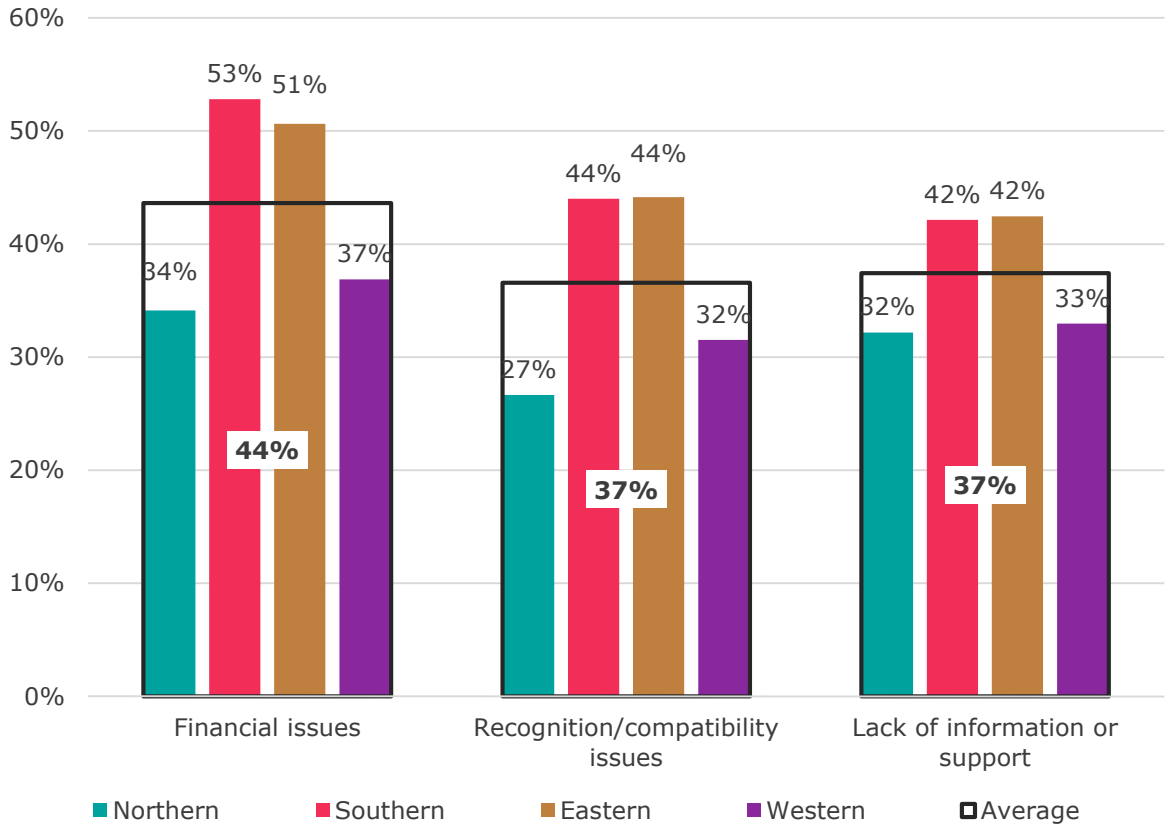
- Financial issues such as low-value grants, uncertainty about the grant and real costs or lack of other financial resources.
- Recognition and problems with compatibility of courses, study plans and academic calendars and expected difficulties in credit recognition.
- Lack of information or support at the home institution, including insufficient information about the Erasmus programme and the study offers at the host institutions, including their quality.

These groups of reasons are represented by their averages in order to highlight the substantial differences between regions. Reasons that could not be summarised under any of these groups were analysed separately.

Non-mobile students from Southern and Eastern Europe had more reasons for not going abroad than those from Western and Northern Europe. This coincides with the findings regarding the reasons Erasmus students gave for going abroad, in that students from Southern and Eastern Europe have more reasons to go abroad than in Western and Northern Europe. This seems to indicate that in Southern and Eastern Europe, mobility is as much a result of a multitude of reasons as immobility is. In Western and Northern Europe, the longer history of mobility has likely led to a clearer picture of why students go abroad and why they do not.

Financial constraints prevent students from going abroad, especially in Southern and Eastern Europe

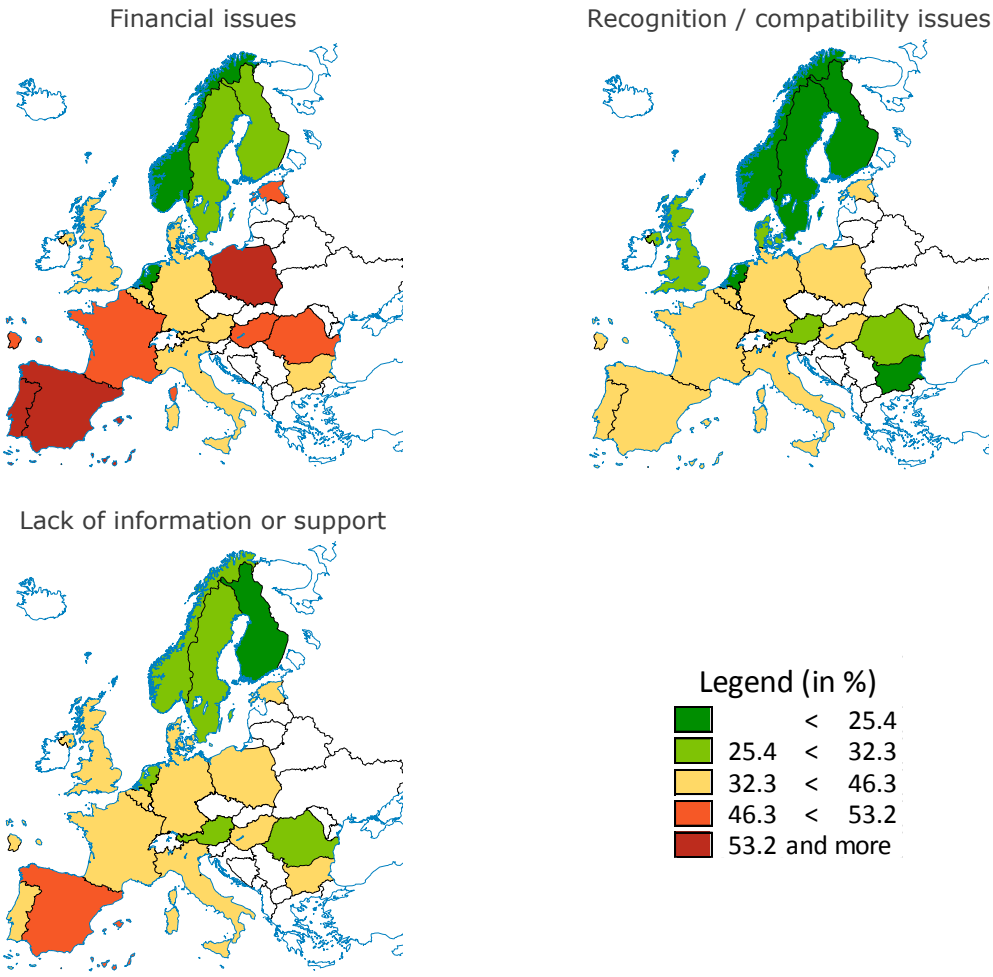
Figure 2-9 Main groups of reasons for not participating in mobility, perspective of non-mobile students, by region



The average across all regions demonstrates that of the three groups of reasons, financial issues were the most common reason not to go abroad (shared by 44% of all non-mobile students). This was much more prevalent among students from Southern and Eastern Europe (51% and 53% respectively) than among students from Western and Northern Europe (34 and 37% respectively). Recognition and compatibility issues – shared by an average of 37% of students – were again more of a barrier for students from Southern and Eastern Europe (by more than 10% compared to other regions). Similarly, the reason "lack of information and support" was given by more than 40% of the non-mobile students in Southern and Eastern Europe. Even in Northern (32%) and Western Europe (33%), these reasons prevented nearly a third of the non-mobile students from going abroad.

This means that the variance between students that decided to go abroad and those that did not is particularly large in Southern and Eastern Europe. As we will see later, this helps us to understand the significant differences in career benefits between non-mobile and Erasmus students in these regions, and explains the substantial career advantages Erasmus students enjoy. However, in all four regions, financial constraints affect the willingness of students to become mobile for between a third and a half of non-mobile students. Moreover, aspects that are influenced by the HEIs, such as recognition and information, are still a major issue for students across all regions.

Figure 2-10 Main groups of reasons for not participating in mobility, perspective of non-mobile students, by country



At the country level, the reasons why non-mobile students did not participate in mobility schemes mostly followed regional patterns. Financial issues, including low-value grants and uncertainty about the costs, were the greatest concern in Spain (60%), Portugal (54%), Poland (54%) and Estonia (53%). In contrast, fewer students in the Netherlands (25%), Norway (25%) and Sweden (26%) reported financial reasons to be important barriers. Here we see the different economic situations of the home countries reflected in the regional patterns.

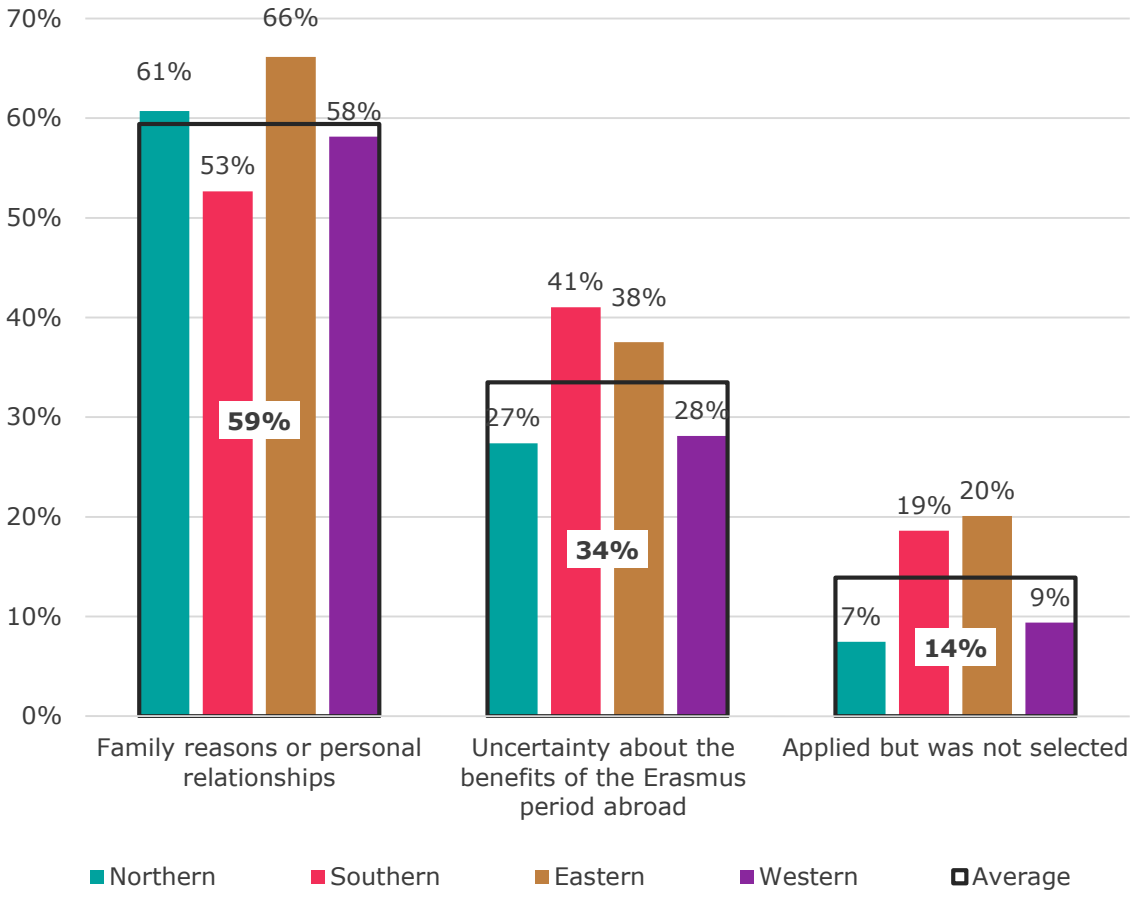
Financial constraints prevent 60% of Spanish students from going abroad

In most countries, the average share of students who considered aspects related to recognition and compatibility relevant for their decision not to participate ranged from 30% to 45%. The highest shares were in Poland (45%) and Hungary (46%), while the smallest share was in Sweden with just 18%.

The share of students that selected "lack of information or support" as a reason for their decision against mobility was greatest in Spain (48%) and lowest in the Scandinavian countries and the Netherlands (all 25–28%).

Overall, clear country patterns emerge. Relatively affluent countries, especially in Northern Europe, which have a long tradition of Erasmus and student-centred HE systems (such as Norway, Sweden or Finland), seem to generate considerably fewer reasons for students not to participate in Erasmus with regards to finances, support, recognition and information. The situation is less positive in newer member states that have a shorter history of Erasmus and greater economic challenges.

Figure 2-11 Other selected reasons for not participating in mobility, perspective of non-mobile students, by region



Among other reasons for not participating in mobility, family reasons and personal relationships were the most common barriers to mobility for non-mobile students in all regions (59% on average).

41% of non-mobile students in Southern Europe are not fully informed about the benefits of Erasmus

Additionally, across all regions, an average of 34% of non-mobile students doubted whether the period abroad would generate any benefits for them. The highest proportion of such students was in Southern Europe (41%). In Eastern Europe, 38% of non-mobile students did not have a clear picture on the benefits of the programme compared to 28% in Western Europe and 27% in Northern Europe. As we will see later, this distribution is particularly relevant considering the benefits Erasmus generates for students from Southern and Eastern Europe.

Finally, although the selection process for mobility schemes was never among the top reasons for non-participation, a regional pattern emerged. 7% of non-mobile students in Northern Europe and 9% of non-mobile students in Western Europe reported that

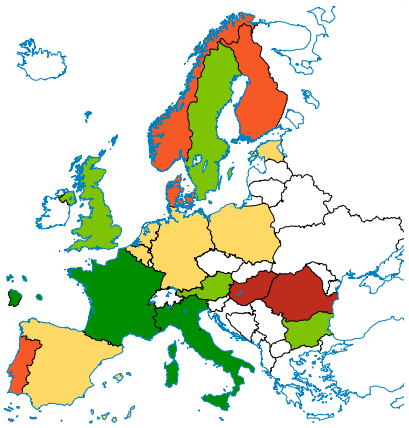
they had applied for an Erasmus scheme but were not selected. In contrast, this share was substantially larger in Eastern and Southern Europe at almost 20%. This suggests that the selection process for Erasmus is tougher in Eastern and Southern Europe than in Northern and Western Europe. This selectivity might also indicate a larger interest in mobility among students in these two regions. This in turn might also be due to the lack of other mobility opportunities mentioned above.

Students in Eastern and Southern Europe are half as likely to be selected for mobility than their counterparts in Northern and Western Europe

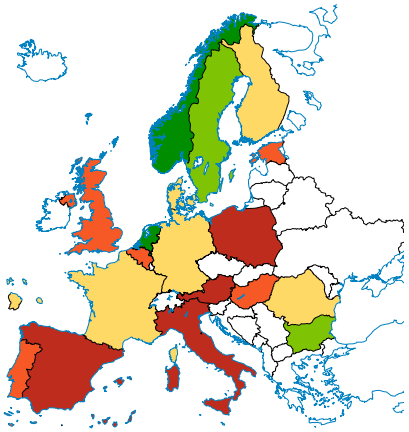
The findings show that the largest potential among non-mobile students, as well as the greatest benefits to students and alumni with mobility experience, can be found in Southern and Eastern Europe. As a result, the findings identify a possible need to increase the opportunities for Erasmus grants within these areas and raise awareness of their impact in Southern and Eastern Europe.

Figure 2-12 Other selected reasons for not participating in mobility, perspective of non-mobile students, by country

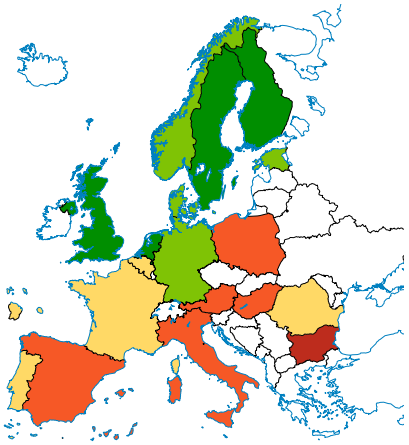
Family reasons or personal relationships



Uncertainty about the benefits of the Erasmus period abroad



Applied but was not selected



Family reasons and personal relationships were the most common reason for not going abroad in approximately half of the countries analysed. This was especially the case in Romania (74%) and Hungary (71%). This effectively means that 3 out of 4 non-mobile students in Romania and Hungary did not take advantage of the

opportunity because of family obligations. We consider this an aspect worth addressing, especially in these two countries, for example through counselling, development of special support programmes and better information about what is possible.

In Austria, a greater number of non-mobile students (44%) doubted the benefits of an Erasmus period abroad than the regional pattern initially implied (28%). Positive outliers in their respective regions were Norway (16% compared to the regional average of 27%) and the Netherlands (20% compared to 28% for the region).

The proportion of non-mobile students who had previously applied for a period abroad but had not been selected was largest in Bulgaria (25%). Again, Austria (20%) fell outside the regional average (9%) by a significant margin. Positive outliers in their respective regions were Sweden (4%), the United Kingdom (5%) and the Netherlands (5%).

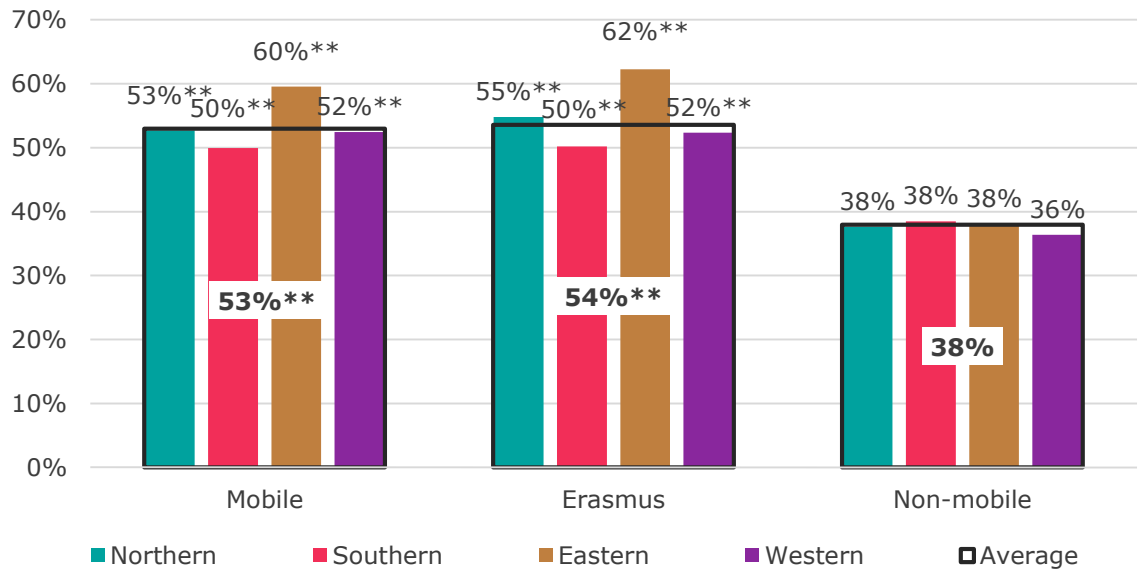
To summarise, non-mobile students in Norway, Sweden, Finland and the Netherlands usually reported the lowest barriers for mobility in all aspects (access to funding, credit recognition, information and support, the selection process), although, even in these cases, the share of students claiming individual reasons as relevant was substantial.

2.3 The relevance of the family background

In addition to the general analysis of reasons to go or not, we can shed some light on the relevance of the academic family background of students. Family background of a student is defined as "academic" if at least one of the parents attended university.

Firstly, we investigated the difference between academic and non-academic family background, as this was an aspect that had not been analysed in the EIS but one that held relevance when understanding the regional values.

Figure 2-13 Share of students with an academic family background, mobile, Erasmus and non-mobile students, by region



Regarding the share of students with an academic family background, the numbers for mobile students were very similar or identical to the numbers for Erasmus students. Across all regions, just over a third of the non-mobile students have an academic family background (38%). In comparison, the average share of mobile and Erasmus students with an academic family background is substantially higher (53% and 54% respectively) and we can see relevant differences among the regions. In Southern Europe, the share of students with an academic family background is the lowest (50% for both mobile and Erasmus students) and it is only slightly higher in Western Europe (52% for both mobile and Erasmus students). This means that at least in terms of participation in Erasmus, family background does not play an important role in these two regions.

The largest share of students with a non-academic family background is among Erasmus students in Southern Europe

In Northern Europe, 53% of mobile students and 55% of Erasmus students come from an academic family background. It is necessary to bear in mind that the share of the population without a higher education degree differs greatly from one region to the other. According to Eurostat statistics, the share of population aged 25–64 years with an academic degree amounts to 36% in Northern Europe compared to 30% in Western Europe, 23% in Southern Europe and 20% in Eastern Europe. As a result, we are overall less likely to find students from an academic family background than from a non-academic background.[5] This means that Northern Europe has almost twice as many people with an academic degree than Eastern Europe and 50% more than Southern Europe. Thus, we are much more likely to expect students with an academic family background in Northern Europe than in Southern or Eastern Europe.

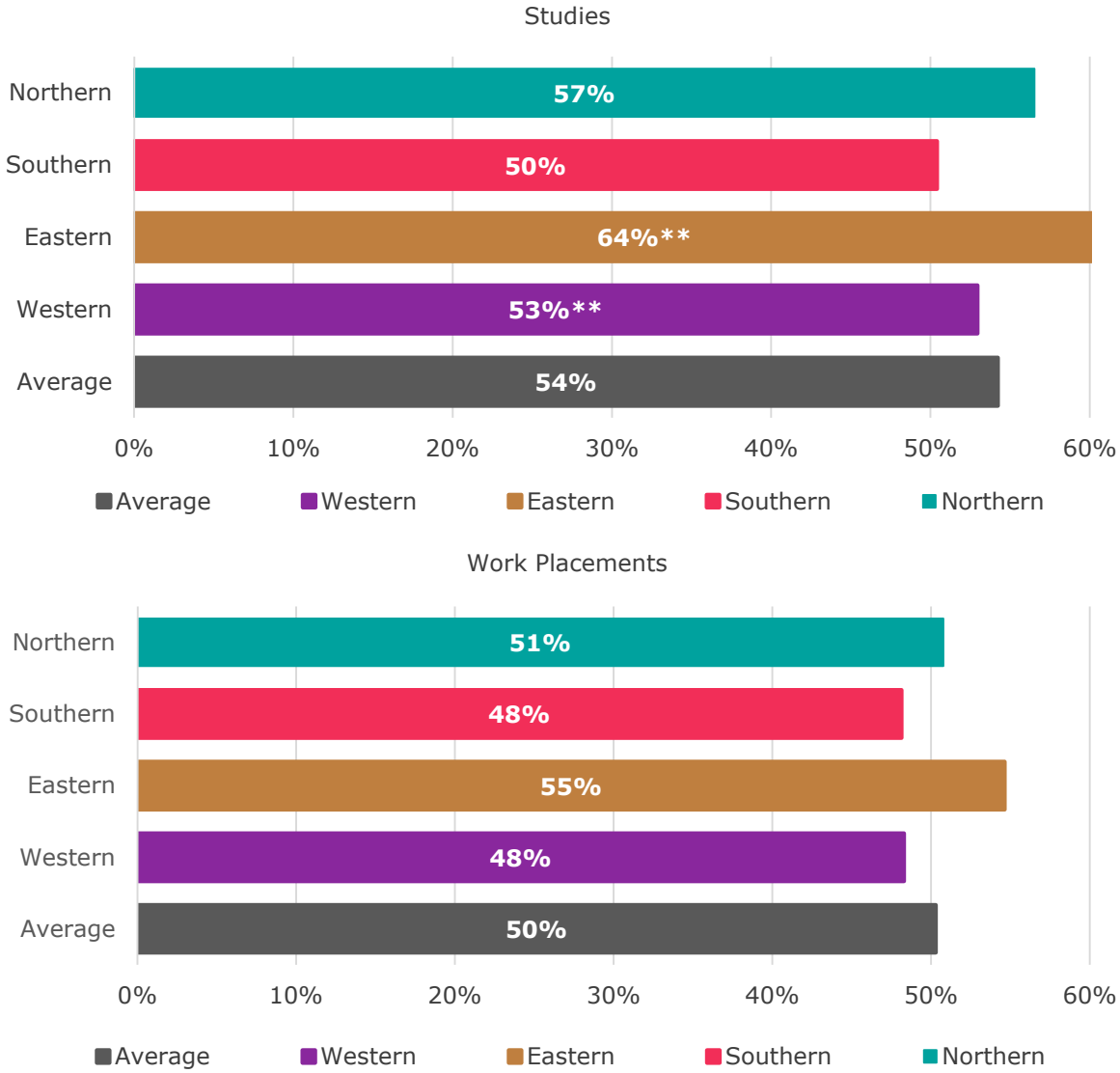
However, this is not the case overall. Northern Europe has a lower percentage of students participating in Erasmus from an academic family background than Eastern Europe and only slightly more than in Southern Europe.

The situation is different for Eastern Europe. Here, the participation rates in higher education are still much lower than in Northern or Western Europe. Thus, there is an underrepresentation of students from academic family backgrounds among the general student body. If mobility were equally used by all students, we should expect a similar distribution among the mobile students. However, 62% of the Erasmus students (i.e. nearly two thirds) come from an academic family background.

The results therefore seem to indicate that in Northern Europe, mobility is not as socially selective as in Southern Europe or, in particular, Eastern Europe despite the large proportion of students from an academic family background.

[5] This considers two other aspects. Firstly, the age group is not representative of the parents‘. For such an age group (40–64 years), much lower rates of academic degrees would have to be expected as participation rates in higher education has grown significantly in the last few decades. On the other hand, one could assume that only one parent would need to have an academic education (ignoring the fact that couples are more likely to be homogeneous than not), which would increase the percentage of students from an academic family background. Even under these conditions, the ratios stated by Eurostat are still quite optimistic.

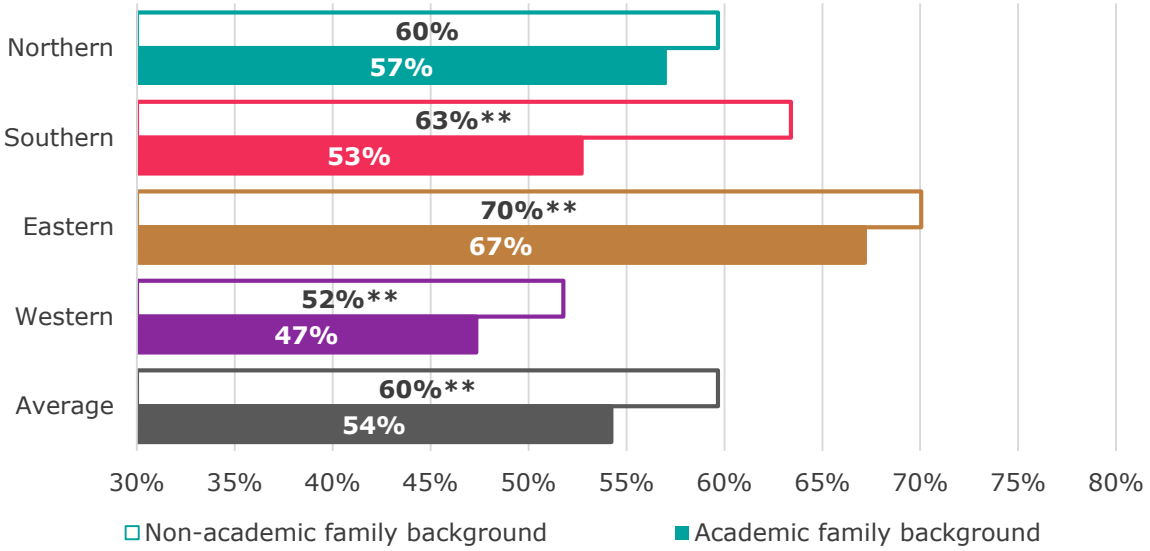
Figure 2-14 Share of students with an academic family background, studies vs. work placements, by region



There are also differences in the academic family backgrounds of those going abroad for studies and those participating in work placements. Across all regions, on average, 54% of students who went abroad for studies and 50% of those who did work placements abroad came from an academic family background. At the regional level, the differences were greatest and most significant in Eastern Europe, where 64% of those who went abroad for studies came from an academic family background compared to 55% of those participating in Erasmus work placements. In Southern Europe, on the other hand, the difference was negligible. Here, it appears that students from both academic and non-academic family backgrounds are equally attracted to study and work placements abroad. In Northern Europe, the difference between academic and non-academic family backgrounds was 6% and was not statistically significant, whereas in Western Europe the difference was 5% and was statistically significant. In this respect, work placements seem to be less socially selective than studies, with a statistical significance in both Western and Eastern Europe.

An analysis of the reasons for participation in mobility programmes showed that there were no significant differences between Erasmus students with and without an academic family background across the regions, except for reasons related to the availability of financial support.

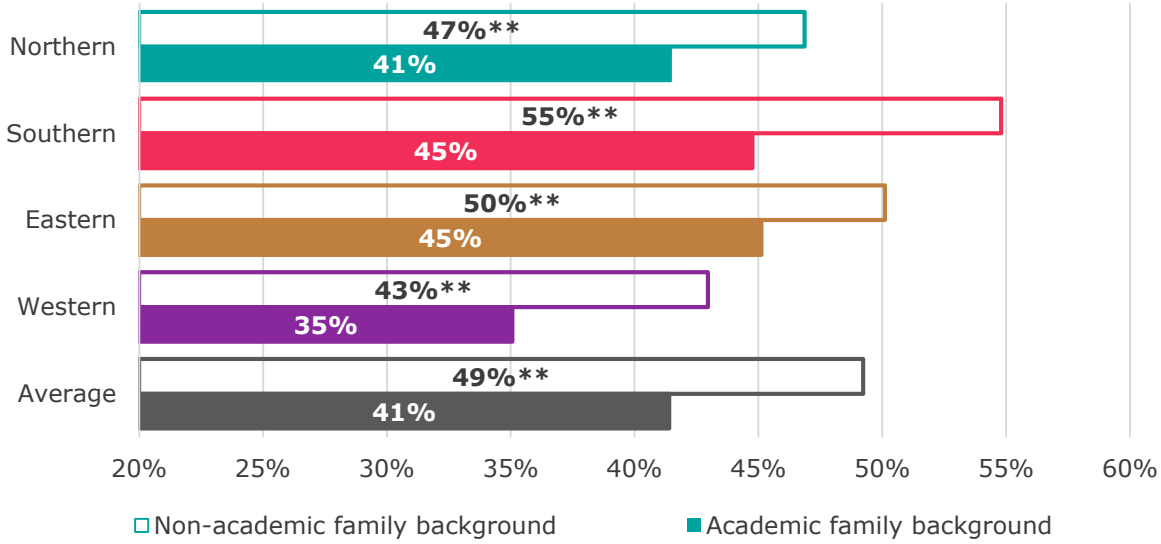
Figure 2-15 Importance of Erasmus grant availability for participation, perspective of Erasmus students, by family background and by region



On average, across all regions, 60% of Erasmus students without an academic family background agreed with the importance of an Erasmus grant for their participation, compared to 54% of students with an academic family background. This difference was significant in all regions except for Northern Europe. The largest disparity between both groups of students was identified in Southern Europe with a 10% difference. In Eastern Europe, the difference was not particularly great (although still significant) but the share of students agreeing with this reason was the largest in both groups across the regions.

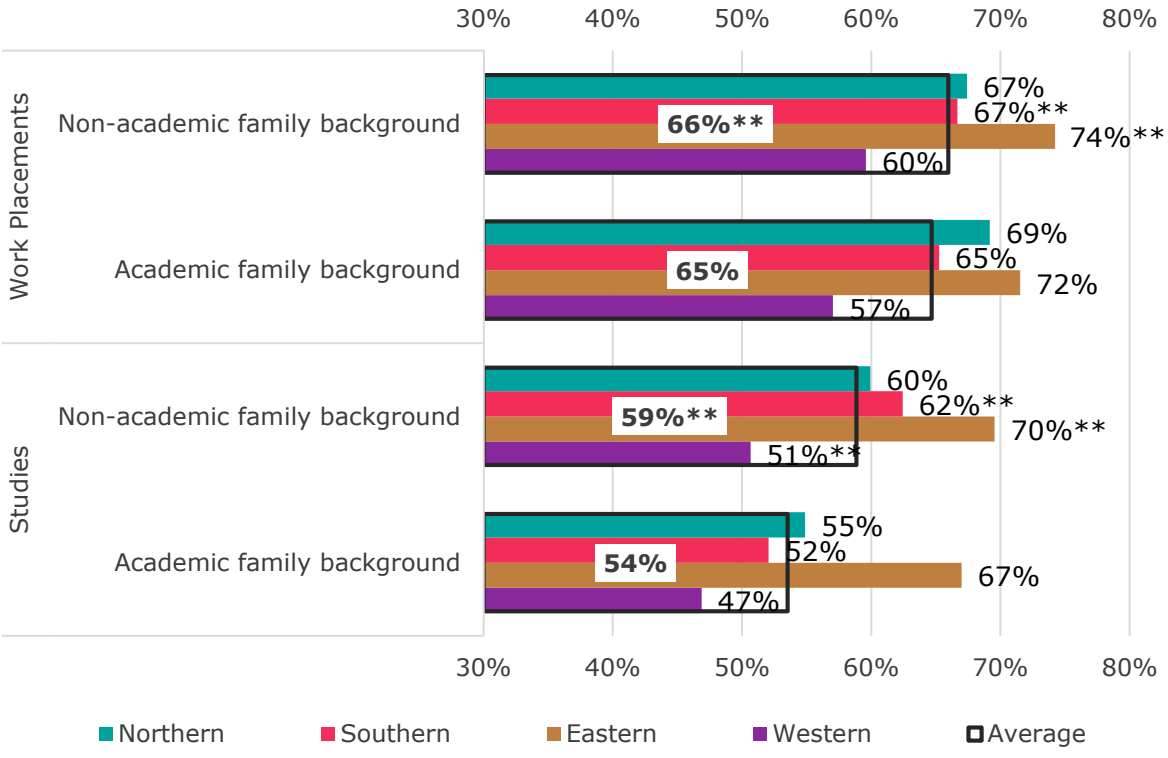
The availability of financial support was very important for both students with (54%) and without (60%) an academic family background

Figure 2-16 Importance of other financial support availability for participation, perspective of Erasmus students, by family background and by region



Regarding other financial support availability, across all regions, almost half of the Erasmus students without an academic family background indicated the importance of such funds for their participation in mobility. The differences between students with and without an academic family background were significant in all regions including Northern Europe, despite the absolute shares of students being smaller than for the Erasmus grant.

Figure 2-17 Importance of Erasmus grant availability for participation in studies vs. work placements, perspective of Erasmus students, by family background and by region

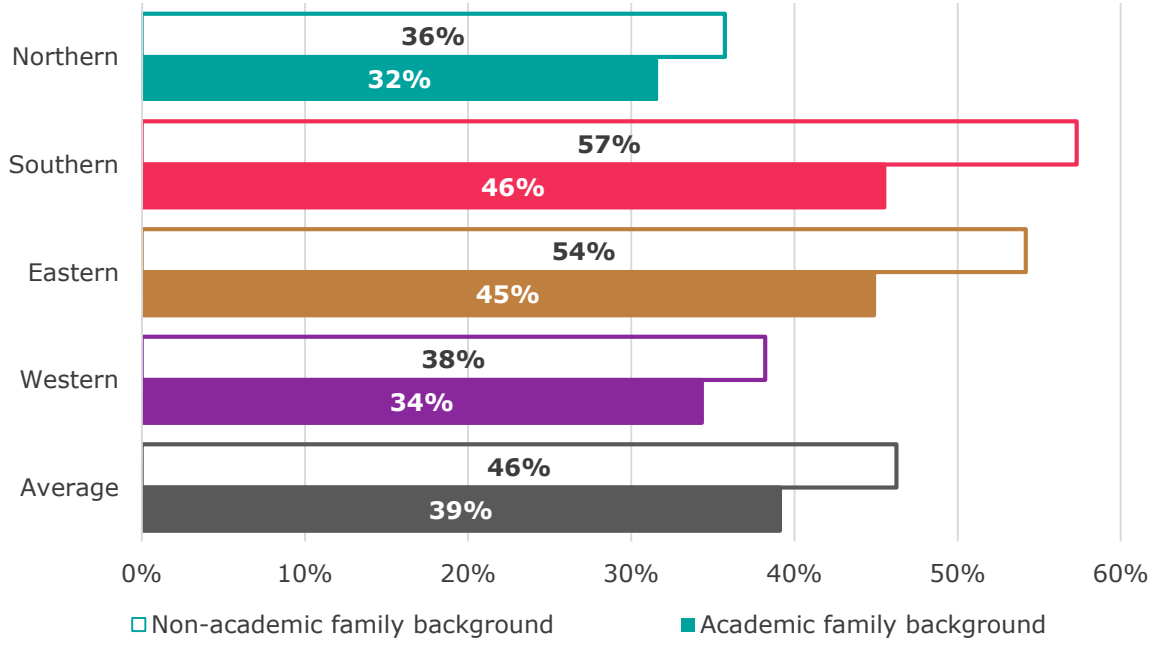


When analysing the results for Erasmus students going abroad for studies and for work placements separately, the patterns remain. On average, across all regions, compared to students with an academic family background, students with a non-academic family background assigned more relevance and importance to Erasmus grants for their participation in both types of Erasmus mobility. Additionally, Erasmus students on work placements considered the availability of Erasmus grants relevant more often than those on study abroad, regardless of the family background. While the differences among regions were generally larger than those among groups of students, this differentiation between work placement and study on the one hand, and academic vs. non-academic family background on the other, provides us with an even clearer picture of regional diversity regarding the relevance of Erasmus. Of the regions, Western Europe showed the lowest level of agreement, while Eastern Europe consistently showed the highest. The difference between these two regions ranges from 14% (students with an academic family background on work placements) to 20% (students with an academic family background on study abroad).

Eastern European students without an academic family background on work placements are most in need of Erasmus grant

This informs us that the importance of the Erasmus grant is even higher in Eastern Europe than first assumed. Students with an academic family background from Eastern Europe attending a study abroad experience need an Erasmus grant much more than students without an academic family background from Western Europe going on work placement abroad.

Figure 2-18 Reasons for not participating in mobility related to financial support availability, perspective of non-mobile students, by family background and by region



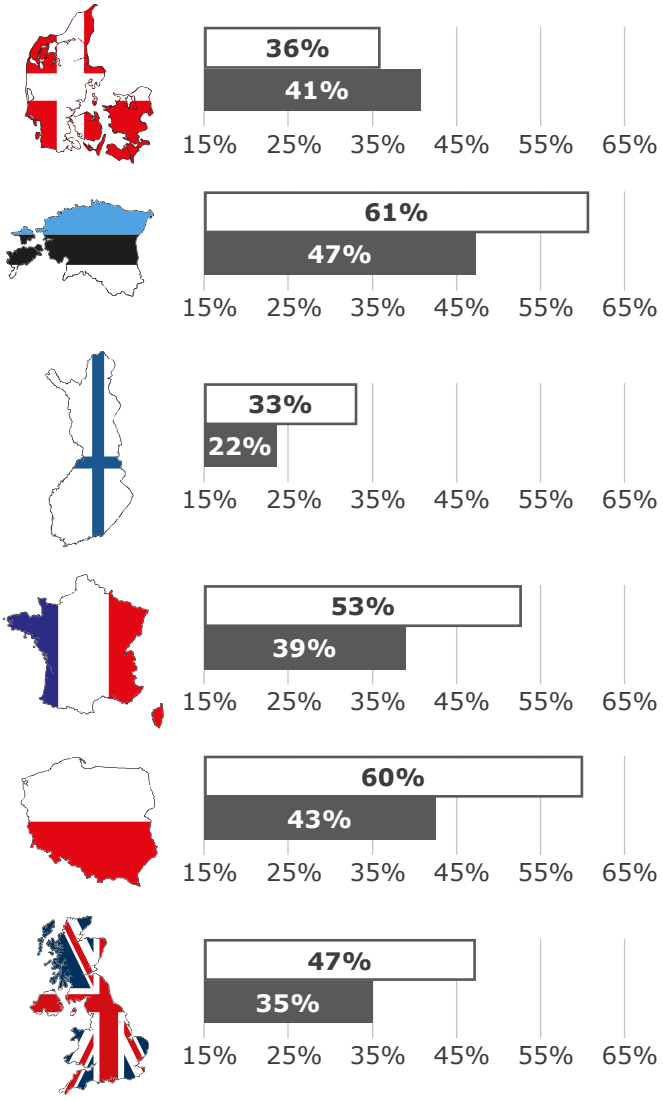
The general findings regarding academic family background were confirmed for non-mobile students and their reasons for not participating in mobility programmes. Among all the aspects, financial issues (five aspects related to financial reasons analysed en bloc, as specified in sub-chapter 2.2) showed the largest differences between students with and without an academic family background. On average, across all regions, 46% of students without an academic family background decided not to go abroad because of financial issues, compared to 39% of students with an

academic family background. Across the regions, a lack of financial support was considered an important barrier for participation by 57% of students from a non-academic family background in Southern Europe and 54% in Eastern Europe (compared to 46% and 45% of students with an academic family background in Southern and Eastern Europe respectively). Again, non-mobiles students with an academic family background in Eastern and Southern Europe were more affected by the lack of financial support than students in Western and Northern European without an academic family background. This demonstrates a clear regional disparity.

In contrast, no measurable differences were identified in the recognition and compatibility issues. Regarding the lack of information and support, non-mobile students from a non-academic family background were significantly more likely to consider the level of support in finding accommodation abroad insufficient than those with academic families in all regions except Northern Europe.

When taking into account family background, some countries appear to deviate from their regional patterns concerning reasons not to go abroad.

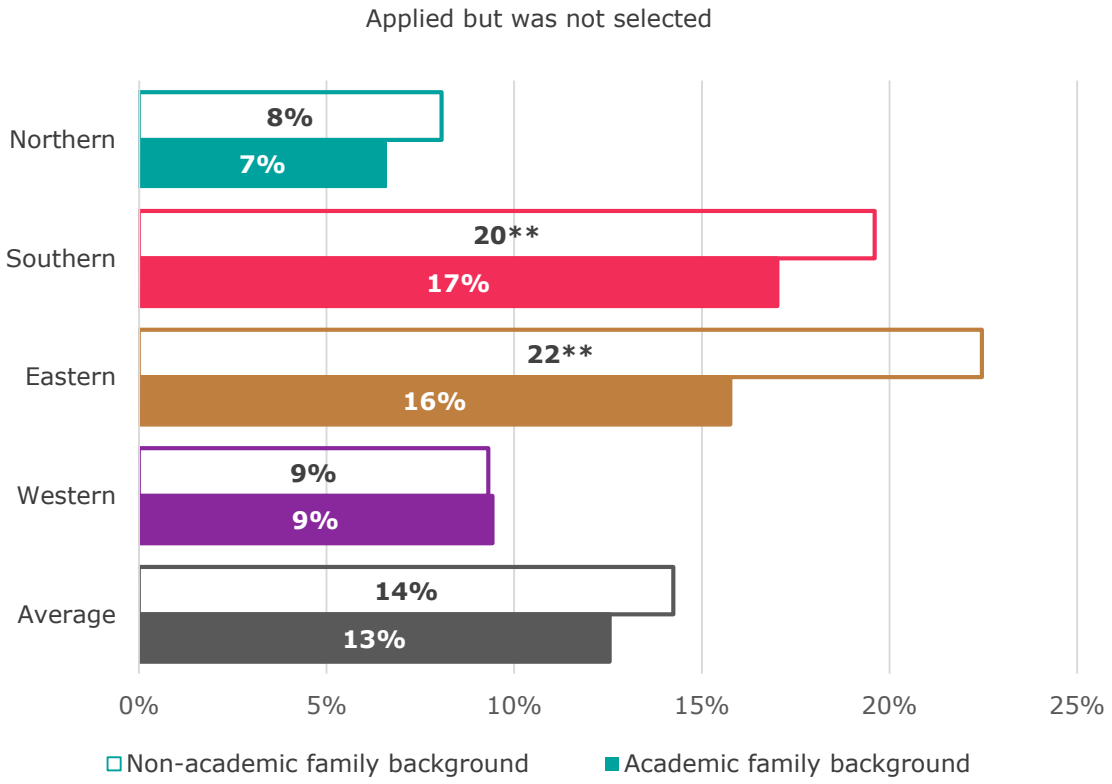
Figure 2-19 Reasons for not participating in mobility related to financial support availability, perspective of non-mobile students, by family background, selected countries

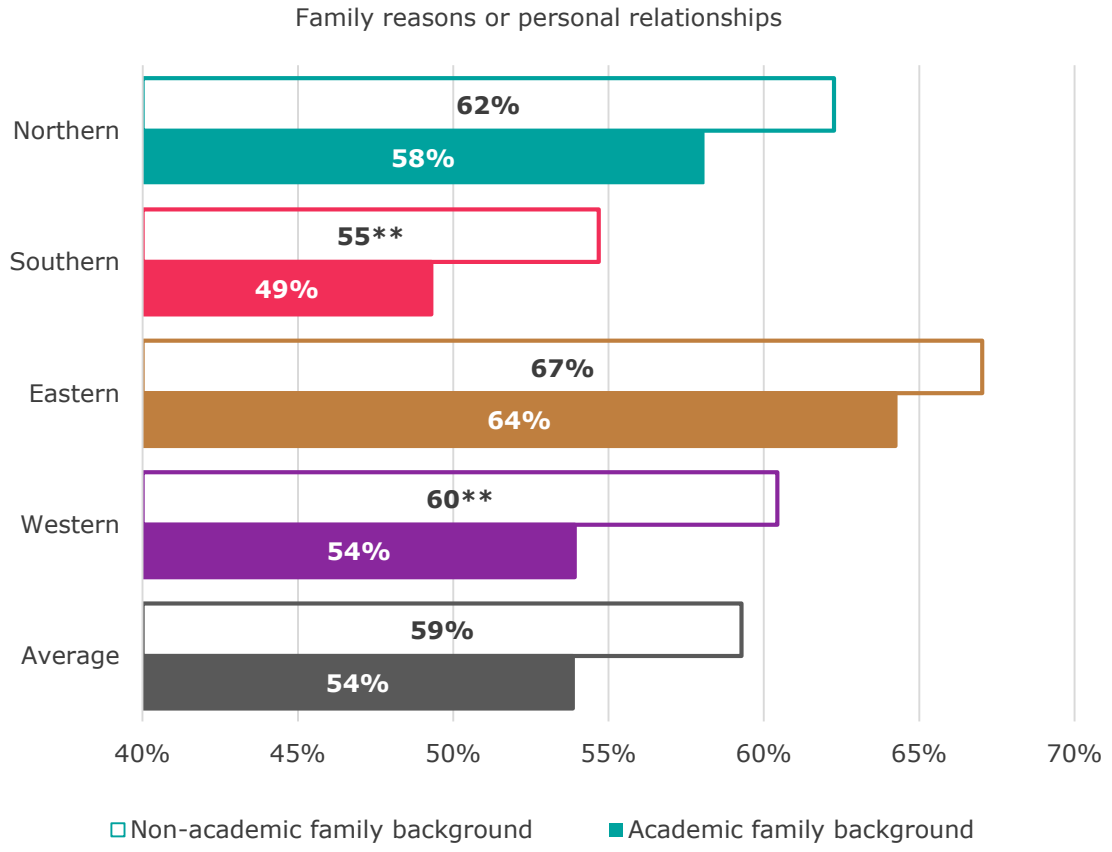


Although a minor difference was observable in the financial reasons category between students in Northern Europe with an academic and a non-academic family background, this was not reflected in the country results for Finland, the United Kingdom and Estonia, where a substantial social gap was identified. In contrast, Denmark was the only country where the difference was in favour of non-academic family background students. In other words, in Denmark, students whose parents did not hold an academic degree declared a lack of resources (or related issues) as a reason for not participating in mobility less often than those with tertiary educated parents.

In Eastern Europe, the substantial gap between students from an academic and a non-academic family background was especially large in Poland, where it reached 17%. Similarly, in France, 14% more students from a non-academic family background declared they did not participate in international mobility because of insufficient funding compared with students from an academic family background, although the difference was rather low in the rest of Western Europe.

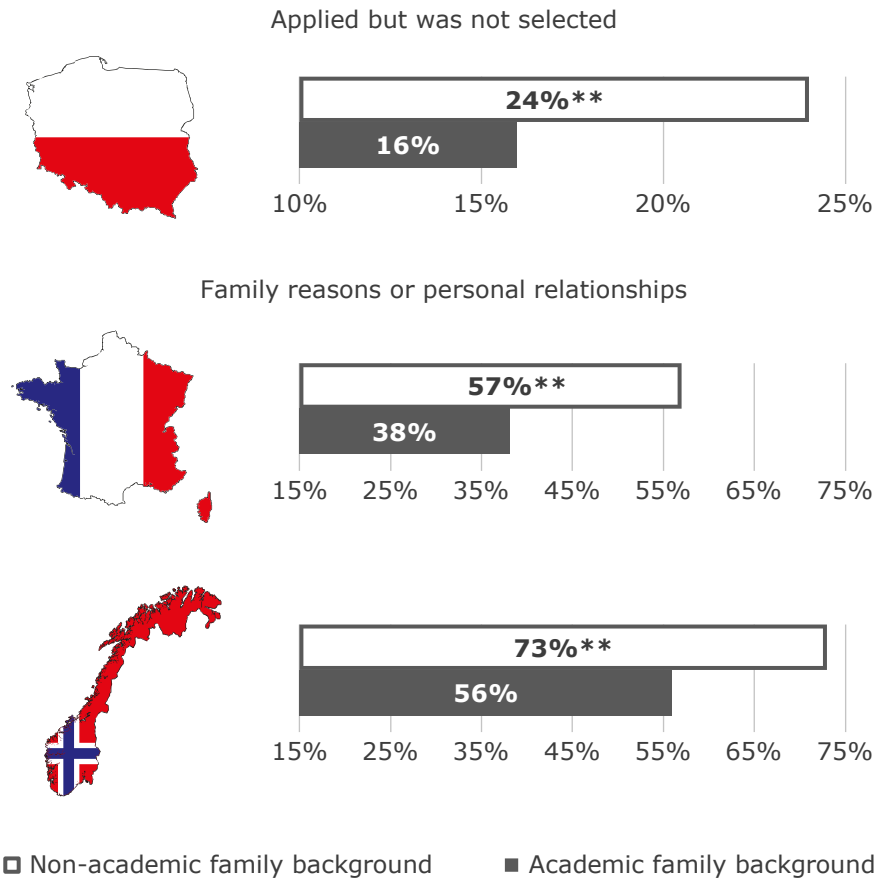
Figure 2-20 Other reasons for not participating in mobility, perspective of non-mobile students, by family background and by region





Among the other reasons for not participating in mobility, across all regions, on average 59% of students without an academic family background did not go abroad due to family reasons or personal relationships compared to 54% of students with an academic family background. In Western and Southern Europe, significantly more students from a non-academic family background reported family reasons and personal relationships as preventing them from going abroad than those with an academic family background. The same was true for Southern and Eastern Europe regarding the selectivity of Erasmus, where students without an academic family background were significantly over-represented among the students who had been prevented from participating by the selection process. In Northern Europe, the difference between the two groups was only 1% and insignificant, and in Western Europe no difference was observed at all. In other words, students in Eastern Europe are seven times more likely to be excluded from an Erasmus experience because of the selection process if they have a non-academic family background. This is a strong indication of social inequality regarding participation in mobility in Eastern Europe.

Figure 2-21 Differences in other selected reasons for not participating in mobility between non-mobile students with and without academic family background, selected countries



At the country level, the difference between students from an academic and a non-academic family background was not usually statistically significant in regards to the abovementioned other reasons for not taking part in mobility. It was only apparent in France and Norway, where respectively 19% and 17% more non-academic than academic family background students considered family reasons or personal relationships relevant for their decision not to go abroad. This was also the case in Poland regarding the "applied but was not selected" item: 8% more students from

non-academic family backgrounds than academic family backgrounds declared they wanted to go abroad but the selection process had prevented them from participating.

2.4 Conclusions

Erasmus students from **Eastern Europe** value the possibility of broadening their career prospects. These students also perceive the employability benefits of the mobility experience in their home country more often than any other student group. But in order to enjoy the benefits provided by a mobility programme, however, they have to count on financial support, as the importance attributed to receiving an Erasmus grant is exceptionally higher than in other region (lower importance given to other funding may also suggest that Erasmus is the dominant source of funding for mobility in Eastern Europe). Eastern (together with Southern) Europe was also the region where financial support was particularly important for the participation of non-academic family background students.

Mobility programmes in Eastern Europe (like Southern Europe) are highly competitive when compared to Western and Northern Europe, with more than twice the share of rejected applications. Eastern Europe also ranks highly in other barriers to mobility. These are usually similar to, although somewhat behind, Southern Europe. It is also the most socially selective and, of all the regions, exhibits the biggest share of Erasmus students from an academic-background.

However, overall, Erasmus work placements appeared to be less socially selective than study abroad – this was particularly true in Eastern Europe, where the difference was the largest. It is likely that higher grant levels make them more attractive for non-academic family background students (given the high importance assigned to funding among non-academic family background students in all regions). This might further support the presumption that a general increase in grant levels would reduce the social barriers in Erasmus participation.

In Eastern Europe, we see some diversity concerning country results with Bulgaria and Romania showing results substantially different to Poland and Hungary.

Of all the regions, students from **Northern Europe** listed improving their command of a foreign language and improving their soft skills the least often when asked about reasons for going abroad. Although the possibility to receive funding was considered relatively important for Erasmus students from Northern Europe, when it came to reasons not to take part in the mobility programme, Northern Europe presented its students with the least barriers to participation. The region scored the lowest on all three main groups of reasons for non-participation and of all the regions, also had the smallest share of rejected mobility applications.

On the country level, it is remarkable that Estonia conformed to Eastern European rather than Northern European patterns.

In **Southern Europe** (as in Eastern Europe), Erasmus students in general identified more reasons to go abroad than in other regions. However, at the same time, non-mobile students found more barriers preventing them from doing so. This in part indicates that relatively high institutional barriers to participation (recognition issues, insufficient access to information and support, etc.) are the reason that only the most dedicated students become mobile. These students can therefore be considered the most curious and convinced of the positive effects of a period abroad.

This observation could be interpreted as an effect of the substantially different attitudes and expectations between the two groups. For example, non-mobile students from Southern Europe were the most sceptical regarding the influence mobility could have on their career prospects, whereas Erasmus students in this region considered this one of the main reasons to go abroad. Furthermore, both Erasmus and non-

mobile students in Southern (and Eastern) Europe agreed on the high importance of access to funding for their decision regarding mobility; in other words, only those who are offered sufficient grants participate.

While relatively small differences were identified for most of the other reasons for or against participation with respect to family background, students in Southern Europe experience financial aspects differently depending on their family background. In this region, the share of academic and non-academic family background students among Erasmus students was the most balanced of the regions, but the non-academic family background students faced the biggest financial barriers nevertheless. Overall, this region seems to have the largest set of socially induced differences between non-mobile and mobile students and, as we will see later, this relates to the effects mobility has on career.

When compared to other regions, Erasmus students from **Western Europe** generally do not choose the Erasmus mobility programme for reasons related to their career and future employability. This difference, however, diminishes when it comes to students on work placements, who are apparently more career driven than those who study abroad.

Students from Western Europe also face relatively low barriers to mobility, similar to Northern Europe. The low barriers to mobility may also be demonstrated by the fact that compared to the other regions, Erasmus students from Western Europe assign the least importance to receiving an Erasmus grant. This can either be explained by a generally higher income level in the region or the availability of other substantial mobility funding schemes which other regions lack. This level of importance attributed to funding does not apply to students on work placements. Of all the regions, the difference between students on work placement and students on study abroad is most evident in Western Europe with respect to this category.

Also worth noting, with respect to a lack of participation due to family reasons (by far the most frequent reason for all the regions), Western Europe exhibits the greatest and statistically most significant difference between students with and without an academic family background.

Some countries exhibit results outside their regional pattern. In multiple cases, France showed results similar to Southern Europe rather than the other Western European countries, while the Netherlands were very similar to the Scandinavian countries.

3 How do employability-related traits improve?

How do students behave?	vs.	What do students think?
Personality traits of students measured by the memo© factors		Self-reported perceptions of students regarding their personality traits

EIS analysed how the psychometrically measured personality traits of students (as the objective aspect = how students behave) and the self-reported perceptions of students (as the subjective aspect = what students think) differ and to what extent these are considered important for employability. In terms of student groups, EIS compared all mobile students and all Erasmus students against the non-mobile sample. We also display or mention work placements and studies wherever the differences between these two groups were substantial.

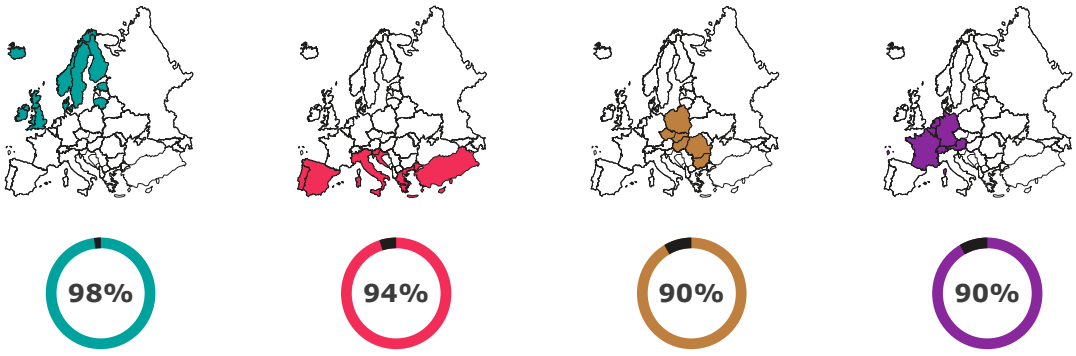
This chapter focuses on the effect of mobility on personality traits and generates better insight into how the results differ between individual regions and countries and the extent to which the effects of Erasmus on personality traits vary.

3.1 The relevance of the memo© factors

With regard to the relevance of personality traits and its relation to employability, EIS asked both the employers and the alumni about the relevance and importance of certain personal characteristics for staff of their enterprise. These characteristics, which we refer to as memo© factors, are described in detail in the Annex.

3.1.1 Employers' perspective

Figure 3-1 Importance of all personal characteristics measured by memo© factors, perspective of employers, by region



On average, across all regions, 93% of employers claimed that personality traits measured by the memo© factors were relevant for employees at their enterprise.[6]

Among the regions, the employers in Northern Europe demonstrated the highest importance across all six factors (98%). They were followed by the employers in Southern Europe (94%), who

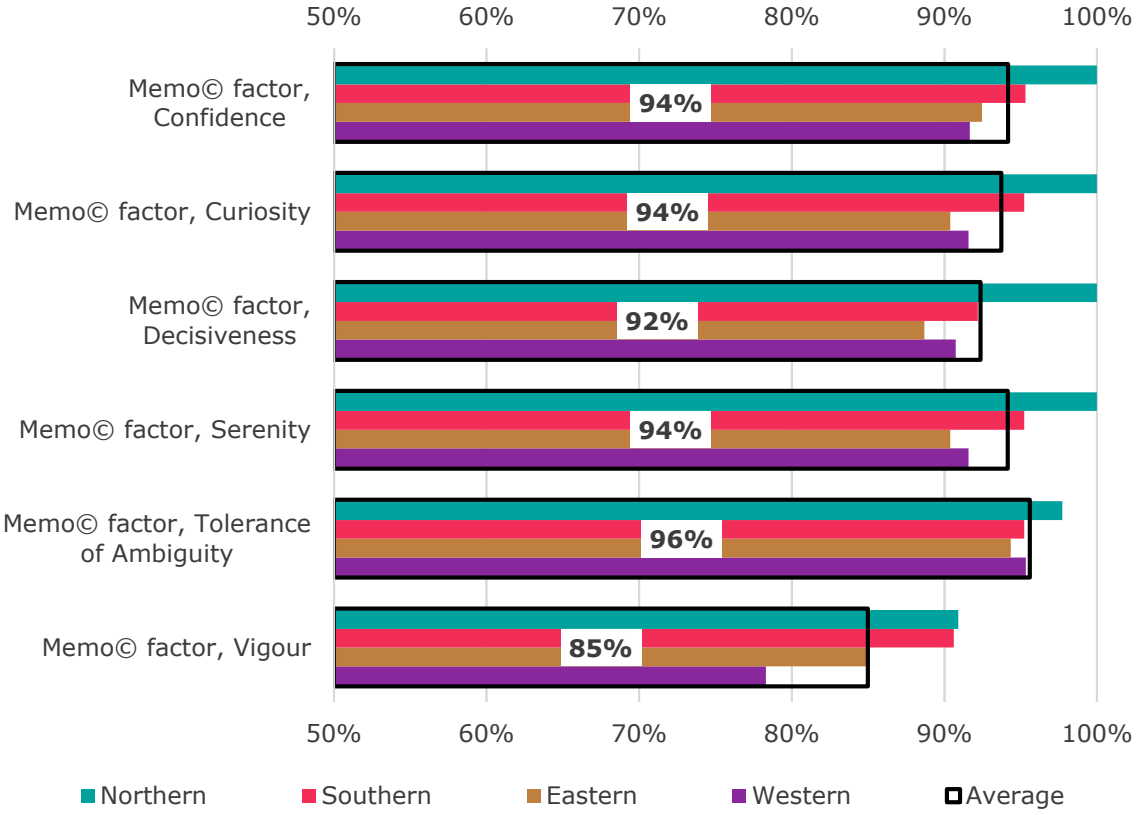
Personality traits are more important to employers in Northern and Southern Europe than in Western and Eastern Europe

[6] Employers were asked for each factor individually. The average shown is the average across all six factors.

also demonstrated the least difference between the individual factors, considering all of them more or less equally important (see also Figure 3-2).

The regions where employers considered the personality traits as least important were Western and Eastern Europe. However, these regions nonetheless displayed an impressive average of 90% across all six factors. A more detailed analysis reveals that, employers in Eastern Europe assigned the least importance to four out of six memo© factors. The result for Western Europe was primarily due to employers considering "Vigour" of little importance.

Figure 3-2 Importance of individual personal characteristics measured by memo© factors, perspective of employers, by region



The employers' perspective regarding the importance of individual personal characteristics represented by the memo© factors varied between the regions. For example, in the case of "Vigour", the difference between regions went up to 13%.

In all regions, employers assigned the least importance to "Vigour". Still, on average and across all regions, 85% of employers considered it relevant for staff at their enterprise.

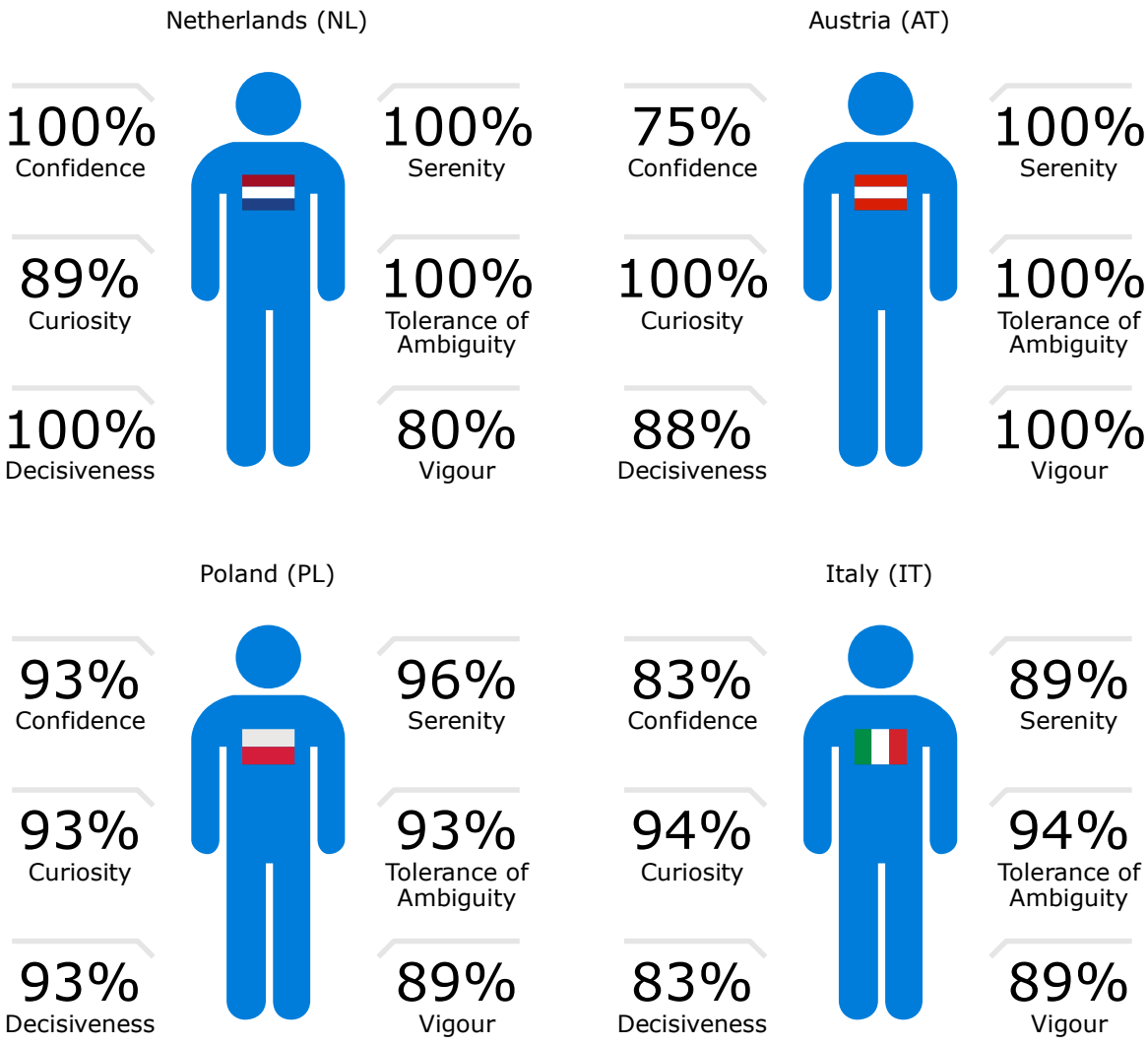
"Tolerance of Ambiguity" was the factor with the most interesting results. Not only was it considered important the most often across all the regions (96%), but it also displayed the most substantial agreement among employers from all regions. In Western Europe, it was even considered the most relevant trait. Therefore, we can conclude that it is extremely important for universities to equip their students with a tolerance of ambiguity.

Tolerance of Ambiguity is the most relevant personality trait for all employers – 96% on average across the regions

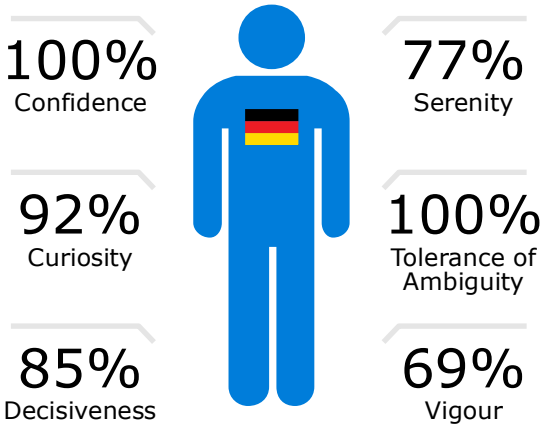
The other factors – "Confidence", "Curiosity", "Decisiveness" and "Serenity" – were also considered extremely important, especially in Northern Europe where 100% of employers confirmed the relevance of these factors.

Overall, these findings show that different regions have different prevailing employer preferences with regard to the importance of the memo© factors. All personality traits measured by the memo© factors were considered more important to employers in Northern and Southern Europe than those in Western and Eastern Europe. This was surprising as one might have expected to see more similarities between Northern and Western Europe on the one hand, and Eastern and Southern Europe on the other.

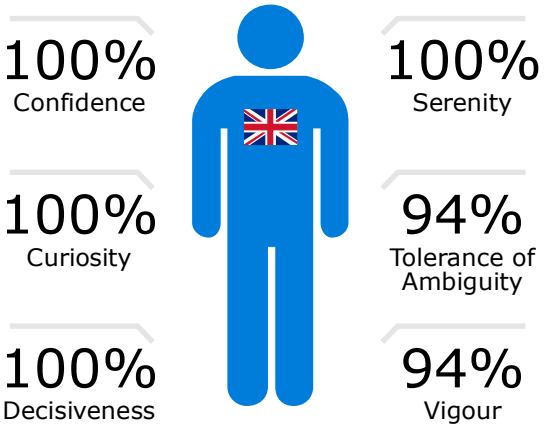
Figure 3-3 Importance of individual personal characteristics measured by memo© factors, perspective of employers, selected countries



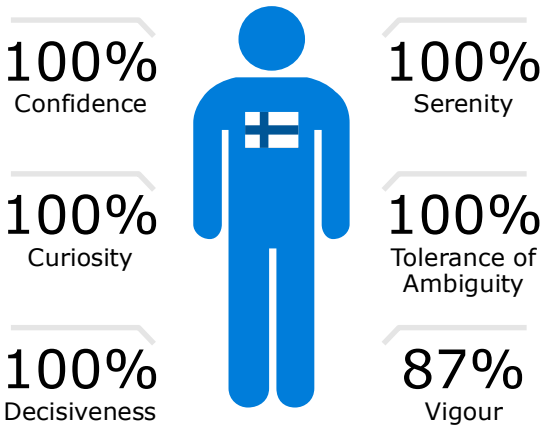
Germany (GE)



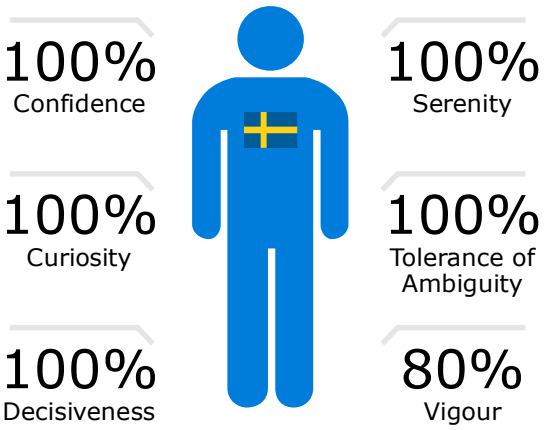
United Kingdom (UK)



Finland (FI)



Sweden (SE)



While most individual countries conformed to their regional patterns, there were some exceptions. The country averages for the relevance of all memo© factors in the Netherlands (95%) and Austria (94%) were higher than the regional average for Western Europe (90%). Poland (93%) also achieved higher results than the average for Eastern Europe (90%). On the other hand, employers in Italy (89%) assigned less relevance to the memo© factors compared to the average for Southern Europe (94%), and Germany (87%) scored below average for Western Europe (90%).

In Germany, the personality trait considered the least important was "Vigour" (69%). Nonetheless, this still means that two out of three employers considered it relevant. On the other hand, 100% of Austrian employers and 94% of employers in the United Kingdom considered "Vigour" relevant. The importance of the other personality traits was generally quite similar among the individual countries. Remarkably, in Finland and Sweden five out of six of the factors (excluding "Vigour") were considered relevant by 100% of employers.

3.1.2 Alumni perspective

In addition to employers, EIS also asked alumni how relevant they considered the personality traits measured by the memo© factors to be for employability. This enhances the employers' picture as, in the vast majority of cases, the alumni are also active in the workforce and, as we will see later, often hold managerial positions. Therefore, we gain additional insight into employability from a perspective slightly below that of the employers but potentially within closer proximity to the workforce. This is especially true for larger companies.

Figure 3-4 Importance of personal characteristics measured by memo© factors for company/organisation, perspective of mobile and non-mobile alumni, by region[7]

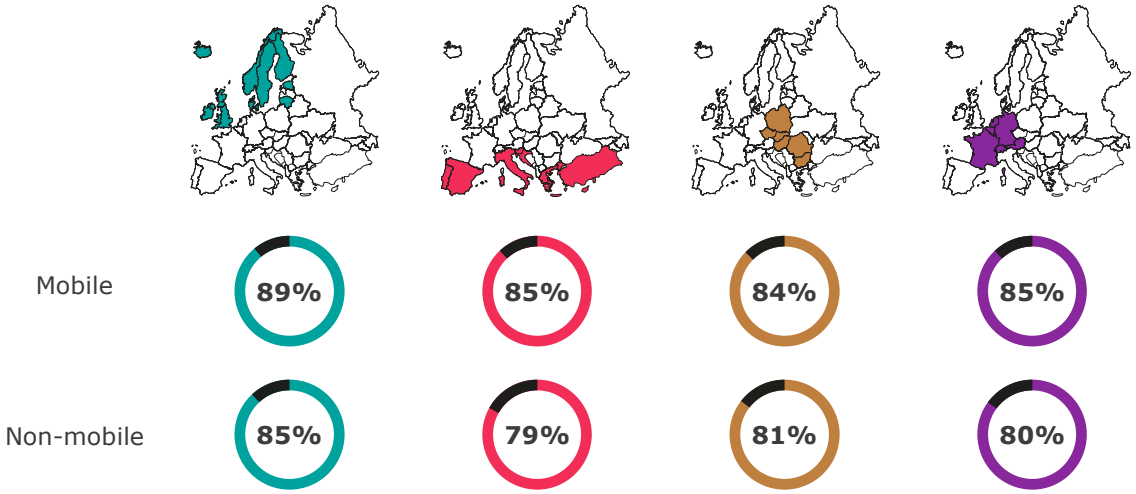
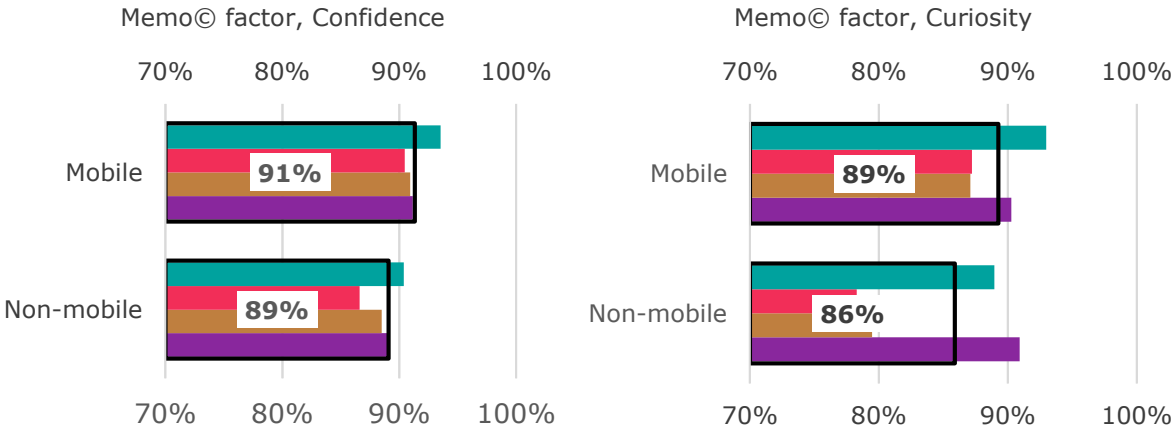
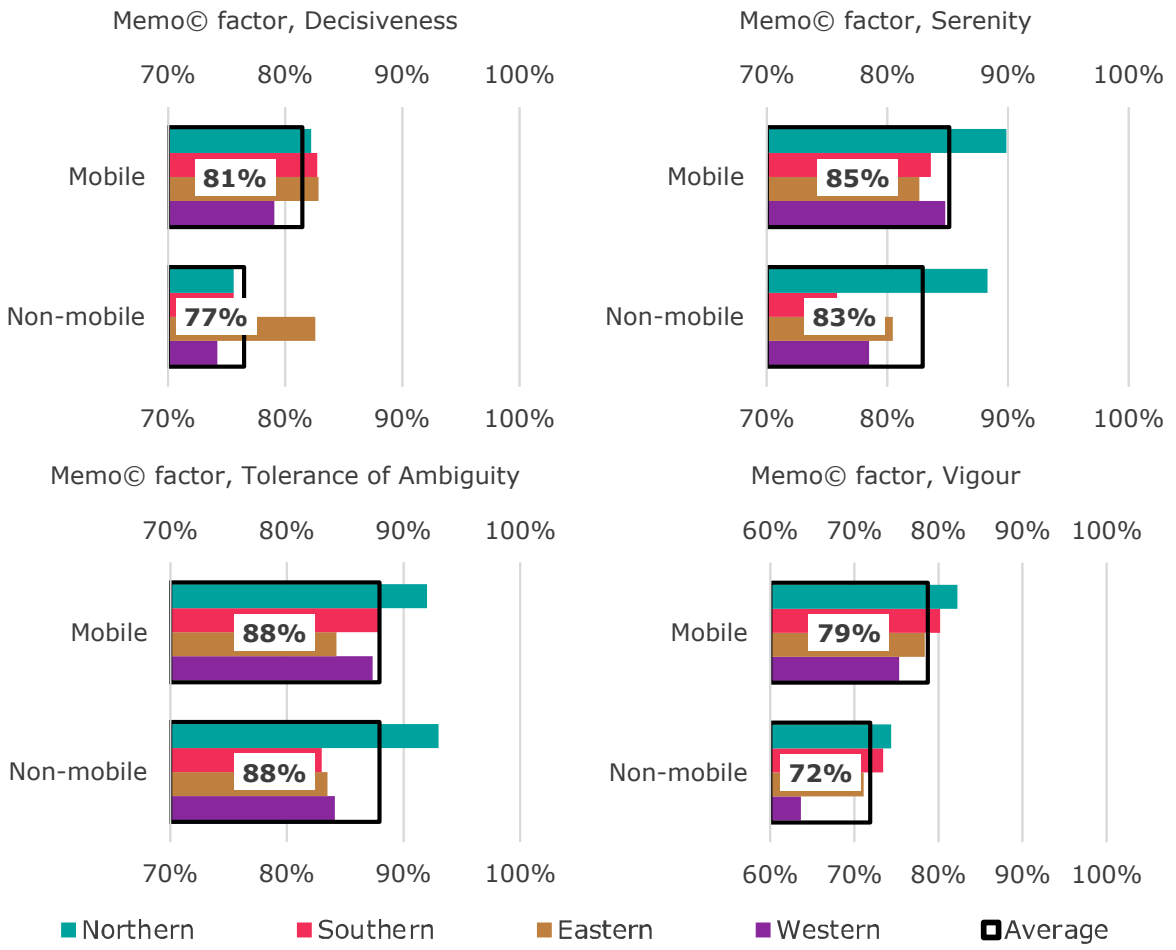


Figure 3-5 Importance of individual personal characteristics measured by memo© factors for company/organisation, mobile and non-mobile alumni perspective, by region



[7] The original question was: How important are the following personal characteristics for your company/organisation?



Across all regions, an average of 86% of the mobile alumni and 82% of the non-mobile alumni considered the memo© factors relevant for their company or organisation. Among the regions, Northern Europe once again demonstrated the highest values for both mobile (89%) and non-mobile (85%) alumni, thus confirming the employers' perspective for that region.

Employers' perspective in Northern Europe is confirmed by alumni in the region, who attach more importance to the personality traits than alumni elsewhere

In all regions, alumni who were mobile during their studies tended to consider personality traits more relevant than non-mobile alumni. The differences between mobiles and non-mobiles were smallest in Eastern Europe and largest in Southern Europe for all memo© factors.

Across all regions, both mobile and non-mobile alumni assigned the most importance to "Confidence", followed by "Curiosity" and "Tolerance of Ambiguity". The least relevance was given to "Vigour", mirroring the employers' perspective.

At the country level, the analysis reveals further interesting results. There appeared to be consensus among mobile alumni in all countries that the six memo© factors were crucial for their company or organisation. This was particularly evident among alumni in Norway, Denmark and the United Kingdom. Mobile alumni in Belgium (88%) displayed greater relevance for all memo© factors than the regional average for Western Europe (85%).

Mobile alumni in all countries consider personality traits highly relevant to their companies

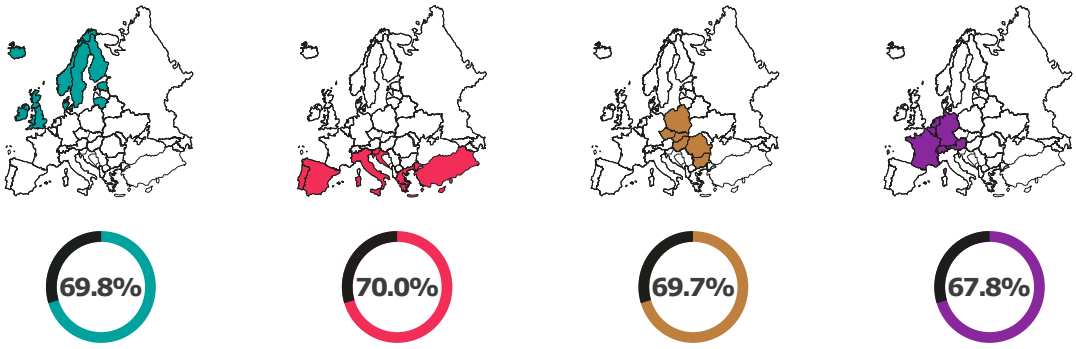
3.2 The relationship between the memo© factors and mobility

3.2.1 Situation before departure *(ex ante)*

In the previous chapter we analysed the relevance assigned to personality traits, as measured by the memo© factors, by employers and alumni. In this chapter, we will analyse the concrete results concerning these factors. Using psychometric-related data, EIS first measured the personality traits of Erasmus students prior to a stay abroad and the personality traits of non-mobile students.

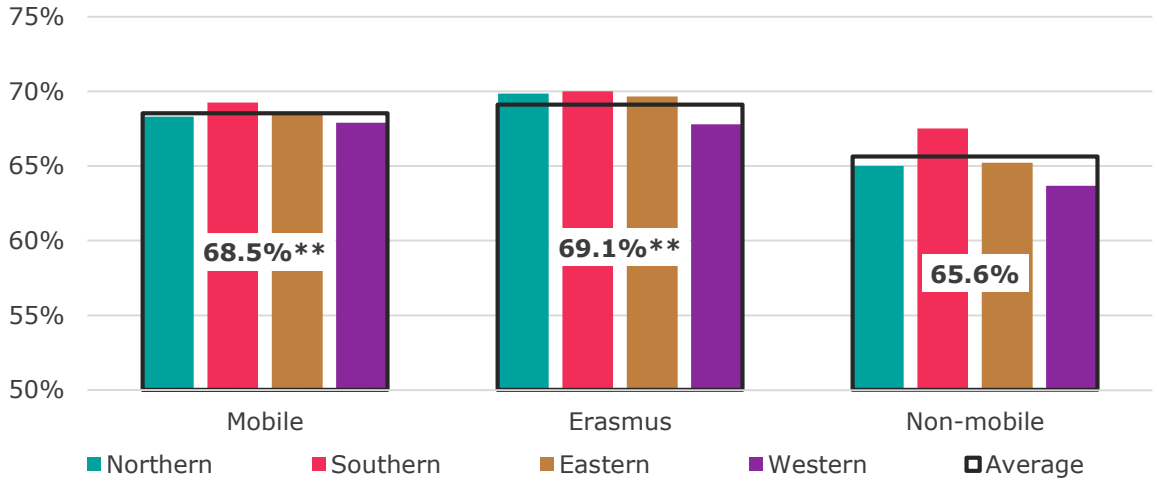
Ex ante memo© total values

Figure 3-6 Memo© total *ex ante* values for Erasmus students, by region[8]



On average, across all regions, Erasmus students showed an *ex ante* memo© total value (personality trait values for Erasmus students prior to a stay abroad) of 69.1%. Of the regions, the highest *ex ante* results were achieved by Erasmus students in Southern Europe, followed closely by Northern and Eastern Europe. Erasmus students from Western Europe started their Erasmus mobility with the lowest personality trait values.

Figure 3-7 Memo© total *ex ante* values for Erasmus, mobile and non-mobile students, by region



[8] In the original report, the memo© values were given as a number on a 10-point scale. However, as the maximum that is achievable is essentially 10 and the minimum 0, for better understanding, the scales have been adjusted to 0–100%, as is also the case in the original memo© project.

The level of personality traits prior to a stay abroad is especially high among students in Southern Europe

On average, across all regions, we see a significant difference between non-mobile students (*ex ante* memo© total value of 65.6%) and Erasmus (69.1%) and mobile (68.5%) students. This is also true for each individual region but with differentiations. Of the regions, Southern Europe showed the highest *ex ante* memo© total values regardless of the target group (mobile, Erasmus, non-mobile). Moreover, Southern Europe had by far the highest values for non-mobile students. Western Europe, on the other hand, showed the lowest *ex ante* memo© total values for all three groups of students. The difference between mobile and non-mobile students was the greatest for Northern Europe (5%), closely followed by Western Europe (4%).

In Southern Europe, we also observed the smallest difference between both mobile groups and the non-mobile students. One interpretation for this could be that the system in Southern Europe is selective in terms of initial admission to higher education but once the students are in the system, it is less selective regarding participation in mobility. This seems to be supported by the below-average entry rates to higher education (according to the OECD calculation) in Southern Europe.[9]

As a result, students in such systems have a higher predisposition to go abroad, as indicated by higher values on the memo© total. This corresponds with the findings discussed above, that Southern Europe was the only region in which there was a significant difference between *ex ante* values for students with an academic background and those without.

The opposite is true for Western Europe, which seems to be less selective in terms of admission to the HE system but then more selective when sending students abroad. Furthermore, Erasmus students in this region do not hold a particular advantage over other mobile students for *ex ante* values.

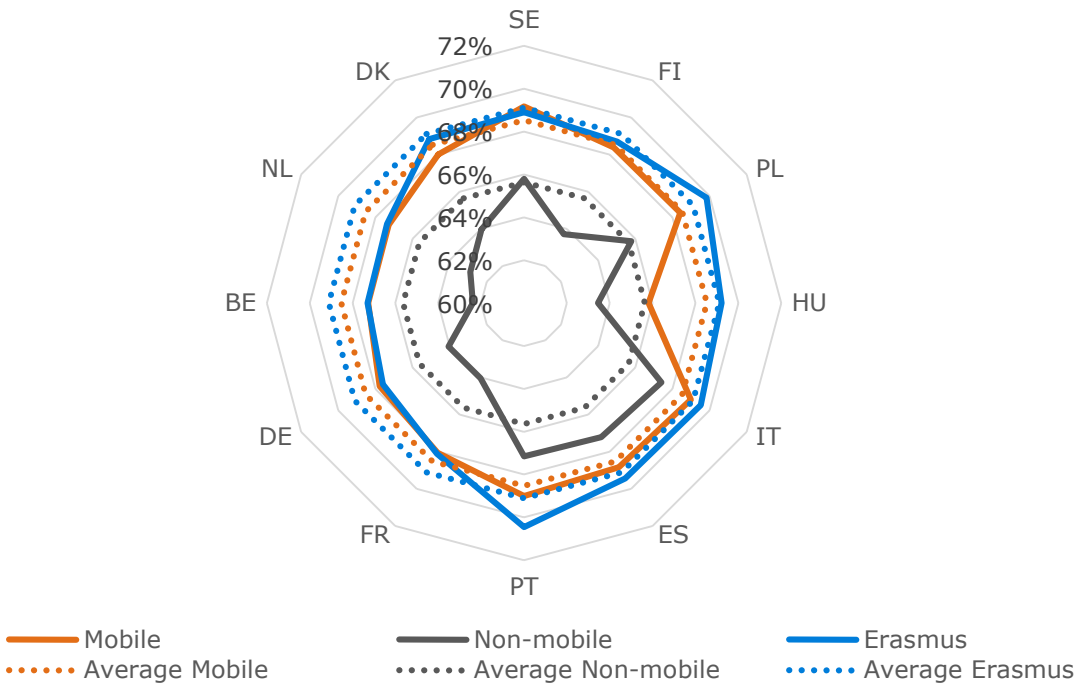
More significantly, it is important to bear in mind that students with higher *ex ante* values for the memo© factors are effectively less likely to increase their values than students who begin with lower values. It is also remarkable that the difference between Erasmus and non-mobile students on the *ex ante* memo© total was statistically significant for Erasmus students in all regions.

In Belgium, the Netherlands, Hungary and Finland students with high personality trait values tend to go abroad

The situation in most countries reflected the regional analysis. As discussed in the regional analysis, Southern European countries, such as Italy, Spain and Portugal in particular, showed relatively high *ex ante* values for non-mobile students. In contrast, the exact opposite was true for Belgium, the Netherlands, Hungary and Finland. On the other hand, Southern European countries showed a small difference between the *ex ante* values for non-mobile and mobile students. This means that personality traits have little influence on access to mobility. However, in the second group (Belgium, the Netherlands, Hungary and Finland), students that score highly on personality traits tend to access mobility, especially Erasmus mobility, more often.

[9] http://www.oecd.org/edu/C3_Charts.xlsx. It has to be mentioned that France, Belgium and Switzerland have even lower values.

Figure 3-8 Memo© total *ex ante* values for mobile, non-mobile and Erasmus students, by country[10]

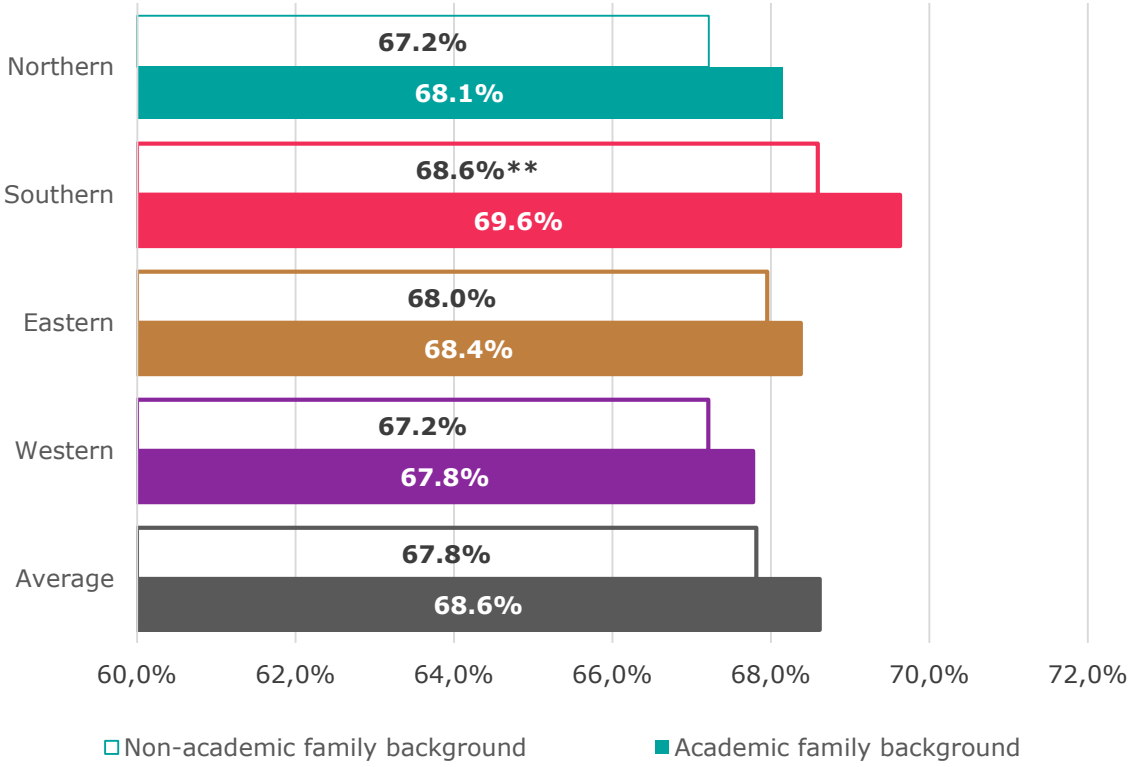


In terms of *ex ante* memo© total values, Erasmus students in Hungary have an advantage over non-mobiles twice that held by mobile students over non-mobiles

The difference between *ex ante* memo© total values between Erasmus and non-mobile students was statistically significant for all countries displayed in Figure 3-8. Of the significant cases, Hungary is particularly remarkable as the advantage held by Erasmus students over non-mobile students was twice that held by mobile students. Overall, the country results confirm the observation found at both the European level (as conducted by EIS) and the regional level (as mentioned above); that Erasmus students in particular exhibit substantially higher levels of personality traits prior to a stay abroad and from the outset, are therefore better prepared for employment than non-mobile students.

[10] This graph only shows countries with a statistically significant difference between Erasmus and non-mobile students.

Figure 3-9 Memo© total *ex ante* values for all students regardless of their mobility status, by family background and by region



Our next line of analysis aimed to explore the *ex ante* memo© total values for students with and without an academic background, regardless of their mobility status. On average, across all regions, students with an academic family background (68.6%) had significantly higher values than those from a non-academic background (67.8%). However, of the individual regions, the only statistically significant difference was found in Southern Europe (69.6% of students with an academic background compared to 68.6% without an academic background).

Students with an academic family background have higher memo© total values prior to a stay abroad

A comparison between the results for Erasmus students on studies and work placements did not show specific regional differences for the *ex ante* values. An exception to this was Southern Europe, where students going on work placements scored higher than those planning to study. The relatively large difference of 2.2% (72.0% versus 69.8%) was statistically significant.

Figure 3-10 Difference in memo© total *ex ante* values between mobility for work placements and studies, Erasmus students, selected countries[11]

At the country level, the biggest difference between *ex ante* values for students on studies and work placements occurred in Italy, where the values for students on work placement were 4.2% higher than for students on studies. In Germany as well, students on work placements held a 2.5% advantage. These two results were statistically significant and in absolute terms, the differences are large considering the relevance of even small differences in personality traits. This suggests that in these countries the selection process is either more rigorous for work placements or work placements attract a substantially different type of students than studies abroad.

Students on Erasmus work placements have especially high *ex ante* memo© values in Italy

Ex ante individual memo© factors values

The pattern observed in the *ex ante* values for memo© total at the regional level is mostly repeated when broken down to the individual memo© factors.

Figure 3-11 Memo© factors *ex ante* values for Erasmus students, by region

[11] The value shown describes the advantage of work placements over studies.

On average, across all regions, Erasmus students showed high *ex ante* values, especially for "Confidence" and "Curiosity", followed by "Serenity", "Decisiveness", "Vigour" and "Tolerance of Ambiguity". Among the regions, the most developed personality traits prior to a stay abroad were "Confidence" for Eastern (76.9%), Northern (76.2%) and Western (74.4%) Europe, and "Curiosity" for Southern (77.1%) and Western Europe (74.6%). Of all the regions, Southern Europe consistently proved to be above average, in particular for the memo© factors "Curiosity" and "Vigour". Western Europe demonstrated the lowest *ex ante* values for all factors, with the exception of "Tolerance of Ambiguity" for which Eastern Europe exhibited even lower results. Whilst the differences between the regions were usually within the range of 1-2%, in the case of "Decisiveness", Eastern Europe showed 6% higher values than Western Europe (73.3% versus 67.2%). At the country level, Germany had especially low values for all factors except for "Tolerance of Ambiguity".

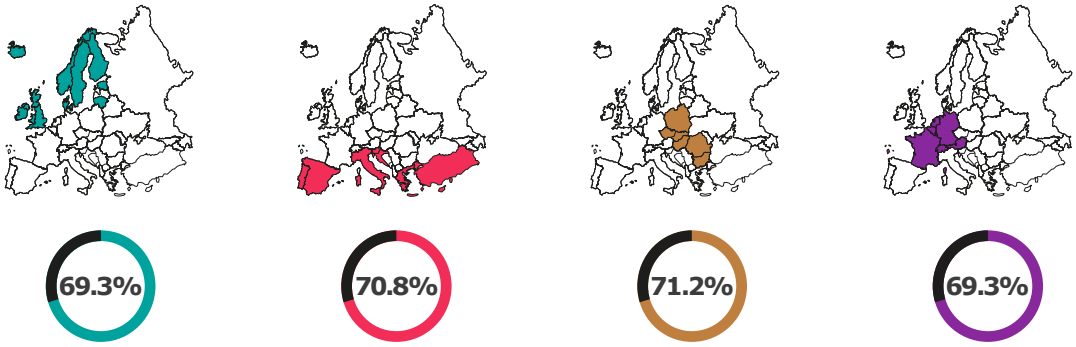
Confidence and Curiosity have the highest values prior to a stay abroad

3.2.2 Situation after return *(ex post)*

Most importantly, EIS measured the development of students' personality traits through their stay abroad by comparing the *ex ante* and *ex post* data to identify the change that took place during the mobility period abroad.

Ex post memo© total values and comparison with *ex ante* values

Figure 3-12 Memo© total *ex post* values for Erasmus students, by region



On average, across all regions, the *ex post* memo© total value for Erasmus students was 70.4%, and the values of other mobile students were similar in all regions. We see that a regional pattern across Europe emerges. Northern and Western Europe achieve *ex post* memo© total values below the trans-regional average, while Southern and Eastern Europe exhibit particularly high values. This appears to indicate that students from Southern and Eastern Europe secure a higher level of employability, as measured by the memo© factors, than those from Western and Northern Europe.

Level of personality traits after a stay abroad is especially high among Erasmus students in Southern and Eastern Europe

A comparison between the *ex ante* and *ex post* memo© total values of Erasmus students in the individual regions reveals the following regional patterns in terms of the effect of mobility.

Erasmus students in Southern Europe commenced their mobility with an already high level of personality traits (70.0%). Therefore, even though they experienced a positive change and achieved the second highest average for the *ex post* memo© total

(70.8%), the effect size and added value of mobility was influenced by the high starting values and remained below the minimal measurable threshold of 0.1.

The effect of mobility in Western Europe was relatively high. This was likely assisted by the Erasmus students' lower starting level (67.8%). As a result, greater growth during mobility was possible and, despite the fact that the Western European students achieved the lowest average for the *ex post* memo© total (69.3% – together with Northern Europe), the added value of mobility for Western European Erasmus students was above average.

Erasmus students from Western and Eastern Europe experience a positive measurable effect of mobility

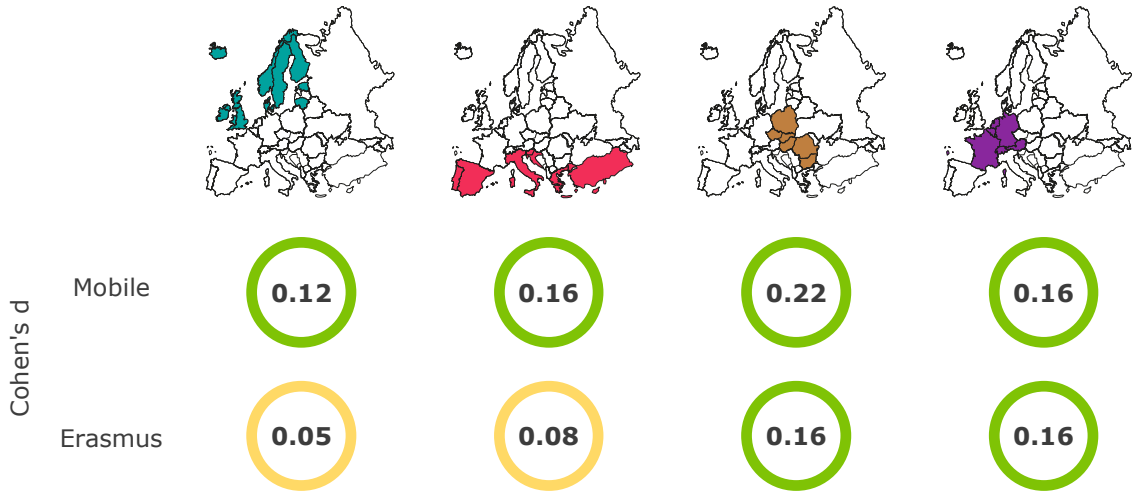
Erasmus students in Eastern Europe started with a rather high level of personality traits (69.7%) and achieved the highest average for the *ex post* memo© total (71.2%). In other words, despite high values before mobility, they experienced an above average positive change by going abroad.

An exceptional case is Northern Europe. On average, Erasmus students from this region showed a decline in their memo© total scores (69.8% to 69.3%), although this was the smallest of all changes in absolute values and had no measurable Cohen's d effect. Nonetheless, it is worth investigating potential causes for this regional outlier, especially since Erasmus students are the only students from this region not to experience a gain. Other mobile students, on the other hand, acted in accordance with the other regional patterns. A possible explanation could therefore be that the Erasmus programme appeals to a different type of student in Northern Europe compared to other regions. This is worth bearing in mind during our analysis by age later on in the report.

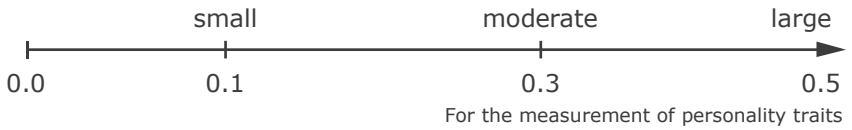
Erasmus students from Northern Europe experience a lower effect of mobility

If we compare the individual countries with the *ex post* memo© total values we see that the regional patterns are repeated at the country level, albeit with a few exceptions. For example, compared to the other countries, Sweden and Austria had higher values for mobiles than Erasmus students.

Figure 3-13 Memo© total Cohen's d for mobile and Erasmus students, by region[12]



Cohen's d: Mean difference between two groups in standard deviation units.



On average, across all regions, Erasmus and other mobile students displayed a positive change in their personality traits after their stay abroad. Regarding effect size, all regions showed measurable sizes for the mobile students (consistently above 0.1). This was also true for Erasmus students in Eastern and Western Europe. Southern Europe, however, was close to the minimum threshold. This indicates that in all regions, the mobile students change more during mobility than Erasmus students; however, they also started with lower *ex ante* values.

Mobility has the greatest effect on students from Eastern and Western Europe

[12] Yellow circles demonstrate results with no measurable effect, green circles demonstrate results with a positive measurable effect.

Figure 3-14 Memo© total *ex post* values for mobile and Erasmus students, by country[13]

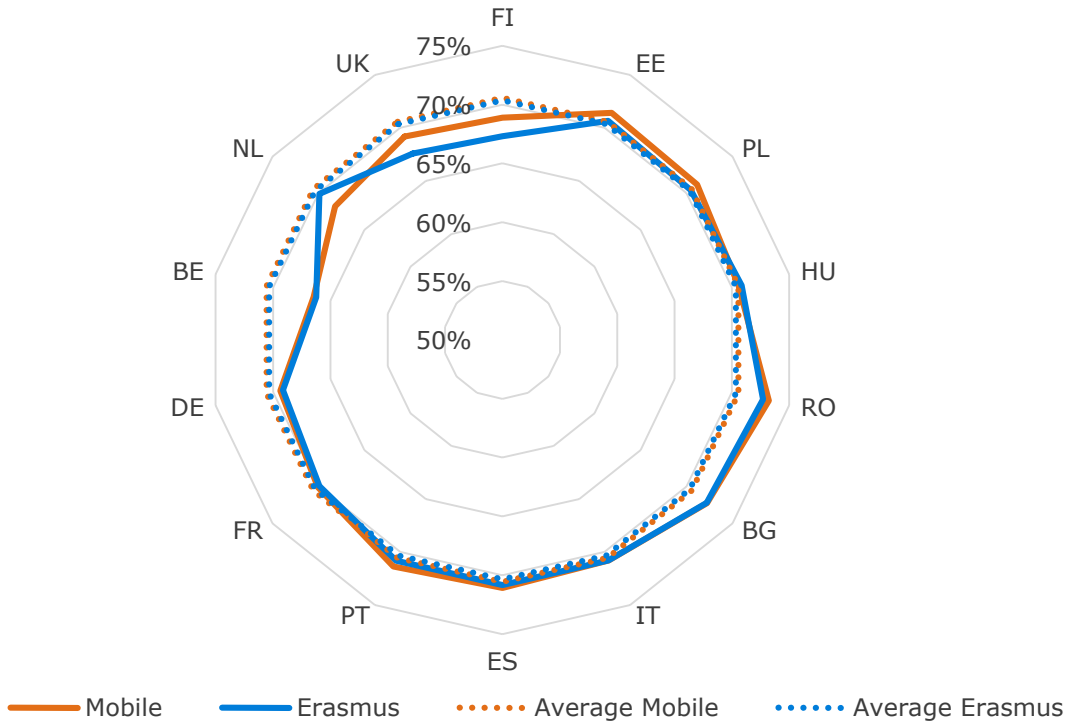
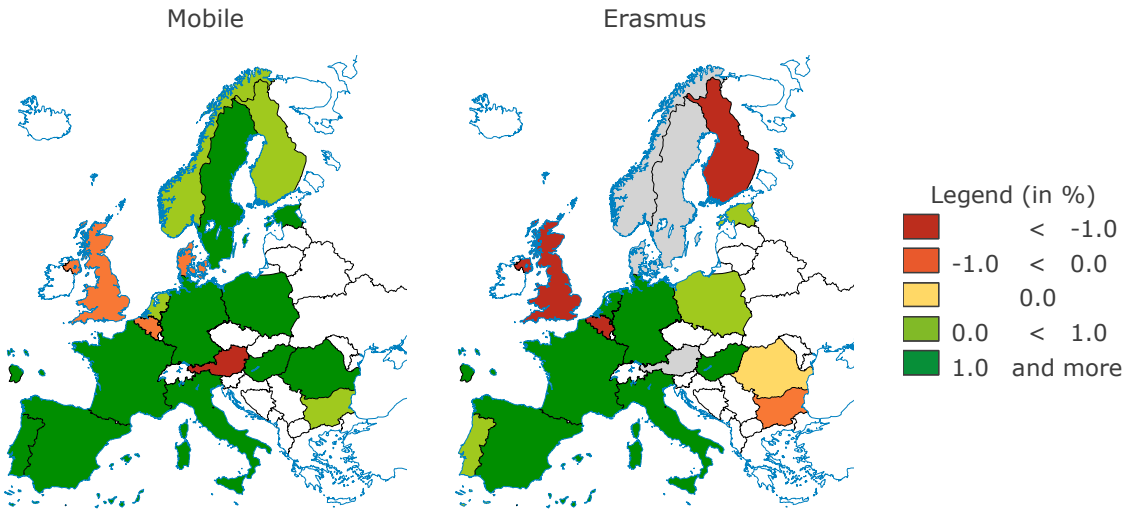


Figure 3-15 Memo© total change for mobile and Erasmus students, by country

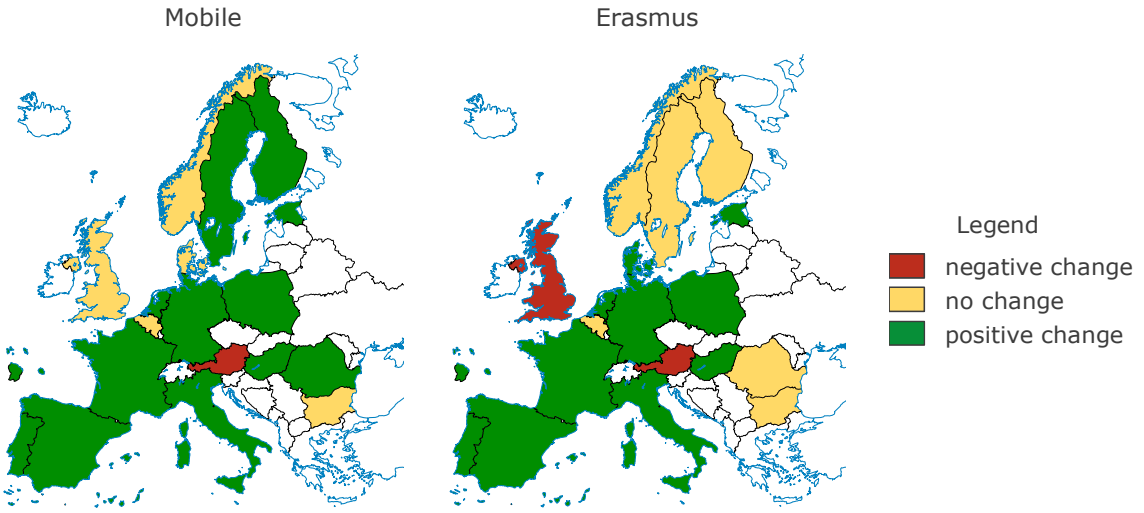


Regarding the development from *ex ante* to *ex post*, most countries followed the regional patterns for mobile and Erasmus students. However, there were exceptions to this trend in some countries. In Belgium, the values for both groups decreased, contrasting the average result for its region. In Bulgaria, the value for mobile students experienced a slight increase while the value for Erasmus students decreased. In

[13] The spider web only displays countries with sufficient sample sizes.

Romania, the value for mobile students increased while the value for Erasmus students did not change at all. Both countries therefore deviate from the regional tendency to gain. In Estonia, on the other hand, both mobile and Erasmus students experienced a gain, whilst on average, Northern Europe showed a decrease in the *ex post* values. The values for the United Kingdom and Denmark also showed negative developments for mobile students, contrasting the usual pattern.

Figure 3-16 Memo© total Cohen's d for mobile and Erasmus students, by country



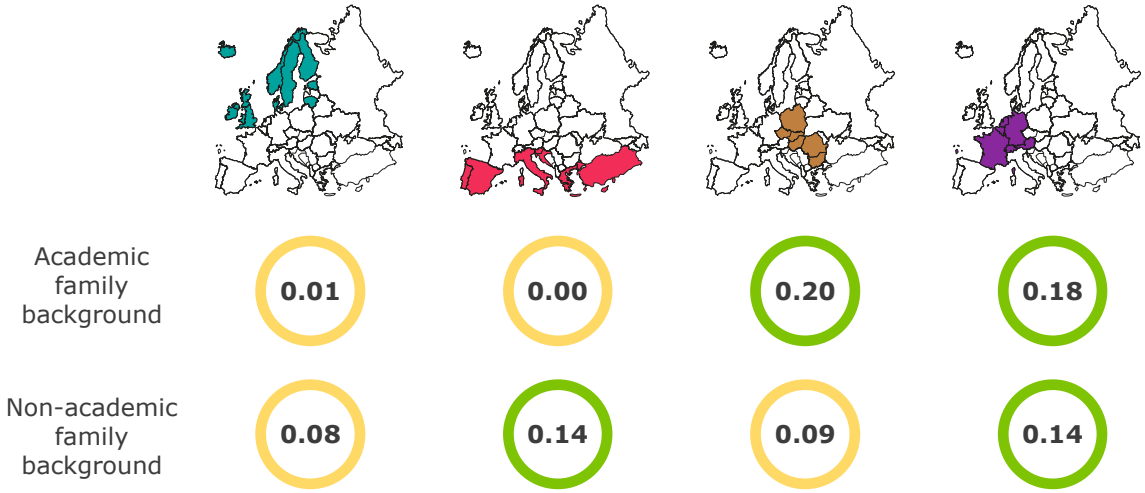
Most countries showed measurable Cohen's d effect sizes to the positive, with only a few to the negative. The Netherlands, Denmark and Estonia[14] showed moderate effects for their Erasmus students (with Denmark and Estonia's results contrasting those of their region). Sweden had a moderate effect size to the positive for mobile students, whereas Hungary had positive effect sizes for both groups. Estonia was the only country that managed a large effect size for the mobile students. Austria was an outlier in Western Europe in that it showed a moderate effect[15] to the negative for Erasmus students. The United Kingdom was another country with a measurable effect size to the negative for Erasmus students. The gain and effect size for Romania and Bulgaria were much smaller than for other countries in the same region despite above average *ex post* memo© total values. This may be due to very high values in the *ex ante* memo© total values.

Danish and Estonian Erasmus students experience a measurable positive effect of mobility in contrast to their regional pattern

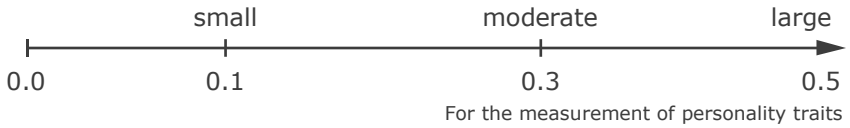
[14] At 0.48, the effect size in Estonia is almost a "large" effect size.

[15] The effect size for Austria is also almost a large effect size with 0.47.

Figure 3-17 Memo© total Cohen's d for Erasmus students, by family background and by region

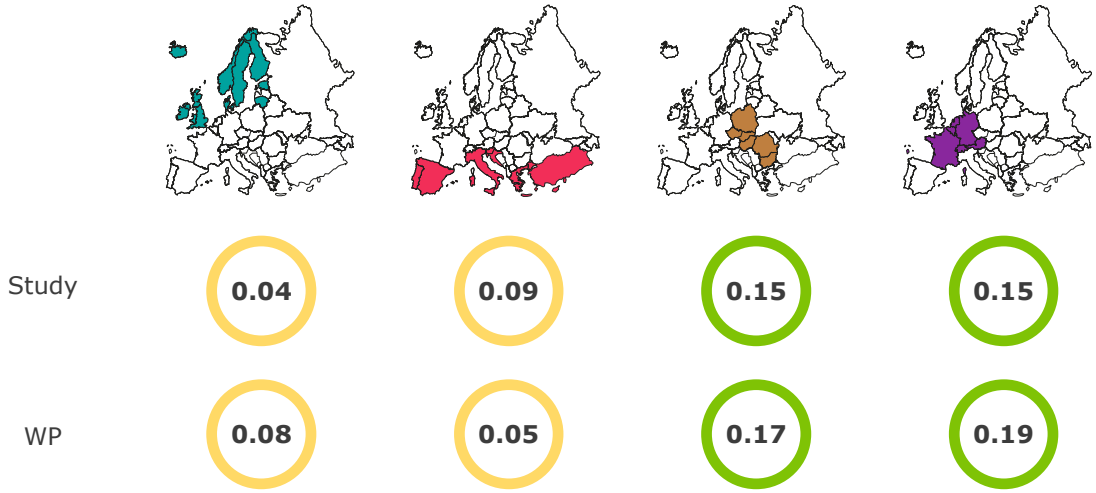


Cohen's d: Mean difference between two groups in standard deviation units.

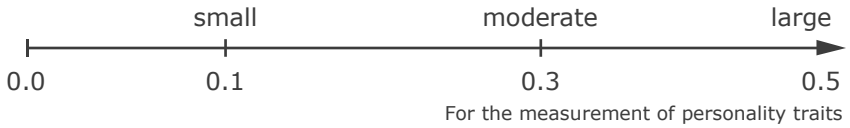


Regarding effect sizes for students with and without an academic family background, in Northern Europe, both groups were below the threshold. This stands in contrast to Western Europe where both students with and without an academic family background showed measurable effects. In Eastern and Southern Europe, the results were reversed. While in Southern Europe only the students without an academic family background experienced measurable gain from mobility abroad, in Eastern Europe the group with a substantial gain were students with an academic family background.

Figure 3-18 Memo© total Cohen's d for Erasmus study and work placement students, by region[16]



Cohen's d: Mean difference between two groups in standard deviation units.



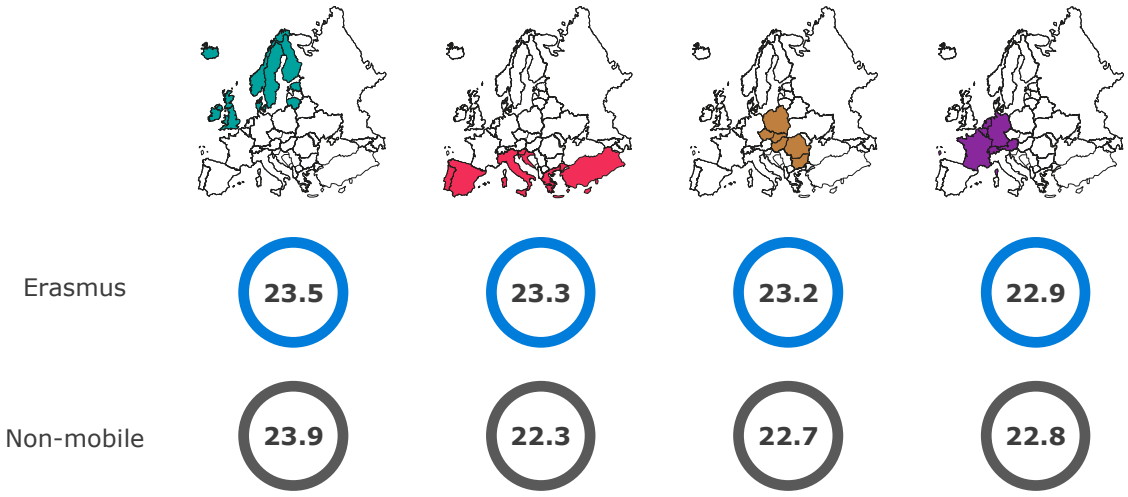
With regard to the difference between Erasmus mobility for studies and work placements, the effect sizes for Northern and Southern Europe fail to cross the threshold of 0.1. For Eastern and Western Europe, on the other hand, the effect sizes of the changes for both groups (study and work placement) were above the threshold of 0.1, indicating that all changes were substantial.

Comparison of *ex ante* and *ex post* memo© total values by age of students

At this stage, we will introduce a new factor into the analysis: the students' age. This was not included in the original EIS but may provide us with a better understanding of the situation in Northern Europe as well as concrete evidence for the effect of mobility.

[16] Yellow circles demonstrate results with no measurable effect, green circles demonstrate results with a positive measurable effect.

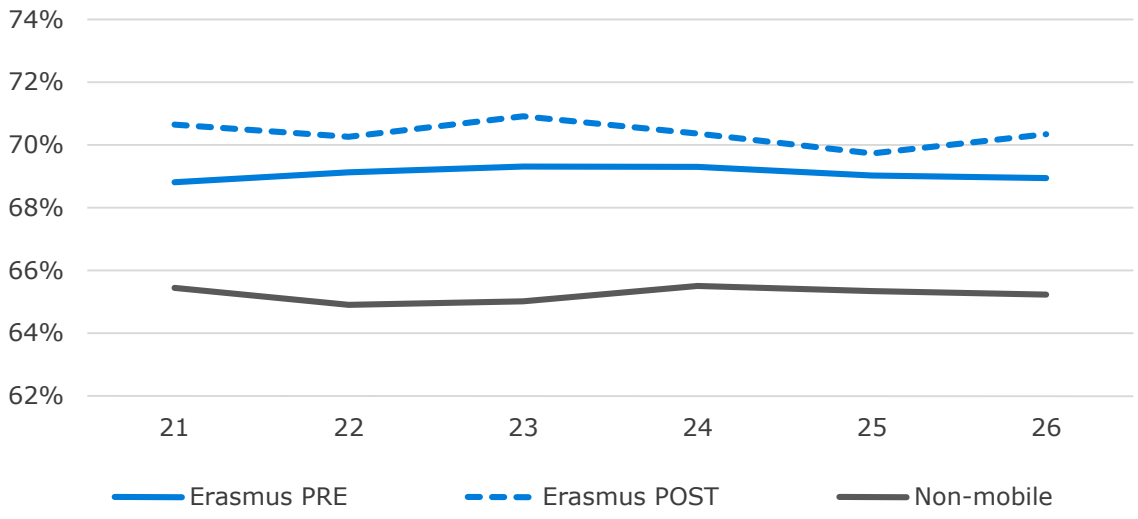
Figure 3-19 Average age of Erasmus and non-mobile students, by region



We discovered an age difference between non-mobile students in Northern Europe and those in other regions: non-mobile students in Northern Europe were on average a year older than their counterparts in other regions. In all regions, the Erasmus students were around the average of just over 23 years. As a result, the age of Erasmus students does not help to explain the situation in Northern Europe.

Next, we analysed the results for memo© total values for each individual year group of Erasmus and non-mobile students. This means we took the average values for the respondents in each age group (21, 22 etc., up to 26) and displayed them on a time axis.[17]

Figure 3-20 Memo© total *ex ante* and *ex post* values of Erasmus students compared to values of non-mobile students across age groups, on average across all regions



[17] We left out the cumulative groups "up to 20" and "27 and older" as they would distort the picture by mixing different ages and failing to allocate specific values to specific ages. Additionally, these groups usually consisted of much smaller sample sizes.

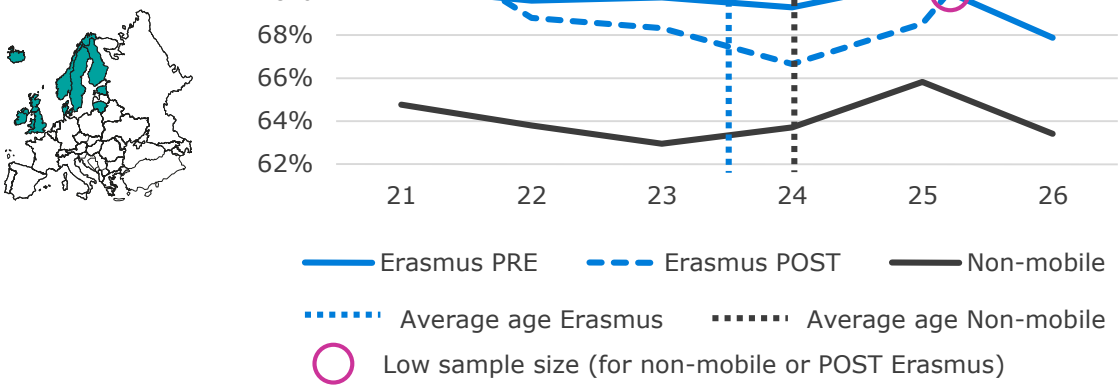
Erasmus mobility changes people 8–9 times more than normal life

We see that non-mobile students in all regions changed very slightly to the negative over all the years (-0.04%), while Erasmus students showed a slight positive change (0.026%). Moreover, we can see that the average absolute change[18] from year to year was between 0.2% (Erasmus students) and 0.3% (non-mobiles), sometimes to the positive and sometimes to the negative. This is in keeping with research cited in the original EIS, i.e. that a short time span of up to a year has a greater impact on personality than normal life. In other words, across the regions, the change achieved through Erasmus mobility in 6 months is equivalent to the change of a person over 4 years of life. Erasmus essentially initiates a change 8–9 times greater than normal life can achieve within the same period. Moreover, whereas the change through Erasmus generally results in an increase in personality traits, in normal life the change can be either positive or negative and often leaves people with no improvement at all.[19]

Even if we look at the year group with the greatest development for non-mobiles (from 23 to 24 years of age), we see an increase of just 0.5% over a year compared to 5–6 times this value (1.4%) through Erasmus.

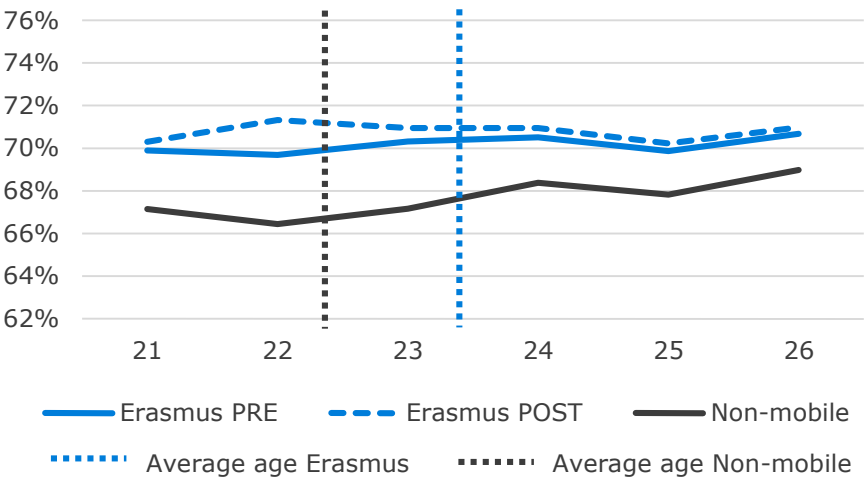
We will now explore the regional results and assess whether these provide insights into the outcomes found during the analysis of general change in personality traits through a stay abroad. As a result, our focus will be on the distribution of change across the age groups of Erasmus students, rather than the non-mobile students.

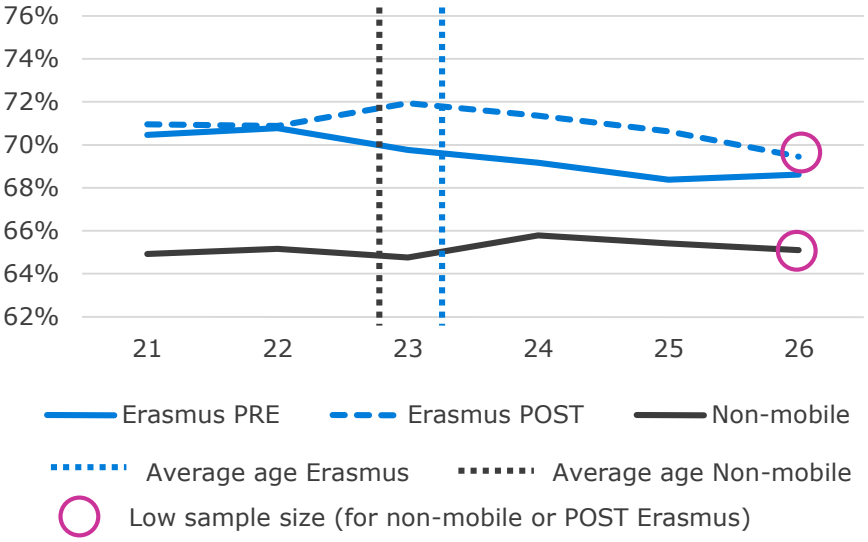
Figure 3-21 Memo© total *ex ante* and *ex post* values of Erasmus students compared to values of non-mobile students across age groups, by region

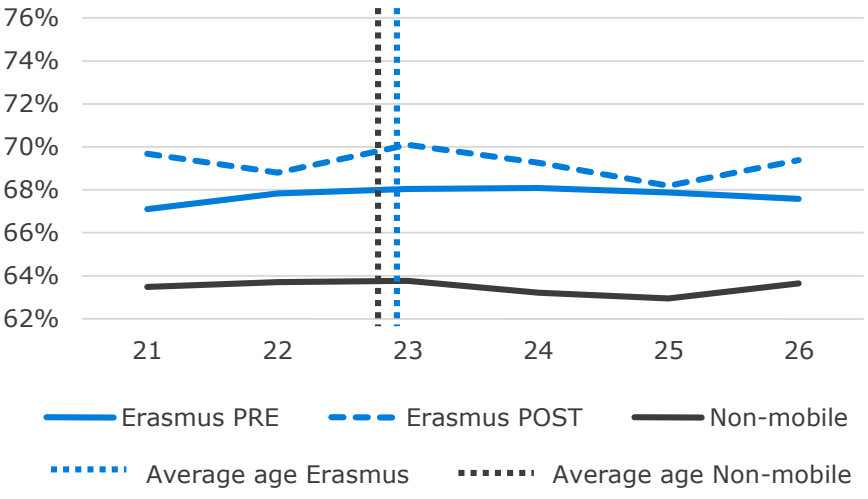


[18] Absolute change means that the direction (negative or positive) does not matter, only the absolute value counts. E.g.: -1 and +1 both have an absolute value of 1.

[19] This also proves why an *ex ante – ex post* analysis of non-mobile students would have been meaningless and even misleading. If the annual change is 0.3%, one could expect that the change for 6 months would be half that value. This is far below the radar of even Cohen's d. Furthermore, such an analysis would require the generation of values for a much smaller sample size and thus a much higher standard deviation, which would have significantly reduced the meaning of any result.







As described in the methodological annex, we typically do not display very small sample sizes. However, we have made an exception in the case of Northern and Eastern Europe in Figure 3-21 as it would have seemed strange to omit two year-groups of students. We know from the average age of Erasmus students per region

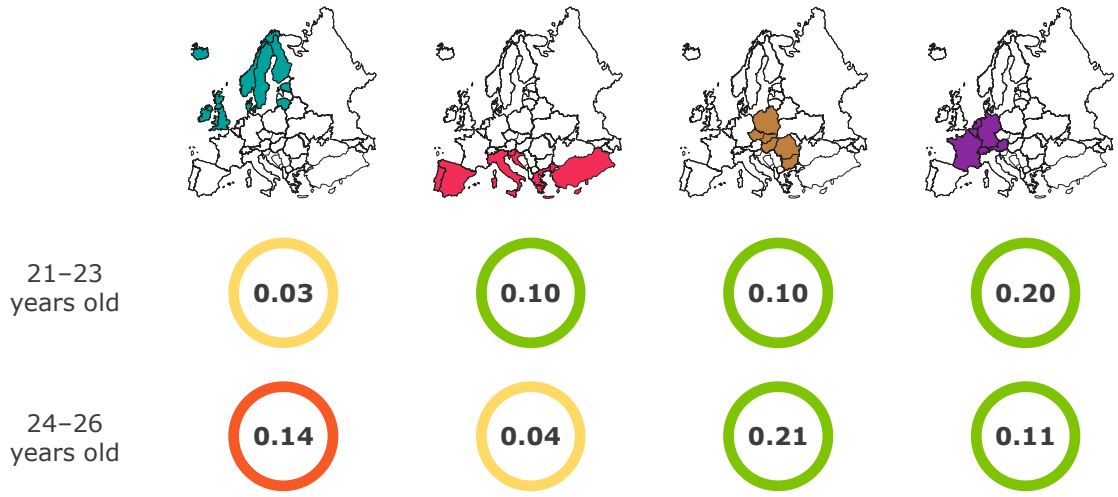
(see Figure 3-19), that Northern Europe is not substantially different from other regions and on average does not send significantly older students abroad. Therefore, if we look at the distribution of age in Northern Europe, we see that starting from age 22, all Erasmus exchange students in groups with measurable sizes experienced a loss. In fact, the two smaller age groups with unusually high values (25 and especially 26 years old) actually improved the average for Northern Europe.[20]

In all regions except Northern Europe, the effect of mobility is always much larger than the effect of normal life, and always to the positive

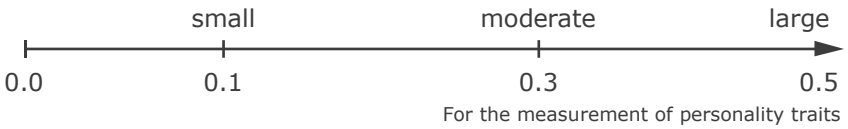
We also see slightly different age patterns across the other regions. In Southern Europe, the younger students benefitted more from mobility. In Eastern Europe, contrasting the trend set in all other regions, the older students saw a greater increase than the younger students. Western Europe is again the average region with similar distributions across all age groups.

We also looked at the effect sizes for younger and more mature Erasmus students.

Figure 3-22 Memo© total Cohen's d according to age group, by region[21]



Cohen's d: Mean difference between two groups in standard deviation units.



For the measurement of personality traits

On average, across all regions, sending young students abroad (average Cohen's d of 0.16) is nearly twice as effective as sending older students (Cohen's d of 0.10). This also corresponds with the results for the *ex ante* values for both Erasmus and, in particular, non-mobile students. Thus, the general message to conclude from this is to change students as early on in life as possible. However, this is not the case

It is much more effective to send young students rather than mature students abroad

[20] However, as we will see below, when analysing the Cohen's d values, these small groups do not positively influence the value for the group of 24–26 years old students.

[21] Yellow circles demonstrate results with no measurable effect, green circles demonstrate results with a positive measurable effect, red circles demonstrate results with a negative measurable effect.

in Eastern Europe, where the Cohen's d value for mature students was more than double the value for younger students.

In Northern Europe, the effect size for young students was below the threshold. However, this was due to the gain experienced by the 21-year-old group compared with the losses experienced by the 22- and 23-year-old student groups. The older groups' losses were measurable despite the insignificant (in terms of size) outliers in the 25- and 26-year-old groups. Overall, we can therefore conclude that in Northern Europe, only the youngest age group of students displayed results comparable with the other regions (i.e. they gained but not measurably) while older age groups with substantial sample sizes lost measurably. However, the age distribution in Northern Europe was not different from the other regions, nor did the other regions show a similarly negative impact on the older students. Nonetheless, the positive effect was greater for the younger students. As a result, age alone does not explain the different overall result for Northern Europe.

However, so far we have concentrated on the overall memo© total values. If we see differences between regions under the large scope of a trans-European analysis, these differences may also be reflected in the individual memo© factors as well. The reasons for the differences can potentially be found in the individual factors, especially regarding the specific findings for Northern Europe. Therefore, we will now analyse each of the memo© factors to establish whether the general results show clearer trends at this level.

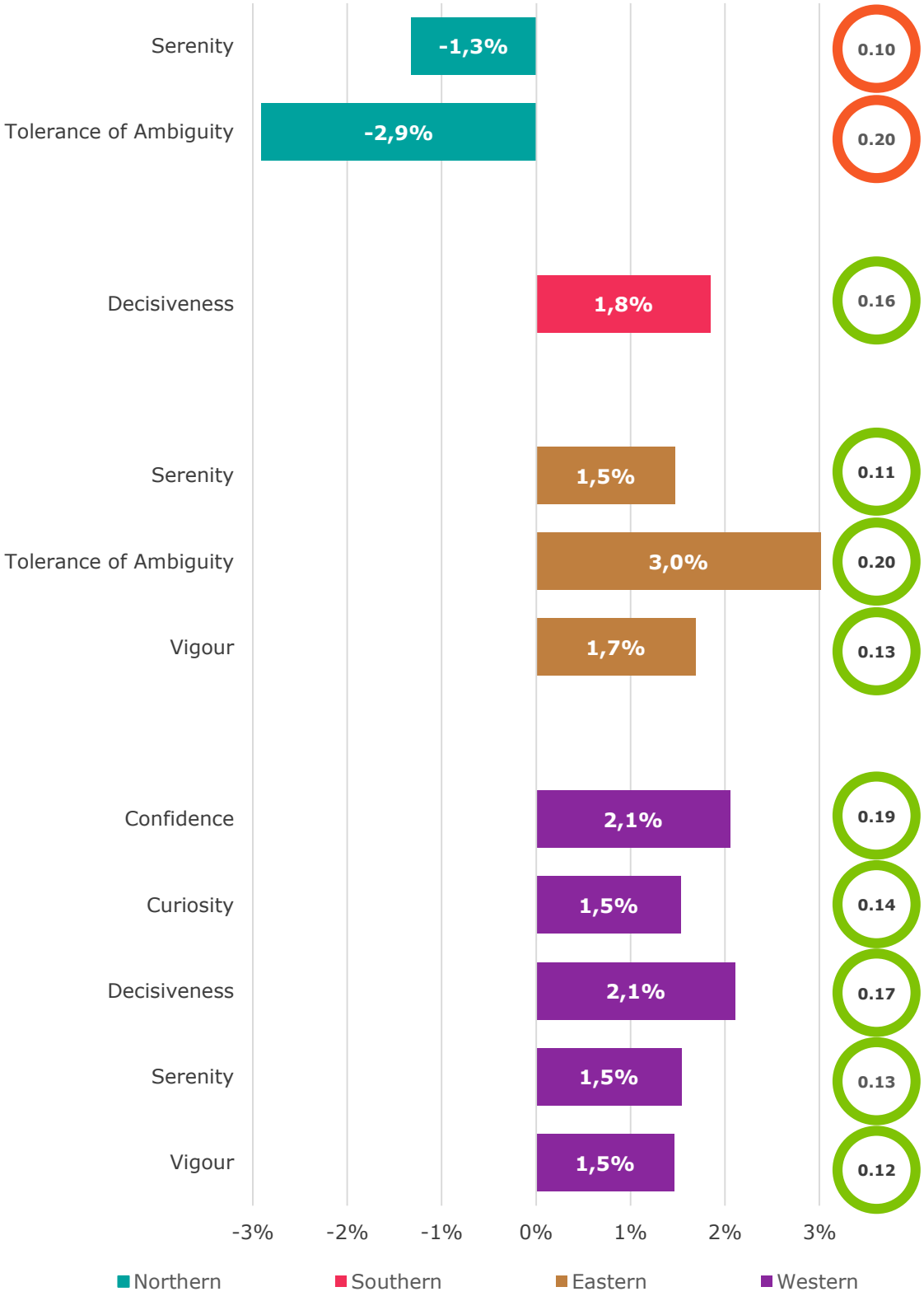
Analysis of individual memo© factors values (*ex ante* and *ex post*)

Looking at the absolute change per individual memo© factor, we see that Erasmus students in Western Europe showed measurable effect sizes on all factors except for "Tolerance of Ambiguity". Their effect sizes were also usually higher than those of students from other regions.

Erasmus students in Eastern Europe show the highest gain in Tolerance, whereas Northern European students experience a loss in Tolerance and Serenity

Eastern Europe ranks second with measurable effects in three factors. Erasmus students in Eastern Europe showed the largest effect regarding "Tolerance of Ambiguity", the exact opposite result to Northern Europe. Students from Eastern Europe also gained measurably in "Serenity" and "Vigour". In Southern Europe, only "Decisiveness" showed a measurable positive effect. For Northern European Erasmus students, the picture becomes clearer when looking at the change in the individual memo© factors. Whilst we could only detect a small effect size for the memo© total, a closer look at the individual factor level unveils where the problems lie. These students did not lose consistently across all factors but the overall loss accumulated within two memo© factors: "Tolerance of Ambiguity" and "Serenity", factors Erasmus students from all other regions gained in, especially in Eastern Europe. It seems that if students lost substantially (both losses had small to moderate effect sizes) on "Tolerance of Ambiguity" and "Serenity", their stay abroad reduced their ability to cope with different lifestyles, attitudes and cultures, and their self-assessment was also adversely affected.

Figure 3-23 Memo© factors change for Erasmus students, by region[22]



[22] Green circles demonstrate results with positive measurable effect, red circles demonstrate results with negative measurable effect. We only display the factors with measurable effect sizes, i.e. a Cohen's d of at least 0.1.

3.3 Perceived development regarding memo© factors

In EIS, students were asked whether they had expected a development in their employability-related personality traits (the same that were measured by memo©) and whether, in their opinion, they perceived an improvement after their stay abroad. In most cases, mobile students in general, and Erasmus students in particular, believed that the actual improvement related to the memo© factors exceeded their expectations. Alumni, staff and HEI representatives were even more optimistic about the students' improvement than the students themselves.

Perceptions of students, alumni, staff and HEIs

Figure 3-24 Improvement of personality traits of students during stay abroad (memo© total and factors): perceptions of students and alumni vs. expectations of staff and HEIs, by region

Across all regions and across almost all memo© factors, HEIs (93%) and staff (86%) were very optimistic about the expected development of student personality traits through mobility. Students (80%) and alumni (84%), on the other hand, were slightly more realistic in the way they perceived their own development through mobility. Still, in all regions more than 80% of students believed they had improved in the following memo© factors: "Confidence", "Curiosity", "Serenity" and "Tolerance of Ambiguity". In the memo© total as well as in most memo© factors, Southern Europe showed values above average and Western Europe showed values below average.

Southern European students had the most positive experience among all regions – on the memo© total as well as in all factors. Additionally, in some cases, Eastern Europe showed the highest values, in particular in the case of staff and for the memo© factors "Decisiveness" and especially "Vigour". It is also remarkable that of all the regions, all target groups in Eastern Europe were above average with regards to their perception of a positive effect of mobility on the students' ability to solve problems.

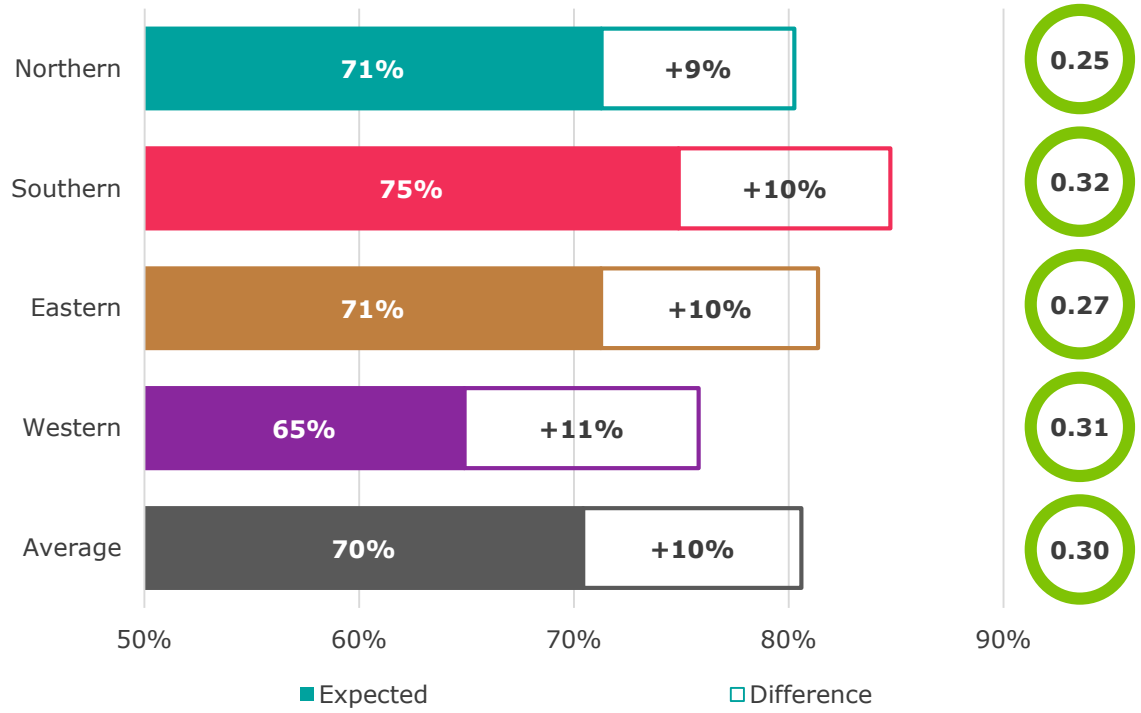
The countries generally followed their regional patterns. Exceptions included the United Kingdom and Estonia, which showed results similar to Southern and Eastern European countries.

Relation between expected and perceived development of students' personality traits

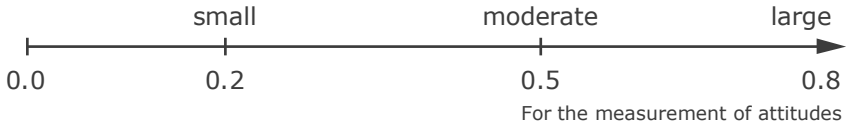
In the first paragraphs, we looked at the opinions of staff and HEIs on the impact of mobility compared with the student and alumni experiences. Next, we will look at the expected increase versus the perceived increase in personality traits, as observed by Erasmus students in the different regions. On average, across all regions, 70% of students expected an increase in their personality traits through mobility.

We see that, from the outset, Western European Erasmus students were the most sceptical regarding expected improvement of their personality through a mobility experience. Only 65% of Erasmus students expected an improvement compared to 71% in Northern and Eastern Europe and 75% in Southern Europe. Therefore, prior to a stay abroad, the expectations were highest in Southern Europe. This also seems to be consistent with the relevance of mobility for employability, as displayed by the employers of that region.

Figure 3-25 Comparison of expected vs. perceived increase of memo© total through mobility and Cohen's d of the difference: perspective of Erasmus students, by region[23]



Cohen's d: Mean difference between two groups in standard deviation units.



Regarding the difference between the expected improvement before mobility and the perceived improvement after the stay abroad, we observe more or less the same change across the regions. The average change across the regions was +10%. This means that 80% of students perceived a real improvement in their personality traits after their stay abroad compared to 70% who had expected such a change prior to going abroad. In all regions, students showed measurable effect sizes for change, i.e. all changes observed are relevant.

Erasmus students in all regions perceive positive changes that exceed their expectations – on average by 10%

For students from Western Europe, the mobility experience generated the largest difference between expectations and perceived development. These students had the lowest expectations and were most "surprised" by the perceived gain.

85% of Southern European Erasmus students perceive an improvement in their personality, which confirmed their high expectations

In contrast, students in Southern Europe had the

[23] The value for "expected" increase is represented by the coloured bar. The framed white bar represents the added value for the "perceived" increase. Therefore, in Western Europe, for example, 65% had expected an increase and 76% (+11%) perceived such an increase. Green circles demonstrate a positive measurable change.

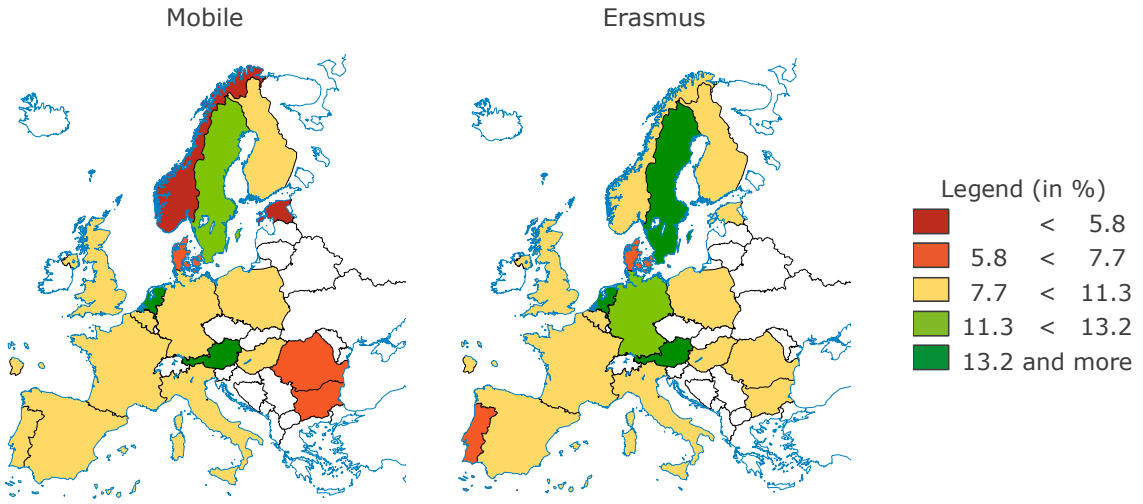
highest expectations. This region also had the largest share of students claiming to have actually improved. For them, the mobility experience confirmed their high expectations.

On the other hand, this also shows that the perceived development is not necessarily in keeping with the development psychometrically measured by memo© and described in the previous chapter, for example where Eastern Europe showed the highest gain and the highest *ex post* values.

At the country level, the difference between the share of students who expected a change in personality traits and those who perceived one varied between individual countries. Nonetheless, perceived changes exceeded expectations in all cases.

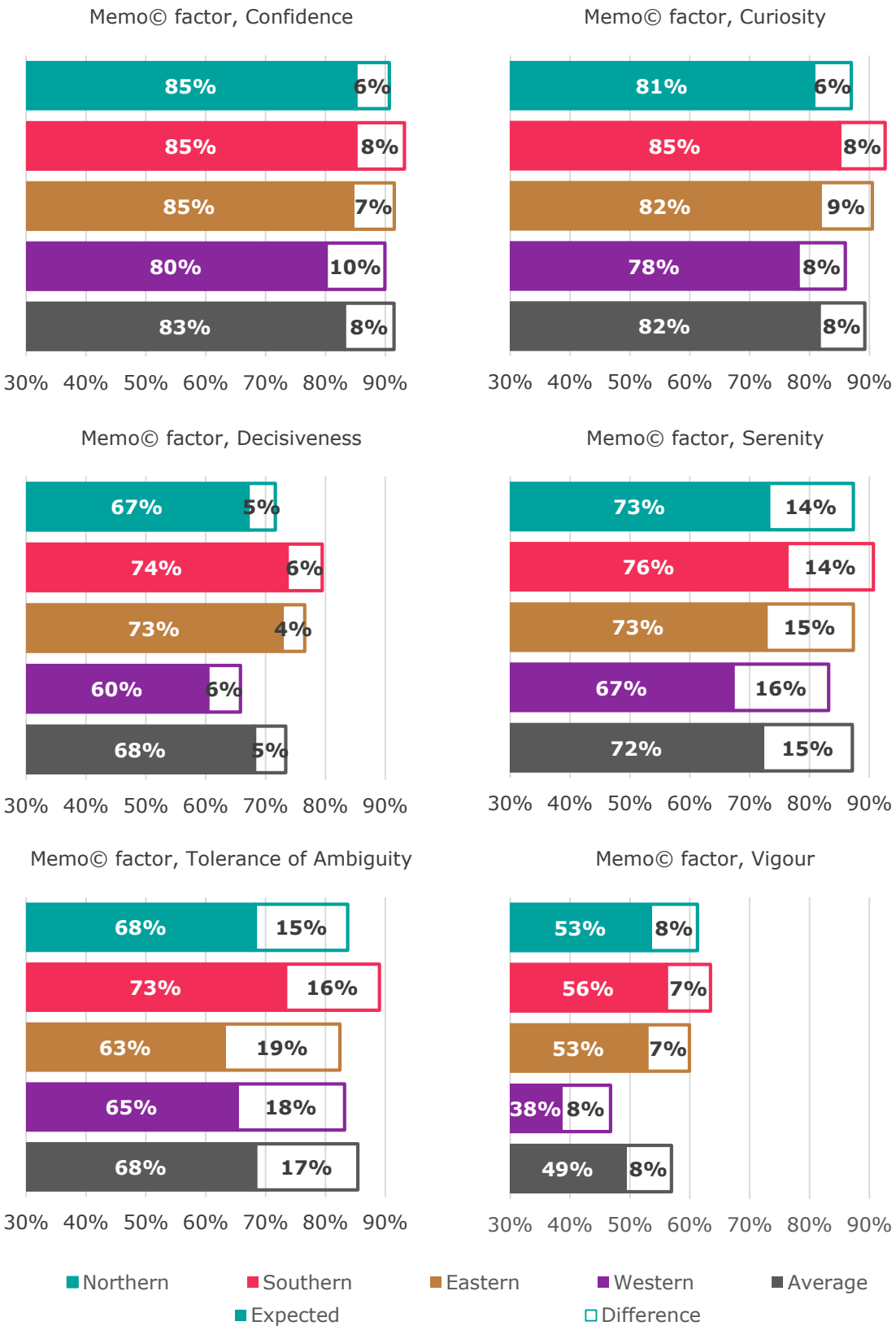
Difference between the proportion of students who expected and those who perceived a change is positive in all countries

Figure 3-26 Difference between expected and perceived increase of memo© total through mobility, perspective of mobile and Erasmus students, by country



This difference was particularly large in countries whose students displayed substantially lower expectations than their regional averages (Sweden, Austria, Germany and the Netherlands). This means that in these countries it was more likely that some students that did not expect an improvement would ultimately perceive one. On the other hand, countries with a smaller difference between expected and perceived improvement were usually above average regarding the students' expectations. This was especially true for Portugal. In such countries, the probability that some students would perceive improvement without having expected to do so was slightly lower than in countries with below-average expectation levels. The only exception to this logic was Denmark, where the expectations of students were slightly below the average and the level of perceived improvement was substantially below the regional average – the lowest of all Northern European countries.

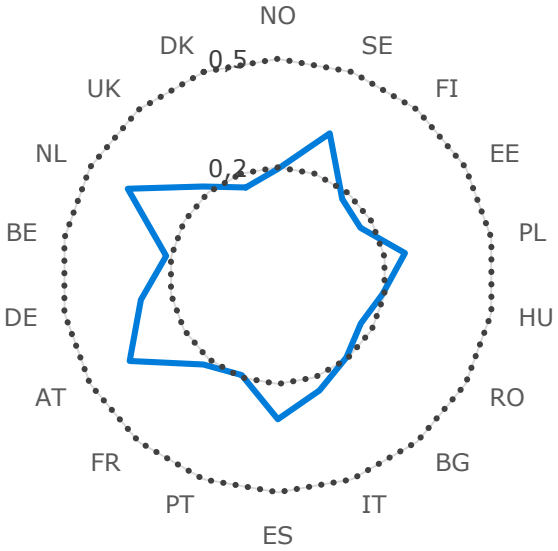
Figure 3-27 Comparison of expected vs. perceived increase of memo© factors through mobility, Erasmus students, by region



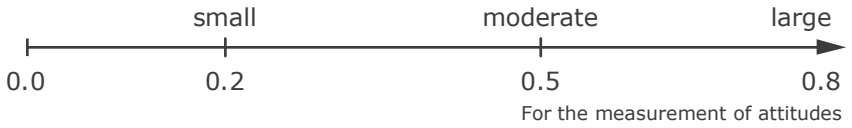
Regarding individual memo© factors, on average and across all regions, students rated the impact on "Confidence" and "Curiosity" the highest, both in terms of expected and perceived outcomes. "Serenity" and "Tolerance of Ambiguity" were the two traits in which the largest share of students perceived an improvement without having expected to do so.

Moreover, in all regions, and in Western Europe in particular, students were most sceptical about the mobility's potential added value regarding their ability to solve problems ("Vigour"). While students in Southern Europe showed the highest percentage regarding expected and perceived improvement in all personality traits, those from Western Europe consistently showed the lowest values, with the only exception of "Tolerance of Ambiguity", which they rated similarly to Eastern and Northern Europe. For "Vigour", just 38% expected improvement and only 46% perceived an actual improvement after the mobility.

Figure 3-28 Cohen's d for difference between expected and perceived change of memo© factors through mobility, Erasmus students, by country[24]



Cohen's d: Mean difference between two groups in standard deviation units.

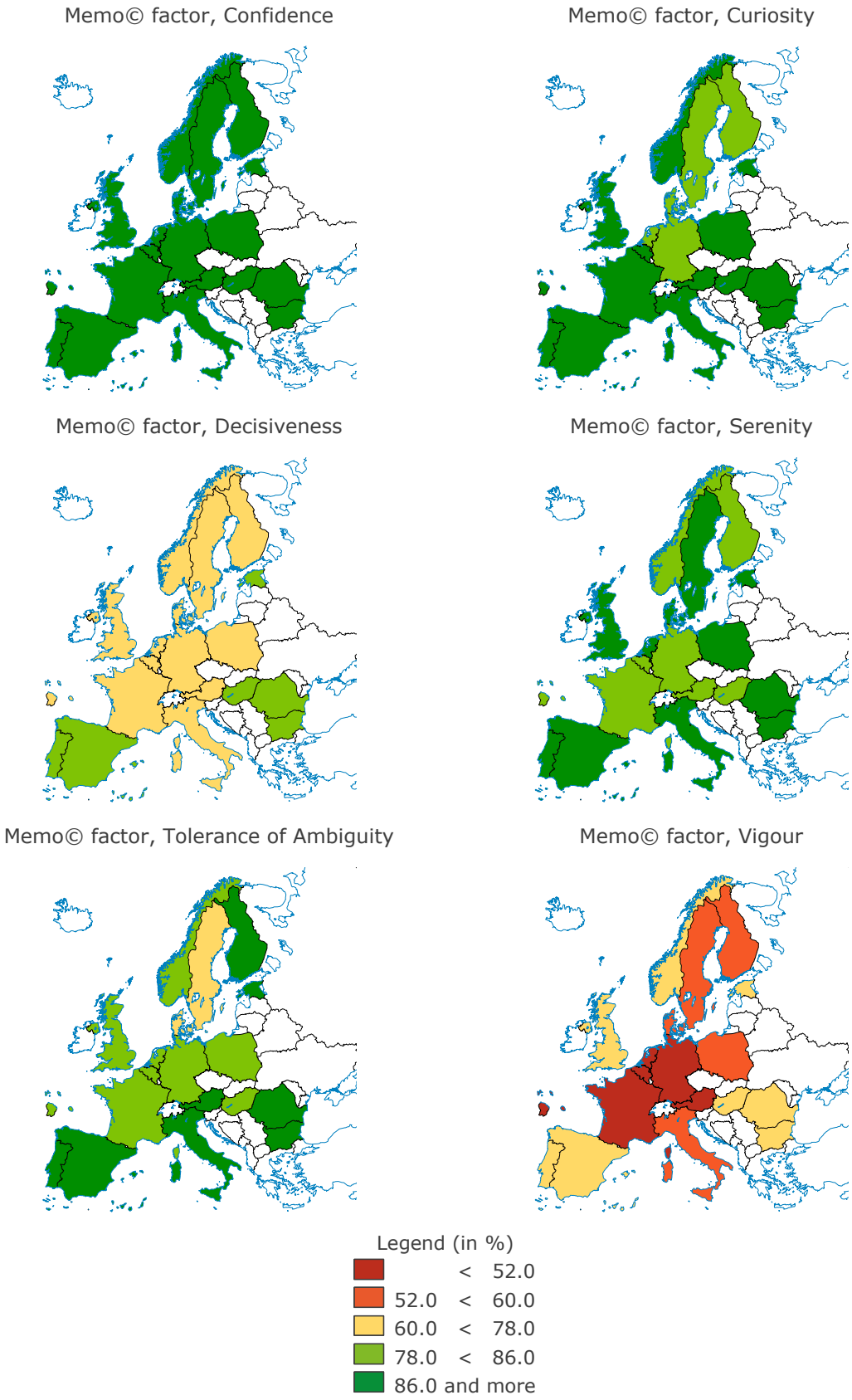


The effect sizes measured between the expected and perceived change in personality through mobility were particularly high for Austria, the Netherlands, Spain and Sweden.

Students' expectations are particularly exceeded in Austria, the Netherlands, Spain and Sweden, judging by the effect size of change they perceived

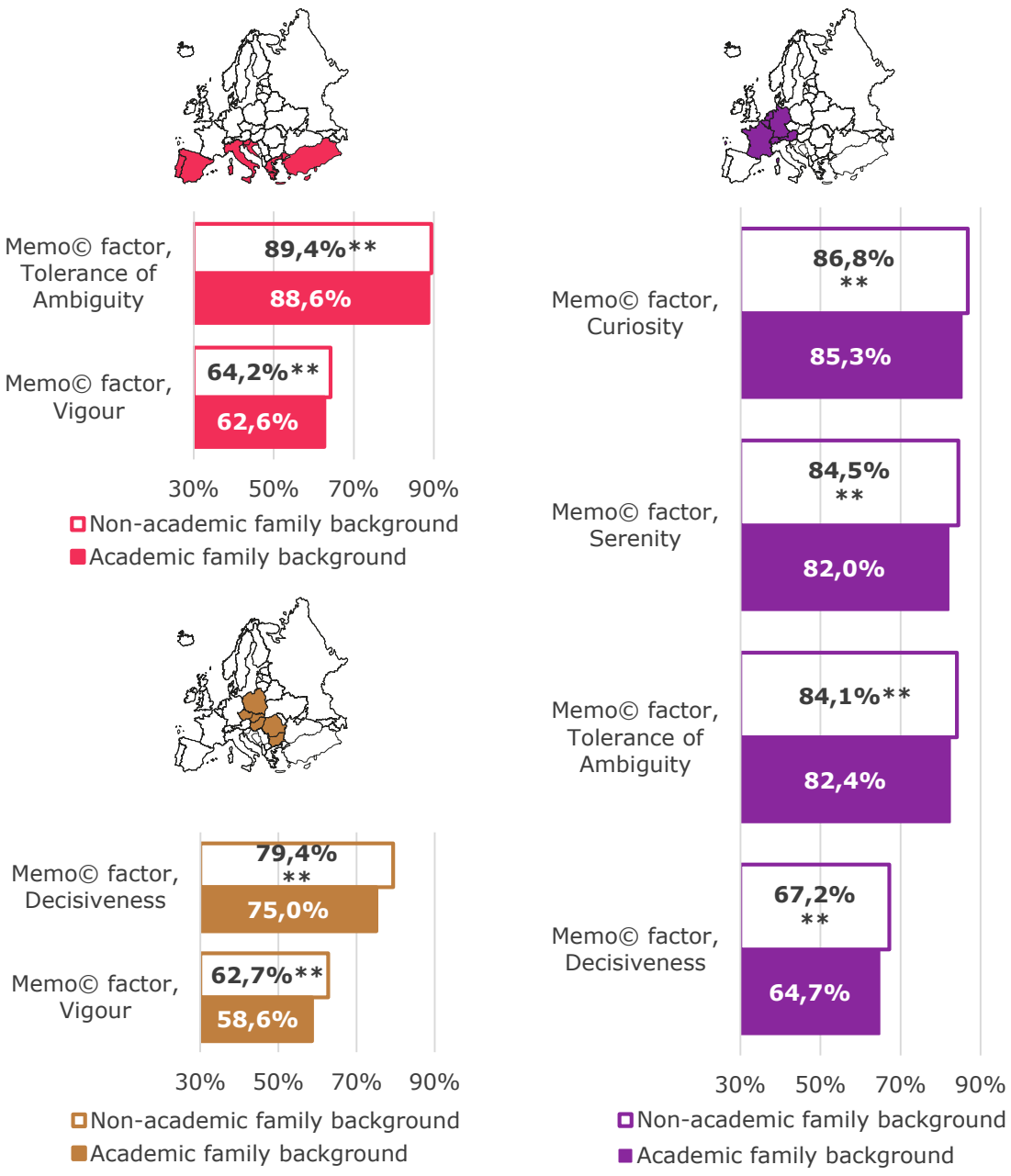
[24] The two dotted lines signify the thresholds for a small (0.2) and a medium (0.5) Cohen's d.

Figure 3-29 Perceived increase of memo© factors through mobility, Erasmus students, by country



In all the individual countries, more than 78% of students perceived an improvement in "Confidence", "Curiosity", "Serenity" and, with the exception of Sweden and Denmark, "Tolerance of Ambiguity". With the exception of "Vigour", at least half of the students in all countries and across all regions consistently felt they experienced a gain in their personality traits. Spain, Portugal, Romania, Bulgaria, the United Kingdom and Estonia were always among the countries with the highest share of students to perceive an improvement. On the other hand, Germany, Sweden, Finland, Denmark and all the Western European countries were often in the lowest group.

Figure 3-30 Perceived increase of memo© factors through mobility, Erasmus students, by family background and by region[25]

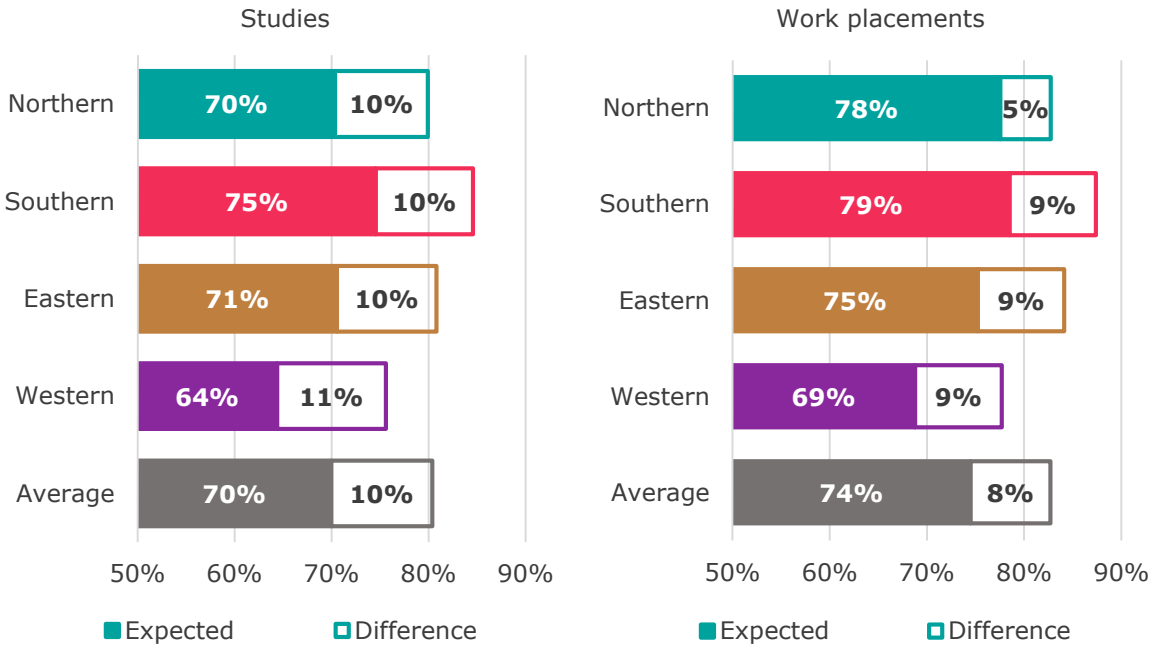


[25] Only results with statistically significant differences between students with an academic and non-academic family background are displayed.

Regarding the perceived development of individual factors for students with and without an academic family background, there were no significant differences in Northern Europe. These two groups differed substantially in the case of two factors in Eastern Europe ("Decisiveness" and "Vigour") and Southern Europe ("Tolerance of Ambiguity" and "Vigour"). In all four cases, more students from non-academic family backgrounds perceived an improvement through mobility. However, the region with the most substantial differences was Western Europe, where more students with a non-academic family background consistently perceived an improvement through mobility in all factors excluding "Confidence" and "Vigour".

From the personal perspective of the students, the mobility experience had the biggest impact on students with a non-academic family background

Figure 3-31 Comparison of expected vs. perceived increase of memo© total through mobility: perspective of students, study vs. work placement, by region



On average, across all regions, we see substantial differences between students on study and those on work placements. In general, more Erasmus students on work placements than those going abroad for studies both expected and perceived a change in their personality traits through mobility.

Students from Western Europe showed the lowest expected and perceived memo© total values for both types of mobility, in contrast to students from Southern Europe, who expected and perceived the highest development of their personality traits. Northern Europe was an exception with a relatively small difference between the number of students on work placements that expected and perceived a change.

88% of Erasmus students from Southern Europe on work placements perceive improvement of their personality traits – the highest share of all regions

Still, 83% of students on work placements from Northern Europe perceived a gain in the memo© factors through mobility. This is a larger share than for students from

Western Europe and significantly more than those who went abroad for studies from Northern Europe.

3.4 Conclusions

Now that we have analysed the perceptions regarding changes in personality traits, we can relate these findings to the opinions of the employers as well as the real changes that occurred within the different memo© factors.

The advantage of Erasmus students over non-mobiles was statistically significant, not only for the regions but for most countries as well. This means that in the vast majority of cases, even at the country level, Erasmus students had an advantage over non-mobile students in terms of employability even before going abroad. However, greater insight is gained from the regional patterns.

For **Eastern Europe**, the vast majority of employers were convinced of the value of the six personality traits. Erasmus students from this region did not only show high *ex ante* values for most factors (especially "Confidence") but also improved on them, fulfilling their plan to increase their career prospects through mobility (as seen in the previous chapter). They especially improved in the memo© factor "Tolerance of Ambiguity", the one factor they did not perform very strongly on prior to departure. On average, Erasmus students in Eastern Europe achieved the highest *ex post* level of personality traits among all regions. For Erasmus students in this region, mobility brought a measurable positive effect regarding their personality development. In Hungary, Erasmus students achieved even moderate Cohen's d effect sizes. Thus, Erasmus seems to be extremely beneficial to students in this region, especially regarding their employability, as it improves the aspects that their employers are specifically interested in. Moreover, is consistent with the expected and perceived improvement in personality.

If we recall, employers in **Northern Europe** considered the personality traits measured by the memo© factors more important than their peers in other parts of Europe. Four out of six memo© factors were considered very important/important by all employers in Northern Europe. On the other hand, Erasmus students from this region experienced a small overall loss in the memo© total and a substantial loss in two memo© factors: "Tolerance of Ambiguity" and "Serenity". Outliers in this region were Denmark[26] and Estonia with measurable effect sizes for Erasmus students to the positive, i.e. a measurable increase in personality traits. The only country in Northern Europe with a measurable effect size to the negative was the United Kingdom, where Erasmus students experienced a loss in their personality trait values. Sweden and Finland also showed relevant results in that Erasmus students did not show measurable effect sizes although employers in these two countries considered all personality traits highly important with five traits receiving the maximum of 100%. Thus, in these countries the gap between employers' needs and actual development in Erasmus students seems to be the largest. This is particularly true for "Tolerance of Ambiguity" and "Serenity", which were rather important to employers. Aspects of age were not specific in Northern Europe and could therefore not provide an explanation. However, from discussions with experts from the region, two possible explanations arose. Firstly, it was mentioned that students in Northern Europe usually enter university with mobility experience from school. This means that for them, mobility during studies is not the first experience of this kind and could therefore have a reduced effect of mobility during studies. Along the same lines, CIMO discovered in

[26] With a rather low sample size, however.

their study[27] that international experience is so common in Finland that most students have already done this at one point or another. This could be the same for other Northern European countries and may relate to the previous point regarding pre-university experiences, i.e. that because students in this region have a lot of international experiences outside Erasmus, when they do participate in Erasmus, the additional effect remains limited. On the other hand, the percentage of students that perceived a change, as well as the increase in the percentage of students who perceived an improvement compared to those who had expected one, was comparable to the average for all regions. The effect size for this development was also at a measurable level, unlike the effect size for the negative development in the memo© total, which was below the minimum and thus did not have much relevance. We see interesting differences between the countries, especially in the Northern European region. In Denmark and Estonia, we see a difference between measured and perceived change. While these countries showed measurable positive effect sizes for Erasmus students regarding memo© total, they did not do so for perceived change. In Sweden, Erasmus students did not show any measurable change in their personality traits but scored rather highly regarding the perceived change. The United Kingdom, on the other hand, was the only Northern European country with a measurable negative effect for Erasmus students regarding their personality traits. This, however, was not confirmed by the perceived change, which showed a small measurable positive effect (0.22). The difference between the expectations of employers and the measurable effects on Erasmus students was therefore substantial in Sweden and the United Kingdom.

As we have seen, employers in **Southern Europe** also considered the memo© factors very important. Notably, "Confidence", "Curiosity", "Decisiveness", "Serenity" and "Vigour" were more important in this region than in Western and Eastern Europe. Overall, employers in Southern Europe showed the least difference between the individual factors. For them, all were equally important. The levels of personality traits of students from this region were in line with the expectations before mobility and performed above average in the *ex ante* values for memo© total for mobile, Erasmus and non-mobile students. On average, students in Southern Europe showed the highest *ex ante* level for personality traits of all the regions. Therefore, students in Southern Europe were generally well prepared for the expectations of the labour market. This is consistent with a conscious intention to achieve this through mobility as well (see reasons for mobility in the previous chapter). Erasmus students in general experienced an overall positive development in their personality traits through mobility, even if not measurable, as the effect size and added value was influenced by an already high level of personality traits before mobility. This is also reflected in the perceptions and expectations. Prior to a stay abroad, the expectations were highest in Southern Europe, which also seems consistent with the relevance of mobility for employability, as displayed by the employers of that region and the objectives set by Southern European students, who went abroad to increase their career prospects and employability. Students in Southern Europe expected the most improvement and comprised the largest share of students that also claimed to have actually improved. For these students, the mobility experience confirmed their high expectations. However, in this region, it seems that, in reality, development is perhaps slightly less prominent than perceived. At the country level, the effect size of perceived change was especially high in Spain, which was also in line with a positive measured change in personality traits for Spanish students.

[27] http://www.cimo.fi/instancedata/prime_product_julkaisu/cimo/embeds/cimowwwstructure/32427_Faktaa_1_2014_Hidden_Competences.pdf

In **Western Europe**, employers were slightly more reserved about the relevance of the personality traits for employability than in other regions, although large percentages still recognised their value. This is in keeping with the students´ reasons for participation in mobility (see previous chapter), which put less emphasis on future employability in general. Students from this region usually started with substantially lower values than students from other regions, although Erasmus students still had a measurable advantage over non-mobiles. Therefore, mobility improved the values for Erasmus students, resulting in substantially higher results in all factors except for "Tolerance of Ambiguity". The effect of mobility in Western Europe was rather high and Erasmus therefore seems to have also had a positive effect on the employability of Western European students. Unlike other regions, these positive effects were experienced by students from both academic and non-academic family background, making both the experience and the increase in employability a socially indiscriminate benefit for this region. At the country level, Austria was an outlier with a substantial effect to the negative for Erasmus students. On the other hand, Erasmus students in the Netherlands showed an exceptionally large effect size to the positive. However, as "Tolerance of Ambiguity" was the most relevant factor for employers, HEIs should perhaps consider how students could be provided with more support to increase this personality trait during a stay abroad. The findings regarding personality development are in keeping with those regarding perceptions of improvement and expectations. Of all the regions, Western European Erasmus students were the most sceptical about the expected improvement of their personality through a mobility experience, and the difference between the percentage of students that had expected improvement before the stay abroad and those who perceived it upon return was highest in this region. There is quite an extraordinary difference between the actual, small change in personality and the substantial increase perceived by students regarding "Tolerance of Ambiguity". Moreover, the low levels of expectation prior to going abroad are coherent with the rather low importance that Western European students assigned to career and employability-related reasons prior to going abroad.

One factor may be revisited separately. As we recall, the memo© factor **"Tolerance of Ambiguity"** was the factor with the most interesting results among employers across all regions. Not only is it the personality trait that was considered important by employers in all regions most frequently, but it also shows the most substantial agreement among employers from all regions. It also showed the most ambiguous results at the regional level. Erasmus students in Southern and Western Europe did not demonstrate any effect regarding this trait, while students in Eastern Europe improved significantly (change of 3%). Students in Northern Europe, however, experienced a loss. "Tolerance of Ambiguity" even accounted for most of the negative experience for Northern European Erasmus students, with a substantial effect as measured by Cohen's d.

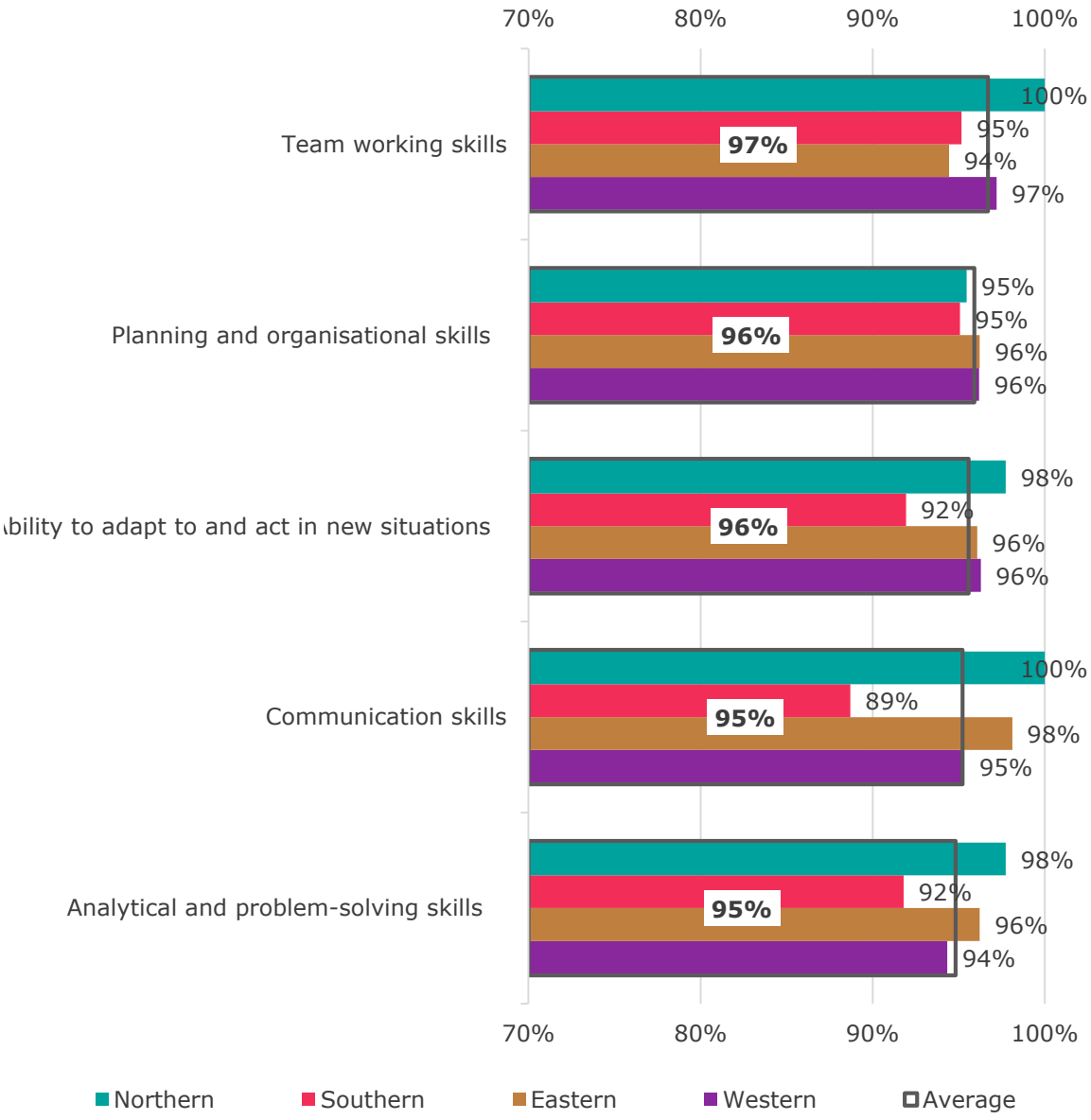
4 How do employability-related skills improve?

In addition to personality traits, EIS also analysed the perceptions regarding the effect of mobility on skills. In this chapter, we analyse the regional and country differences regarding this aspect.

4.1 The relevance of skills

Although the personality traits measured by memo© were widely agreed to be important for recruitment, there are undoubtedly other factors that are also relevant for employability. Employers were asked what skills they considered most important when recruiting new employees, while Erasmus and non-mobile alumni were asked about what their current companies considered important for recruitment.

Figure 4-1 Top 5 most important skills for recruitment, perspective of employers, by region



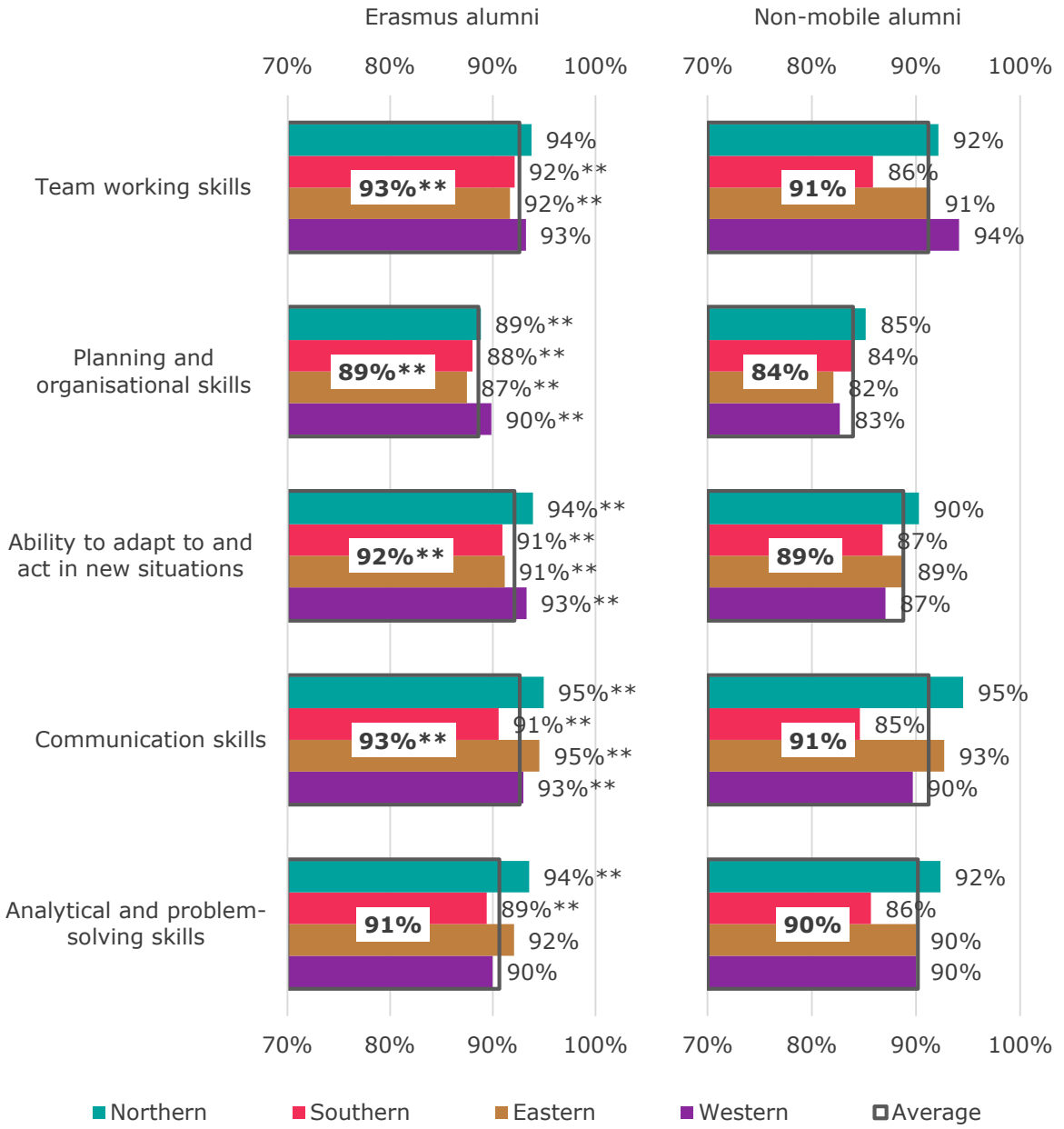
On average, across all regions, more than 95% of employers considered all top 5 skills important for recruitment in their companies. This level was also high at the regional level. In all individual regions, more than 90% of employers (with the minor exception of Southern Europe and "communication skills") considered the top 5 skills important. However, the ranking of the individual top 5 skills varied from region to region. In general, Northern European employers, as in the case of personality traits, valued the individual skills higher than other employers. On the other hand, in most cases, employers in Southern Europe considered these skills slightly less relevant compared to the other regions.

An addition to personality traits, Northern European employers value other skills higher than employers elsewhere

Figure 4-2 Top 5 most important skills for recruitment, perspective of employers, selected countries

At the country level, we are able to identify countries that do not follow their regional patterns. Bulgaria was a clear outlier when it came to the employers' perspective, with 3 out of 5 monitored skills below its regional average. The other negative outlier was France with a lower rating for "planning and organisational skills". On the other hand, 100% of employers in the United Kingdom considered "planning and organisational skills" relevant.

Figure 4-3 Top 5 most important skills for recruitment, perspective of alumni, by region



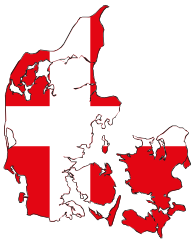
The top 5 skills considered most important by employers also remained the same among Erasmus and non-mobile alumni. Only the ranking of individual skills differed. Across all regions, an average of more than 80% of both Erasmus and non-mobile alumni confirmed the relevance of individual soft skills for recruitment. In every region, at least 82% of alumni considered each skill important for recruitment. These skills were particularly valued by alumni in Northern Europe and least in Southern Europe, as by employers.

Northern European alumni confirm the perspective of employers in their region

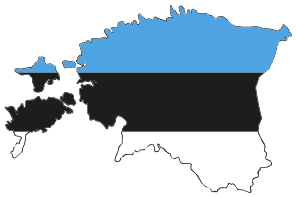
We see that Erasmus alumni across all regions value these soft skills (often significantly) more than non-mobiles and tend to reflect the employers' perspective more closely. Within the regions, we find the largest average difference between Erasmus and non-mobile alumni in Southern Europe, particularly regarding "communication skills" and "team working skills". There was also a substantial difference in Western Europe regarding "planning and organisational skills". On the other hand, Northern Europe showed the smallest difference between Erasmus and non-mobile alumni, indicating that essentially all students in this region considered soft skills crucial for recruitment.

In all regions, Erasmus alumni understand the employers' perspective regarding the importance of soft skills for recruitment much better than non-mobile alumni

Figure 4-4 Top 5 most important skills for recruitment, perspective of Erasmus alumni, selected countries



83% Analytical and problem solving skills



97% Planning and organisational skills

88% Communication skills

80% Team working skills

Higher than regional average by more than 5%

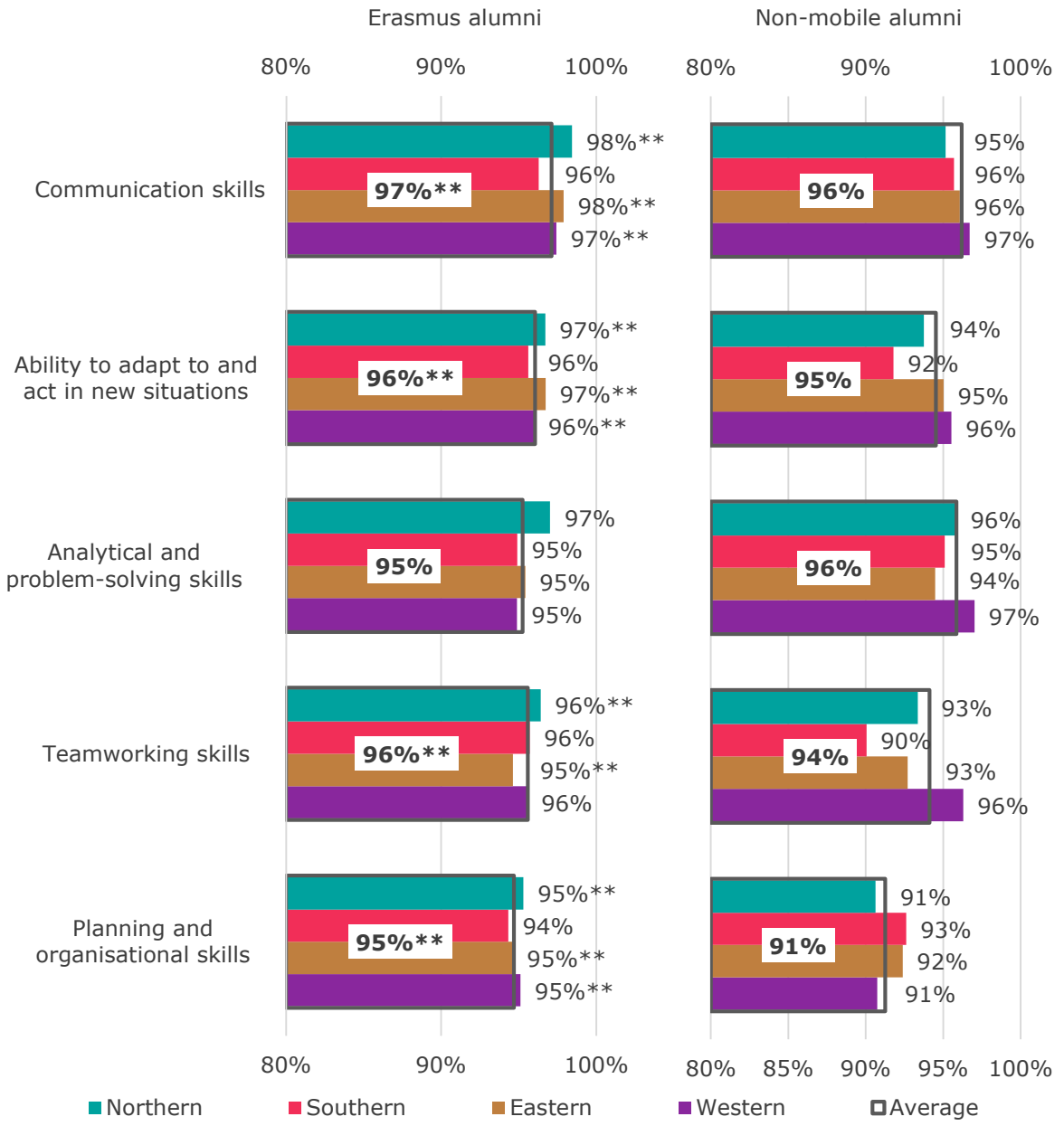
Lower than regional average by more than 5%

At the country level, some countries exhibited results substantially lower than their regional averages. Denmark displayed results below its regional average for "analytical in problem solving skills" while alumni from Romania assigned less value to "communication skills" and "team working skills" than their regional counterparts.

However, there were also positive outliers among the countries. In general, Erasmus alumni in Estonia valued the relevance of the soft skills very highly, especially "planning and organisational skills", where the result surpassed the regional average by more than 5%.

Estonian Erasmus alumni value the relevance of the top 5 soft skills for recruitment more highly than in other countries in the region

Figure 4-5 Top 5 most important skills for a successful career, perspective of alumni, by region



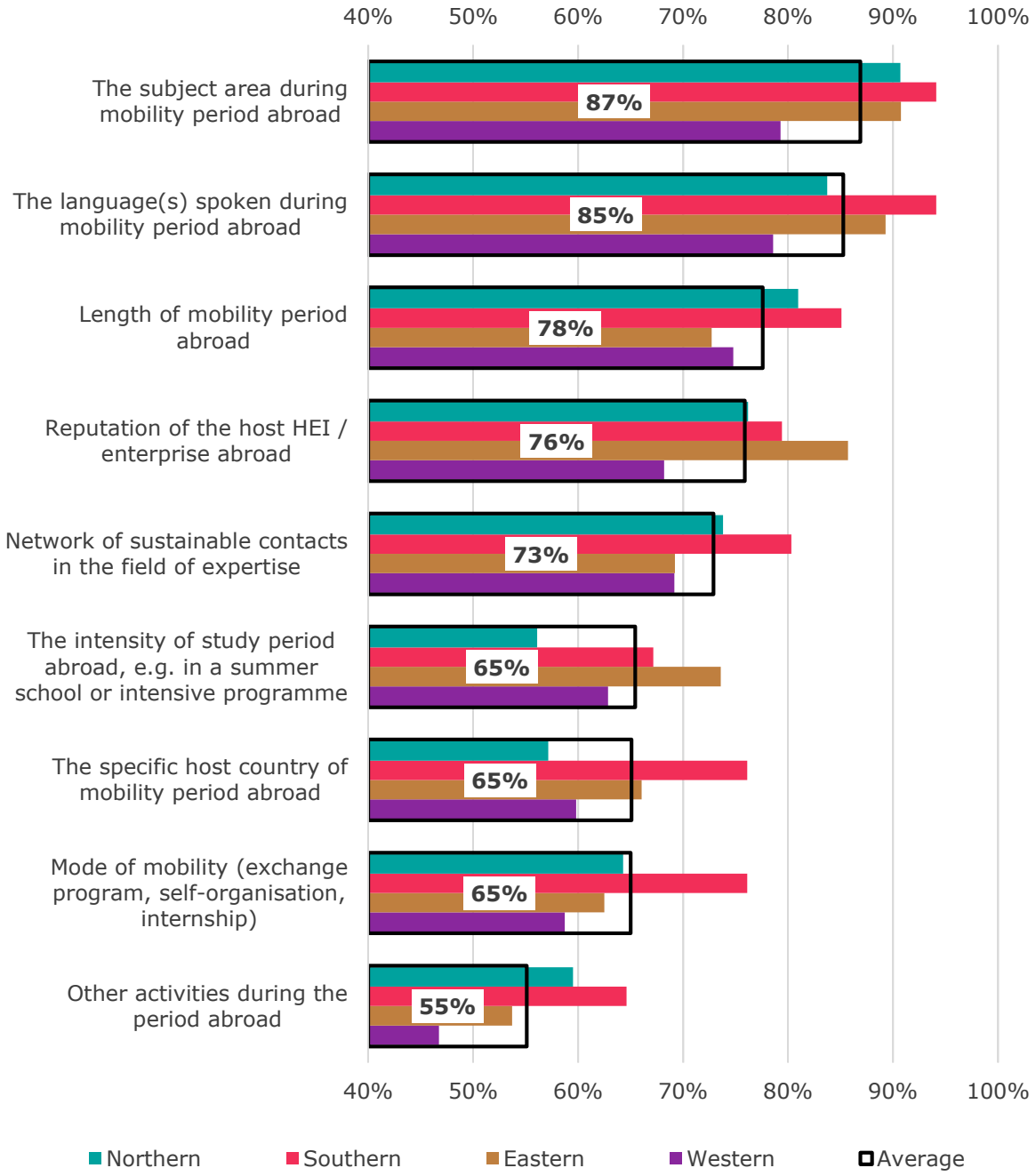
Alumni were also asked about the relevance of the soft skills for a successful career in their respective field, as, in contrast to employers, they were able to answer this from a personal perspective. On average, across all regions all top 5 skills were

In all regions, Erasmus alumni consider the soft skills more important for career success than non-mobile alumni

considered important by more than 90% of alumni, both Erasmus and non-mobile.

Regarding the differences between Erasmus and non-mobile alumni, we see that across all regions Erasmus alumni considered the soft skills more relevant for a successful career than non-mobile alumni. This difference was significant for all skills except "analytical and problem-solving skills". The only region that did not show any significant differences between Erasmus and non-mobile alumni was Southern Europe.

Figure 4-6 Importance of aspects of stay abroad for employment, perspective of employers, by region

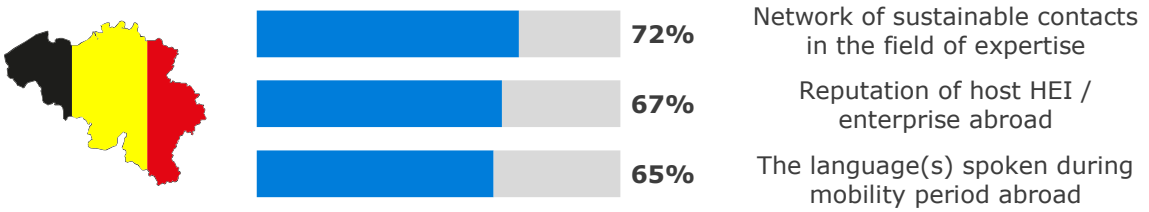


In addition to general skills, employers were asked to evaluate specific aspects of stays abroad that they consider important when recruiting mobile alumni. Across the regions, the subject area and the language spoken during the mobility period abroad

were most important, especially in Southern Europe, which had an average far above the European average. Eastern European employers also rated most aspects above average. In contrast, Western European employers considered all aspects substantially less relevant than their counterparts in other European regions.

The rankings for these aspects of stays abroad were not the same for all regions. For example, in Eastern Europe the intensity of the study period abroad was valued as much as the length of the period abroad while much more importance was assigned to the reputation of the host institution – in fact the highest of all regions with 86%.

Figure 4-7 Top 3 aspects of stay abroad for employment, perspective of employers, outliers on country level

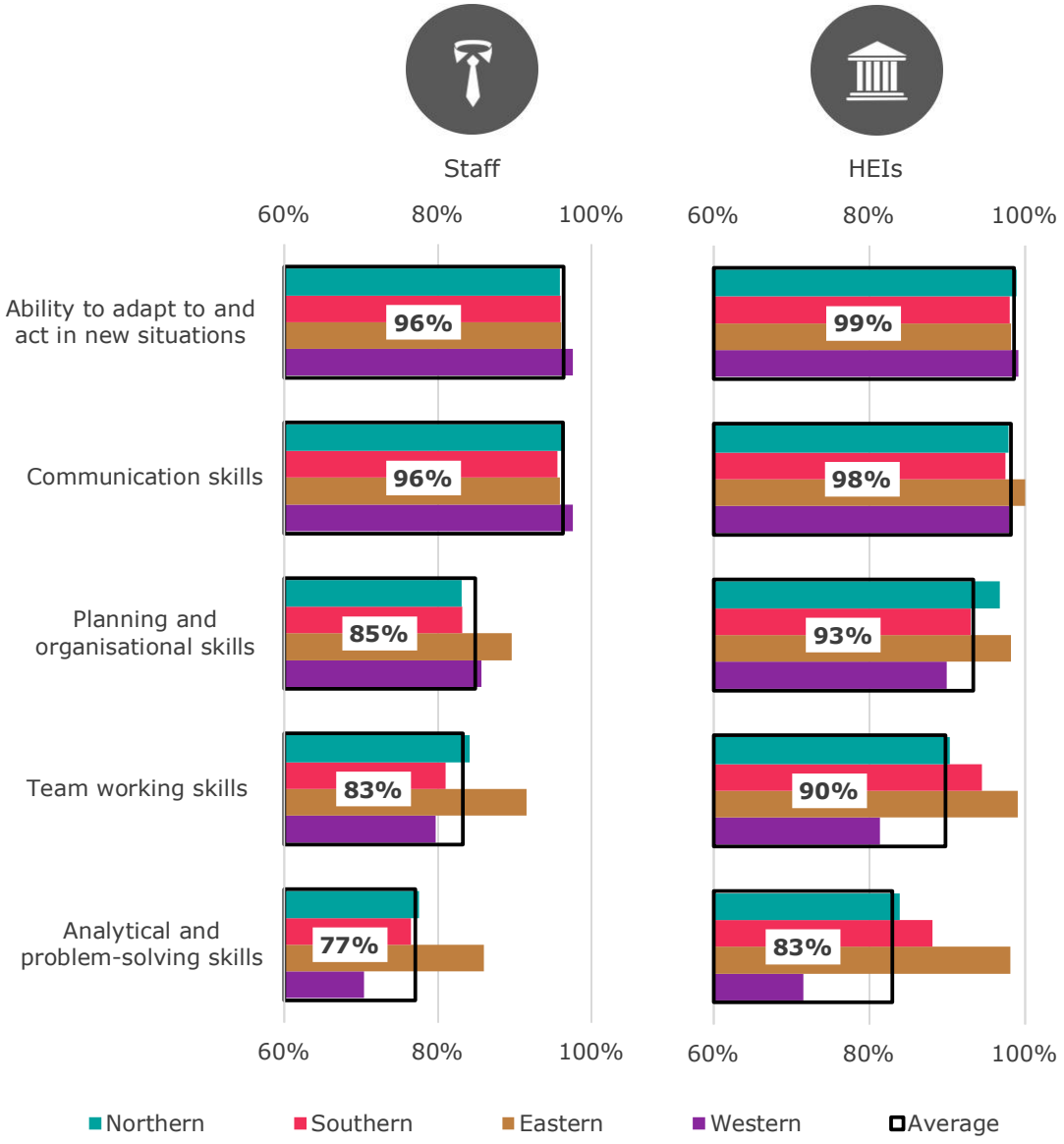


Among the countries, Belgium exhibited exceptional results within this category. The network of relevant sustainable contacts and the reputation of the host institution were considered the two most important aspects while the two most popular factors across the sample were ranked below average: just 60% of employers in Belgium considered the subject area during mobility to be important compared to the average of 87% of employers. Also, only 65% of employers in Belgium considered the language relevant while the average was 85% for the entire sample.

Belgian employers consider creating a network of contacts and staying at a highly reputed institution the most important aspects of a stay abroad in terms of employment

4.2 Perceived development of skills through mobility

Figure 4-8 Expected improvement in the top 5 skills through mobility, perspective of staff and HEIs, by region



The previous section demonstrated a broad consensus among employers as well as alumni regarding the relevance of the top 5 most important skills for recruitment and career development. In this chapter, we will address whether these skills are also (perceived to be) developed through mobility.

HEIs and staff were asked whether they perceived students' skills to improve through mobility. Across Europe, in all regions and countries, there was a broad consensus that the "ability to adapt to and act in new situations" and "communication skills" were developed through mobility.

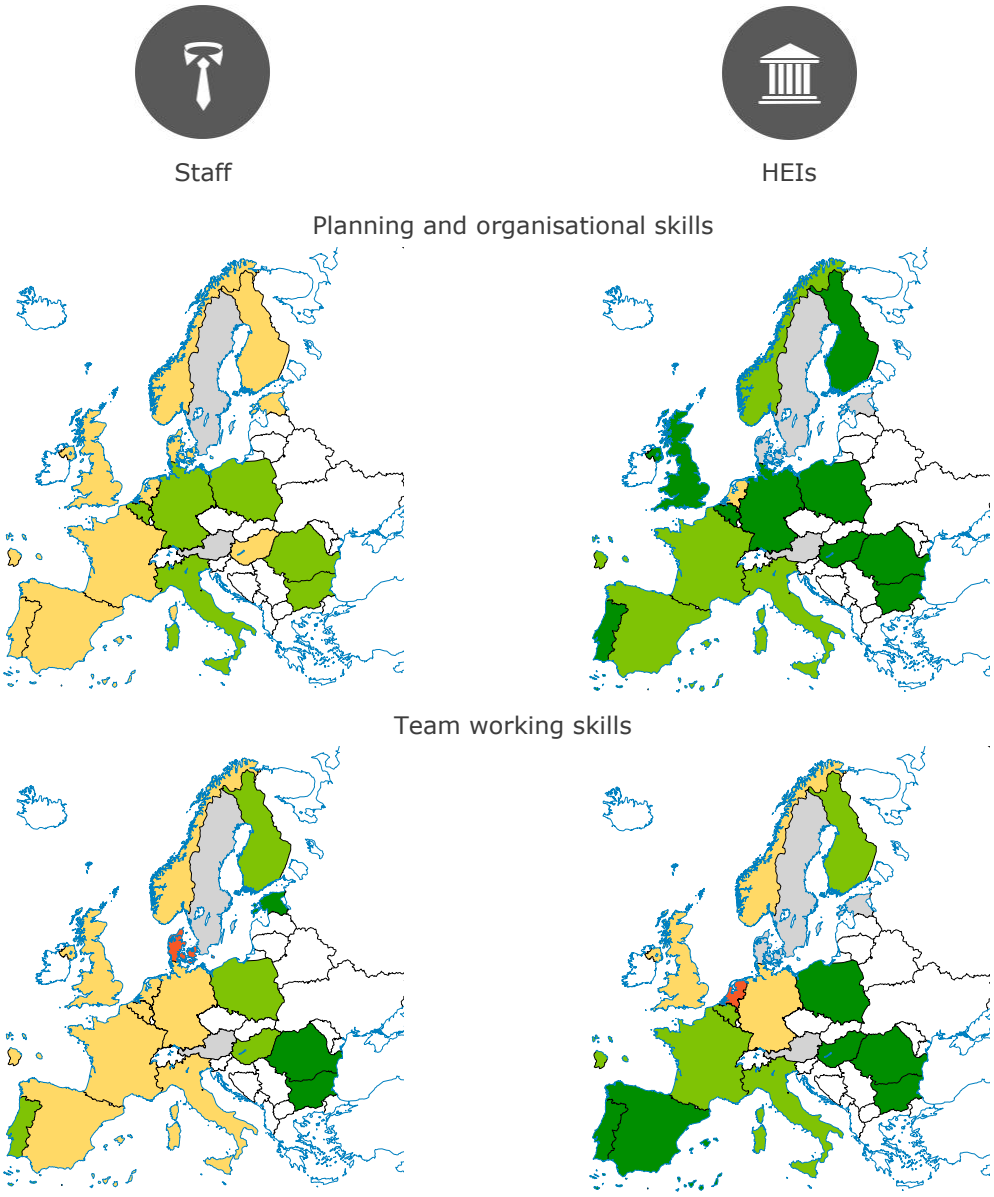
HEIs and staff across Europe perceive students' ability to adapt and communication skills to improve through mobility

For the three remaining skills, there were substantial differences between the individual regions. The perspective of staff and HEIs from Eastern Europe was always

the most positive – almost all HEIs in Eastern Europe expected their students to improve in the top 5 skills as a result of mobility. On the other hand, the perspective from Western Europe was usually the most sceptical. The expected improvement of "analytical and problem-solving skills" was especially low from the perspective of both HEIs and staff.

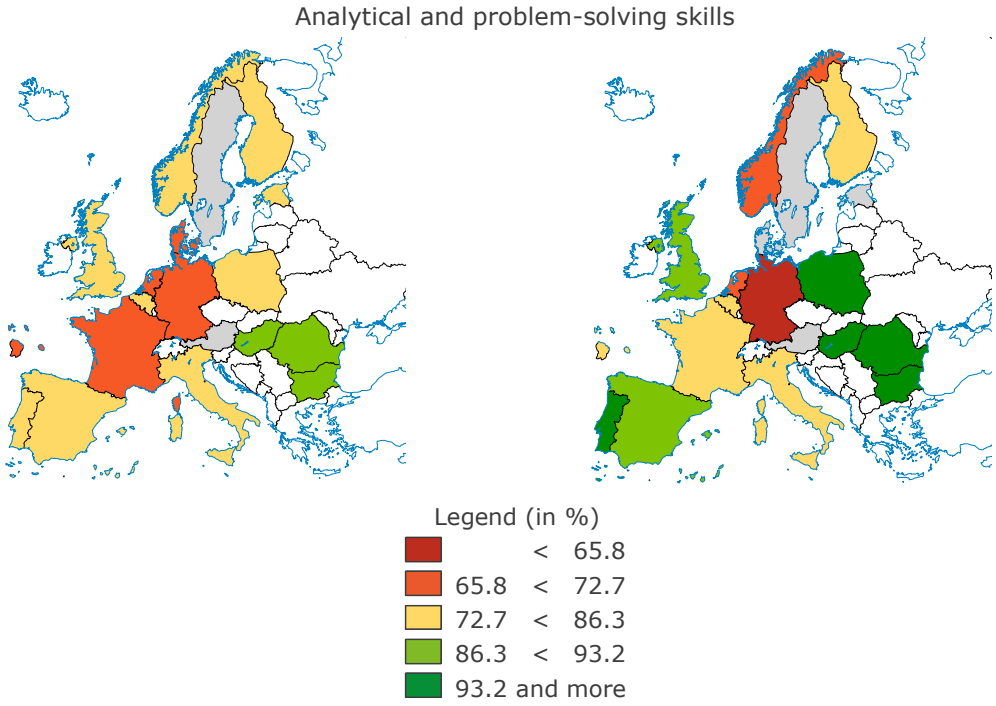
Eastern European HEIs and staff are most convinced about the improvement of students' skills through mobility

Figure 4-9 Expected improvement in three of the top 5 skills[28] through mobility, perspective of staff and HEIs, by country[29]



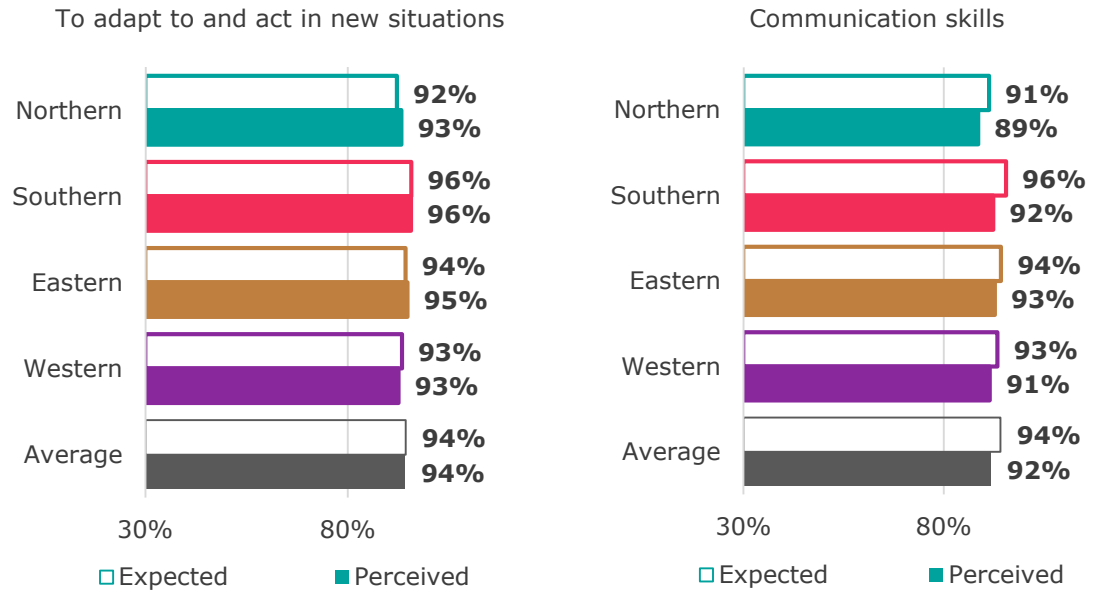
[28] Only three skills are displayed as practically no variance exists between the countries for "ability to adapt to and act in new situations" and "communication skills".

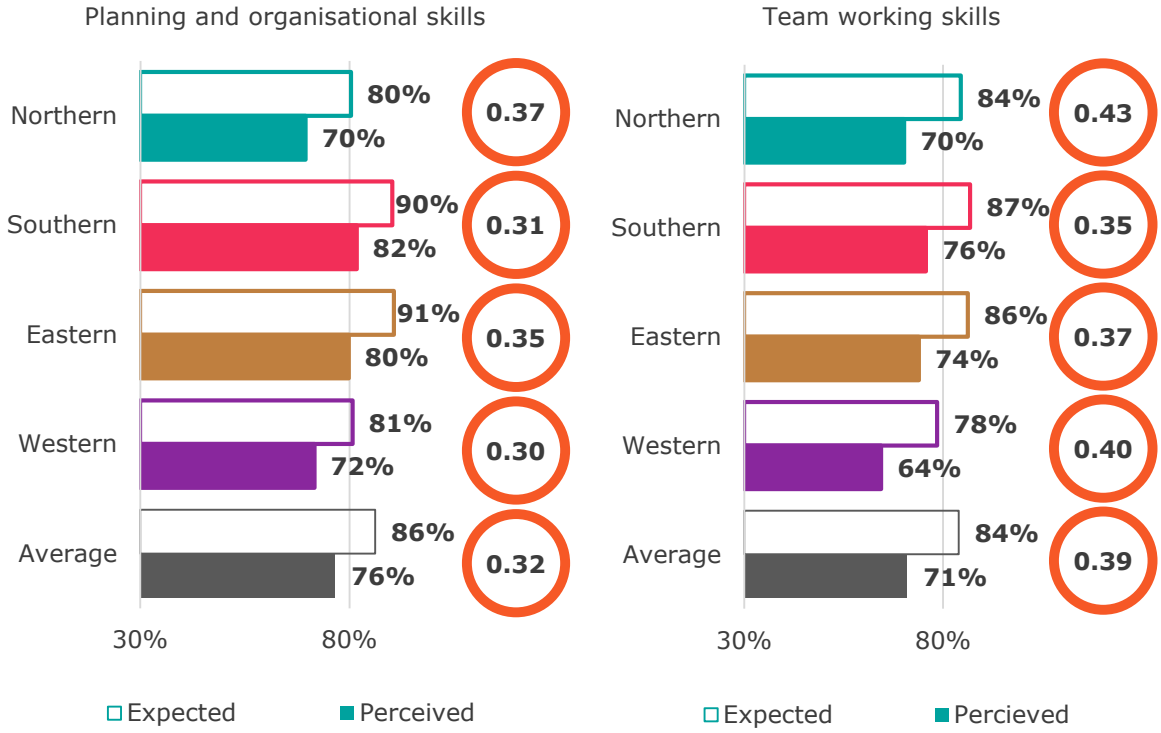
[29] In this figure, the results have been omitted for staff in Sweden and Austria as well as HEIs from Sweden, Austria, Estonia and Denmark as a very small number of respondents answered this question, and their inclusion could bias the interpretation of results for other countries.

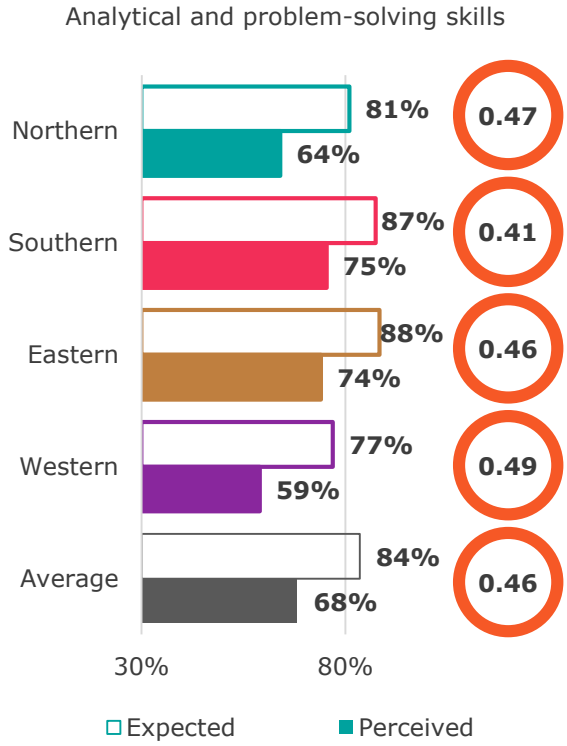


With regards to the skills displayed, countries tended to reflect the European and regional patterns with just a few exceptions. Regarding expected improvement in "team working skills", staff members in Denmark (68%) and HEIs in the Netherlands (67%) were exceptionally sceptical. In the case of "analytical and problem-solving skills", all HEIs in Hungary, Romania, Bulgaria and Portugal shared the belief that students improve these skills through mobility, which starkly contrasts the view in Germany and Norway (59% and 69% respectively). This value for Germany (59% of HEIs expecting students to improve in "analytical and problem-solving skills") was also the lowest value across all the countries and for the top 5 skills.

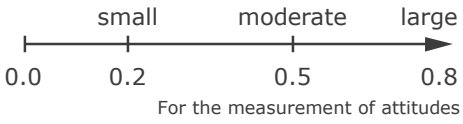
Figure 4-10 Expected and perceived improvement in the top 5 skills through mobility measured by Cohen's d, perspective of Erasmus students, by region







Cohen's d: Mean difference between two groups in standard deviation units.



Prior to their departure, students going abroad were also asked about the skills they expected would improve during their mobility period. On average across all regions, their responses were very close to those of staff: 94% of students believed their "ability to adapt to and act in new situations" and their "communication skills" would

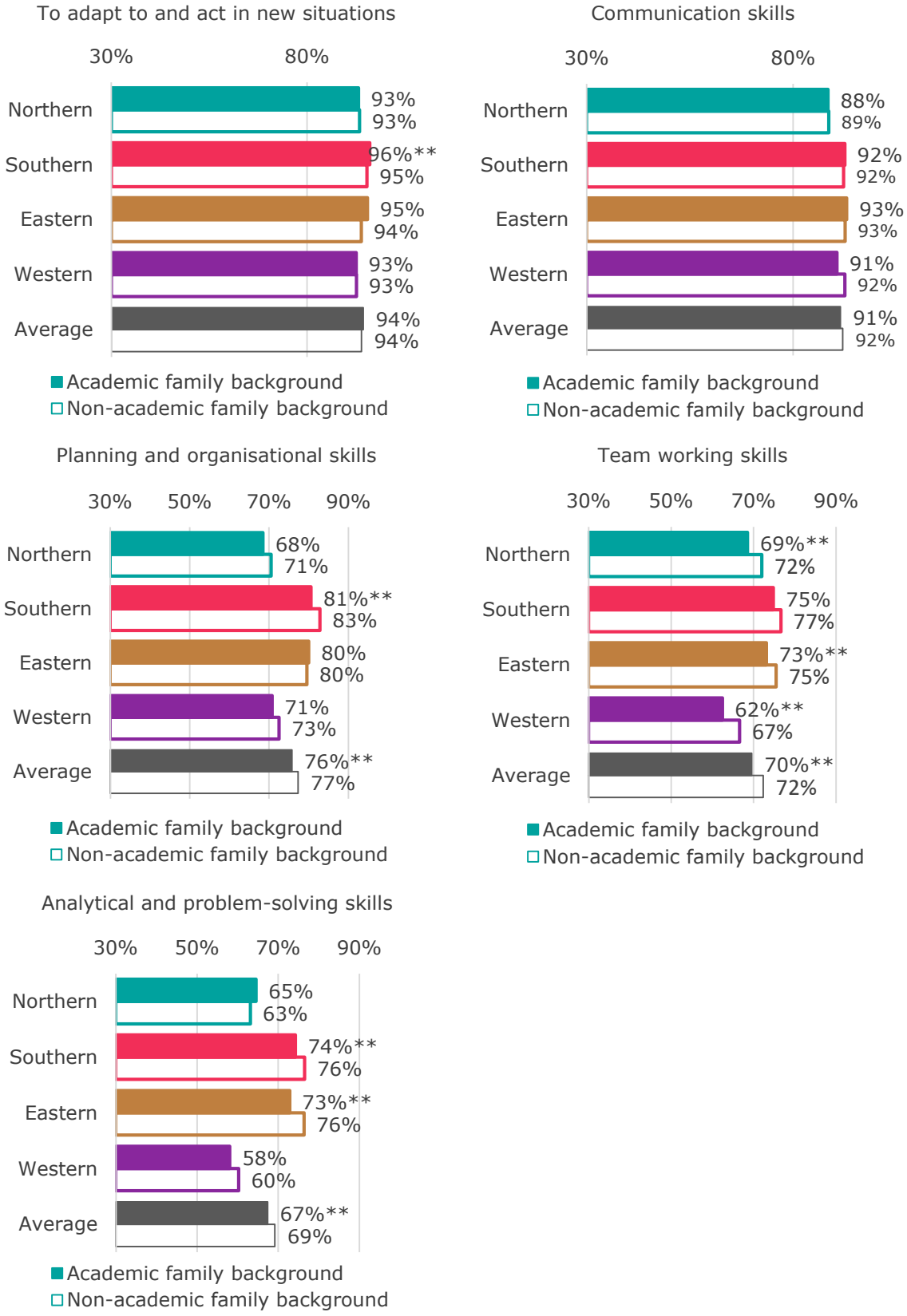
More than 90% of Erasmus students in all regions agree that their ability to adapt and their communication skills improved through mobility

improve through mobility. For the other three top 5 skills, more than three quarters of Erasmus students in all regions expected improvement in these areas. Among the regions, the greatest expectations were declared by students from Southern and Eastern Europe.

Upon returning from the mobility period, students in all regions reported lower levels of improvement in those skills than they had expected before mobility. This result contrasts the findings for personality traits where consistently more students perceived an improvement after the mobility period than those who had expected it beforehand. Still, the main message regarding the Erasmus students' perspective on expected and perceived improvements of their skills through mobility remains distinctly positive – a clear majority of students in all regions perceived an improvement in all of the top 5 important skills for recruitment through mobility. Nevertheless, we see some variance among the regions in the perceived improvements as well as differences between perceptions and expectations, both at the regional and country levels.

In all regions, more than 90% of Erasmus students agreed that their "ability to adapt to and act in new situations" and "communication skills" (with the minor exception of 89% in Northern Europe) improved. For the three other skills, across all four regions, substantially fewer students perceived an improvement than those that initially had expected one. The difference was greatest for "analytical and problem-solving skills" and "team working skills" in Western Europe (difference of 18% and 14% respectively) and in Northern Europe (difference of 17% and 14% respectively). Southern and Eastern Europe were usually quite similar and consistently exhibited a slightly smaller difference. Furthermore, these two regions were always above average and Southern Europe also showed the largest proportion of Erasmus students who believed their skills improved through mobility (with a share consistently equal to or greater than 75%). These findings are confirmed by the effect sizes measured by Cohen's d, which are considerable for all three skills.

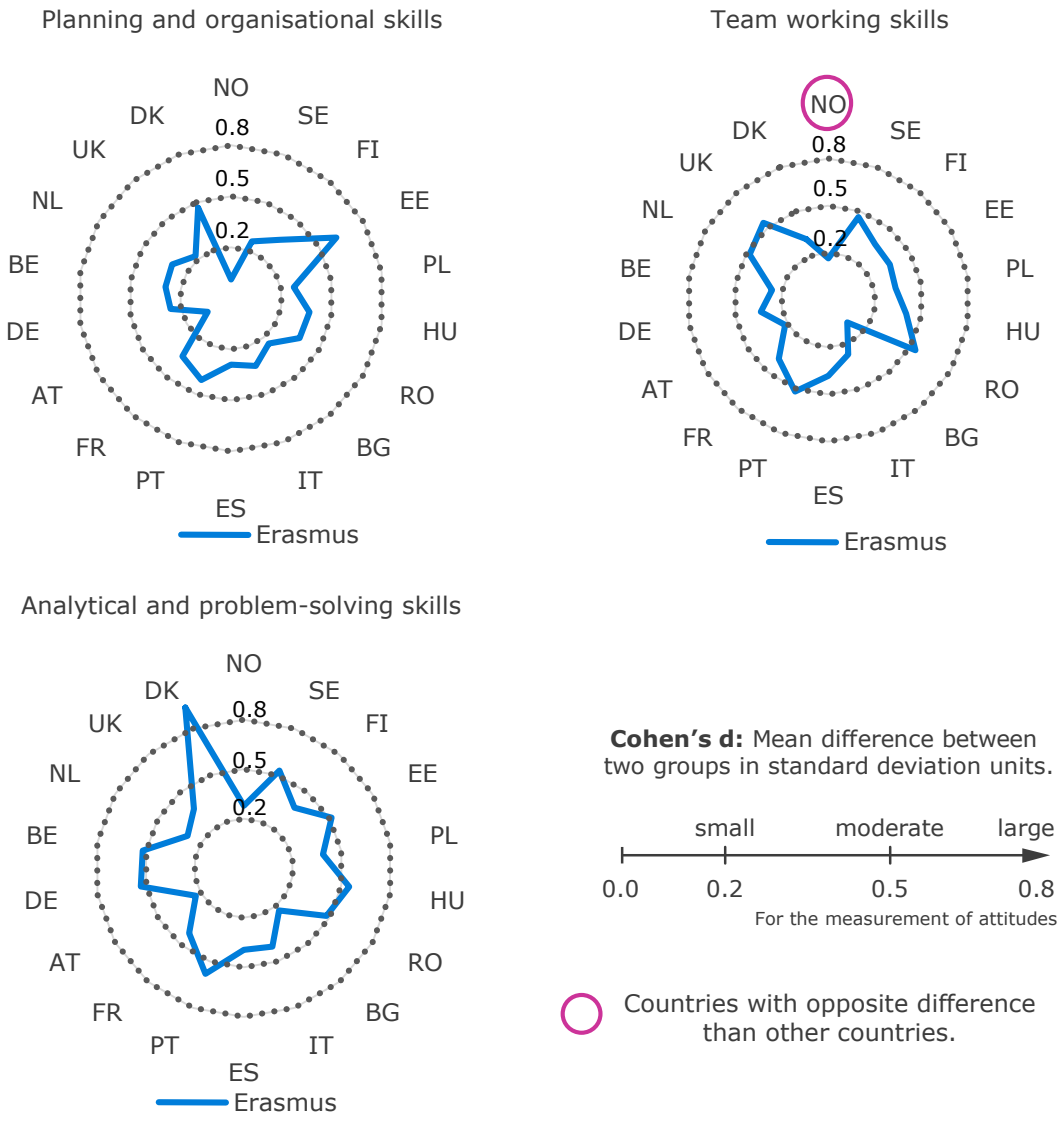
Figure 4-11 Perceived improvement in the top 5 skills through mobility, perspective of Erasmus students, by family background and by region



In most skills, students with non-academic family background perceive more gain than those with academic family background

On average, across all regions, students without an academic family background perceived an improvement in their skills more often than those with an academic family background. This was true for all the top 5 skills except "ability to adapt to and act in new situations" where the difference between the two groups was negligible. In all individual regions, significant differences for at least one of the top 5 skills were reported in favour of students without an academic family background. The only exception was Southern Europe, in which more students with an academic family background saw improvement in their "ability to adapt to and act in new situations".

Figure 4-12 Difference between expected and perceived improvement in three of the top 5 skills[30] through mobility measured by Cohen's d, perspective of Erasmus students, by country



[30] Only three skills are displayed since there is almost no variance among countries in the "Ability to adapt to and act in new situations" and the "Communication skills".

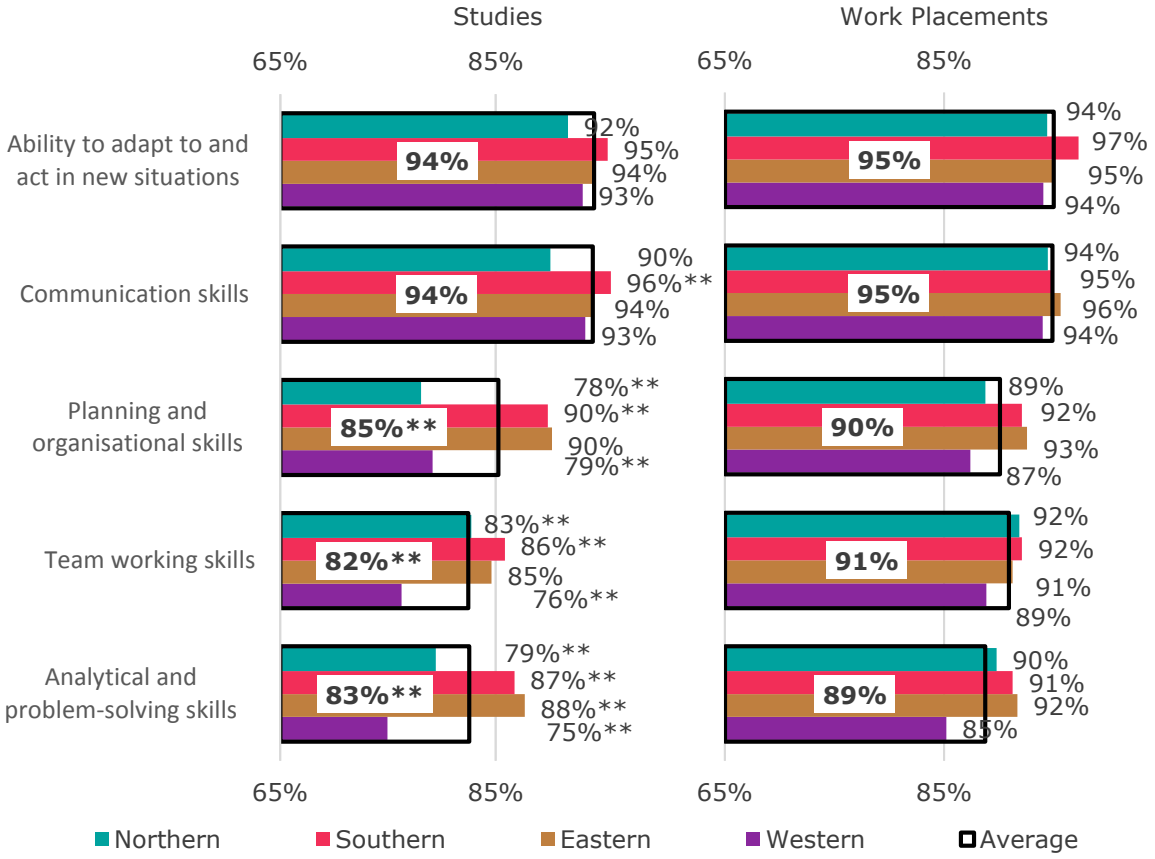
We have not displayed all expected and perceived values for the countries. Instead, we have focused on the effect sizes as they identify the countries exhibiting the biggest change between the expected and perceived impact of mobility on skills. Focusing on the three skills, which exhibit a coherent pattern across all regions, we see that a consistent pattern emerges across the countries. In all but one of the cases, the effect is a negative one: fewer students perceived an improvement of skills than those who had expected such a change. The effect size falls above the 0.2 threshold for all countries regarding "analytical and problem-solving skills", meaning that all of these results are relevant. Moreover, we see several countries with a moderate change: Sweden, Estonia, Hungary, Portugal, Germany and Belgium. Denmark is an extreme outlier with an effect size beyond the threshold of 0.8; in other words, this country exhibits a large effect to the negative. This means that very few Danish students believed their analytical and problem-solving skills had benefited from mobility than initially expected.

Very few Danish students believe their analytical and problem-solving skills improved through their mobility compared to those that had expected to before departure

For "team working skills", the negative effect is measurable in all countries except Bulgaria and, by a small margin, Norway (the only country with a positive change for this skill). Moderate effect sizes were observed in the United Kingdom, Romania and Portugal.

Regarding "planning and organisational skills", Norway and Austria are the only countries that do not show a measurable effect. Estonia, on the other hand, is the only country with a moderate effect. Romania is also an exceptional case in that it is the only country with measurable effect sizes in all five skills and all of them to the negative. In other words, Romania was the only country across all regions where significantly less students perceived an improvement of their skills compared to their expectations.

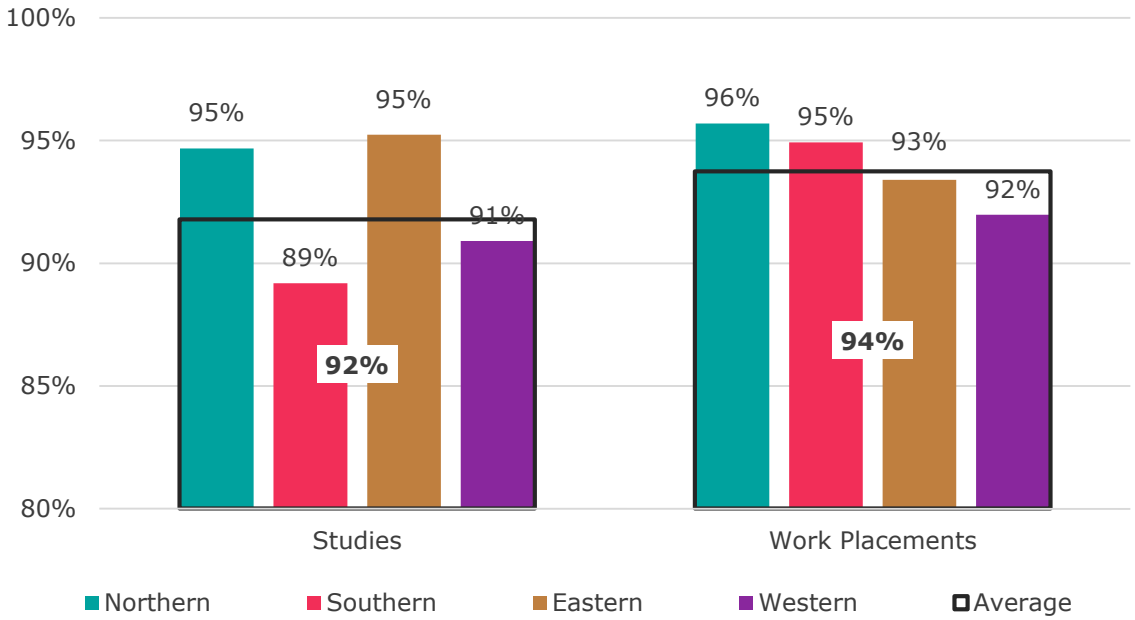
Figure 4-13 Perceived improvement in the top 5 skills through mobility, perspective of Erasmus students, studies vs. work placements, by region



Whilst we could not find substantial differences between study abroad and work placements regarding perceived personality development (see chapter 3 for further details), there were differences when assessing the perceived development in the top 5 skills through mobility. On average, across all regions, students on work placements consistently perceived improvement of their skills more frequently than those on study abroad. Among the regions, statistically significant differences between studies and work placements were identified for at least one of the regions with respect to four of the top 5 skills. In the case of "analytical and problem-solving skills", the difference was significant for all regions.

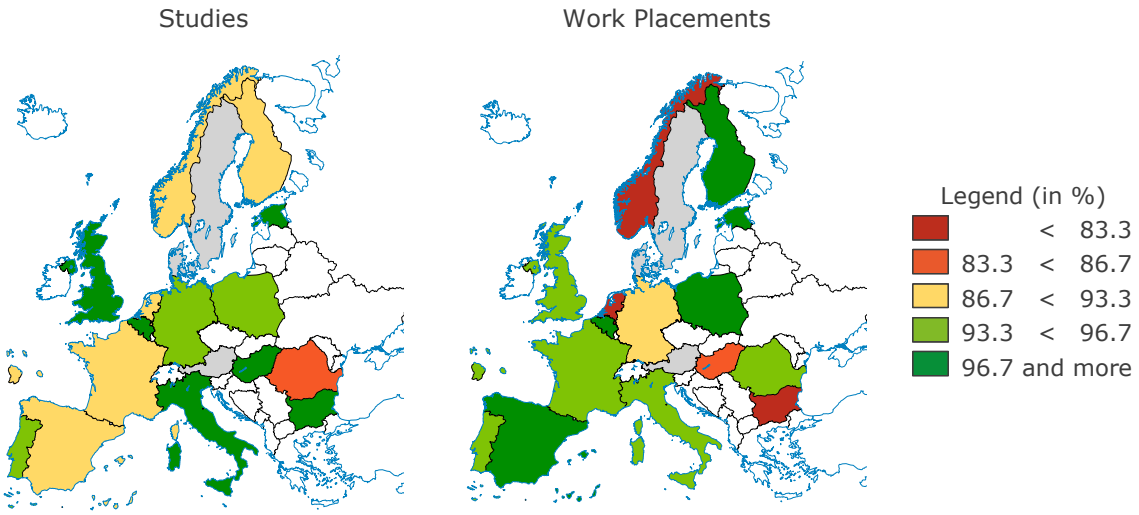
Western and Northern Europe were the regions with the biggest difference (and often significant) between the two mobility types, mainly due to a lower percentage of students on studies perceiving improvement in the top 5 skills in these regions (usually below the European average). At the same time, in Southern and Eastern Europe, students who went abroad for studies showed exceptionally positive results in the perceived improvement of their skills (in Southern Europe the difference between studies and work placements was significant for all top 5 skills). In general, regardless of the type of Erasmus action, students from Southern and Eastern Europe perceived the development of their skills through mobility the most.

Figure 4-14 Impact of Erasmus actions on employability, perspective of HEIs, by region



Investigating the impact of Erasmus actions on employability of students from the perspective of higher education institutions does not reveal a clear regional distinction. On average, across all regions, HEIs are generally optimistic about the impact of both Erasmus actions on employability. In Southern Europe, there is a relatively large (6%) difference in favour of work placements. A smaller difference (2%) is also present in Eastern Europe but in favour of studies.

Figure 4-15 Impact of Erasmus actions on employability, perspective of HEIs, by country



However, there was a substantial variance at the country level in the evaluation of the impact of Erasmus actions on employability. In Estonia and Belgium, 100% of HEIs believed that both types of mobility had had an impact on students' employability. A significant difference in favour of work placements was observed in Finland (difference of 13%), Romania (11%) and Spain (10%). However, in reality, this, does

not necessarily translate into high shares of work placements within the overall Erasmus mobility of a country. For example in Spain, work placements account for 15% of all mobility (data from the academic year 2012–13), which puts Spain in the lower 20% across the entire Erasmus area. With a share of 23%, Finland is also only average (top 50%), while Romania is in fact the leading country in Europe with work placements accounting for 36% of its overall Erasmus mobility.

In contrast, study periods abroad were in some countries considered to have an impact more often than work placements, especially in Bulgaria (by 20%), Hungary (15%), the Netherlands (8%), the United Kingdom (7%) and Norway (6%). Again, this does not necessarily translate into a lower share of work placements in these countries: Bulgaria is average (top 50%) with 22%; Hungary is in the top 40% with 24%; the Netherlands are in the top 20% with 32%; and Norway falls towards the bottom of the last segment with just 6% of all Erasmus students going on work placements.[31]

4.3 Conclusions

Overall, this chapter demonstrates that in addition to the personality traits measured by the memo© factors, other skills are also relevant for recruitment and a successful career, as confirmed by employers and alumni. Across the regions, we consistently see that HEIs and staff also believe that Erasmus improves many of the students' skills. This is consistent with the students' expectations prior to their study abroad.

However, we also see that the students' expectations before mobility do not necessarily correspond with their perceived improvement in the various skills after mobility. In all regions, a large percentage of students expected to improve their different soft skills, which was also one of the main reasons they decided to take part in mobility programmes in the first place (as shown in chapter 2). However, after returning from their stay abroad, on average, the percentage of students that perceived an improvement in their skills decreased in all regions. This was particularly true for three of the 5 top skills. The situation was only different in the case of "ability to adapt and act in new situations" and "communication skills", where similar shares of students both expected and perceived an improvement in all regions.

In **Eastern Europe**, both employers and alumni found the top 5 skills highly important for recruitment and a successful career. "Communication skills" in particular seemed to be of great significance in Eastern Europe. Employers also assigned exceptional importance to the reputation of the host institution, especially in Poland. On the other hand, in Bulgaria, employers considered "communication skills", the "ability to adapt to and act in new situations" and "team working skills" less relevant than other employers in the region. In Romania, Erasmus alumni assigned less importance to "communication skills" and "team working skills" compared to their counterparts in the region. In general, Erasmus alumni in Romania were the most sceptical in Europe with an average of 86% of them considering individual skills relevant for recruitment. University staff and HEI representatives in the region expected that all top 5 most important skills would be improved through mobility. In particular, they were more optimistic about the development of "team working skills", "analytical and problem-solving skills" and "planning and organisational skills" than in the other regions. This corresponded with the students' expectations before departure, which was the highest in Eastern Europe (similar to Southern Europe). In terms of the difference between expected and perceived improvement, Eastern Europe also followed the slightly negative trend found in all regions, however the share of students

[31] For the share of work placement in all Erasmus mobilities see: http://ec.europa.eu/education/library/statistics/ay-12-13/annex-6_en.pdf

who perceived improvement in the individual top 5 skills was always higher than the average across the regions. Students without an academic family background perceived a significantly higher improvement in "analytical and problem-solving skills" and "team working skills". At the country level, Romania was the only country across all regions where significantly less students perceived an improvement of their skills compared to their expectations. Regarding differences between Erasmus mobility for studies and work placements, Eastern European students showed comparable results for both actions, with the exception of "analytical and problem-solving skills", which was considered to increase significantly more through work placements.

In **Northern Europe**, employers and alumni typically valued all top 5 skills more than in other regions, both in terms of recruitment and a successful career. 100% of employers in Northern Europe valued "communication skills" and "team working skills" highly and in the United Kingdom, 100% of employers considered "planning and organisational skills" important for recruitment. Estonian alumni assigned particularly high value to "planning and organisational skills" for recruitment (greater than the average for the region). Estonia was also the country with the highest average percentage of Erasmus alumni that considered the top 5 skills relevant for recruitment (98%). Erasmus alumni in Denmark, on the other hand, assigned less importance to "analytical and problem-solving skills" compared to the average for the region. HEIs and university staff in Northern Europe also expected improvement in most of the top 5 skills, although they were not as optimistic as their counterparts in Eastern Europe. In some countries, the expectations were lower than the regional average, especially for staff members in Denmark regarding "team working skills" and "analytical and problem-solving skills" (the latter also applied to HEIs in Norway). In general, there was a bigger difference between the students' expected and perceived improvement in the top 5 skills compared to the other regions, especially for "team working skills", "analytical and problem-solving skills" and "planning and organisational skills". The perceived improvement of skills was consistently below the total average for the regions. This development was particularly pronounced in some of the Northern European countries. Denmark exhibited a large negative effect regarding "analytical and problem-solving skills". It also demonstrated a substantial negative effect regarding "planning and organisational skills". Another interesting country was Norway, which despite showing a negative effect for "analytical and problem-solving skills", achieved positive change for "team working skills" and just a minor non-measurable negative effect for "planning and organisational skills".

In most cases, **Southern European** alumni and employers considered the top 5 skills less important than those in other regions, both for recruitment and a successful career. For employers and alumni, "communication skills" were less important than in other regions. For alumni, "analytical and problem-solving skills" also scored lower than in the other regions, especially among non-mobile alumni. On the other hand, employers in Southern Europe considered all aspects of a stay abroad more important for employment than in other regions. Southern Europe showed results quite similar to Eastern Europe regarding opinions of HEIs and staff. Although staff and HEI expectations regarding the improvement of the top 5 skills were not as high as in Eastern Europe (with the exception of Portugal and Spain, where HEIs were extremely optimistic), these two regions exhibited the greatest levels of student expectations for the improvement of skills during mobility. Furthermore, the perceived improvement in individual top 5 skills was consistently higher than the total average across the regions. Students without an academic family background perceived a significantly higher improvement in "analytical and problem-solving skills" and "planning and organisational skills" than students with an academic family background. On the other hand, students with an academic family background perceived higher development of their "ability to adapt to and act in new situations". As in Eastern Europe, the perceived improvement was substantially bigger for students on studies than it was in

Northern or Western Europe. This balances the advantage experienced by students on work placements in Northern and Western Europe. Countries in Southern Europe generally confirmed the regional findings.

Employers and alumni in **Western Europe** were usually close to average when evaluating the relevance of the top 5 skills. Western European non-mobile alumni assigned greater importance to "team working skills" than in other regions. In general, the relevance of all additional aspects of mobility, such as sustainable contacts or the host institution's reputation, was rated below average in Western Europe. Employers in France also exhibited results below the regional average for "planning and organisational skills". Belgium, on the other hand, was exceptional in Western Europe regarding the aspects of mobility. In Belgium, employers considered the network of contacts and reputation of the host institution more relevant than other aspects such as subject area and language spoken during mobility, which were considered more important by employers in the rest of Western Europe. HEI and staff expectations in Western Europe were usually the lowest of all regions, especially regarding "analytical and problem-solving skills" (particularly for HEIs in Germany). Similar to Northern Europe, Western Europe showed a substantial difference between the expected and perceived improvement of students' own skills, with the perceived development consistently below the total average for the regions. More sceptical attitudes were also confirmed at the country level, with Belgium and Germany showing a moderately negative effect size for "analytical and problem-solving skills". As with Northern Europe, students on work placements showed a substantial advantage regarding three of the top 5 skills compared to students on studies. This contrasted Eastern and Southern Europe where both students on studies and work placements showed similar levels of improvement.

From this and the previous chapter, we see that students experience more changes in their personality due to mobility than on their skills, which develop less than they had expected. The essential message nonetheless remains the same: a significant majority of students perceived an improvement in their skills through their mobility, as they did in terms of personality.

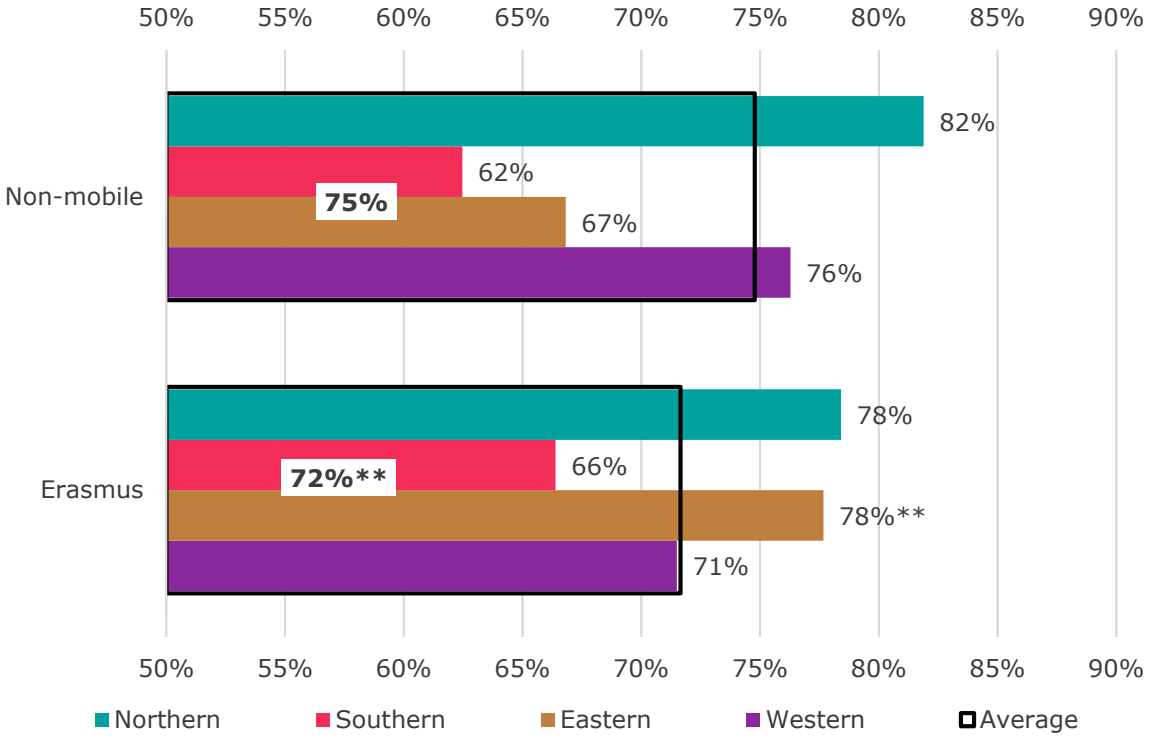
5 How does mobility affect employment, career and entrepreneurial attitudes?

5.1 Unemployment and the first job

The transition into the labour market and acquiring the first job is different for graduates with and without a mobility experience. This chapter provides greater insight into the variance among regions and countries in the length of unemployment after graduation, the risk of unemployment five to ten years later and the extent to which graduates were offered a job through their work placement.

Employment after graduation and mobility

Figure 5-1 Employed within the first three months after graduation, Erasmus and non-mobile alumni, by region



On average, across all regions, 75% of non-mobile alumni found employment in the first three months after graduation, compared to 72% of Erasmus alumni. This means that on average, Erasmus experience did not result in an immediate effect in terms of employment shortly after graduation. However, there were major differences among the regions. The largest proportion of both Erasmus and non-mobile alumni that successfully found employment within a short space of time after their graduation was in Northern Europe (78% for Erasmus, 82% for non-mobiles), while in Southern Europe only 66% of Erasmus alumni and 62% of non-mobile alumni managed to find a job within the first three months. Mobility experience had a positive effect on short-term employment in the case of Southern and especially Eastern Europe,

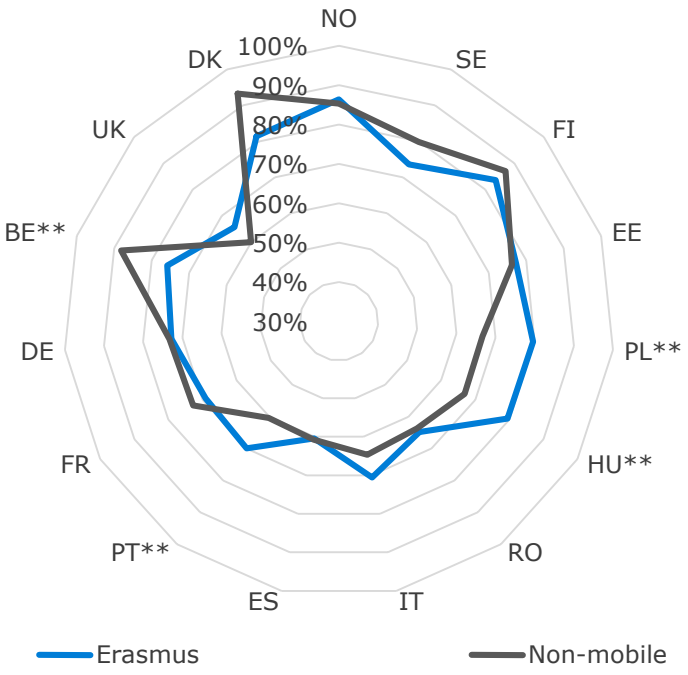
Erasmus brings highest benefits in regions where mostly needed

where the proportion of successful Erasmus alumni significantly exceeded the proportion of successful non-mobile graduates. It therefore seems that, overall, Erasmus is most beneficial in regions with the greatest need.

Erasmus alumni from Eastern Europe had a statistically significant advantage over their non-mobile counterparts (+11%), meaning that Erasmus increases the chance of finding a job shortly after graduation by 14%. This was also the largest difference of all the regions. The percentage of Erasmus alumni in Eastern Europe that found a job within a short space of time was equivalent to Erasmus alumni in Northern Europe. However, in Northern and Western Europe, non-mobile alumni were slightly more likely to find a job than Erasmus alumni within the short period after graduation.

Erasmus alumni in Eastern Europe are 14% more likely to be employed shortly after graduation than non-mobile alumni

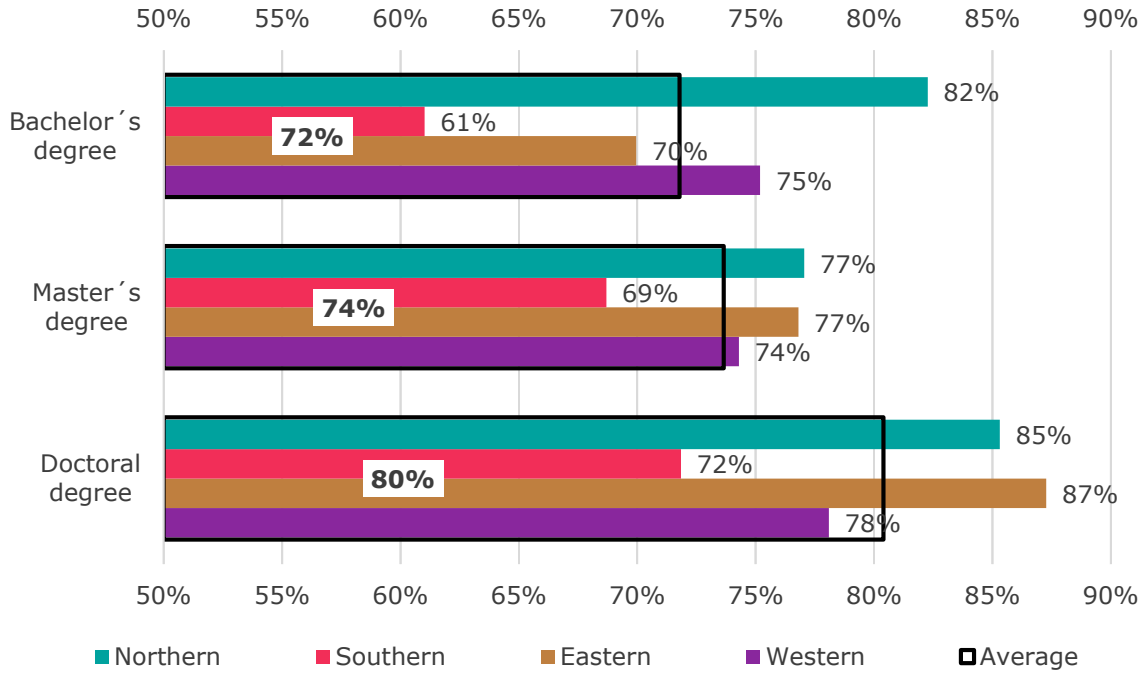
Figure 5-2 Employed within the first three months after graduation, Erasmus and non-mobile alumni, by country



Within the first three months after graduation, Erasmus alumni were significantly more likely to find a job in Poland, Hungary and Portugal than non-mobile alumni. The same result applies to Italy even if not significantly. Denmark, Finland and Norway showed above-average rates of employment within the first three months for both Erasmus and non-mobile students. On the other hand, Belgium was an outlier and showed significantly better short-term prospects for non-mobile alumni than other countries in the region.

Erasmus alumni in Hungary, Poland and Portugal are employed much more often shortly after graduation than non-mobile alumni

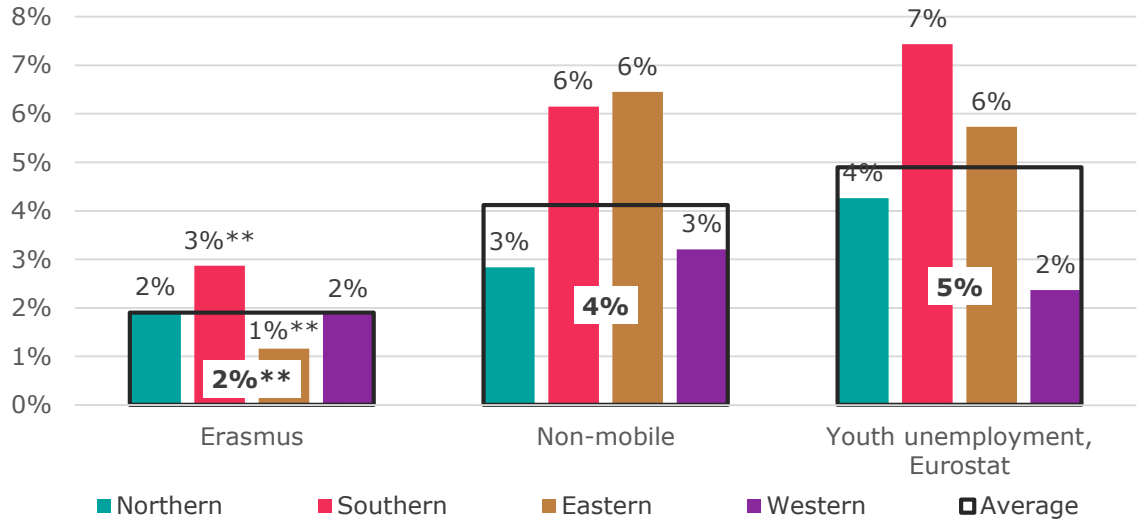
Figure 5-3 Employed within the first three months after graduation, alumni, by education level and by region



We also looked at differences by degree type. On average across, all regions, a substantial majority of alumni were able to find work within the first three months after graduation, and predictably, the share was highest for alumni with doctoral degrees (80%) and lowest for those with a bachelor's degree (72%). As for the regional perspective, Southern Europe consistently showed the lowest percentages across the three levels of education although the value of degrees rose in line with the average. This points to an overall deterioration of the labour market in the region. Southern Europe also showed the biggest difference between bachelor's and master's degrees. Alumni in Northern Europe achieved the highest employment rates for all education levels except doctoral studies, where Eastern European alumni scored even higher. In the case of bachelor's degrees, Northern Europe was followed by Western Europe, which also showed the most balanced employment rates across all education levels and all regions.

Long-term unemployment and mobility

Figure 5-4 Long-term unemployment (more than 12 months) after graduation, Erasmus and non-mobile alumni compared to youth long-term unemployment (Eurostat 2011), by region[32]



From a long-term perspective, on average Erasmus alumni in all regions faced a lower risk of long-term (longer than 12 months) unemployment compared to both non-mobile alumni and young people in general (youth unemployment rate). The difference between Erasmus and non-mobile alumni was most significant in Eastern and Southern Europe – the regions where general long-term youth unemployment rates were the highest according to the Eurostat data (regardless of one's education).

In all regions across Europe, mobility protects against long-term unemployment

In Eastern Europe, Erasmus students are five times less likely to experience long-term unemployment than non-mobiles

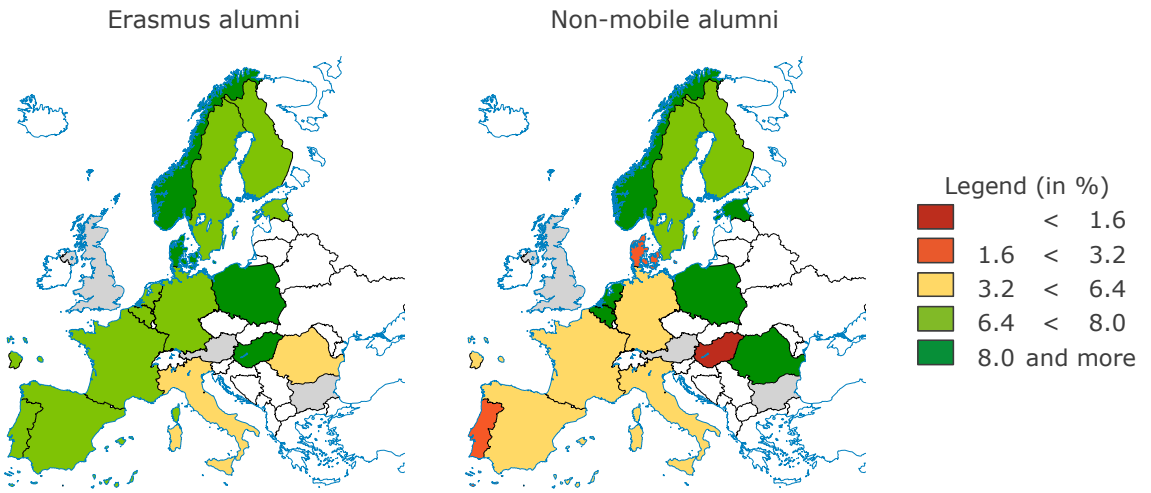
In Eastern Europe, the difference between Erasmus and non-mobile alumni was 5%, with Erasmus students being five times less likely to experience long-term unemployment than non-mobiles. In Southern Europe the difference was 3% – twice as high for non-mobiles than for Erasmus alumni – and in both cases the results were statistically significant. In Northern and Western Europe, where youth unemployment is generally lower, the difference between Erasmus and non-mobile alumni was only around 1%. There were no significant differences between studies and work placements.

In all regions, the long-term unemployment rate for non-mobile alumni was similar to the long-term youth unemployment rate reported by Eurostat. It should be noted, however, that these indicators are not fully comparable. In the youth unemployment rate, all persons aged 25–29 in the year 2011 were included regardless of the level of their education and the amount of labour market experience. Therefore, whilst it may be indicative of the overall market situation in the individual regions it may not be directly comparable with the share of young graduates that did not find a job in the

[32] Long-term youth unemployment includes all young people 25–29 y. o. (not just young HE graduates). However, there are no numbers available for the unemployment rate of HE graduates that explicitly display long-term unemployment. Therefore, the unemployment rates for young HE graduates are much higher than the long-term unemployment rates for the entire youth group. Since the number for long-term unemployment of the overall group is closer to our results, we decided to keep this comparison.

first twelve months after graduation, in particular since their year of graduation varies (for most of them from 2003 to 2012).

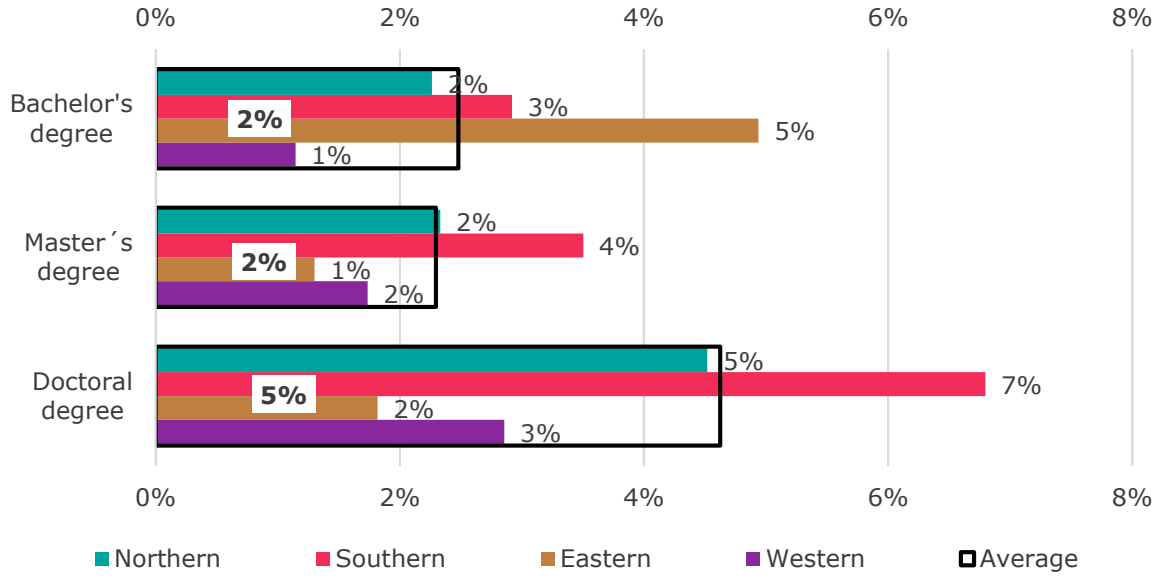
Figure 5-5 Difference in long-term unemployment (more than 12 months) after graduation, Erasmus and non-mobile alumni, by country



From the long-term perspective, the advantage of Erasmus alumni over non-mobile alumni was observable in most countries. It was particularly large and statistically significant in the case of Hungary (8.6%) and Portugal (6%), which were also the countries that showed the highest levels of long-term unemployment of non-mobile alumni after graduation.

Erasmus alumni in Hungary and Portugal are significantly less likely to face long-term unemployment than non-mobile alumni

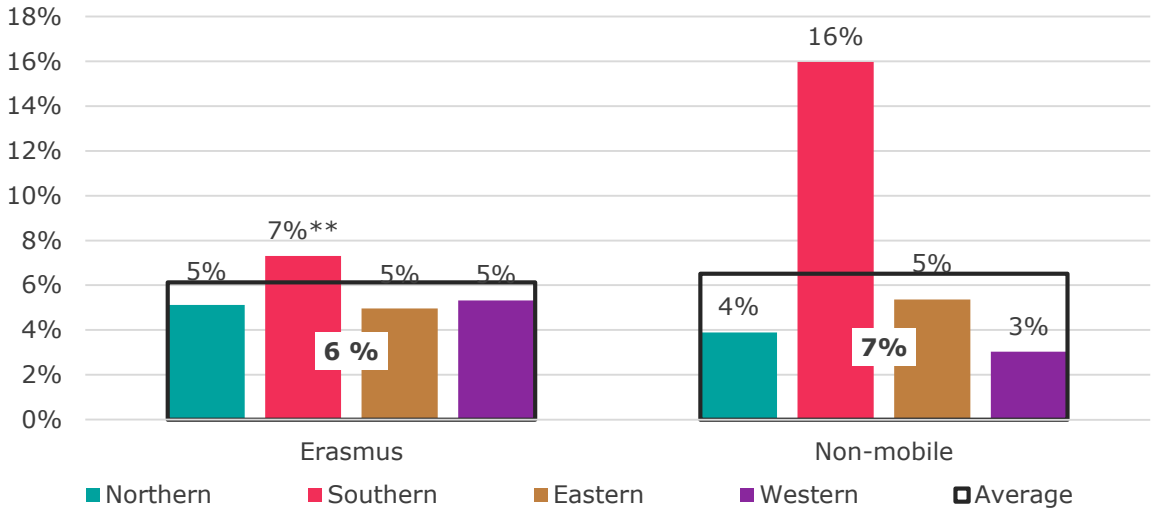
Figure 5-6 Long term unemployed alumni, by education level and by region



With relation to level of education, on average and across all regions, long-term alumni unemployment rates contrasted previous findings on employment within 3 months after graduation. For example, alumni with doctoral degrees – the group

with the highest levels of employment within three months after graduation – ended up with higher long-term unemployment. A closer look at the differences at the regional level reveals that this result was caused by rather high unemployment rates of doctoral alumni particularly in Southern but also Northern Europe. In Eastern Europe, on the other hand, Alumni with a bachelor's degree were more likely to suffer from long-term unemployment.

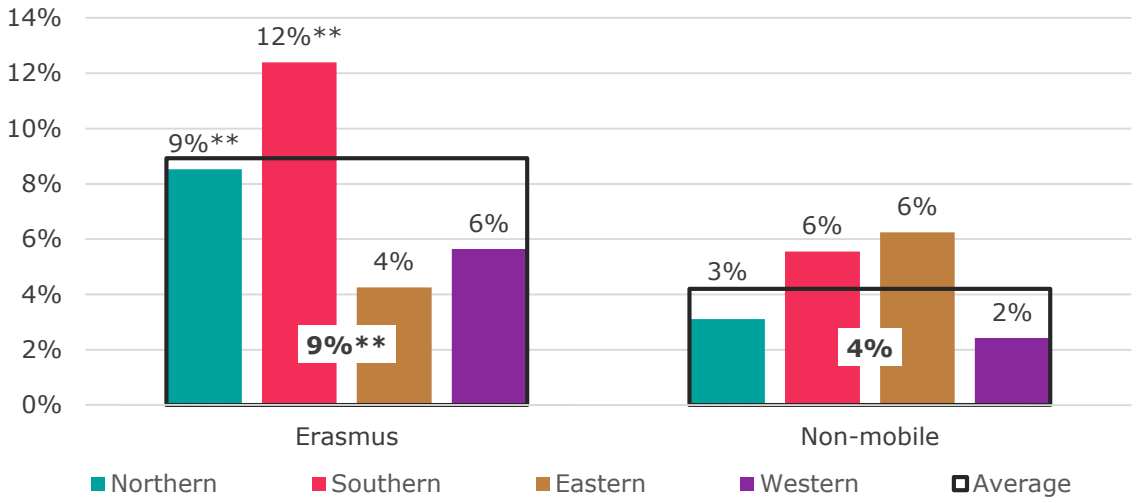
Figure 5-7 Share of unemployed alumni 5–10 years after graduation, Erasmus and non-mobile alumni, by region



Five to ten years after graduation, the difference in unemployment between Erasmus and non-mobile alumni was relatively low in most regions. However, Southern Europe showed considerably high unemployment rates for non-mobile alumni (16%) compared to a significantly better situation for Erasmus alumni (7%, i.e. 56% less than for non-mobile alumni). At the country level, Portugal showed the highest and also the only significant difference of unemployment rates between Erasmus (6%) and non-mobile alumni (19%).

Erasmus students in Southern Europe are employed much more frequently than non-mobile alumni 5–10 years after graduation with 56% less unemployment

Figure 5-8 Share of alumni in further education and professional training 5–10 years after graduation, Erasmus and non-mobile alumni, by region



A substantial proportion of alumni declared further education or professional training as their main activity five to ten years after graduation. This provides additional insight into the long-term unemployment situation of alumni analysed above.

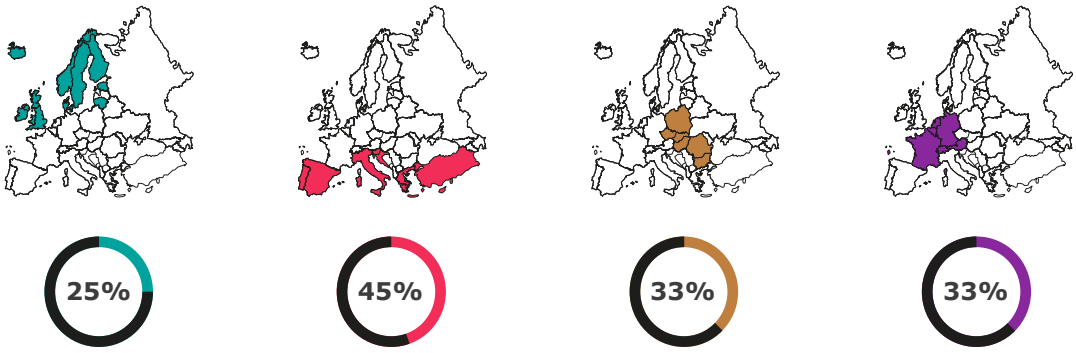
The difference between non-mobile and Erasmus alumni was greatest in Northern and Southern Europe and in both cases statistically significant. In Eastern Europe, the proportion of Erasmus alumni in further education was the smallest but at the same time, the proportion of non-mobile alumni was the largest. It was also the only region where more non-mobiles were in further education than Erasmus alumni.

Significantly more Erasmus alumni in Northern and Southern Europe choose to pursue further education than non-mobile alumni in those regions

This also seems to explain why there is much less of a difference in long-term unemployment between Erasmus and non-mobile alumni. This is also relevant considering career development, which will be analysed later. Further education enhances the quality of the workforce as well as the individual. Higher levels of education lead to higher positions. If Erasmus alumni are more suited to further improving their education, they are not only more in line with the European goal of lifelong learning, but they also increase the basis for possible career improvement. Here, mobility seems to have an indirect effect on employability and career development by promoting further education.

Job offer during mobility

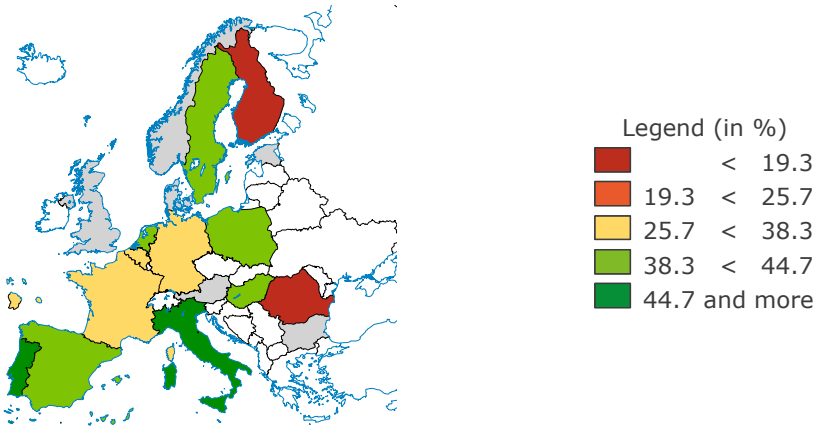
Figure 5-9 Job offer through a work placement abroad, Erasmus alumni, by region



In all regions, the proportion of Erasmus alumni that received a job offer through a work placement abroad was substantial and averaged above 30%. However, we also see strong regional differences. The proportion of alumni with a job offer received through a work placement was the largest in Southern Europe, where 45% of alumni with Erasmus work placement experience reported to receive a job offer. This was 20% higher than for Northern Europe, which had the smallest share with 25%. For a region facing economic challenges, this is an extremely positive finding. For Western and Eastern Europe, the share was the same at 33%.

45% of Southern European Erasmus students on work placements receive job offers from the host company, making them the most successful students in this regard

Figure 5-10 Job offer through a work placement abroad, Erasmus alumni, by country



The share of Erasmus alumni that received a job offer through a work placement abroad was largest in Italy (51%), Portugal (47%), Hungary (44%) and Spain (41%), and smallest in Romania (13%) and Finland (17%). The rest of the countries ranked close to the average, ranging from 30% to 40%. The only substantial differences observed between mobile and Erasmus alumni were in Sweden and Romania. In Sweden, 40% Erasmus alumni received a job offer through a work placement abroad while for mobile alumni, only approximately half that share of (22%) received such an offer. In Romania, on the other hand, 13% Erasmus alumni received a job offer compared to 30% of the mobile alumni.

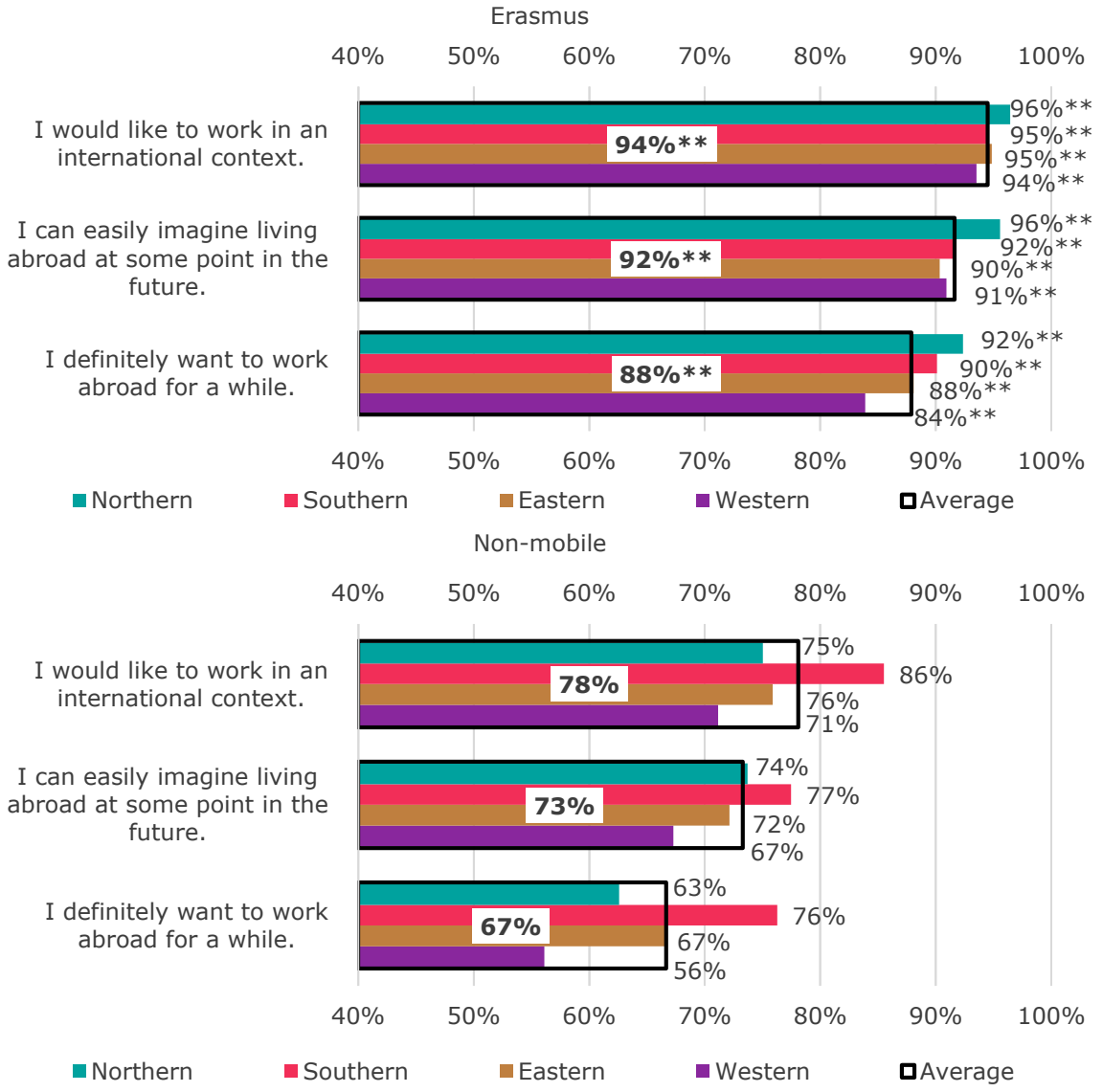
Every second Italian student on an Erasmus work placement receives a job offer from the host company

5.2 Moving abroad after graduation

The second topic of this chapter is dedicated to the international mobility of the alumni labour force. We will analyse the extent to which graduates move abroad, the frequency at which they change their country of work or residence as well as the importance of career perspectives abroad for the students' choice of programme.

Moving abroad and Erasmus mobility

Figure 5-11 Students' perspective on living and working abroad in the future before mobility, Erasmus and non-mobile students, by region



Before going abroad, Erasmus students were asked whether they wanted to work in an international context, go abroad for work and whether they could imagine living abroad in the future. Across and in all regions, 94% of Erasmus students agreed they would like to work in an international context and at least 90% could "easily imagine living abroad at some point in the

More than 90% Erasmus students can easily imagine living abroad or working in an international context

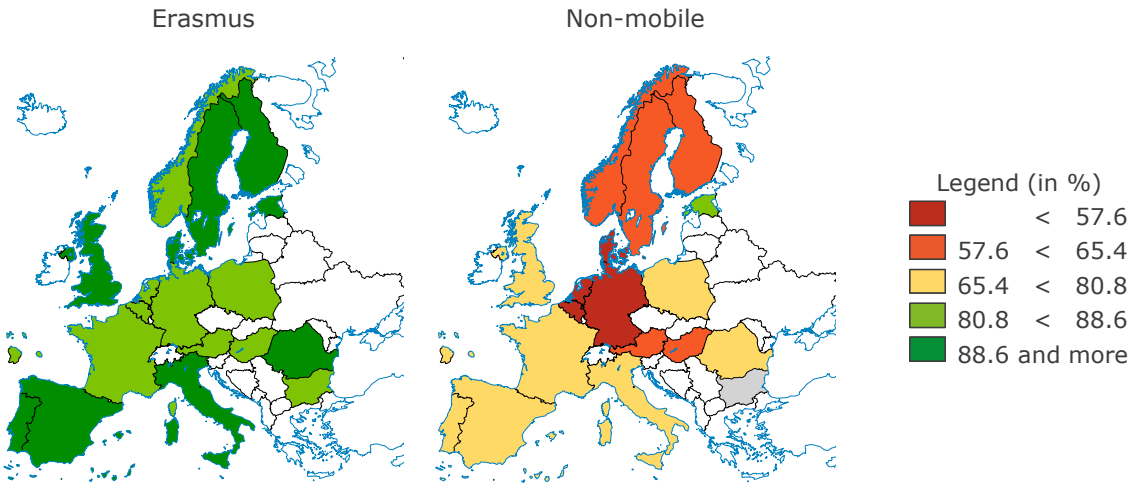
future". Furthermore, nearly 90% were sure that they wanted to work abroad for a while. Northern European students showed the highest percentages in all three cases while Western European Erasmus students usually displayed the lowest shares.

Erasmus students were asked the same questions in the *ex post* survey and the results were almost identical. As a result, we have chosen not to display them. The only substantial change measured was a decline in Northern Europe by 4-7% in all three questions, decreasing the level of agreement below the level of other regions. This indicates a minor decline in the willingness to live or work abroad.

Non-mobile students overall declared significantly less willingness to live or work abroad than those participating in Erasmus. However, non-mobile students from Southern Europe expressed an interest in all such perspectives remarkably more often than those from other regions, especially Western Europe (20% less than Southern Europe). This is in line with the findings that non-mobile students from Southern Europe also expressed a high level of interest in employment abroad. However, willingness does not translate into realisation: only Erasmus alumni from Southern Europe tended to actually change their country of work or residence after graduation while non-mobiles did so substantially less often.

Western Europe showed the lowest level of interest in almost all cases. This was most apparent for non-mobile students. The low numbers for Western European students may be explained by a higher standard of living in the Western region, making the option of moving abroad relatively less attractive. Nevertheless, at least two thirds of non-mobile students still wanted to be mobile after graduation.

Figure 5-12 Students' perspective on working abroad in the future before mobility, Erasmus and non-mobile students, by country



At the country level, the three students' perspectives on living and working abroad (see Figure 5-11) show similar differences between Erasmus students and non-mobiles. Therefore, the perspective "I definitely want to work abroad for a while" was selected as a representative attitude to be displayed.

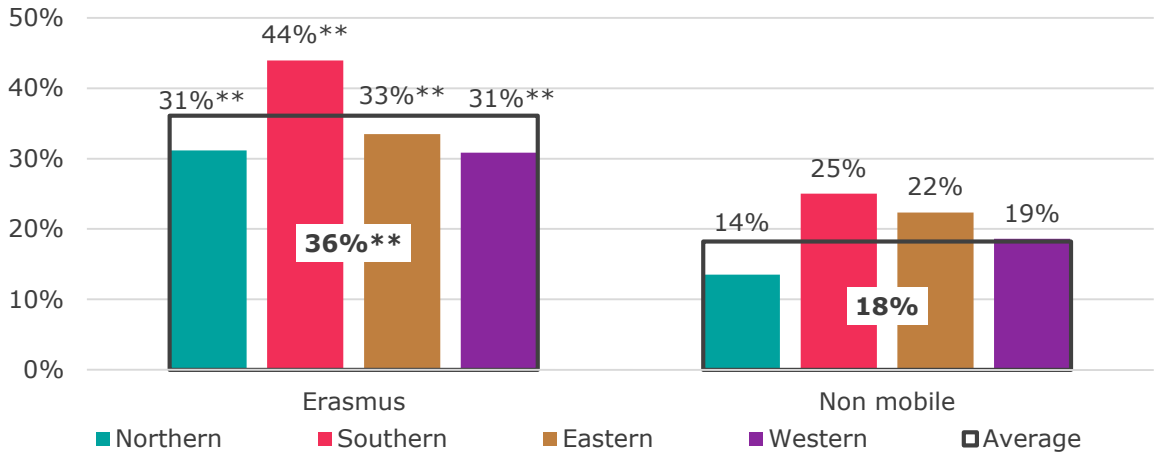
Erasmus students want to work abroad significantly more often than non-mobiles in all countries

The difference between Erasmus and non-mobile students was significant for all the countries, which is a rather unique finding. The difference was the greatest in

Denmark (with a difference of 39%) and the Netherlands (34%) where only about half of non-mobile students declared they wanted to work abroad in the future.

The United Kingdom, Sweden, Estonia and Romania were positive outliers in their regions in terms of Erasmus students, all with results over 90%, closely followed by Portugal and Spain. On the other hand, Estonia showed the highest level of agreement among non-mobile students (81%), along with Romania (79%) and Spain (78%). These high shares resulted in a relatively small difference between non-mobile and Erasmus students, consistently remaining at around 10%.

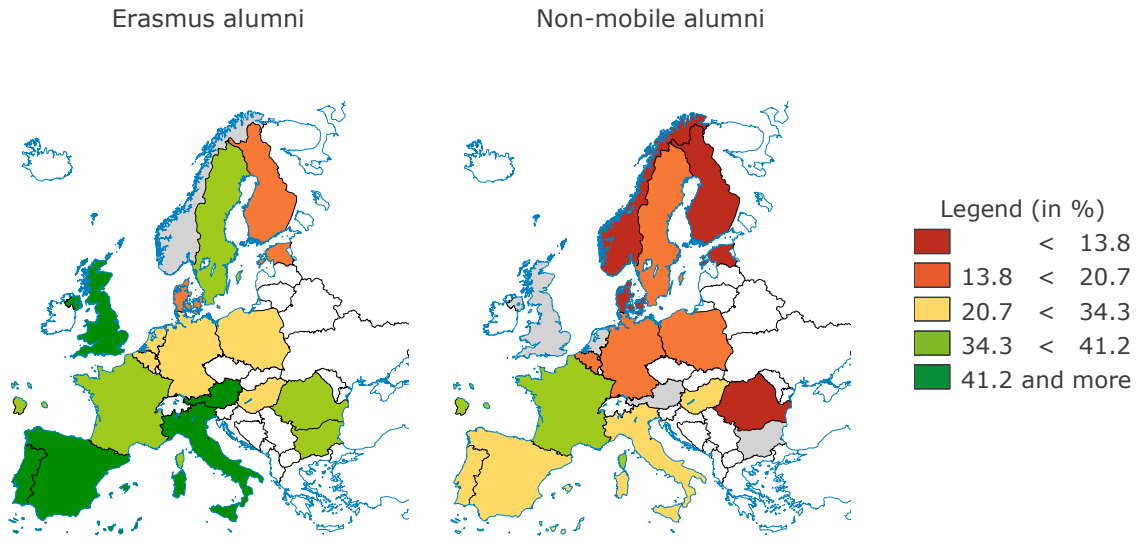
Figure 5-13 Alumni moving abroad for their current job, Erasmus and non-mobile alumni, by region



Across all regions and in each individual region, the proportion of Erasmus alumni that reported to move abroad for their current job was significantly higher than the proportion of non-mobile alumni that did so. The largest differences are to be found in Southern Europe (44% Erasmus compared to 25% non-mobiles) and Northern Europe (31% compared to 14%). Of all the regions, Eastern Europe showed the smallest difference between Erasmus (33%) and non-mobile students (22%). The highest absolute percentages were found in Southern Europe for both groups.

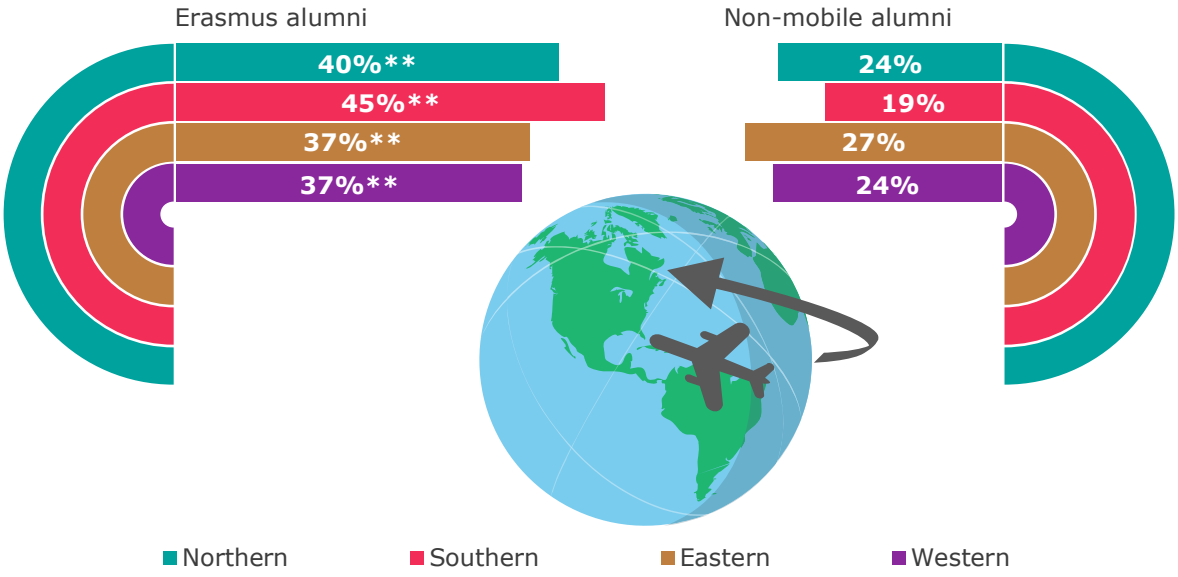
44% of Erasmus alumni in Southern Europe move abroad for their current job, compared with 25% of non-mobiles

Figure 5-14 Alumni moving abroad for their current job, Erasmus and non-mobile alumni, by country



Also at the country level, the share of alumni that moved abroad for their current job was higher for those with Erasmus experience than it was for non-mobile alumni. The only exception was France where 41% non-mobile alumni declared they moved abroad for their current job. This was 2% higher than the share of Erasmus alumni and was by far the highest proportion of all non-mobile alumni. Statistically significant differences were found in Spain (20%), Sweden (19%), Italy (16%), Belgium (11%) and Finland (10%).

Figure 5-15 Alumni that have changed their country of residence or work at least once since graduation, Erasmus and non-mobile alumni, by region



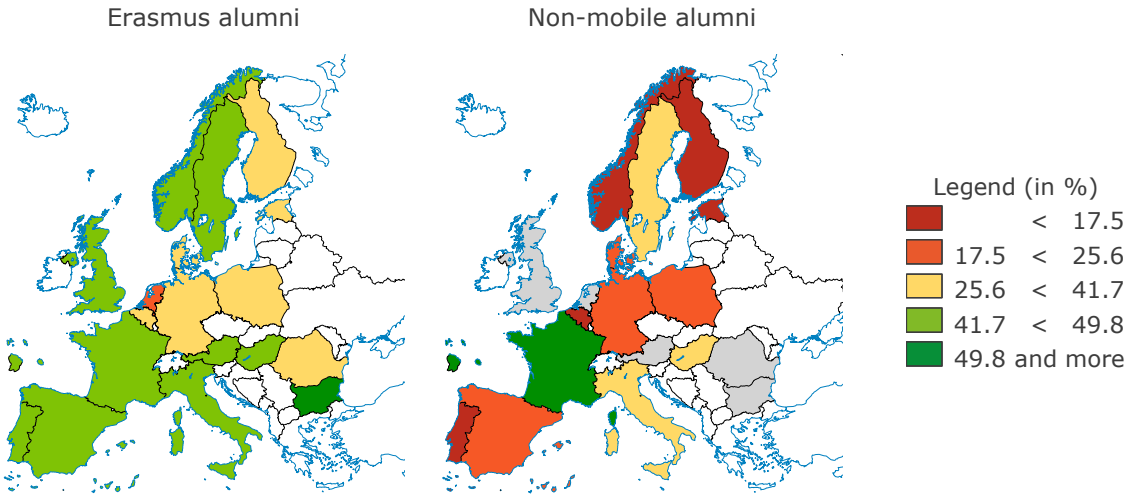
On average, across all regions, Erasmus alumni (40%) were significantly more likely to change their country of residence or work after graduation than non-mobile alumni (23%). The proportion was largest for Erasmus alumni from Southern Europe (45%). This was consistent with the proportion of students that reported to move abroad for

their current job (44%). The difference to non-mobile alumni was also highest in Southern Europe, where more than twice as many Erasmus alumni move abroad compared to non-mobile alumni.

In every region, Erasmus alumni were 42% more likely to have changed their country of residence or work than non-mobile alumni

Of the non-mobile alumni, the proportion of those that changed their country of residence at least once since graduation was largest in Eastern Europe (27%). Eastern Europe is also the region where the difference between Erasmus and non-mobile alumni was the smallest.

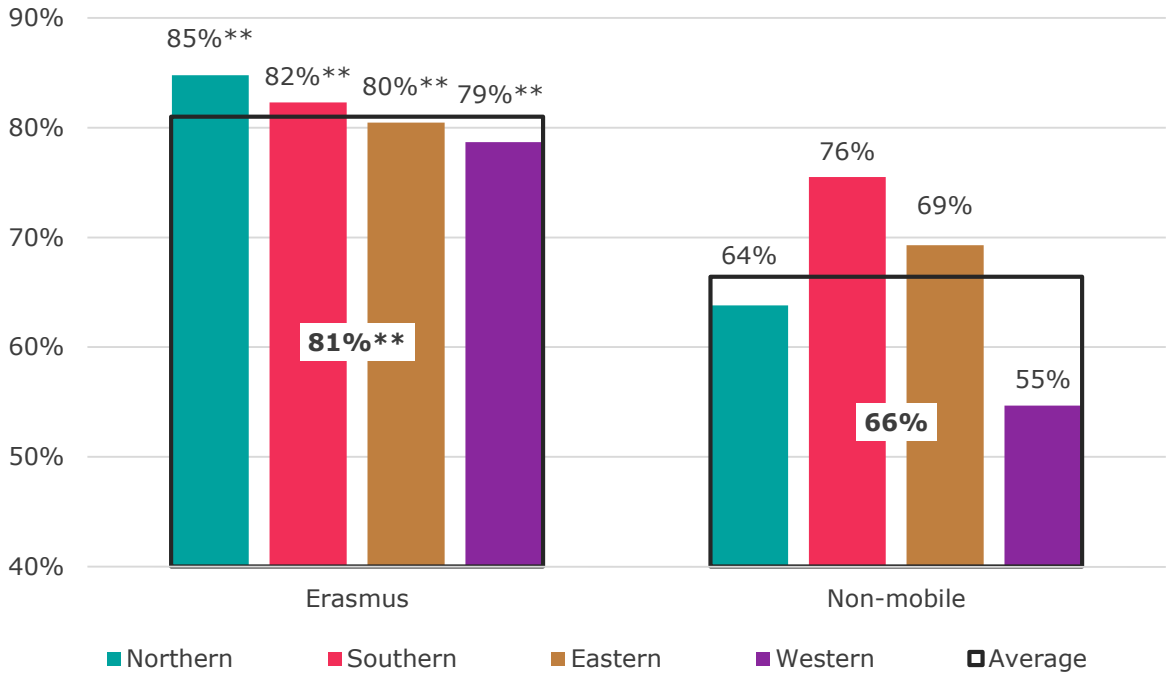
Figure 5-16 Alumni changing the country of residence or work at least once since graduation, Erasmus and non-mobile alumni, by country



The fact that alumni with Erasmus experience tend to change their country of residence or work more often than non-mobile alumni was also true at the country level. The only exception was France where 51% of non-mobile alumni (compared to 42% Erasmus alumni) reported to change their country of residence or work at least once after graduation. The majority of countries showed statistically significant differences between Erasmus and non-mobile alumni, pointing to a notable advantage held by Erasmus alumni as a result of mobility. The largest differences were achieved in Estonia (advantage of 29%), Spain (28%), Norway (27%) and Portugal (27%). Countries with a smaller, but nonetheless significant difference were Italy (22%), Sweden (20%), Germany (14%), Hungary (14%), Belgium (13%) and Finland (9%).

Erasmus alumni in Estonia have the biggest advantage over non-mobiles (29%) of all countries in terms of having moved from one country to the other after graduation

Figure 5-17 Importance of career perspectives abroad for choice of study programme, perspective of Erasmus and non-mobile students, by region



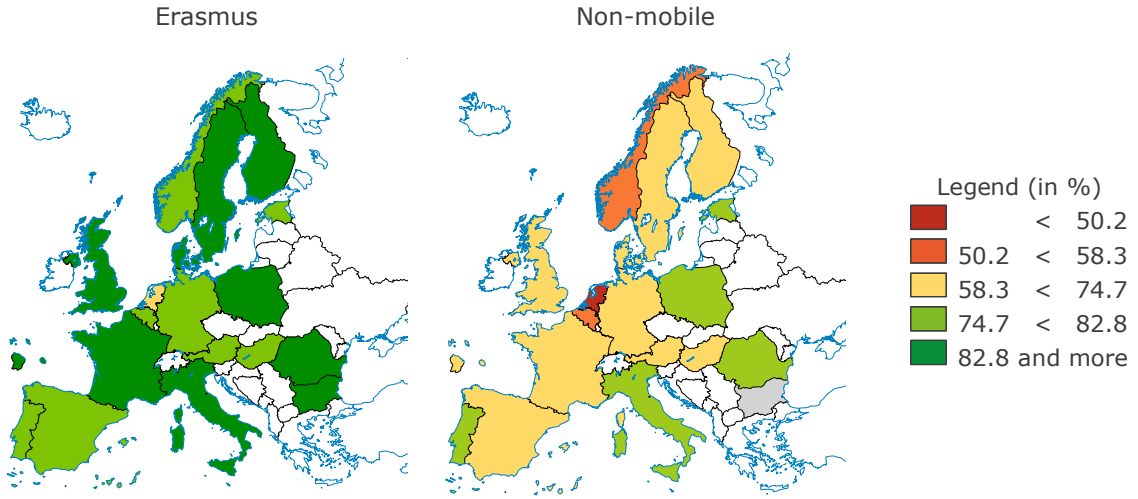
The willingness of Erasmus alumni to move abroad for a job can be linked to the results relating to the importance of career perspectives abroad when choosing a study programme. On average, across all regions, Erasmus students (81%) declared that career perspectives abroad were an important factor for them when choosing a study programme significantly more often than non-mobile students (66%). Moreover, by comparing the perspective of students and alumni we discover that in Southern Europe for example, 82% of Erasmus students considered career perspectives abroad important and 44% Erasmus alumni actually moved for their current job.

In every region, Erasmus alumni consider career perspectives significantly more relevant for their choice of study programme than non-mobile alumni

On the other hand, while 76% of non-mobile students in Southern Europe shared the same opinion about the importance of career perspectives abroad, only 25% of non-mobile alumni actually moved abroad for their current job. This could indicate that although most students in Southern Europe wanted to move abroad, only those with Erasmus experience really had the courage or were in a position to do so yet.

In Western Europe, the share of students that considered career perspectives abroad important for their study programme choice was lowest for both groups. However, the difference between them was the largest with 24%. This was mainly due to the below-average percentage among non-mobile students.

Figure 5-18 Importance of career perspectives abroad for study programme choice, Erasmus and non-mobile students' perspective, by country

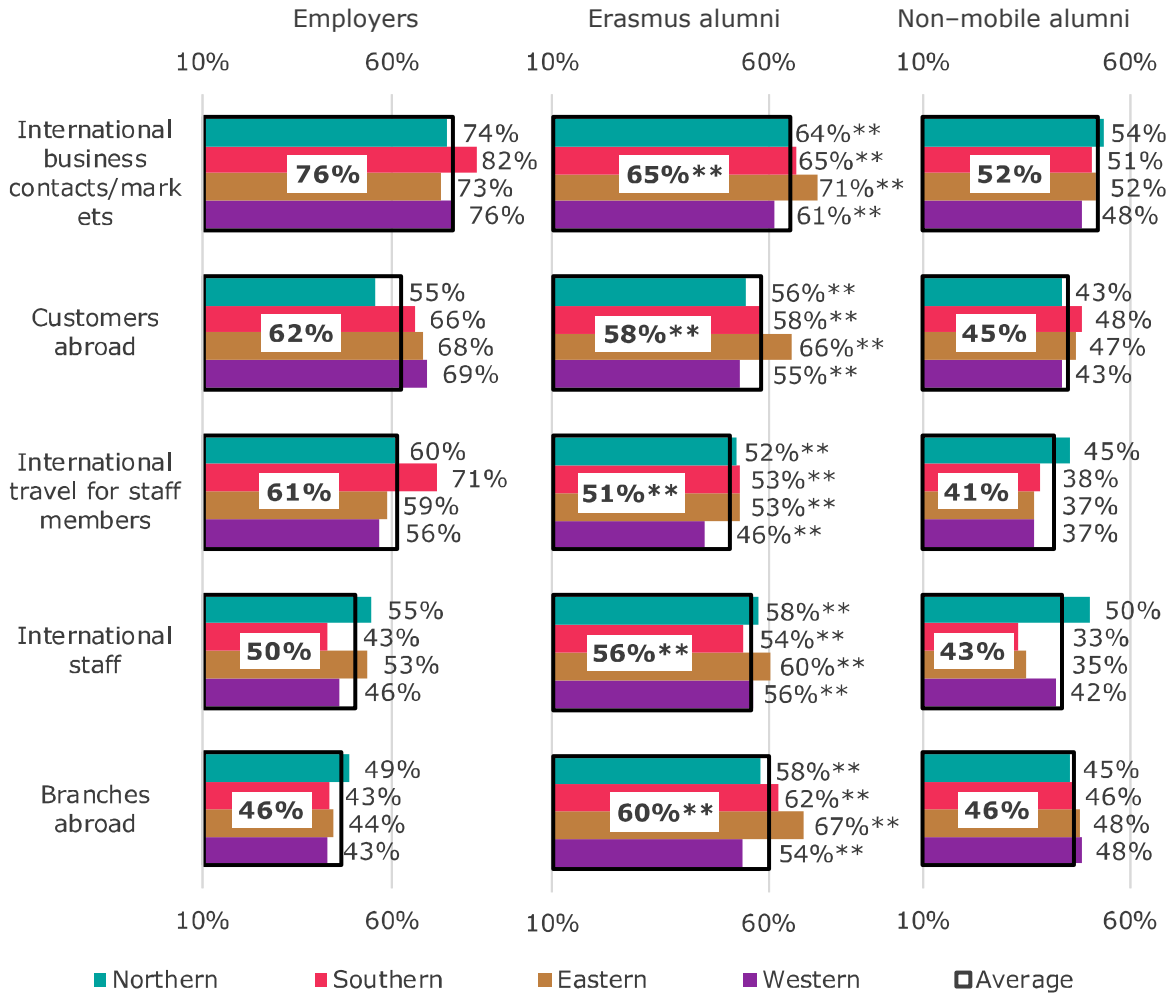


In general, the situation at the country level was consistent with the regional findings and the high level of importance assigned to career perspectives abroad when choosing a study programme remained apparent among Erasmus students. In Northern Europe, the difference between Erasmus and non-mobile students was significant for all countries except Estonia, which showed almost no difference at all. In Eastern Europe, Hungary was an especially positive case, above the regional average for both groups and demonstrated a significant advantage for Erasmus students (in this region, the other significant case was Poland). In Southern Europe, the difference was significant in Italy and Spain. In Western Europe, all countries except Austria showed significant differences, with the Netherlands showing the biggest difference of all the countries. This was largely because a very low share of non-mobile students agreed with the relevance of career perspectives for their choice of study programme (only 42%).

5.3 Job characteristics

As the third aspect in this chapter, we evaluated the level of internationality in alumni jobs. Employers participating in the survey were asked about the individual aspects of internationalisation they considered relevant for their enterprise. Alumni were asked about the international characteristics related to their current job, for example, whether they have clients or branches abroad, whether their staff is international, whether they travel abroad on a regular basis and what the official language used in their company is.

Figure 5-19 International job characteristics, employers and Erasmus vs. non-mobile alumni, by region

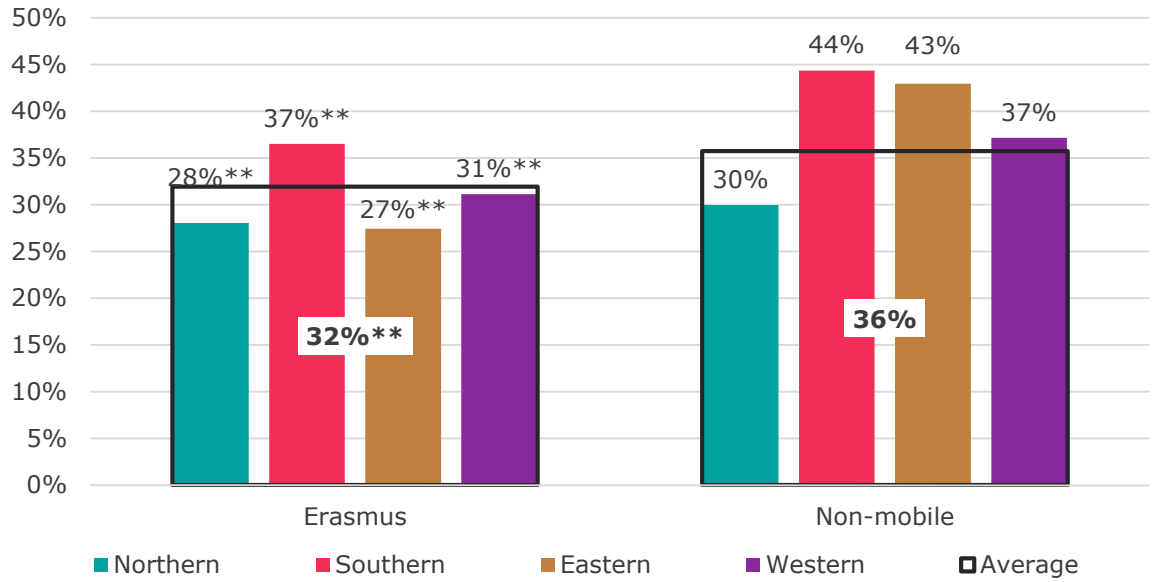


Across all regions, Erasmus alumni had jobs with international characteristics more often than non-mobile alumni. This difference was statistically significant in all regions and for all characteristics. In all regions, employers agreed that international business contacts/markets were the most important international job characteristic, followed by customers abroad and international travel for staff members.

Erasmus alumni work in significantly more international environments than non-mobile alumni

Some differences were apparent at the regional level for the individual characteristics. Employers in Southern Europe, for example, showed an above-average relevance for international business contacts/markets and international travel for staff. Eastern Europe is a particularly interesting region in regards to the experience of alumni. Alumni with Erasmus background in this region are always much more likely to have international components in their current jobs, be it international contacts (71% vs. 52% for non-mobile alumni), international colleagues (60% vs. 35%) or any other international characteristic.

Figure 5-20 Alumni jobs with no international characteristics, Erasmus and non-mobile alumni, by region

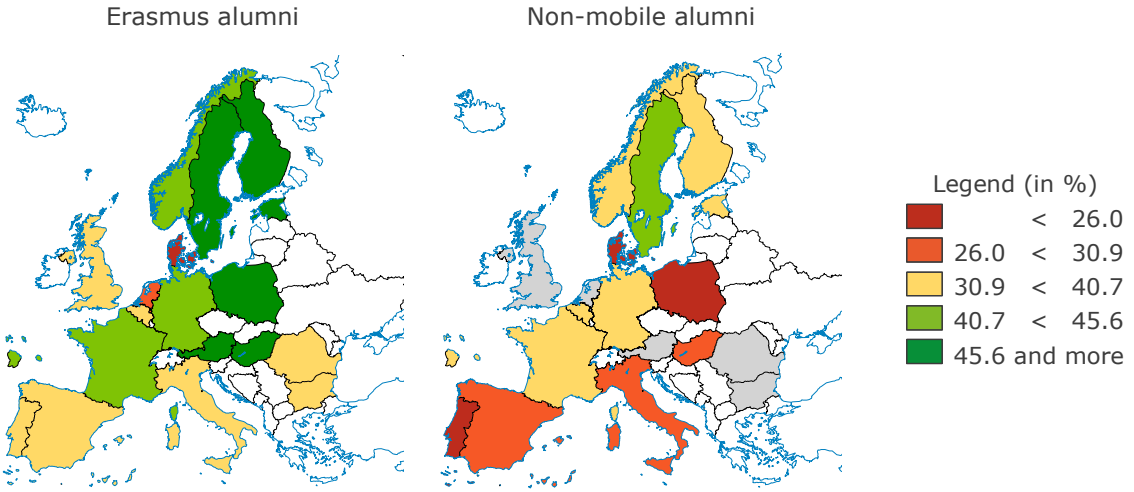


The conclusion that Erasmus alumni seem to choose more international work environment is confirmed by comparing alumni jobs with no international characteristics held by Erasmus and non-mobile alumni. Across the whole of Europe and in every region, significantly more non-mobile alumni than Erasmus alumni worked in a job without any of the above-mentioned international characteristics. The difference was the largest in Eastern Europe where only 27% Erasmus alumni had such a job, compared to 43% non-mobile alumni. This means that Erasmus alumni do indeed choose international work environments significantly more often than non-mobile alumni.

Erasmus alumni across the whole of Europe choose international work environments. In Eastern Europe, this is true for 43% of Erasmus alumni compared with only 27% of non-mobiles

In Western and Northern Europe, the difference was smaller but still statistically significant. The share of alumni without an international job in these regions, however, tended to be smaller, pointing to a more international alumni jobs in the regions overall. Among both Erasmus and non-mobile alumni, the proportion of those working in jobs with no characteristics of internationalisation was the largest in Southern Europe.

Figure 5-21 Alumni jobs with no international characteristics, Erasmus and non-mobile alumni, by country

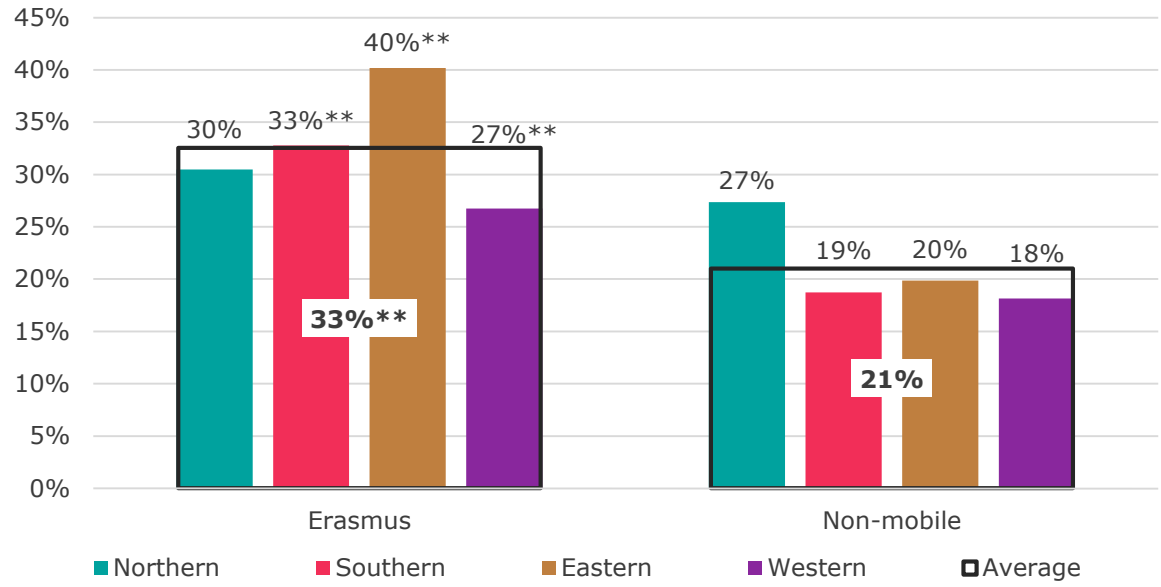


The overall advantage held by Erasmus graduates in more frequently having jobs with international characteristics was clearly replicated at the country level. Belgium was the only exception, where more Erasmus alumni had positions with no international job characteristics than non-mobile alumni. This may possibly be explained with the high share of international jobs in the country.

The advantage held by Erasmus alumni was statistically significant in Poland – the country with the largest difference of them all (48% non-mobile alumni compared to 26% of Erasmus alumni – a difference of 22%) – in Hungary (19%), Germany (13%), Portugal (12%) and Sweden (2%).

48% of Polish non-mobile alumni have jobs with no international characteristics compared to 26% of Erasmus alumni – a difference of 22%

Figure 5-22 Official language of the enterprise other than mother tongue, Erasmus and non-mobile alumni, by region



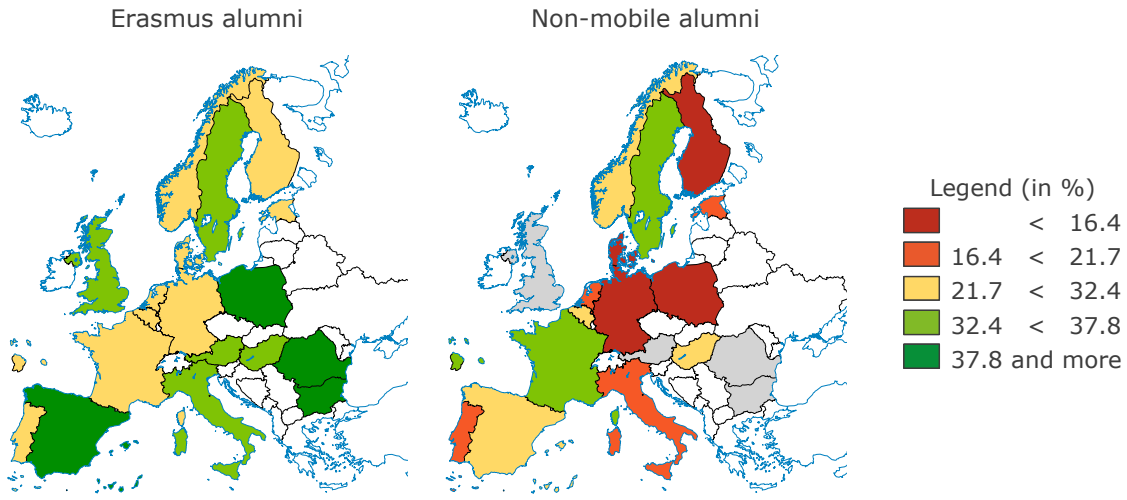
Across all regions, the share of alumni whose company's official language was different from their mother tongue was significantly larger for alumni with Erasmus experience than for non-mobile alumni. At the regional level, this difference was statistically significant for Eastern, Southern and Western Europe. Erasmus alumni in Eastern Europe declared using languages other than their mother tongue the most often – in 40% of the cases, compared with only 20% of non-mobiles.

40% of the companies of Erasmus alumni from Eastern Europe use an official language different from the alumni's mother tongue

This may be explained with the finding that 33% of Eastern European Erasmus alumni declared they moved abroad for their current job. Of the Erasmus alumni from Southern Europe, 44% stated to have moved abroad for their current job although only 33% declared a foreign language to be the official language of their company. This therefore suggests that a substantial proportion of these alumni work abroad at an enterprise whose official language is the same as their mother tongue.

In Northern Europe, it was also more common for non-mobile alumni to speak a foreign language at work than in other regions despite the proportion of those that moved abroad for their current job being the smallest (31% for Erasmus alumni and 14% for non-mobiles).

Figure 5-23 Official language of the enterprise other than mother tongue, Erasmus and non-mobile alumni, by country



At the country level, the proportion of those whose enterprise's official language was different from their mother tongue was bigger for Erasmus alumni than it was for non-mobile alumni, with the exception of France (a 6% difference for the benefit of non-mobile alumni). Differences that were statistically significant and in accordance with the general regularity were observed to be the strongest in Poland (32%), Italy (16%), Spain (14%), Germany (12%), Portugal (11%) or Finland (10%). The exceptional difference in Poland was due to a very high share of Erasmus alumni (43%) on the one hand, and a very low percentage of non-mobile alumni on the other (11%). This embodies the substantial international advantage generated in Eastern Europe as a result of a mobility experience.

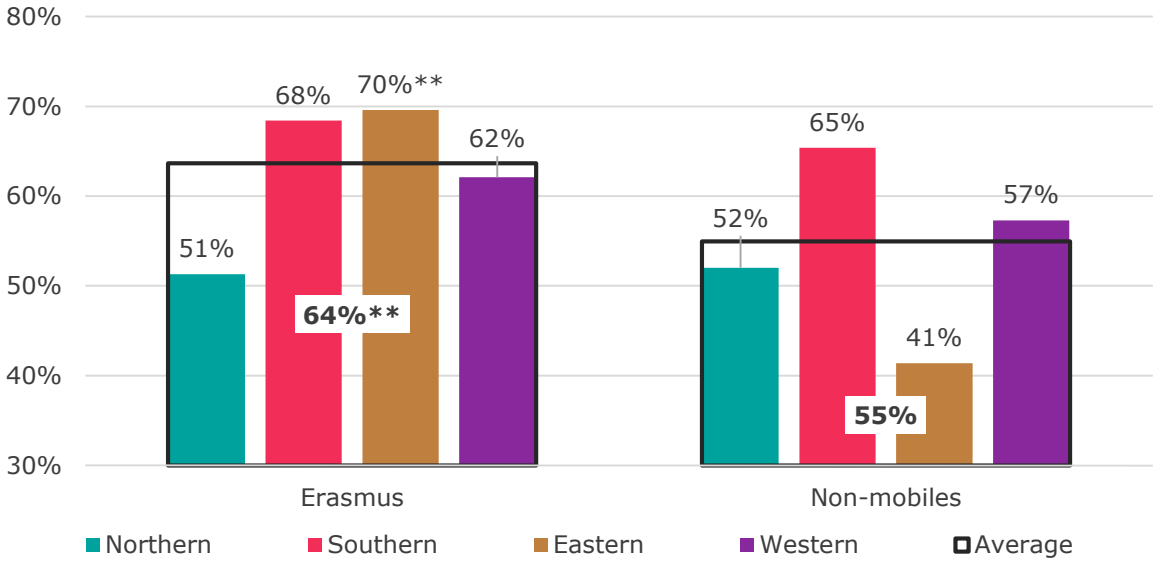
43% of Polish Erasmus alumni work for companies with official language different from their mother tongue

5.4 Career perspectives

The EIS analysed graduate career progression and their prospects of receiving more job responsibility and a higher salary in the years after graduation. The following subchapter compares the employers' perspective (to what extent they value the international experience of graduates and how this affects responsibility and salaries) with that of alumni (their experience with responsibility and salaries) and students (how these aspects might influence their study choice in the first place).

Professional responsibility and mobility

Figure 5-24 Alumni in a management position five to ten years after graduation, Erasmus vs. non-mobile alumni, by region



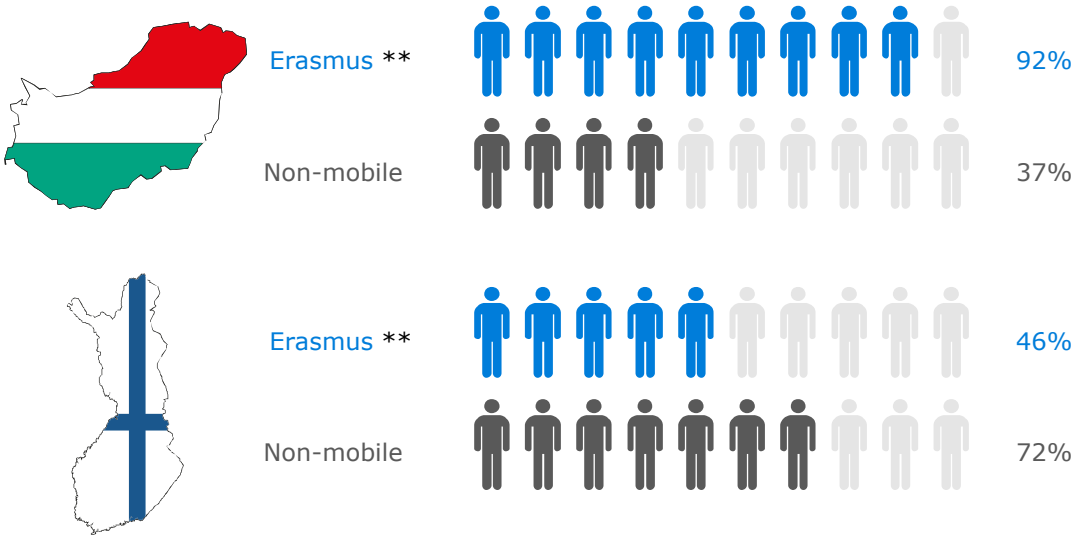
On average, across all regions, Erasmus alumni were found in management positions significantly more often than non-mobile alumni five to ten years after graduation. However, there were substantial differences among the regions. In Eastern Europe, there was a clear and statistically significant difference of almost 30% between Erasmus and non-mobile alumni. Once again, this highlights the benefits of mobility experience in the labour market.[33] In the rest of the regions, the differences were not significant and in the case of Northern Europe, Erasmus alumni held no advantage over non-mobile alumni. Still, the share of Erasmus alumni in management positions was relatively high in all regions.

Erasmus alumni in Eastern Europe are 73% more likely to have a management position than non-mobile alumni

The considerably large proportion of both groups of alumni from Southern Europe in managerial positions potentially indicates that, despite a turbulent labour market and relatively high unemployment rates, alumni with tertiary education and several years' work experience are valued highly in the labour market. Moreover, we should not to forget that a substantial share of alumni, particularly with Erasmus experience, left their country of studies after graduation and found a position in the international job market. In this respect, the figure discussed here shows good prospects for higher education alumni (mobile or not) from Southern Europe in the global market as well.

[33] In fact, the difference of 30% effectively means that Erasmus alumni are 73% more likely to hold a managerial position than non-mobile alumni, as the advantage held by Erasmus (30%) is effectively 73% of the basic value for non-mobile students (41%).

Figure 5-25 Alumni in a management position five to ten years after graduation, Erasmus vs. non-mobile, selected countries

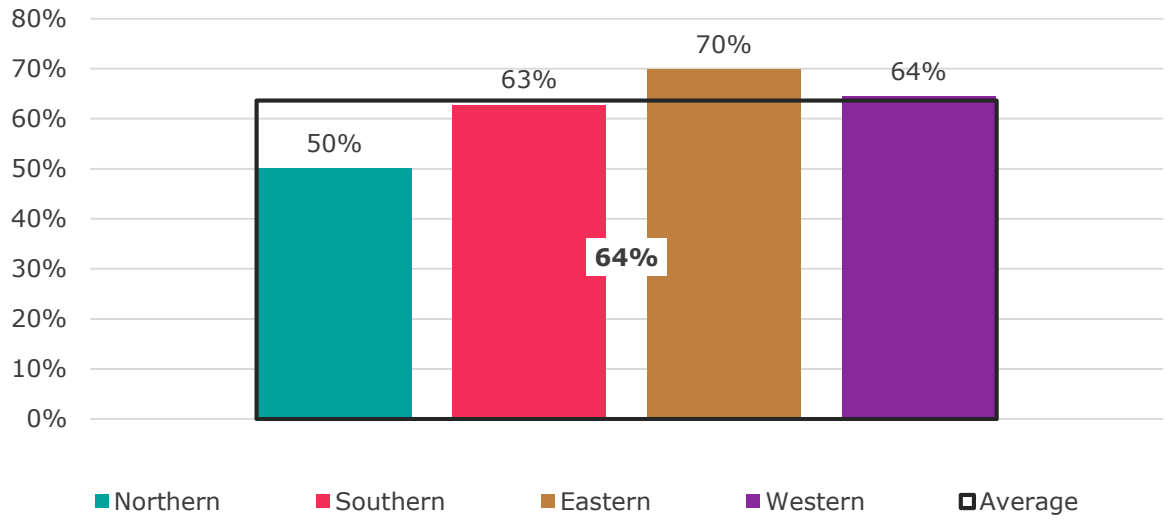


At the country level, there were two countries with statistically significant differences between Erasmus and non-mobile alumni. The proportion of alumni in a managerial position was the largest for Erasmus alumni from Hungary, with a staggering 92% of the share. In other words, more than 9 out of 10 Erasmus alumni held a managerial position in Hungary. This was also more than twice the figure for non-mobile alumni. This indicates the Erasmus programme has a large impact in Hungary and confirms the general findings about the relevance of the programme for Eastern Europe.

More than 9 out of 10 Erasmus alumni hold a managerial position in Hungary

What was already apparent from the regional findings for Northern Europe became statistically significant at the country level in the case of Finland, where a significantly larger share of non-mobile alumni (72%) reported to be in a managerial position compared to Erasmus alumni (46%).

Figure 5-26 Higher professional responsibility for internationally experienced higher education graduates, perspective of employers, by region



At least 50% of employers across and in all regions reported to assign responsibility more frequently to alumni with international experience than to non-mobile alumni. The proportion of such employers was smallest in Northern Europe with exactly 50%. The fact that there is no conceivable difference between the two groups regarding managerial positions could be explained by the argument that some international experience is much more common in this region.

Eastern European employers are three times as likely to give Erasmus alumni more responsibility than to non-mobile alumni

Also in keeping with the previous findings on managerial positions, higher responsibility was most common in Eastern Europe with 70% assigning somewhat or substantially more responsibility to internationally experienced alumni. In other words, Erasmus alumni are more likely to hold a managerial position in this region and employers are three times as likely to assign more responsibility to them.

Mobility also has strong effects in the other two regions. In Southern Europe and Western Europe, employers were twice as likely to assign more responsibility to Erasmus students than to non-mobiles. Therefore, even though the share of Erasmus alumni with managerial positions in these two regions was not substantially different from that of non-mobile alumni, it would seem Erasmus alumni still acquire the more demanding jobs.

If we compare the two findings, the managerial positions and the responsibility assigned, we see that in Eastern Europe mobility has the largest effect on responsibility in one's career. Employers assigned more responsibility to employees with international experience and, consequently, Erasmus alumni found themselves in positions with responsibility more often (i.e. managerial positions). For both Southern and Western Europe, mobility also provides a measurable advantage for acquiring positions with more responsibility. However, this does not necessarily mean the position is nominally managerial, as the difference between mobile and non-mobile alumni in managerial positions was not as substantial. This could also mean that the alumni are not at that point in their career yet to hold a managerial position.

Erasmus mobility has the largest effect on job position and professional responsibility in Eastern Europe

Figure 5-27 Higher professional responsibility for internationally experienced higher education graduates, perspective of employers, selected countries

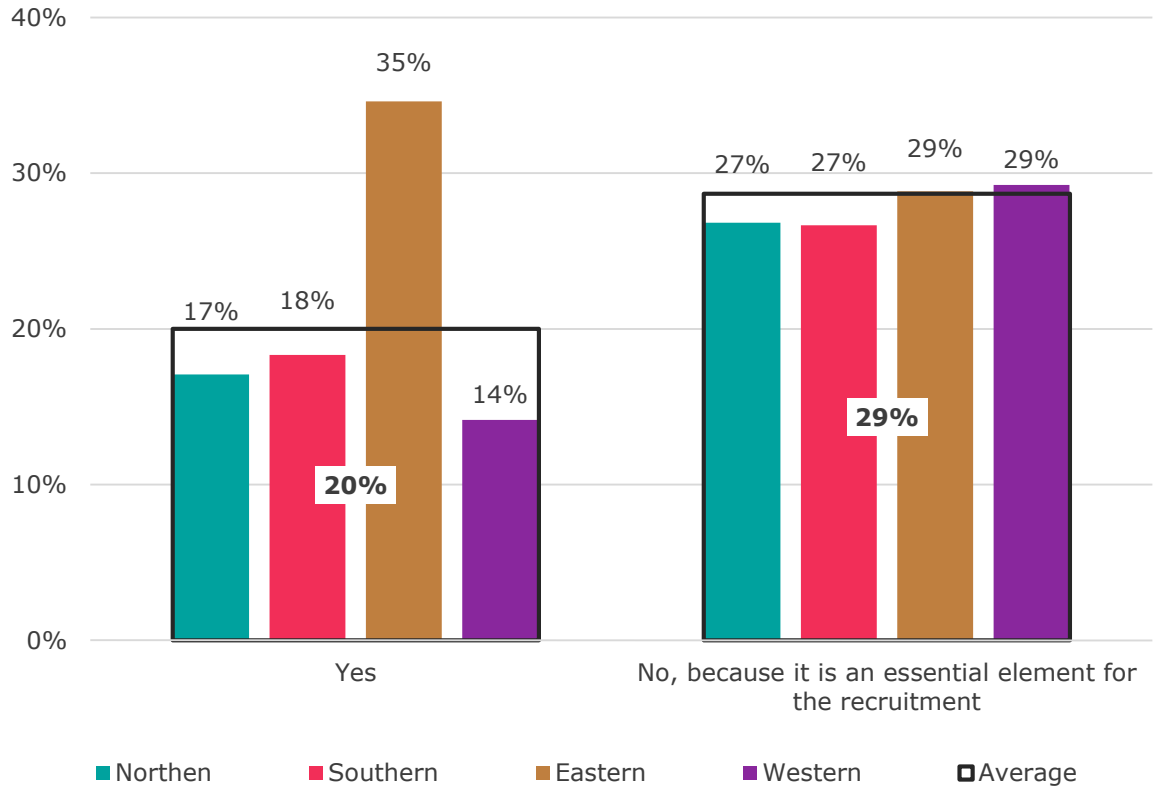
At the country level, only a few countries deviated from the regional pattern. The proportion of employers that claimed to assign responsibility to graduates with an international experience more frequently was lowest in the United Kingdom (41% – almost 9% below its regional average). The biggest deviation from the regional average was in Italy (50%), with a difference of almost 13% below the average, followed by Belgium (56%), with more than 8%

The lowest share of employers who give higher professional responsibility to internationally experienced higher education graduates is in the United Kingdom

below its regional average.

Salary and mobility

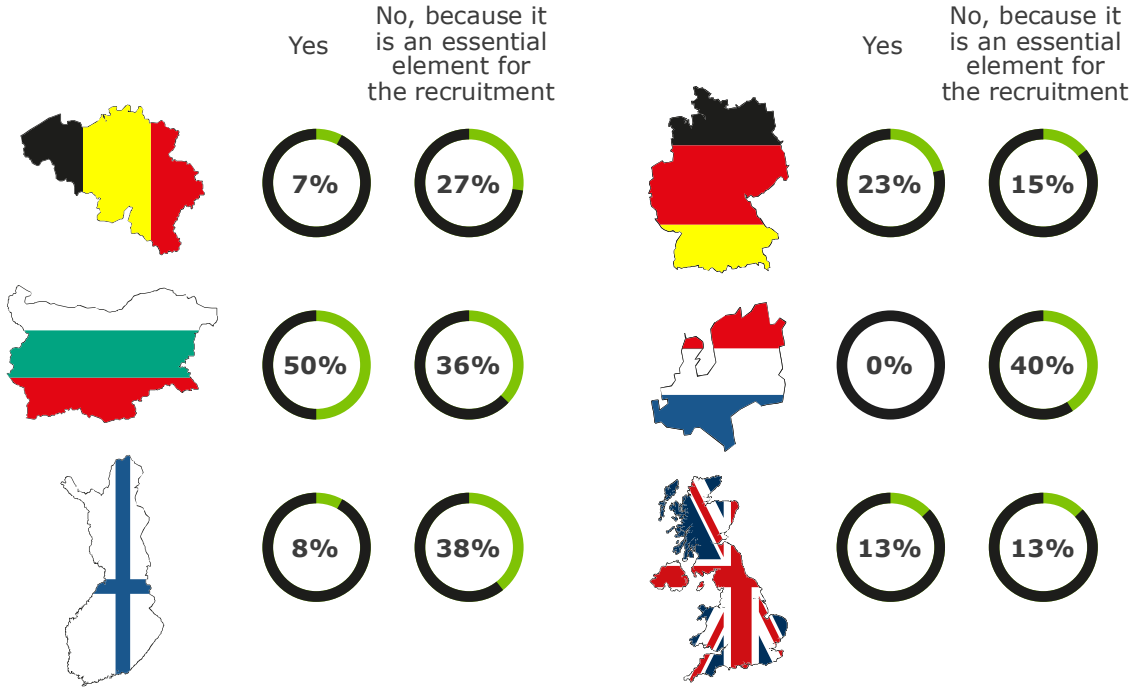
Figure 5-28 Giving higher salaries to internationally experienced higher education graduates without work experience, perspective of employers, by region



Across and in all regions, more than a quarter of employers reported to exclusively hire alumni with international experience (as an essential element of their recruitment). Of those that employed both alumni with and without international experience, 20% of employers across all regions claimed to pay a higher salary to internationally experienced graduates. At the regional level, the highest share of employers that confirmed paying higher salaries was in Eastern Europe (35%) – twice as many as in the other regions. This is in keeping with the findings discussed above (that mobile alumni in Eastern Europe were most likely to be assigned higher responsibility and be promoted to a managerial position).

Eastern European employers are twice as likely to pay employees with international experience a higher salary than anywhere else in Europe

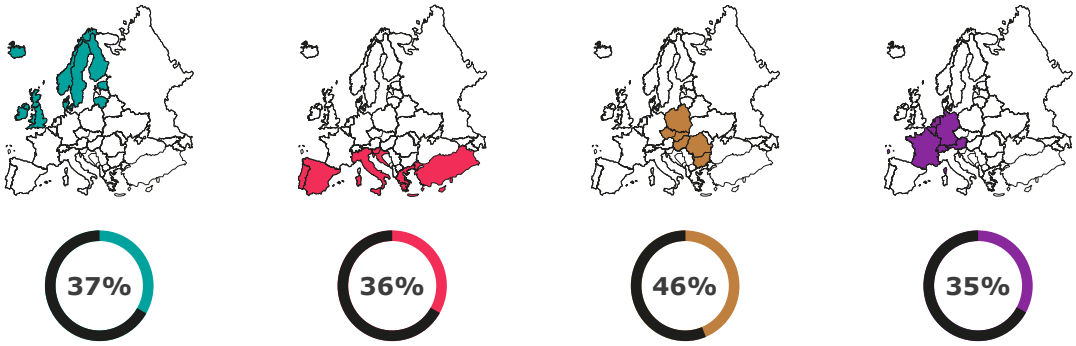
Figure 5-29 Giving higher salaries to internationally experienced higher education graduates without work experience, perspective of employers, selected countries[34]



At the country level, some countries differed substantially from the regional perspective. The biggest outlier was the Netherlands with 0% of employers claiming to award higher salaries to internationally experienced graduates without work experience. This is partially levelled out by an above average share of employers that considered international experience mandatory (40%). This latter characteristic is shared with Finland (38%) and to some extent Bulgaria (36%). Bulgaria, however, was also the country with the biggest share of employers that claimed to award higher salaries to internationally experienced graduates (50%). Germany (15%) and the United Kingdom (13%) were significantly below average in considering international experience essential for recruitment. In Belgium (7%) and Finland (8%), a very low percentage of employers claimed to pay higher salaries to internationally experienced graduates, which may be explained with the observation that a relatively large share of employers in those countries hired only graduates with such an experience.

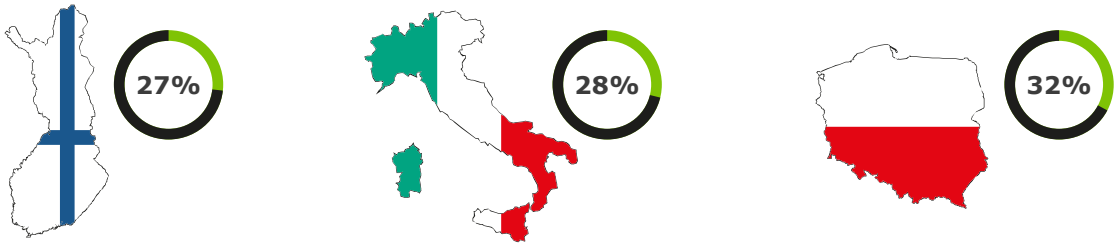
[34] In the figure, a "yes" signifies that the employers pay higher salaries to internationally experienced graduates.

Figure 5-30 Higher salary for internationally experienced higher education graduates with five years of work experience, perspective of employers, by region



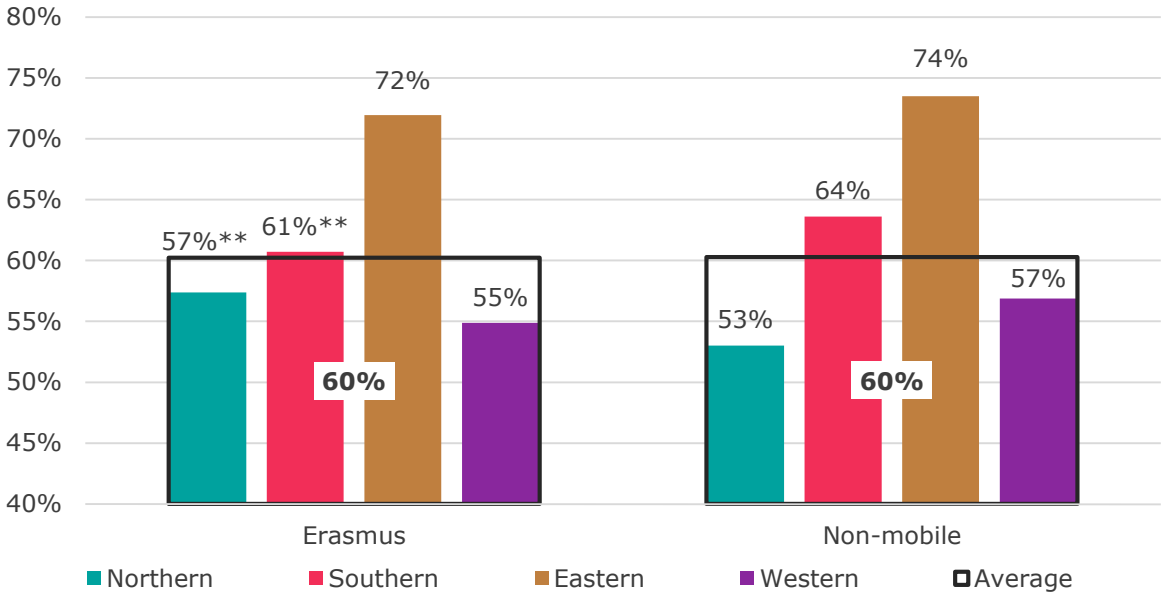
Employers were also asked whether they pay higher salaries to mobile alumni with five years of professional experience, to add work experience to the initial question. Across the regions, an average of 39% of employers agreed that they award higher salaries to such graduates. As in the previous case, the proportion was highest in Eastern Europe, where 46% of employers claimed to award a higher salary to alumni with both international and labour market experience. In each of the other three regions, over a third of employers also claimed to pay higher salaries to mobile alumni with five years of experience.

Figure 5-31 Higher salary for internationally experienced higher education graduates with five years of work experience, perspective of employers, selected countries



At the country level, we once again see results that are substantially different from the regional level, especially to the negative. The share of employers that claimed to pay higher salaries was exceptionally low in Italy (8% below the regional average), and even more so in Finland and Poland (11% and 14% below their regional averages respectively).

Figure 5-32 Importance of expected above-average salary for study programme choice, perspective of Erasmus and non-mobile students, by region



Eastern European students choose study programme with regard to an expected above-average salary after graduation

The employer and alumni perspectives can be contrasted with student priorities. In all regions, more than a half the students, both with Erasmus experience and non-mobile, reported to have chosen their study programme with regard to the salary they expected to receive after graduation. The proportion was largest in Eastern Europe, where 72% of Erasmus and 74% of non-mobile students claimed to have done so. In Southern and Northern Europe there were statistically significant differences between Erasmus and non-mobile students. In Southern Europe significantly more non-mobile (64%) than Erasmus students (61%) chose study programmes based on potential salary, whereas in Northern Europe significantly less non-mobile (53%) than Erasmus students (57%) did so.

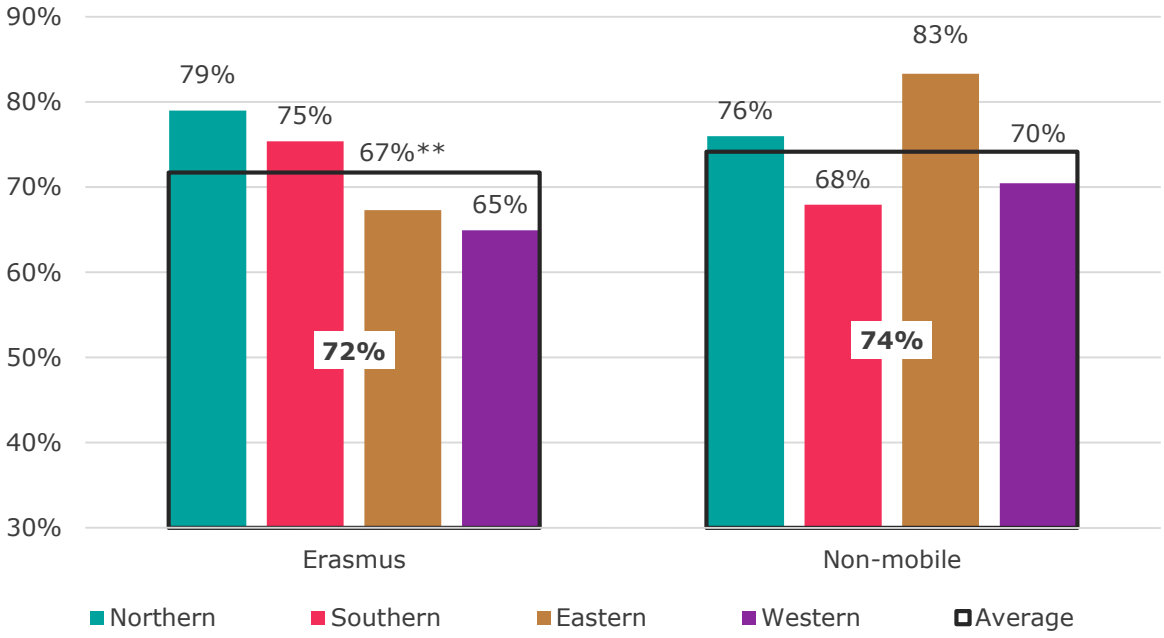
We see that in Eastern Europe the expectations of Erasmus students coincided with reality the most. In this region, students genrally chose their subject because they wanted to earn a substantial income.

On the other hand, it is interesting that Erasmus students in Southern Europe were significantly less interested in a higher income than non-mobiles. Given the economic situation, this may mean that employment was more of a priority than salary.

5.5 Career mobility and entrepreneurship

This subchapter analyses how Erasmus and non-mobile alumni differed in their behaviour in the labour market. Moreover, the entrepreneurial activity of alumni is also analysed, i.e. how many of them were interested in starting their own company and how many actually did.

Figure 5-33 Alumni that changed their job at least once, Erasmus and non-mobile alumni five to ten years after graduation, by region



The share of alumni that changed their job at least once within the first five to ten years after graduation was around 70% for both Erasmus and non-mobile alumni across all regions. However, the results differed in the individual regions. Of all the groups, non-mobile alumni from Eastern Europe were the most likely to change from one job to the other and more than half did so at least three times. It was also the region with the largest (and the only statistically significant) difference between Erasmus and non-mobile alumni – only two thirds of Erasmus alumni reported to change jobs and most of them did so only once.

This could be related to the previous findings that if Erasmus students in this region are more likely to be assigned positions with responsibility within a company, they might be less likely to change jobs and instead be promoted within the company.

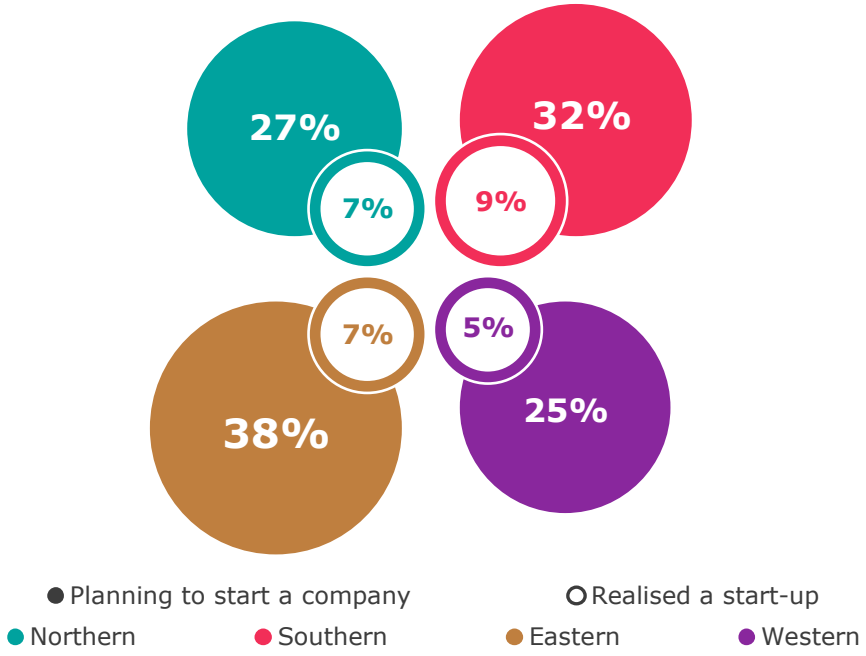
In Eastern Europe, Erasmus alumni are less likely to change jobs than non-mobile alumni

In Southern Europe, the situation was quite different. Only 68% of non-mobile alumni changed jobs compared to 75% of Erasmus alumni. However, these Erasmus alumni usually only changed jobs once or twice while non-mobiles that did not have a stable employer for the entire period were more likely to change repeatedly. In Northern and Western Europe, the differences among the groups were smaller; however, in Western Europe, alumni were generally less prone to changing their job than in Northern Europe.

Figure 5-34 Alumni that changed their job at least once, Erasmus alumni five to ten years after graduation, selected countries

Results at the country level were generally in line with the regional findings. The most exceptional proportions of Erasmus alumni that changed their place of work at least once were found in Finland (16% above the regional average and with a significant difference to non-mobiles) and Belgium (8% above the regional average).

Figure 5-35 Start-ups realised by Erasmus alumni and their plans to start a company, by region



The entrepreneurial attitude of Erasmus alumni is substantial across all regions with 30% declaring that they were planning to start a company and 7% claiming to have already realised their plans. The percentages, however, varied for the individual regions. It appears that the willingness to take entrepreneurial risk is, on the one hand, directly related to the labour market situation and a particular predisposition on the other.

In Northern Europe, the proportion of Erasmus alumni with entrepreneurial plans was similar to the proportion in Western Europe. However, the proportion of those that had already realised a start-up was relatively high, resulting in 7% of the group with their own start-up and a quarter of the region planning to become entrepreneurs.

In Eastern Europe, 38% claimed to be planning to start their own company compared to 7% of alumni that stated they had actually done so. As seen previously, Erasmus alumni from this region enjoy substantial advantages throughout all aspects of the labour market, ranging from employment prospects to responsibility and salaries. The

need to become self-employed is therefore likely not an urgent one, thus allowing the individual to entertain the idea of becoming self-employed without the need to do so.

In contrast, in Southern Europe, the region most affected by youth unemployment, 32% were planning to start a company and 9% of alumni claimed to have started one. In this case, it is clear that the weak labour market combined with high economic pressure creates incentives for people to consider self-employment. As a result, of all the regions, Southern Europe has the highest ratio of alumni with entrepreneurial plans and those that realised their own start-up as well as alumni that moved abroad (as established previously).

5.6 Conclusions

In **Eastern Europe**, Erasmus has strong effects on the question of unemployment. Erasmus alumni were significantly more likely to find a job within the first three months after graduation than non-mobiles, especially in Poland and Hungary and in particular with higher academic degrees. Also, alumni in Eastern Europe faced a significantly lower risk of long-term unemployment (only around 1%) compared to non-mobile alumni (6%). Again, Hungary was especially positive with a significant advantage for Erasmus alumni and the highest level of long-term unemployment of non-mobile alumni after graduation. Erasmus alumni from this region participated less often in further education five to ten years after graduation than in other regions. This is consistent with the employment data that Erasmus alumni in Eastern Europe seem to choose employment over further education.

In Eastern Europe, mobility also does not stop with an Erasmus stay abroad during studies: 37% of Erasmus alumni changed their country of work or residence at least once after graduation, which is arguably not a low number.

Erasmus alumni were also very likely to work in an international environment and in a company with an official language different from their mother tongue. Moreover, in Eastern Europe, Erasmus alumni changed their job significantly less often than non-mobiles; of all the regions, non-mobile alumni in Eastern Europe were actually the most likely to change their job at least once after graduation.

Erasmus alumni in Eastern Europe were also more likely to secure a managerial position than non-mobile alumni due to their experience. Moreover, employers claimed to assign them greater responsibility and a higher salary more often than any other regions (this difference in salary was partly balanced out by the addition of work experience). Every third Eastern European Erasmus student on work placement was offered a job by the host company abroad and within this context, Hungarian Erasmus students on work placements were among the most successful in Europe. However, there are substantial differences between the countries in this region as Romanian students were the least likely to receive an offer.

This confirms that the Eastern European students were indeed right to expect that mobility would improve their employability and career prospects (as seen in the chapter on reasons). This was not the only area where Eastern European students focused on their future prospects. Almost three quarters of both Erasmus and non-mobile students claimed to choose their study programme based on an expected higher future salary.

The entrepreneurial attitude is strong among students in this region. Almost 40% of Eastern European alumni were also interested in starting their own company. From the country perspective, the advantage of Erasmus mobility experience was the most apparent in Hungary and Poland. In the context of moving abroad, Erasmus mobility held a statistically significant advantage with regards to career opportunities abroad, working in an international context or in a managerial position.

Overall, Erasmus adds a significant benefit and boosts the career of Erasmus students and alumni in Eastern Europe. Within the region, Hungary is an exceptional example with 9 out of 10 Erasmus alumni stating to have a managerial position, as well as a high percentage of employers awarding higher salaries to employees with international experience.

In **Northern Europe**, a high proportion of graduates from both groups (Erasmus and non-mobile alumni) found a job within the first three months after graduation, especially in Denmark, Finland and Norway. In addition, long-term unemployment was relatively low for all alumni. Five to ten years after graduation, the unemployment rates among alumni were similar to those in Eastern and Western Europe (and substantially lower than Southern Europe in the case of non-mobile alumni). Thus, the seemingly good labour market reduces the opportunity for Erasmus to generate an advantage. Furthermore, a relatively high proportion of Erasmus alumni from Northern Europe was in further education or training five to ten years after graduation. This was not the case for non-mobiles. Although fewer Erasmus alumni on work placement received a job offer than in any other regions (1 in 4), work placements are still an efficient way for Northern European students to avoid unemployment.

Compared to other regions, the impact of Erasmus regarding career-related advantages are ambivalent for Northern European alumni. On the one hand, student expectations for better salaries were met by almost a fifth of employers awarding higher salaries to Erasmus students and a substantial share of employers also only employing people with international experience. This is despite the fact that the expected salary was (on average) of least importance for Erasmus students in this region when compared to other regions. On the other hand, Erasmus alumni in Northern Europe were less likely to secure a managerial position and employers assigned significantly less importance to international experience than in most other regions, notably in Finland. Although Erasmus alumni in this region changed their country of work or residence more often than non-mobiles, they were less likely to be currently working abroad than in the other regions. Sweden and Finland, however, reacted against this regional pattern. The proportion of Erasmus students that declared they wanted to live or work abroad in the future was higher in Northern Europe than in other regions, however this decreased after mobility (4–7% depending on the aspect). Moreover, we see substantial intra-regional differences. For example, 96% of students in the United Kingdom declared they wanted to work abroad in the future compared to only 84% in Norway. Although all countries in the region showed a significant difference between Erasmus and non-mobile students in favour of Erasmus in this question, Denmark provided the largest difference (39%). Of all the regions, these Erasmus students assigned the most importance to career opportunities abroad when choosing their study programme. Moreover, 40% changed their country of work or residence at least once in the past (the second most of all regions). In Northern Europe, mobility is also relevant regarding employment within the region itself: Both Erasmus and non-mobile alumni also changed jobs relatively often.

On the other hand, international environments at home seem to be very common in Northern Europe: both Erasmus and non-mobile alumni claimed to work in companies with at least some international characteristics more often than in most regions, particularly so in Finland and Sweden.

In **Southern Europe**, the share of graduates that found a job within the first three months after graduation was the lowest of all the regions for both groups of alumni. This was despite Portugal having a significantly higher percentage of employed Erasmus alumni shortly after graduation. The proportion of alumni that were unemployed for more than twelve months before finding their first job was higher in Southern Europe than in any other region. Still, Erasmus alumni had a significantly

lower unemployment rate than non-mobile alumni, who showed an above average unemployment rate together with those from Eastern Europe. Moreover, the effect of mobility seems to permeate through time in Southern Europe. The unemployment rate of Erasmus alumni was significantly lower than that of non-mobile alumni even five to ten years after graduation. The latter also showed a very high unemployment rate compared to other regions. Due to a difficult labour market, Erasmus alumni likely viewed further education as a way to avoid unemployment. Work placements have a special effect on unemployment for students from this region: almost a half of Erasmus alumni that went abroad for work placements received a job offer through a work placement abroad. This was the highest percentage of all the regions. In Italy, every second Erasmus student on a work placement received a job offer from the host company. These numbers were almost as high in Portugal and Spain.

Southern Europe was also the region with the most students – both Erasmus and non-mobile – to consider career opportunities abroad after graduation when selecting their study programmes. This was likely with the local job market situation in mind. As in all other regions, a substantial majority of Erasmus students also declared they wanted to live or work abroad after graduation. What was exceptional for Southern Europe was the high priority non-mobile students assigned to moving abroad, which exceeded the results of the respective target group in the rest of Europe substantially (by up to 15%). Nevertheless, Erasmus alumni were much more likely to actually move abroad after graduation than non-mobile ones. In each of the countries in Southern Europe, more than 40% of Erasmus alumni reported to have moved abroad at least once, twice as many as non-mobile alumni. They are the most mobile group of all the regions regarding a change of country after graduation. Erasmus alumni were also more likely to work in a company whose official language was different from their mother tongue than non-mobiles. However, those that stayed in their country of studies were less likely to work in an international environment than in other regions (with significantly more Erasmus than non-mobile alumni in Portugal).

Interestingly, 5–10 years after graduation, alumni in Southern Europe (with or without international experience) held managerial positions more often than those in Northern or Western Europe. This was nonetheless more likely for Erasmus alumni than non-mobiles. This is not surprising since more than a half of employers in Southern Europe claimed to assign more professional responsibility to alumni with international mobility experience.

Erasmus has a substantial effect on entrepreneurial attitudes, in particular on the realisation of starting a company: 9% of alumni realised a start-up – the most of all regions.

In **Western Europe**, the proportion of graduates that found a job within the first three months after graduation was close to the trans-regional average. Belgium was an exception as non-mobile students were significantly more successful than Erasmus alumni. The long-term unemployment rate was relatively low for both alumni groups. The share of alumni unemployed five to ten years after graduation was also low, as well as participation in further education and training. Still, a higher percentage of Erasmus alumni participated in further education and training than non-mobile alumni, another way to avoid unemployment. Work placements are also a catalyst for the employment of students in Western Europe: every third graduate that took part in an Erasmus mobility work placement received a job offer from the host enterprise.

Erasmus students from Western Europe gain a substantial career advantage, both in terms of salaries and responsibilities. However, these aspects were considered the least when deciding to go abroad. These students showed the least interest in potential careers abroad when choosing their study programme, and of all the regions, displayed the biggest (and most significant) difference between Erasmus and non-

mobile students. This is also consistent with the low share of employability-related reasons for participation in mobility (as seen in the reasons for mobility chapter). In Belgium, Erasmus alumni clearly enjoyed a significant advantage in terms of being assigned higher responsibility at work and moving abroad. In this region, both Erasmus and non-mobile students expressed an interest in working or living abroad less often than those in other regions. The share of non-mobiles that expressed this interest was particularly low in the Netherlands with "only" 50%. This country also showed the second largest significant difference between Erasmus and non-mobile students (34%, in favour of Erasmus).

Still, Erasmus alumni did show a tendency to move abroad similar to that of Eastern Europe where more than a third of graduates had moved abroad for work or life. Germany revealed a special advantage of the Erasmus experience in terms of working in an international environment and a company with an official language different to one´s mother tongue.

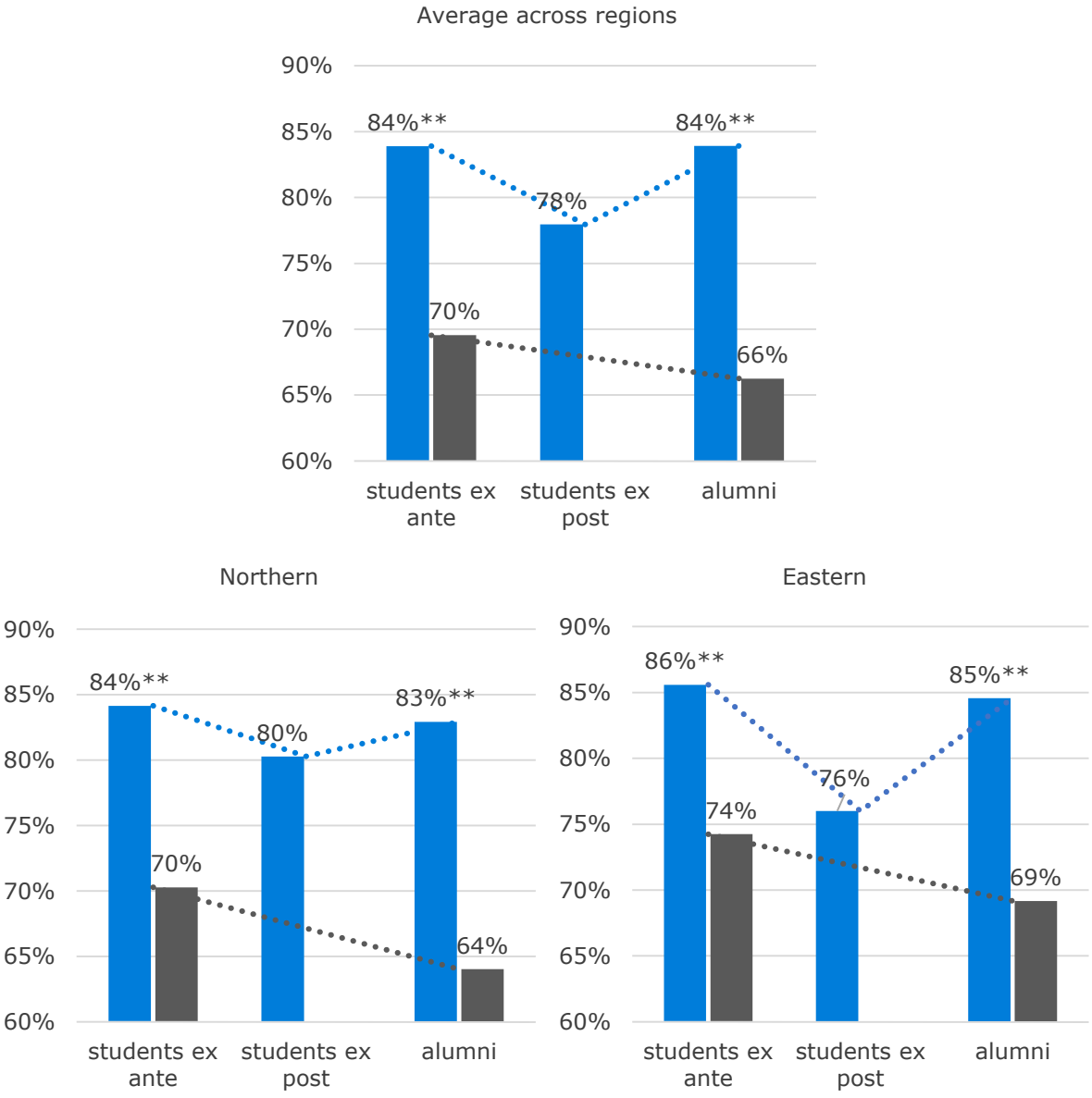
The effect on entrepreneurial attitudes is lower than in the other regions, and fewer graduates actually realise their interest in becoming entrepreneurs: the proportion of Western European alumni that realised their own start-up was almost half that of Southern Europe.

6 How does mobility influence European identity and relationships?

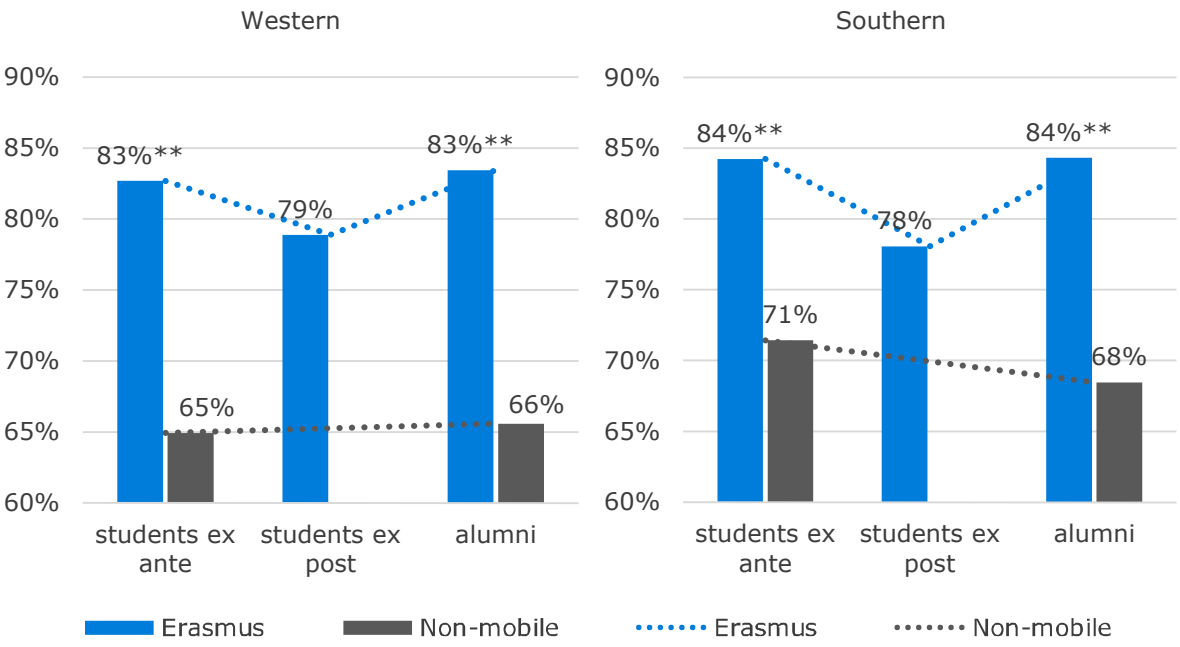
Employability gains are not the only effect of mobility. European identity is also considered a value that deserves support – one developed by bringing people together and creating bonds on a personal level. This is the focus of the final chapter.

6.1 European identity

Figure 6-1 Development of the relationship towards Europe[35] prior to mobility and after, the perspective of Erasmus and non-mobile students and alumni, average across regions and by region



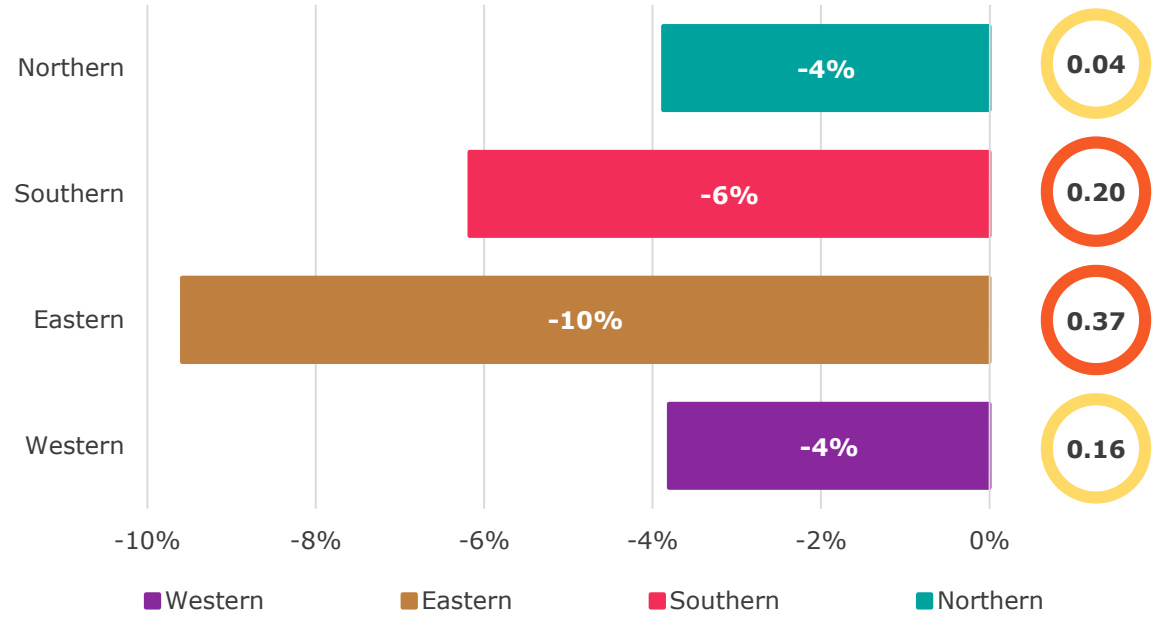
[35] The original question was: "How strongly do you relate to Europe?" Those who answered very strongly/strongly are displayed in the figure.



Across all regions, as well as in every individual region, Erasmus students and alumni declared that they relate to Europe significantly more often than non-mobiles. A comparison of the *ex ante* and *ex post* results also shows that in all regions, Erasmus students experienced a decline in their European attitude though mobility. Still, the vast majority of Erasmus students and, over time as alumni, felt just as strongly related to Europe as Erasmus students did before their departure.

Substantially more Erasmus students feel a strong relationship towards Europe than non-mobiles students

Figure 6-2 Change in relationship towards Europe through mobility and its Cohen's d, the perspective of Erasmus students before and after mobility, by region

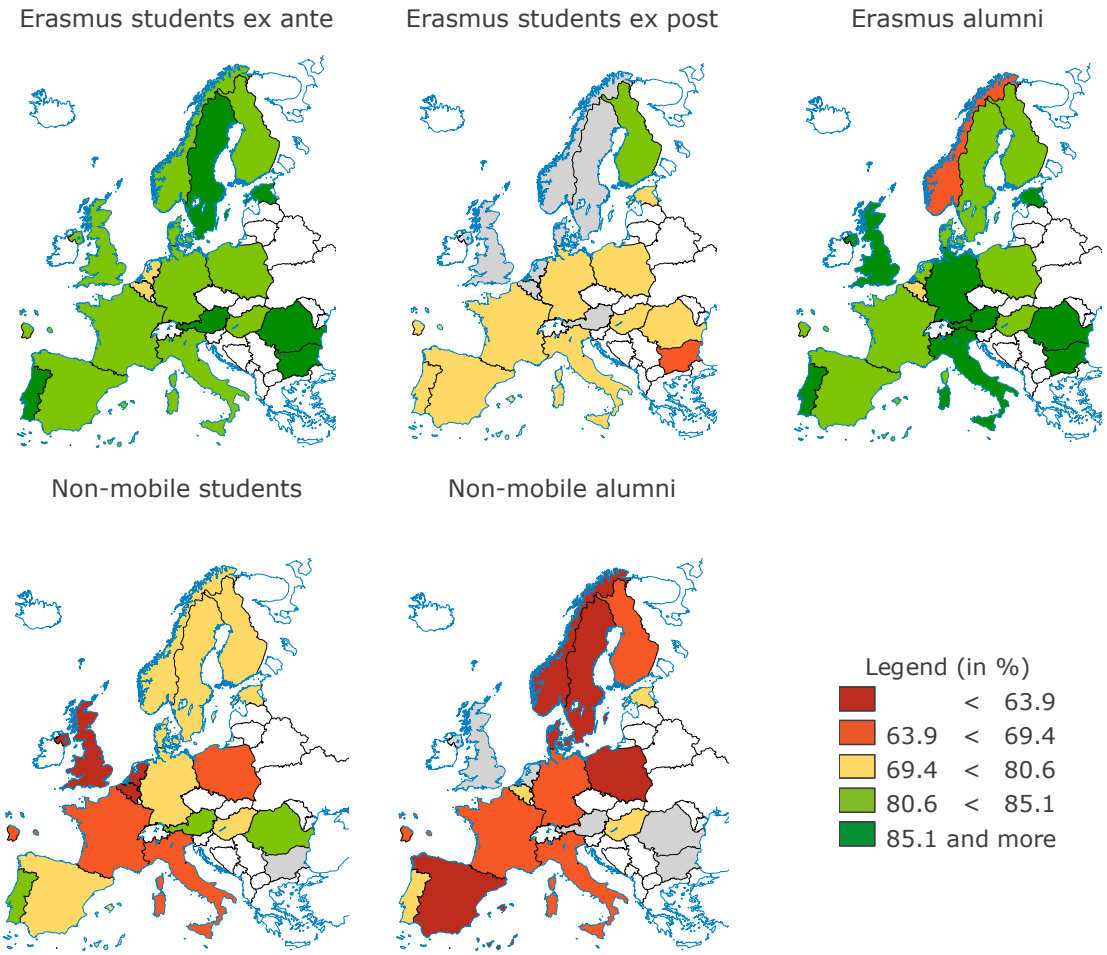


The drop in the relationship towards Europe was greatest in Eastern Europe with 10%. Here, the difference between the perspective of Erasmus students after mobility and non-mobile students was almost negligible. For this region, as well as for Southern Europe, which experienced a decrease of 6%, the change was considered a measurable effect size. Nevertheless, the decline seems to be temporary as in these regions, alumni with Erasmus mobility experience consistently showed levels of agreement similar to those of Erasmus students prior to mobility.

However, the individual regions did differ in the attitudes of non-mobile students and alumni. While 74% of non-mobile students in Eastern Europe felt a strong relationship to Europe, in Western Europe this was only the case for 65%. On the other hand, while fewer non-mobile alumni than non-mobile students felt a strong relationship to Europe in all other regions (the largest difference of 6% being in Northern Europe), this effect was not observed in Western Europe and instead slightly more alumni than students agreed.

Although the concrete mobility experience reduced the relationship to Europe for approximately 5–10% of the Erasmus students just after they had returned, overall the vast majority still had a positive attitude. Furthermore, in the long run, the same number of students (and substantially more than those who did not go abroad) felt closely related to Europe after mobility as before going abroad.

Figure 6-3 Development of the relationship towards Europe through the mobility and after, the perspective of Erasmus and non-mobile students and alumni, by country

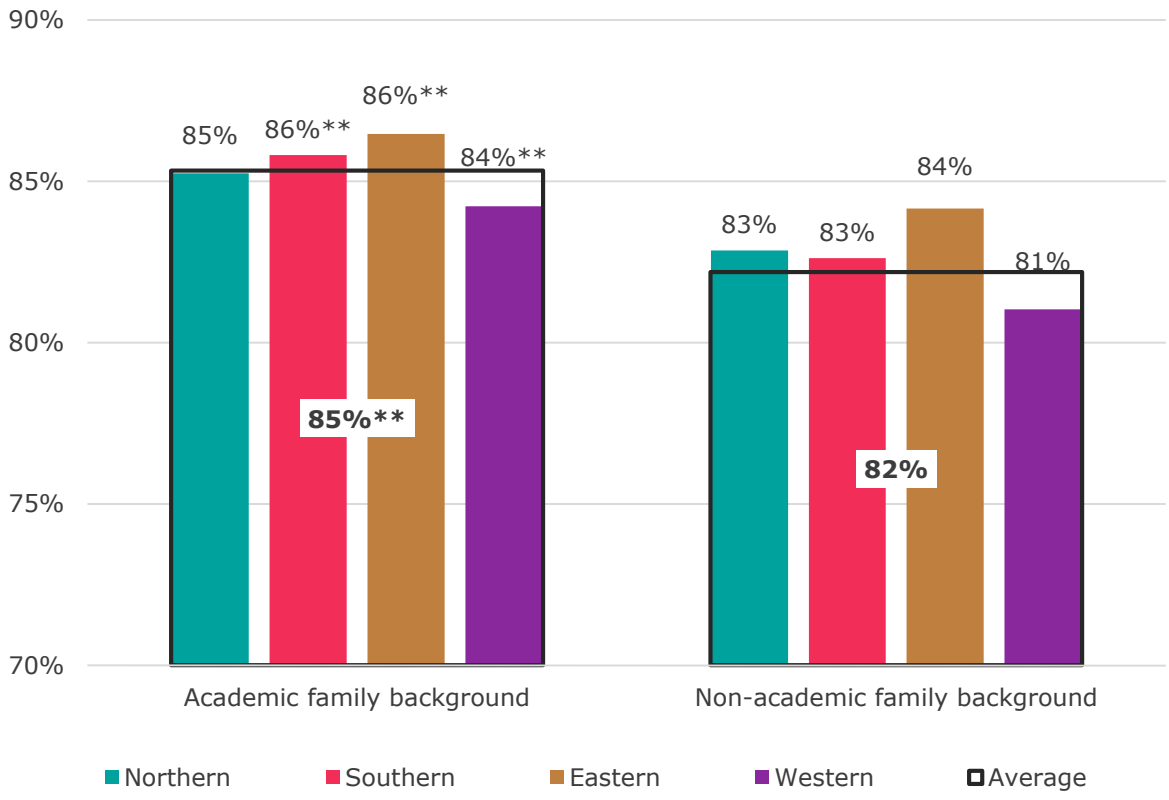


The findings regarding the attitude of students and alumni towards Europe observed at the country level were mostly similar to the findings at the regional level. In all countries except Austria, Estonia, Norway and Romania, significantly more Erasmus *ex ante* students than non-mobiles declared a positive attitude towards Europe. The difference between Erasmus and non-mobile alumni was significant in every country displayed except for Belgium, Norway and Hungary.

The percentage of students that did not confirm a strong relationship to Europe after their stay abroad, despite having done so before going abroad, was largest in Romania (15%) and Portugal (13%), making both countries outliers in their respective regions. On the other hand, this percentage was relatively small in Hungary (5%) denoting about half of its respective regional average.

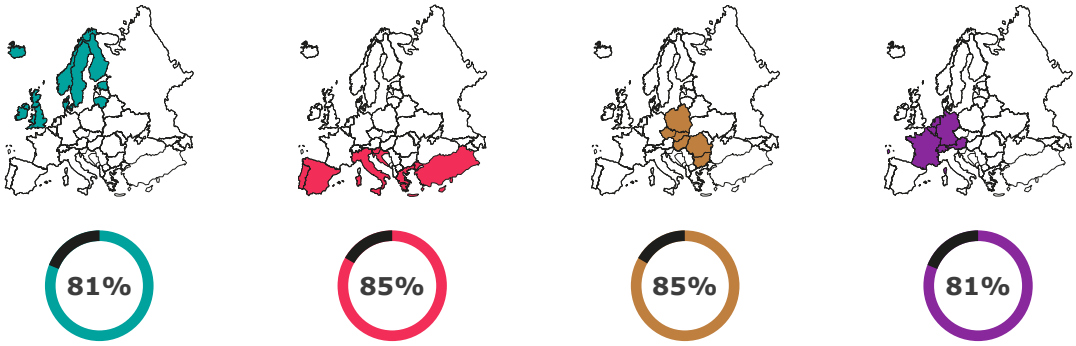
Among the Erasmus students prior to mobility, students from Portugal and Romania felt particularly related to Europe (>90%), where a relatively large share of non-mobile students also felt a strong bond (84% and 81% respectively). On the other hand, in Belgium and the Netherlands, less than 80% of Erasmus students and only 60% of non-mobiles felt strongly related to Europe.

Figure 6-4 Relationship towards Europe, before mobility, Erasmus students by family academic background



Family background also plays a role in Erasmus students' relationship towards Europe. Although the differences remained within the range of 2–3%, we can see that having an academic family background consistently means a significantly stronger relationship towards Europe. This was the case in each region but especially so in Southern, Eastern and Western Europe, where the results were statistically significant.

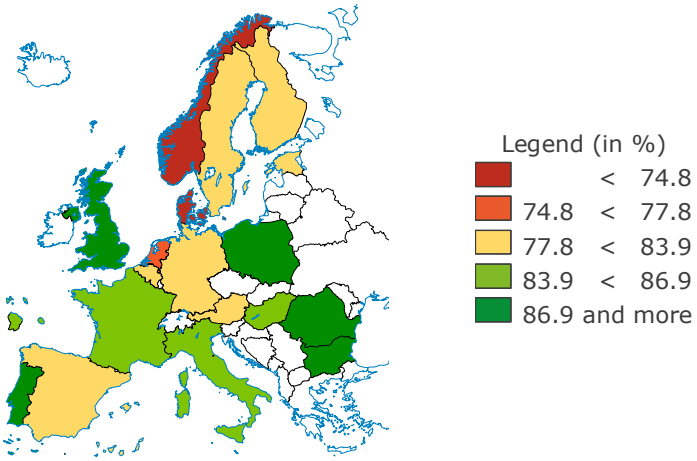
Figure 6-5 Perceived improvement of European attitude[36], perspective of Erasmus students, by region



Although we discussed that the positive relationship towards Europe declined for some students, the fact remains that the vast majority felt that mobility improved their European attitude. Across the regions, this was true for an average of 83% of Erasmus students. We also see a slight difference in Southern and Eastern Europe with slightly more students agreeing to this statement than those in Western and Northern Europe. The difference between the lower percentages of students feeling a strong relationship towards Europe after mobility (Figure 6-1) and a larger share of those that perceived an improvement in European attitude through mobility most probably lies in the nature of the two questions. As the questions are not completely identical in meaning it is therefore possible to experience a loss in one (the question that addresses Europe as an "institution") and a gain in the other (the question that addresses identity).

Students from Southern and Eastern Europe perceived an improvement in their European attitude significantly more often than in other regions

Figure 6-6 Perceived improvement of European attitude, perspective of Erasmus students, by country

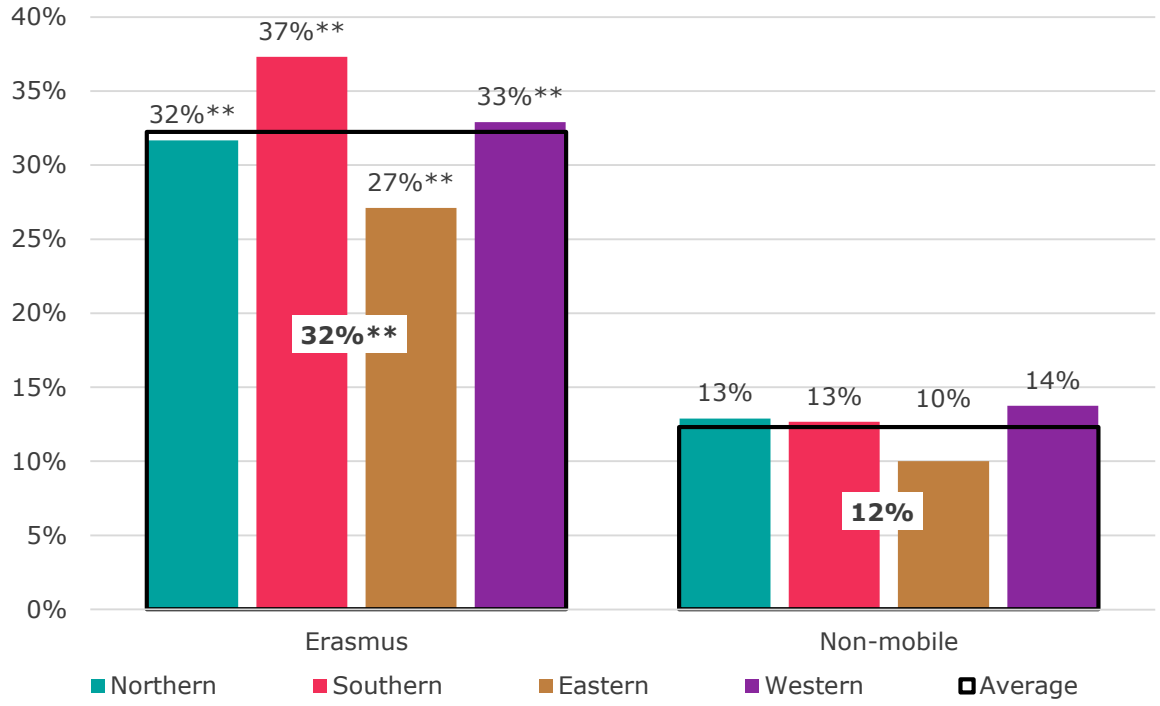


[36] The original question was: "Please rate the following skills as to how you feel that they improved by your (last) mobility experience: to feel European, to have Europe-wide perspectives beyond the national horizon, to have a sense of European citizenship."

Some of the countries were outliers in their region. The already high percentages for Eastern and Southern Europe were exceeded in Bulgaria, showing the highest level of agreement of all the countries (90%), as well as Portugal (89%) and Italy (87%). A positive outlier in Northern Europe was the United Kingdom (88%). Outliers in the opposite direction (with significantly low shares of students feeling more European after the mobility experience) were Norway (72%) and Denmark (74%).

6.2 Relationships

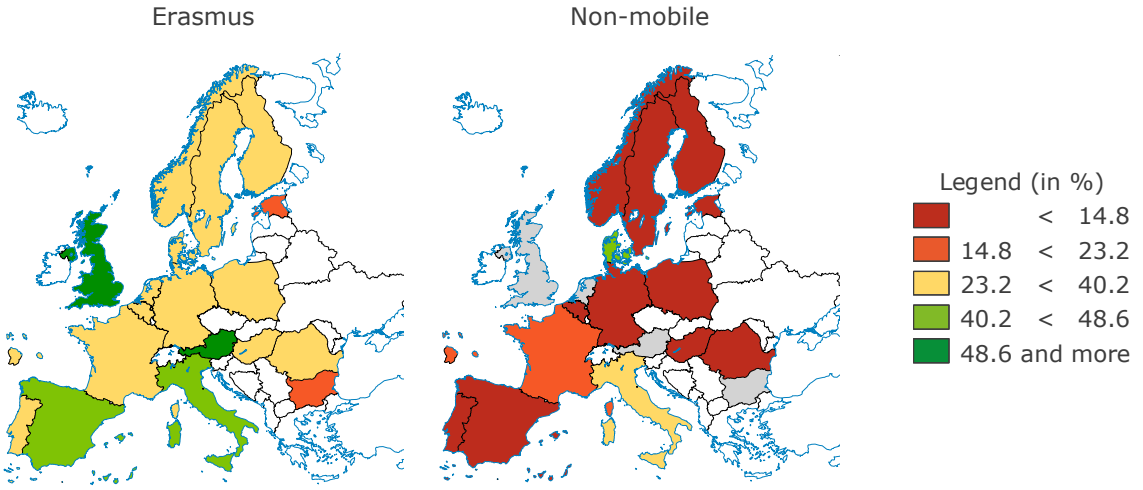
Figure 6-7 Alumni with life partners of a different nationality, Erasmus vs. non-mobile, by region



Across all regions, one in three Erasmus alumni claimed to have a partner of a different nationality. This is nearly three times the percentage of non-mobile alumni. In each region, this difference was similarly high and statistically significant. Of all the regions, alumni in Southern Europe (37%) chose a life partner of a different nationality the most often. This coincides with the fact that in Southern Europe, the largest proportion of alumni also moved abroad after graduation (see chapter 5). The large share of Erasmus alumni with international partners in Southern Europe also results in the biggest difference between Erasmus and non-mobile alumni of all the regions. However, having a life partner of a different nationality was less common in Eastern Europe, where just over a quarter of Erasmus alumni reported of such cases (10% less than in Southern Europe). Still, this proportion was almost three times larger than the share of non-mobiles from that region.

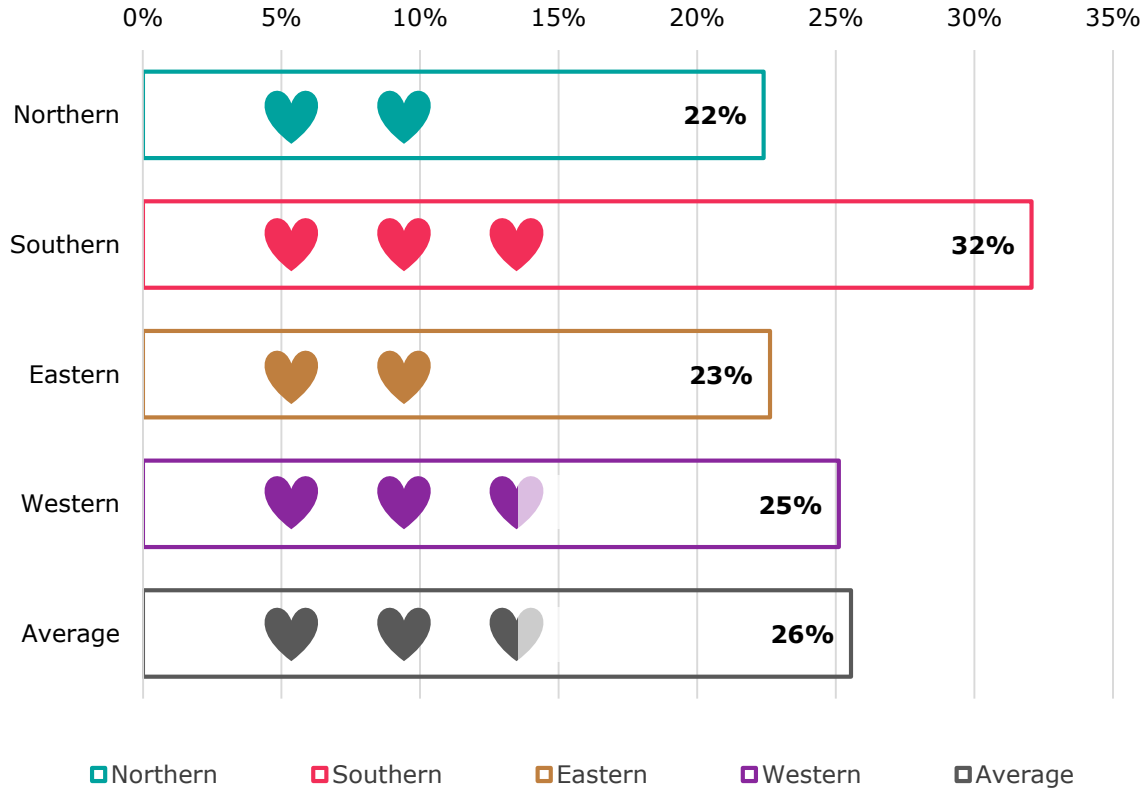
Erasmus alumni have a life partner of a different nationality nearly three times more often than non-mobiles, with the biggest absolute difference in Southern Europe (37% vs. 13%)

Figure 6-8 Alumni with life partners of a different nationality, Erasmus vs. non-mobile, by country



The outliers of the countries with a particularly high share of Erasmus alumni with a life partner of a different nationality were the United Kingdom (57%), Austria (52%), Italy (48%) and Spain (44%). The share was lowest in Bulgaria (18%) and Estonia (22%), and also relatively low for Portugal (24%) compared to its regional pattern. The difference between Erasmus and non-mobile alumni was significant in every country except Denmark, Estonia, France and Romania.

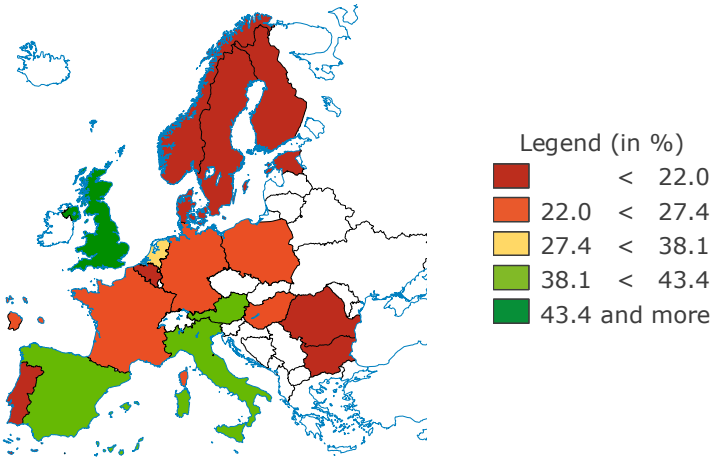
Figure 6-9 Erasmus alumni who met their life partners during mobility, by region



Erasmus does not only lead to a third of alumni sharing their life with a partner of a different nationality, but it also seems to initiate long-term relationships. On average, across all regions, one in four Erasmus alumni claimed to have met his or her life partner during the mobility experience abroad. Of the regions, the share was especially high for Southern Europe with 32%.

A third of Southern European Erasmus alumni met their life partner during mobility

Figure 6-10 Erasmus alumni who met their life partners during mobility, by country



The countries with the largest shares of Erasmus alumni with a life partner of a different nationality were also those where a significant number of Erasmus alumni met their current life partner during a mobility abroad. This was particularly the case in the United Kingdom (with 49%, more than 25% above its regional average), Italy (43%), Austria (40%), and Spain (39%). As with the previous question regarding a partner of a different nationality, an exceptionally low share of Erasmus alumni that met their life partner abroad was in Portugal (17%) with a value of about half the regional average.

6.3 Conclusions

In all regions, Erasmus students (before leaving on mobility) and alumni displayed a more positive relationship towards Europe than non-mobiles. On the other hand, Erasmus students in all regions also showed a decline in this relationship as a short-term effect through mobility. However, this decline was levelled out over time as the attitudes of Erasmus alumni was once again comparable to the values for Erasmus students before the mobility. Furthermore, one should not overestimate the percentage of students that felt less European because the number of students that did so after a stay abroad was still substantially greater than non-mobile students. At the same time, the vast majority of students felt that their sense of European citizenship was increased through the mobility experience.

Moreover, mobility affects the personal lives of Erasmus students equally across the regions in terms of the nature of their life partners. Mobility also makes these students much more likely to live in an international setting privately with a partner of a different nationality, often met during their time abroad. This potentially has a positive impact on their aforementioned tendency to live and work abroad.

Eastern Europe: Students in Eastern Europe, whether Erasmus or non-mobile, generally showed the strongest European identity. Non-mobile students in particular showed a strong relationship towards Europe much more frequently than in other regions, notably Western Europe. However, Erasmus students from this region were

the most likely to lose their bond with Europe through mobility. This represents the largest drop in declared relationship towards Europe post-mobility of all the regions. As a result, mobility has a small statistically measurable effect to the negative. This was particularly true for Romania but less so in Hungary. Nevertheless, most students (85%) actually believed they started to feel more European through mobility – especially in Bulgaria (90%).

27% of Erasmus alumni in Eastern Europe reported on having a life partner of a different nationality. This proportion was almost three times larger than the share of non-mobiles with a life partner of a different nationality.

Northern Europe: More than 80% of alumni and Erasmus students before going abroad felt strongly related to Europe. The decline in the Erasmus students' positive relationship towards Europe after mobility described for Southern and Eastern Europe was present in Northern Europe as well, but it was negligible in terms of effect size. Consistent with the other chapters, Northern Europe provided an interesting range of results at the country level. In Norway and Denmark, a below average number of students felt they improved in their European attitudes (72% and 74% respectively), whereas in the United Kingdom, an above average number of students felt this was the case (88%, as compared to the regional average of 81%). The case of Norway and Denmark is interesting considering the low results we have seen, in particular regarding the personality development of Northern European students. It seems that this personal development is reflected in a reduced feeling of "European-ness" in some of the countries in the region.

A relatively low share of Northern European Erasmus students met their life partner during mobility abroad, especially compared to Southern Europe. Again, we see great diversity among the countries in the region: 57% of Erasmus alumni in the United Kingdom had a life partner of a different nationality (the most of all the countries) compared to just 22% in Estonia and 24% in Finland. Furthermore, in the United Kingdom, almost 50% of Erasmus alumni met their life partner during mobility abroad. In comparison, this was the case for just 17% and 18% of Erasmus alumni in Norway and Finland respectively.

It is also notable that Northern Europe was the only region that did not show a significant difference in the European attitude of Erasmus students before mobility based on academic family background.

Southern Europe: In Southern Europe, the share of Erasmus students that felt a strong relationship to Europe declined substantially after mobility (6% difference). This had a small statistically measurable negative effect, similar to Eastern Europe. The decline was especially apparent in Portugal (13%, more than twice the regional average). As in every other region, however, this decline was somewhat balanced over time by positive values for Erasmus alumni. In contrast to the decline in relationship to Europe, 85% Erasmus students claimed to feel more European after mobility. This was again especially the case in Portugal (89%).

In Southern Europe, mobility has the largest effect on private life. 37% of Erasmus alumni (the highest proportion across the regions) have a life partner of a different nationality. This could be related to the fact that many of them changed their country of work or residence after graduation. Also, an exceptionally large share of alumni met their current life partner during mobility (32%), particularly in Italy (43%).

Western Europe: The share of non-mobile students from Western Europe that felt strongly related to Europe was the lowest of all regions and remained stable when compared with the non-mobile alumni in the region. This contrasts other regions, where non-mobiles become even less related to Europe over time. Similar to Northern

Europe, the share of Erasmus students that perceived an improvement in their relationship towards Europe was substantial (81%).

The share of Western European alumni that had a life partner of a different nationality matched the trans-regional average exactly, as we have seen in most aspects across the regional analysis. However, there were some country differences in Western Europe, revealing Austria to have the highest share in the region, with 52% of Erasmus alumni having a partner with a different nationality and 40% having met their life partner during an Erasmus stay abroad.

7 Lessons learned for the future of Erasmus+

The regional analysis showed that despite the overall positive effect of Erasmus, the programme differs in its effects depending on the region of Europe. The analysis showed that in some regions there are also substantial reasons for a shift of strategy in terms of implementing Erasmus to maximise its advantage.

7.1 Patterns across the regions

In all regions, students who decide to go abroad on Erasmus show significantly higher values of personality traits than those who choose to stay home. As a result, they are more employable than non-mobile students even before they go abroad. Also, the mobility experience itself brings a positive change in the personality traits of Erasmus students. The average change achieved in six months through the Erasmus programme can be considered equivalent to a personality change that would normally happen over four years of life without Erasmus experience. 93% of employers across Europe confirm the importance of characteristics measured by the memo© factors for their employees. Besides personality, Erasmus significantly reduces the risk of long-term unemployment, significantly increases the likeliness of working in an international environment, and makes people measurably mobile across Europe even after graduation. Moreover, more than 90% of Erasmus students in all regions easily imagine living abroad at some point in the future. Last but not least, Erasmus makes people more international, even in their private lives. In all regions, significantly more Erasmus alumni have a life partner of a different nationality, whom they often met during Erasmus mobility (32% compared to 12%).

7.2 Main findings for individual regions

Northern Europe:

Erasmus has an impact on the personal lives of students, promotes mobility after graduation and is seen as a way to live abroad and meet people

Why do students take part in Erasmus?

Students from Northern Europe prefer the social aspects of the Erasmus mobility experience, in particular the "opportunity to live abroad" or the "opportunity to meet new people", regardless of whether they go on study abroad or a work placement. Students from Northern Europe are also interested in the future career prospects, especially abroad. Improving soft skills and their command of a foreign language is less relevant for students from Northern Europe than for students from any other region. Although funding was considered important by Erasmus students, lack of funding seems to be less of a barrier in this region. Of all the regions, this region scored the lowest in all three main groups of reasons for non-participation (financial issues, recognition/compatibility, lack of information and support) and it also had the smallest share of rejected mobility applications.

Employability-related traits and skills

Employers in Northern Europe are even more interested in personality traits measured by the memo© factors than European employers on average, with four out of six memo© factors considered important by all responding employers. However, Erasmus students from this region faced a small overall decrease in the memo© factors on

average, in particular in "Tolerance of Ambiguity" and "Serenity". Although the level of personality traits after mobility was still high compared to non-mobile students, and although the average decrease is too small to be considered significant, it is nevertheless worth considering that the mobility experience is not as beneficial to the development of the personality of Erasmus students as in other regions. One reason may be that many students in this region tend to start university with some previous international mobility experience, such as having spent time abroad during their school time. At the same time, the level of improvement perceived by these students was comparable with the level of perceived improvement in other regions.

Employers in Northern Europe value all top 5 skills (ability to adapt and act in new situations, analytical and problem-solving skills, communication skills, planning and organisational skills, team working skills) more than employers in other regions, both in the recruitment process and later in the career of employees. 100% of employers in Northern Europe placed special value on "communication skills" and "team working skills". In Northern Europe, the gap between the share of students that expected to improve their skills and those that perceived an improvement after their stay abroad was bigger than in the other regions. Their Cohen's d, measuring the size of the change was always the largest (planning and organisational skills 0.37, team working skills 0.43, analytical and problem-solving 0.47). This means that a substantial number of students had expected to improve their skills but did not feel to have done so after the stay abroad. The perceived improvement of skills was consistently below the total average for the regions.

Employment and career

In Northern Europe, Erasmus, and higher education in general, has a strong positive effect on employment. A high proportion of both Erasmus and non-mobile graduates found a job within the first three months after graduation. In addition, long-term unemployment was relatively low for all, but lower for Erasmus alumni (2%) than non-mobiles (3%). Five to ten years after graduation, the unemployment rates among alumni were similar to those in Eastern and Western Europe and substantially lower than Southern Europe in the case of non-mobile alumni. Thus, on the one hand, the seemingly good labour market reduces the opportunity for Erasmus to generate an advantage but on the other, it also makes this limited impact Erasmus has on the students less relevant for them. Furthermore, a significantly high proportion of Erasmus alumni from Northern Europe (9%) – in contrast to 3% of the non-mobile alumni – was enrolled in further education or training five to ten years after graduation. Erasmus had a positive effect for students on work placements in terms of job offers, although less so than in other regions. Students from this region assigned the most importance to career opportunities abroad when choosing their study programme – which seems to be in contrast to their motivation for going abroad which was mainly to increase employability at home – and 40% of Erasmus alumni changed their country of work or residence at least once in the past (the second most of all regions). However, these students ultimately tend to move back home more often than other regions. This could be as a result of the positive labour market conditions and the quite favourable social system in the countries of this region. Northern Europe also seems to provide in general rather international work environments as both Erasmus (72%) and non-mobile alumni (70%) claimed to work in companies with at least some international characteristics more frequently than most other regions. However, the difference between Erasmus and non-mobiles was still significant also in Northern Europe as it was in all other regions.

Consequently, the career-related advantages of Erasmus are ambivalent for Northern European alumni. On the one hand, Erasmus students expected the participation in the programme to bring higher salaries – although less so than in other regions – and

almost 20% of employers claimed that Erasmus alumni were better paid than others. Furthermore, a substantial share of employers also claimed to only employ people with international experience (27%). However, on the other hand, Erasmus alumni in Northern Europe were less likely to secure a managerial position than in other regions (51% compared to a cross-regional average of 64%). Although Erasmus alumni in this region changed their country of work or residence more often than non-mobiles (40% compared to 24%), they were less likely to be currently working abroad than alumni from the other regions. 40% of Erasmus alumni from Northern Europe lived or worked abroad after their mobility than before, the second highest share after Eastern Europe.

Relation to Europe and personal life

Northern Europe showed average results regarding the relationship to Europe (more than 80% of Erasmus students and alumni feel closely related to Europe), but only in this region there was no significant difference depending on academic family background. The share of Northern European Erasmus students that met their life partner during mobility abroad is the lowest among all regions (22%), whereas the share of alumni with a life partner of a different nationality was comparable to the European average of 32%.

Southern Europe:

Erasmus creates a substantial advantage for the career, employment and personal lives of students and fosters the entrepreneurial attitudes more than in any other region

Why do students take part in Erasmus?

Whereas in Northern or Western Europe, the opportunity to live abroad or to meet new people seems to be predominant, Southern European students value language learning as well as the acquisition of soft skills and career aspects as equally important. Among all regions, Erasmus students from Southern European value the opportunity to improvement of their career prospects highest (93.7% compared to a cross-regional average of 90%). This region sees a substantial gap of perception of advantages between Erasmus and non-mobile students. Not surprisingly, the latter were highly sceptical regarding the impact of mobility and they also found more barriers preventing them from doing so. Next to financial issues, which are the major reason for students from the region not to go abroad (53%, the highest share among all regions), there seems to be a higher degree of institutional barriers to participation in this region, such as recognition issues (44%) and insufficient access to information and support (42%).

Funding is of crucial importance for mobility in this region, and it encourages students to go just as much as a lack of funding stops them from doing so. In other words, only those who are offered sufficient grants participate. While in Southern Europe the share of Erasmus students from academic and non-academic family backgrounds was the most balanced of all the regions, students from a non-academic family background still faced the biggest financial barriers.

Employability-related traits and skills

Employers in Southern Europe considered the memo© factors very important, not giving preference to any individual trait: the values for "Confidence" (95%), "Curiosity" (95%), "Serenity" (94%) and "Vigour" (91%) were always above the cross-regional average. Mobility also seems to have the desired effect on students: Erasmus students from this region had the highest values for personality traits

measured by memo© of all the regions before going abroad, which therefore suggests they are especially well prepared to meet the high expectations of the labour market. They improved their personality even further through mobility, although the gain was less than in other regions due to the high starting level. Of all the factors, they especially improved in "Decisiveness". In this region, mobility seems to create a positive experience especially for students without an academic family background who achieved a positive measurable effect in their memo© total (Cohen's d 0.14) whereas students from academic family background did not. This strong position in personality traits is reflected in the perceptions and expectations. Students in this region went abroad to increase their career prospects and employability and had the highest expectations of all regions. However, students in Southern Europe not only expected the most but had the biggest share out of all regions to perceive an actual improvement. For them, the mobility experience confirmed their high expectations.

Other skills than the ones measured by memo© seem to be less relevant to both employers and alumni in Southern Europe than the memo© factors. In particular, "communication skills" were less important for employers than in the other regions. On the other hand, employers in Southern Europe considered certain aspects of a stay abroad, such as length and subject area of mobility, languages spoken during mobility and network of sustainable contacts, more important for employment than in other regions. Furthermore, students from Southern Europe had particularly strong expectations regarding the improvement of their skills through mobility and firmly believed they had improved, more so than the average across the regions. They also perceived a much higher improvement in "analytical and problem-solving skills" and "planning and organisational skills" than students with an academic family background. On the other hand, students with an academic family background considered their "ability to adapt to and act in new situations" to improve to a higher degree than their peers without such a background. In Southern Europe, students on studies seem to perceive a greater benefit regarding their skill development than those on work placements. This is consistent with Eastern Europe and contrasts with Northern and Western Europe.

Employment and career

In Southern Europe, the impact of the economic crisis is evident in all aspects related to employment. The share of graduates that found a job within the first three months after graduation was the lowest of all the regions for both groups of alumni, and the proportion of alumni that were unemployed for more than twelve months before finding their first job was the highest. Under these unfortunate labour market conditions, Erasmus makes a substantial difference. Erasmus reduces the risk of long-term unemployment by half compared with non-mobile alumni (3% compared with 6%) and also a significantly lower unemployment rate five to ten years after graduation (7% compared with 16%). Work placements have an especially strong effect on employment for this region: almost half of Erasmus placement students received a job offer through a work placement abroad, the highest share of all the regions. The labour market in this region makes people mobile. Southern Europe had the most students – both Erasmus and non-mobile – that considered career opportunities abroad after graduation when selecting their study programmes. A substantial majority of Erasmus students and a high proportion of non-mobile students – much more than in any other region in Europe – also claimed they wanted to live or work abroad after graduation. Nevertheless, Erasmus alumni were much more likely to actually move abroad after graduation than non-mobile alumni. Erasmus therefore fosters mobility later in life: more than 40% of Erasmus alumni reported to have moved abroad at least once, almost twice as many as non-mobile alumni. Erasmus alumni were also significantly more likely to work in a company

whose official language was different from their mother tongue than non-mobiles (33% compared with 19%).

The career effects of Erasmus are long-term: 5–10 years after graduation, Erasmus alumni in Southern Europe held managerial positions more often than non-mobiles (68% compared with 65%). This is not surprising since more than half of employers in Southern Europe claimed to assign more professional responsibility to alumni with international mobility experience. Erasmus also has a substantial effect on entrepreneurial attitudes in Southern Europe, in particular on starting a company: 32% of alumni were definitely planning to start their own company (second after Eastern Europe with 28%) and 9% of alumni created a start-up – the most of all regions. One of the most obvious results for Southern Europe is that those who go abroad are aware of the advantages this experience will have on their career, while those who choose to stay at home are largely unaware of the opportunities they miss out on. Closing this knowledge gap is therefore vital.

Relation to Europe and personal life

Of all the regions, Erasmus has the biggest impact on personal life in Southern Europe. 37% of Erasmus alumni (the highest proportion across the regions) have a life partner of a different nationality. This is possibly related to the fact that many of them changed their country of work or residence after graduation (45% of Erasmus alumni compared to 19% of non-mobile alumni). Furthermore, one in three Southern European Erasmus alumni met their current life partner during mobility.

Eastern Europe:

Erasmus is an instrument to boost personality development, career opportunities and the employability of students

Why do students take part in Erasmus?

Erasmus students from Eastern Europe have very clear ideas about why they want to go abroad. Erasmus is a major instrument for them to broaden their career prospects, for instance through increased foreign language skills, and they recognise the employability benefits of the mobility experience in their home country more often than students from other regions. In Eastern Europe, economic aspects matter more than elsewhere and the Erasmus grant itself is of fundamental importance, particularly for students from non-academic family backgrounds. An apparent issue in this region is the high demand for Erasmus and its popularity. Eastern Europe is therefore a rather selective region with 20% of applications being rejected. It is also the most socially selective of all the regions, exhibiting the biggest share of Erasmus students from an academic family background. However, in this region, Erasmus work placements appear to be less socially selective than study abroad, demonstrating the largest difference between the two actions in the participation of students from non-academic family backgrounds.

Employability-related traits and skills

The assessment of employability through the memo© factors drew a clear picture for Eastern Europe. Like in all regions, the vast majority of employers (90%) were convinced of the value of the six personality traits. Erasmus students from this region showed high values for most factors before going abroad and improved on them substantially, especially in "Tolerance of Ambiguity". This results in the fact that Erasmus students in Eastern Europe end up at the highest memo© level of all the

regions. Therefore, Erasmus delivers what these students expected: a strong increase in their career prospects, especially as Erasmus clearly improves the aspects that their employers are specifically interested in. Erasmus students from Eastern Europe also seem to be much more accurate at assessing their own development than students in other regions as their perceived improvement was quite consistent with the measured effects. In other words, Erasmus increases the employability-related traits of Eastern European students substantially and they know it. Considering that they end up with the highest absolute memo© values, this might make them the most employable students in Europe.

Other skills than those measured by memo© are considered highly relevant by employers in Eastern Europe as well, especially "communication skills". This corresponded with the students' expectations before departure, which were the highest in Eastern Europe. Moreover, although Eastern Europe shows lower level of social equity regarding participation in Erasmus compared with other regions (high level of competitiveness and large share of students from academic family background), the programme seems to be especially beneficial to students from non-academic family backgrounds, who perceived a significantly higher improvement in "team working skills" and "analytical and problem-solving skills". Furthermore, work placements tended to improve "analytical and problem-solving skills" much more than studies here as in other regions.

Employment and career

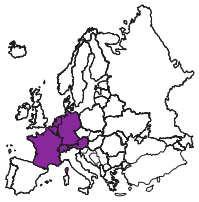
The impact of Erasmus on employment and career was very strong in Eastern Europe. Erasmus alumni (78%) were significantly more likely to find a job within the first three months after graduation than non-mobiles (67%) and such a difference was only seen in Eastern Europe while the impact in other regions was more on the long-term level. Remarkably, their risk of long-term unemployment was six times lower than that of non-mobile alumni. Students on Erasmus work placements were successful with a third receiving a job offer from their host company abroad. Erasmus alumni from this region were enrolled in in further education five to ten years after graduation less often than in other regions. Mobility keeps people from this region mobile: 37% of Erasmus alumni changed their country of work or residence at least once after graduation.

The direct impact on career-related aspects is strong. Erasmus alumni in Eastern Europe were more likely to hold a managerial position than non-mobile alumni thanks to their international experience, which is valued highly by employers: 70% give higher responsibility and 35% pay higher salaries to employees with international experience. Eastern European students (Erasmus and non-mobiles alike) demonstrated a strong focus on their careers with almost three quarters claiming to have chosen their study programme because of a higher future salary. This desire is primarily fulfilled for Erasmus alumni as employers in this region claimed to assign them greater responsibility and award them a higher salary. The latter was the case nearly double as often as in Southern and Northern Europe and 2.5 times more often than in Western Europe. Not least, Erasmus placements generate an entrepreneurial attitude with 38% of Eastern European alumni definitely planning to start their own company. However, it seems that they are less likely to realise this interest than, for example, alumni in Southern Europe.

Relation to Europe and personal life

In this region, while Erasmus is strongly related to a European identity, as in all regions, non-mobile students also displayed a stronger relationship to Europe than in any other region. The programme also has a strong influence on personal life in this region. 27% have a life partner with a different nationality – three times as many as

non-mobile alumni – and nearly one in four Erasmus alumni met their life partner abroad, slightly less than the average across the regions.



Western Europe:

Erasmus brings strong added value to the personal development of students and their career

Why do students take part in Erasmus?

Erasmus students from Western Europe mainly go abroad to live abroad, meet people and learn a foreign language. Reasons related to career and future employability are the least relevant to students from this region, with the exception of students on work placements. Western European students face relatively low barriers to mobility, and financial issues are not so relevant as it is to students, e.g. in Southern Europe. Consequently, Erasmus grants are only important for less than half of the Erasmus students in the region, and less than 40% rely on other financial support (the lowest for both across Europe). An interesting aspect is that family reasons were an important reason not to go abroad, especially for students without an academic family background.

Employability-related traits and skills

In Western Europe, employers were slightly more reserved about the relevance of the personality traits for employability than employers in other parts of Europe. This is in line with the student perspective, which also places slightly less emphasis on future employability in general. Erasmus students from this region usually started with substantially lower values than students from other regions but still had a measurable advantage over non-mobiles. Mobility then substantially improved the personality of Erasmus students from Western Europe. Unlike in other regions, these positive effects were experienced by students from academic as well as non-academic family background. The objective findings regarding personality development are in line with the expectations and perceptions of students. Of all the regions, Western European Erasmus students were the most sceptical regarding the expected improvement of their personality through a mobility experience and the most "surprised" by the perceived gain. Moreover, the low expectation levels prior to going abroad correspond with the abovementioned fact that Western European students were the least interested in employability-related reasons to go abroad among all regions.

While employers and alumni in Western Europe considered other employability-related skills as important as their counterparts in other regions, HEI and staff in Western Europe were usually the most sceptical regarding the effect of mobility on such skills, especially "analytical and problem-solving skills". Western European students were positively surprised by the impact of mobility on their personality, more than in Eastern and Northern Europe and on par with Southern Europe. However, they perceived an improvement in the other skills in fewer cases than students in other regions.

Employment and career

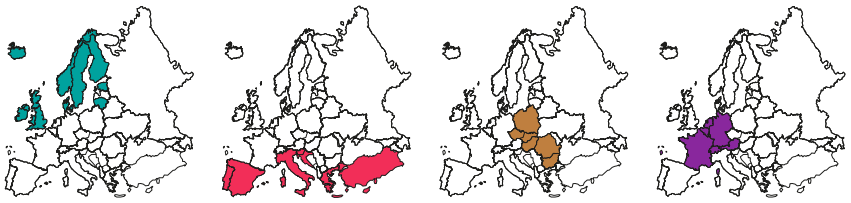
The effect of Erasmus on employment in Western Europe was comparable to the average across the regions. However, as in Northern Europe, the strong labour market first and foremost seems to favour higher education graduates in general. The long-term unemployment rate was relatively low for both alumni groups, 2% for Erasmus alumni and 3% for non-mobile alumni, as was the share of alumni unemployed five to ten years after graduation and enrolment in further education and training. Still, a higher percentage of Erasmus alumni were enrolled in further education and training than non-mobile alumni. Work placements are also a catalyst for the employment of students in Western Europe as in other regions: a third of graduates that took part in an Erasmus mobility work placement received a job offer from the host enterprise. Moving abroad for work or life was generally less attractive for students from Western Europe, especially for non-mobile students. Still, a majority of students wanted to be mobile after graduation and 37% of Erasmus alumni (compared to 45% in Southern and 40% in Northern Europe) changed their country of work or residence at least once after graduation.

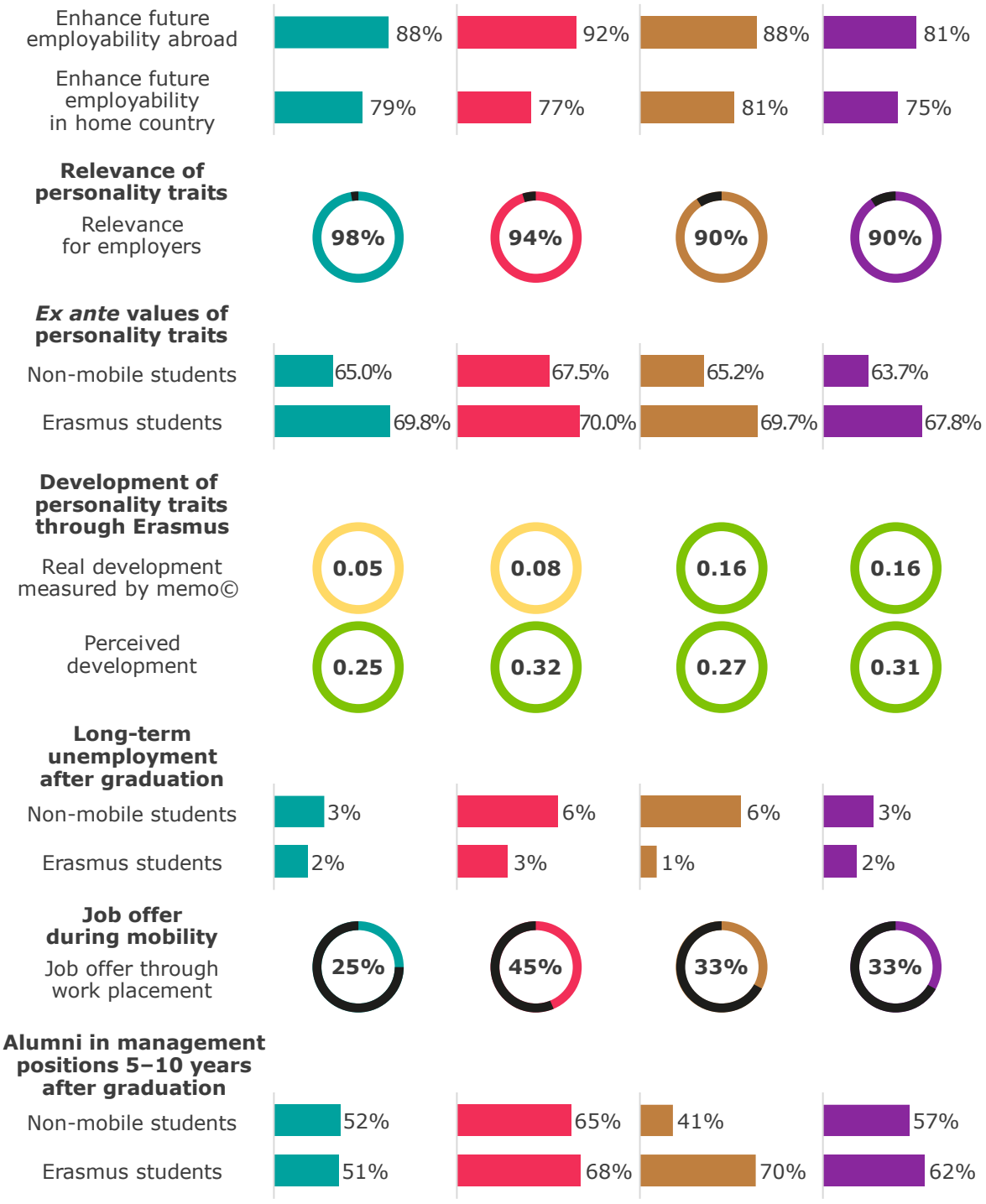
Erasmus undoubtedly has a strong effect on career prospects in Western Europe. Erasmus alumni showed substantial career advantages, with a majority of employers in the region giving more professional responsibility and higher salary for internationally experienced graduates, although these aspects were much less important to students from Western Europe when going abroad than for students from other regions. These students also showed the least interest in potential careers abroad when choosing their study programme. This is consistent with the fact that relatively few students from this region go abroad for reasons related to employability and are less interested in working or living abroad. The effect on entrepreneurial attitudes is lower than in the other regions: 25% of Erasmus alumni on work placements are planning to start their own company and 5% did so already – in both cases the lowest value among all regions.

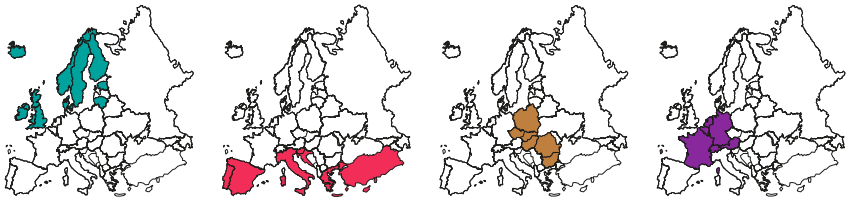
Relation to Europe and personal life

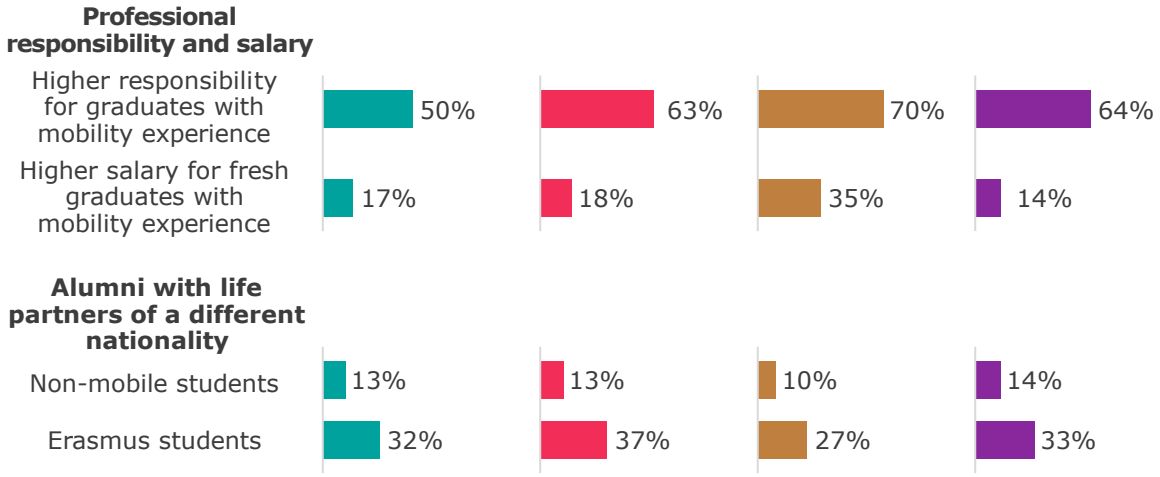
In Western Europe, the share of Erasmus students that perceived an improvement through mobility in their relationship towards Europe was substantial (81%, slightly below the European average of 83%). Erasmus is also important for the personal life of the students of this region: one in three students has a life partner with a different nationality and one in four met their current life partner during mobility, both of which is very much in line with the average across regions.

7.3 Main findings across regions in a nutshell









7.4 Erasmus+ beyond individual regions

The regional analysis showed positive effects of Erasmus overall, albeit with different nuances in each of the four regions. Some regions may want to consider a shift in strategy when implementing Erasmus+ in order to maximise its impact. For example, Southern Europe could introduce an initiative to inform students of the benefits of mobility for both career and personal life as we see a substantial gap in information between those who go abroad and those who choose not to.

Not surprisingly, many regional characteristics seem to be closely related to the respective labour market. Northern and Western Europe seem to have rather accommodating labour markets and accordingly, employability-related reasons are not dominant among Erasmus students in these regions. Southern Europe, on the other side, has a very competitive and challenging labour market. This coincides with the relevance of the Erasmus programme – both subjectively given by the respondents as well as objectively measurable – for making people go abroad for life and work or for supporting the entrepreneurial attitudes of participants. In Eastern Europe, the competitiveness of the labour market at home makes people go abroad with Erasmus and come back with advantages in employment and career which supersede the advantages for Erasmus alumni in all other regions.

Annex: Methodology and Design

Although this follow-up study is based on the original EIS, we consider it useful to provide some core aspects of the methodology of the original EIS. The full description may be taken from chapter 2 of the EIS. Furthermore, adaptations to this original approach for this follow-up analysis are described where applicable.

General design of the original Erasmus Impact Study

In order to analyse the impact of Erasmus mobility on skills development, employability, the internationalisation of HEIs and institutional development, EIS was based on a mixed-methods approach, sequentially applying a combination of research methods to various samples of students and staff of HEIs, as well as alumni, HEIs and employers in countries eligible for the Erasmus programme.

The quantitative study was based on five quantitative surveys conducted among the following target groups: students, alumni, staff, HEIs and employers. In addition to a substantial number of perceptional questions, designed specifically for EIS, the surveys also incorporated numerous questions from previous studies to make the EIS results directly comparable to those of these former studies and thus allow for timeline development analysis: the 2010 European Parliament study on improving participation in the Erasmus programme, hereinafter referred to as the "CHEPS study";[37] the 2006 "Professional Value of Erasmus Mobility" study by the International Centre for Higher Education Research (INCHER-Kassel), presented to the European Commission, hereinafter referred to as the "VALERA study";[38] and the 2010 "Employers' perception of graduate employability" Flash Eurobarometer study by the Gallup Organization, requested by the European Commission, hereinafter referred to as the "Flash Eurobarometer study".[39]

Among other aspects, the original EIS looked at two types of individual effects:

Measurable effects: On the basis of the memo© approach[40], EIS identified six factors which are closely linked to employability skills (see below) and can be presented as personality traits, but are affected by experience. By measuring these factors before and after the students' stay abroad, EIS could assess change facilitated by international experience. The factors were used to compare mobile and non-mobile groups of respondents, including for alumni and staff as well.

Perceived individual effects: EIS also analysed the effects that individuals perceived regarding various aspects such as reasons for mobility, skills development, career, and identification with Europe.

The surveys relating to specific target groups were meant to provide comparable data, not only for a comparison of the EIS surveys of the various target groups (students, alumni, staff, employers and institutions), but also for a comparison between groups with different experience of mobility (mobility through Erasmus, other programmes or non-mobile) within the same target group.

[37] http://www.europarl.europa.eu/meetdocs/2009_2014/documents/cult/dv/esstudyerasmus/esstudyerasmusen.pdf

[38] http://ec.europa.eu/education/erasmus/doc/publ/evalcareersum_en.pdf

[39] http://ec.europa.eu/public_opinion/flash/fl_304_en.pdf

[40] See http://www.memo-tool.net

The memo© factors in EIS

Furthermore, the EIS student survey, which targeted students who were internationally mobile during the course of this study, consisted of an *ex ante* and an *ex post* survey. It was therefore possible to assess the direct outcomes of the mobility experience and compare the short-term *ex ante* to *ex post* effects measured among students directly after the mobility experience as well as to long term effects measured among alumni.

In addition and for the first time, EIS also went beyond the classical perception surveys of staff mobility by introducing a psychometric-related analysis of the memo© factors for academic and non-academic staff and comparing the results to the perceptional data (especially those provided by the HEIs in the institutional survey). Consequently, for the first time EIS compared the real effects of mobility on students and staff. The most important innovation of EIS was in the introduction of memo©. Memo© originally consists of ten factors. For EIS, the factors which bore no relation to employability were excluded. For the remaining six factors, their relevance to employability was tested through a survey amongst employers and alumni, which confirmed the relevance of those factors for the skills related to employability (see chapter 3). The surveys of students, alumni and staff each then contained a specified psychometric-related questionnaire, consisting of 49 items and referring to the following six factors:

Confidence*:* High values of this factor point to a high degree of self-sufficiency and a strong conviction regarding one's own ability - aspects that may positively impact academic or professional success. Individuals with high values for this factor may, however, also be inflexible and set in their ways. Low values show doubt about one's own ability and perseverance, grounded, for instance, in negative experience or personal insecurity.

Curiosity*:* High values for this factor indicate that a person is not only open to new experiences, but actively seeks to broaden his experience. This also applies to new academic or professional challenges. Low values point to a much more reluctant attitude towards new experience and a greater appreciation of that which is familiar.

Decisiveness*:* High values point to an active and decisive individual, who may have a rather critical attitude towards others. Low values suggest that the individual is more likely to reconsider his or her decisions to accommodate the opinions of others.

Serenity*:* High values for this factor indicate that a person knows his or her strengths and weaknesses. This positive self-assessment not only leads to a more relaxed relationship with other individuals or new demands, but might also help to prevent disappointments. Low values, on the other hand, suggest a much higher stress level that can be caused by a misjudgement of one's own abilities, accompanied by difficulty in understanding the given demands and requirements.

Tolerance of Ambiguity*:* High values for this factor mean that a person is capable of tolerating the behaviour and values of other individuals without compromising his or her own values. This is also closely related to adaptability, as students with a high level of tolerance of ambiguity can adapt much more easily to new situations. Low values mean that a person feels very uncomfortable if confronted with different values and ways of life of other people. Such individuals may espouse a more traditional view of things, based on their own perspective and experience, as influenced by family, society and established norms and values. Deviation from what is conceived as "normal" is perceived to be threatening or at least a cause of discomfort.

Vigour*:* High values reflect a "problem-solver" who does not like to delve into the unsolvable aspects of a task, but focuses on the doable, and also likes a challenge. Low values reflect an individual who is well aware of problems or problematic aspects of a situation and who might be more concerned with identifying the problem rather than solving it. Accordingly, such an individual would be less goal-oriented.

memo© total*:* The total value represents an average of all factors.

Significance

Significance is used to identify a substantial difference between two independent groups. In the study, significances are measured between different target groups, i.e. "mobile and non-mobile" and "Erasmus and non-mobile". Significance is marked with an asterisk affiliated to the chart numbers of mobiles and Erasmus or mentioned in the text. We use the standard two-star significance level (95 % confidence level) signified by **.

Significance is typically used to assign relevance to results of a quantitative analysis. However, it can only provide a judgement on the representativeness of the results and thus their transferability to other samples. Consequently, it provides an evaluation of the validity of a measured effect. It does not, however, say anything about the size of the effect measured. For example, if we measure a difference from *ex ante* to *ex post* of 0.2 with a significance of 0.01, this tells us that in 99% of cases of such individuals, an effect of 0.2 would be measurable. However, what this "0.2" means cannot be explained by using significance. As Folger (1989) notes, an effect size estimate is more useful for making judgements than a binary choice between significance and

non-significance. For this reason, a supplementary method was included to capture effect size.

Effect sizes and their interpretation

In order to assess the importance of differences between groups (in this case: non-mobile students, Erasmus students and mobile students), one needs to attach a value to their differences in memo© values. In statistics, different measures are used to estimate such effect sizes. A common method for measuring and gauging effect sizes often used in psychometrics is Cohen's d (Cohen 1988). Cohen's d represents the mean difference between two groups, divided by a standard deviation[41] for the data, i.e. $\delta = \frac{\mu_1 - \mu_2}{\sigma}$. Cohen himself originally introduced the following cut-offs to gauge the "practical significance" of differences:

d > 0.2 = small effect (1/5 of a standard deviation)

d > 0.5 = moderate effect (1/2 of a standard deviation)

d > 0.8 = large effect (8/10 of a standard deviation unit)

While some scientists argue that such standardized points of reference for effect sizes should be avoided if possible (Baguley 2009), they are considered by some researchers to be valid when typical effect sizes for specific measures are not available from previous work in the field. Still, even Cohen was concerned with the limitations of constructs such as "small", "moderate" or "large" (see (Cohen 1988, 25)). Therefore, we use this scale for changes in attitudes.

In the case of personality traits, the situation is even more difficult. Personality traits such as those measured in memo© are quite stable (Costa & McCrae 1980). Changes that do occur generally occur over relatively large time-spans (Ardelt 2000). Any changes that occur over relatively short periods of time, even with small effect sizes, should therefore be considered substantial and meaningful. Theory and conceptualization in social science far exceed measurement. Many of the constructs in our field cannot be measured with very high reliability. Measurement error biases affect size estimates downward toward zero and so the psychometric properties of measures provide on context for effect size estimates (see Kagan 1998).

Additionally, research into personality traits found that inter-human differences, especially across the Big Five[42] (which measure comparable aspects), could be explained for approximately 50% by influence of the genes, i.e. the heritability of the Big Five is around 0.5 (Bouchard and McGue 2003). The other 50% are therefore factors influenced by the environment. Newer studies on twins even suggest that up to two-thirds of the measurable personality traits could be traced back to genetic influence (Kandler et.al. 2010). As a consequence, this also means that any intervention, such as mobility, can only influence half of the respective personality trait and therefore an *ex ante* to *ex post* change would only be small. This all means that changes in personality traits are very likely to be difficult to achieve. This was also confirmed by a recent study (Specht *et al.* 2011) into effects on the Big Five due to age and especially life events. This research found Cohen's d values for the Big Five between -0.17 and 0.1. These were smaller or at the same level as the Cohen's d values for the memo© values which will be displayed in chapters 3 and 4. Specht *et al.* (2011) concluded that "individuals differ systematically in the changeability of

[41] The "standard deviation" is a measure of the spread of a set of values.

[42] The Big Five are the most classical set of psychometric factors used in research. It comprises neuroticism, extroversion, openness, agreeableness and conscientiousness and consists of between 60 (the short version called NEO-FFI) and 240 items (NEO-PR-I).

their personality. (...) Personality predicts the occurrence of specific major life events and changes as a result of experiencing them. (...) Personality changes, but changeability differs across the life course – and this change is not due only to intrinsic maturation, but also to social demands and experiences" (Specht *et al*. 2011, 38–39). Zimmermann and Neyer (2013) found Cohen's d values for change on the Big Five with absolute values around 0.12 to 0.27 (some negative), which they referred to as "considerable".

Additionally, the *ex ante* memo© averages were fairly high on the scale (0–10) with average values usually beyond 6.5. This additionally meant that it would be rather unlikely to achieve large *ex post* values because of the necessity to have substantial amounts of respondents with values of 9 or higher. Given that the standard deviation was usually around 0.9, 68% of all responses would be found in a small range of approximately 5.5 to 7.5, depending on the group. Therefore, one could not reasonably expect large changes.

Despite these caveats, the team wished to use the Cohen's d values as a widely accepted means of displaying effect sizes. In more recent research (e.g. Zimmermann/Neyer 2013), Cohen's d is used for psychometric analysis but effects even below 0.2 are considered relevant. The original scale itself is not carved in stone but as Rice and Harris (2005) pointed out, labels depend on empirical and social contexts. The results from the first EIS confirmed this attitude in that many changes in personality traits ranged between 0.1 and 0.2, making them relevant according to studies such as by Zimmermann/Neyer (2013). Therefore for the analysis of personality traits we adapt the scale to:

d > 0.1 = small effect (1/10 of a standard deviation)

d > 0.3 = moderate effect (3/10 of a standard deviation)

d > 0.5 = large effect (1/2 of a standard deviation unit)

In order to avoid confusion, we stated the scale used in each respective figure.

Final analytical framework

In the analysis we focused on the effects of the different types of mobility on two dimensions: employability and internationalisation. The concepts of "effects", "employability", "internationalisation" and "mobility" were described in chapter 2 of the original EIS. Here, we will simply re-emphasize the two major concepts:

Mobility is understood as any activity in the context of an HEI that moves a person beyond a national border. The length of such a stay abroad is not defined.

Effects are understood on the one hand, as impacts, as perceived from the perspective of the person or institution that experiences the respective impact; e.g. students may describe the effect mobility had on them *according to their own assessment* or HEIs can describe the effect student mobility or staff exchange had on their international profile *as perceived by them*. In neither case does this assessment contain impartial and objective proof of any effect. On the other hand, an effect can be defined as the difference in value of the same variable between two different points in time, which is the new and added value of the memo© factors included in the EIS report.

In order to assess the first type of effect, perceived effect, we analysed the responses given by the various target groups, e.g. students, and compared them with assessments of other groups, e.g. alumni, HEIs and staff, or previous reports.

For the second type, change over time, we analysed those effects by different means. Firstly, the different results for the memo© factors were compared in a cross-group

comparison, e.g. mobile students versus Erasmus students. Using the results of the *ex ante* and *ex post* surveys and also the surveys of students and alumni (the latter, by definition, constituting a later point in time), we could compare the development at the level of personality traits. Secondly, we could compare changes in the evaluations/perceptions of respondents of the same aspects before and after the stay abroad. Thirdly, we asked questions regarding the perceived change and could therefore compare these values, once again in relation to the various groups and types of mobility.

For the non-mobile students, we use the averages of the student survey and the results of the alumni survey as a long-term effect measurement rather than an *ex ante – ex post* survey amongst non-mobile students during the time of the Erasmus exchanges. The reasons for this are

- Whereas for all mobile students we know both the determining intervention (i.e. mobility) as well as the length of its application (i.e. the duration of the stay abroad) we do not know the factors that may influence the individual non-mobile students and therefore any deviations could not be linked to a cause;
- We know from other research (see EIS) that normal life requires much longer time spans to have an effect. Therefore, if we conduct a cross-cohort analysis between the average result of non-mobile students and the average result of all non-mobile students averaged over time, we get a picture of the change occurring over a time span of 5 years (21–26 years of age). As we see in the results, this provides us with a much clearer picture of the situation of non-mobile students, demonstrating that there is development over such large time spans. This is congruent with other psychological research, proving that no reasonable short-term impact on such individuals could be expected and thus rendering a short-term *ex ante – ex post* survey meaningless for non-mobile individuals.

The original EIS also contained a substantial qualitative study. However, as this qualitative study was only carried out in a selection of countries (Bulgaria (BG), Czech Republic (CZ), Finland (FI), Germany (DE), Lithuania (LT), Portugal (PT), Spain (ES) and the United Kingdom (UK), the results cannot be used for a multiple-country and regional analysis.

Methodological specifications of the follow-up study

The study aims to deliver a comparative analysis of individual countries and regions based on the existing data gathered in chapter 3 of EIS (i.e. countries with sufficient data to provide meaningful analysis). The overall goal of the study is to **identify regional patterns and show relevant country differences** related to the effects of mobility on the personality traits and skills in relation to employability of students.

We do this by first showing the average value across the regions, wherever possible. Then we analyse regional patterns and include countries if they are outliers in their region or show otherwise exceptional results.

Definition of regions

Taking into account the scope and nature of different aspects of analysis included in chapter 3 of EIS, we also proposed a focus on **regional differentiation** at the European level next to a selection of specific countries. This approach allowed us to incorporate data of all countries except those identified as ineligible and to show regional differences and patterns which could also be used for comparisons with individual country results. Additionally, this increased the amount of data upon which to draw conclusions. The countries were grouped using the official regions defined by the United Nations.[43] According to the UN methodology, Europe is divided into 4 regions:

Table A: Regional distribution

Northern Europe	Southern Europe	Eastern Europe	Western Europe
Denmark	Croatia	Bulgaria	Austria
Estonia	Cyprus**	Czech Republic	Belgium
Finland	FYROM*	Hungary	France
Iceland	Greece	Poland	Germany
Ireland	Italy	Romania	Liechtenstein*
Latvia*	Portugal	Slovakia	Luxembourg*
Lithuania	Slovenia		Netherlands
Norway	Spain		Switzerland
Sweden	Turkey**		
United Kingdom	Malta*		

* Countries marked in red are the countries subsequently identified as ineligible.

** According to the UN, Cyprus and Turkey belong to Western Asia, for the purpose of our analysis they are included under Southern Europe.

[43] Please see the United National Statistics Division – Composition of macro geographical regions, geographical sub-regions and selected economic and other groupings: http://unstats.un.org/unsd/methods/m49/m49regin.htm#europe

The regional analysis therefore includes data for 29 eligible countries, which is more than the individual country analysis. Over all regions, the following sample sizes could be included:

Table B: Average age of Erasmus and non-mobile students, by region[44]

	Northern Europe	**Southern Europe**	**Eastern Europe**	**Western Europe**
Erasmus students	23.5	23.3	23.2	22.9
Non-mobile students	23.9	22.3	22.7	22.8

Table C: Distribution of degrees among Erasmus and non-mobile alumni in %, by region[45]

Erasmus				
Degree	**Northern Europe**	**Southern Europe**	**Eastern Europe**	**Western Europe**
Bachelors' degree	42%	39%	24%	28%
Masters' degree	49%	50%	70%	64%
Doctoral degree	4%	3%	4%	2%
Non-mobile				
Degree	**Northern Europe**	**Southern Europe**	**Eastern Europe**	**Western Europe**
Bachelors' degree	30%	41%	38%	34%
Masters' degree	56%	43%	49%	48%
Doctoral degree	9%	3%	4%	6%

[44] Students from the age group "up to 20" were taken as if they were exactly 20 years old, students from the age group "27 and over" were taken as if they were exactly 27. Because the interval is open on both sides, both cumulative groups are of approximately the same small size, this approximation should not lead to under or over estimation of the average age.

[45] Values missing to 100% are cases of "other degrees".

Table D: Number of cases per target group by region and country

Region	Country	Target group			
		Alumni	Students	Employers	HEIs
Northern Europe	Denmark	151	1662	6	13
	Estonia	145	556	2	13
	Finland	678	2199	29	28
	Iceland	76	156	3	0
	Ireland	186	674	4	8
	Lithuania	79	451	6	18
	Norway	226	503	2	19
	Sweden	1451	1228	13	0
	United Kingdom	198	630	30	34
	Total region	**3 190**	**8 059**	**95**	**133**
Southern Europe	Croatia	57	348	11	10
	Cyprus	80	177	0	4
	Greece	116	668	1	1
	Italy	1902	6863	38	55
	Portugal	1473	1765	11	30
	Slovenia	55	467	1	0
	Spain	2278	9243	89	193
	Turkey	87	380	0	0
	Total region	**6 048**	**19 911**	**151**	**293**
Eastern Europe	Bulgaria	107	402	31	16
	Czech Republic	281	1020	3	0
	Hungary	605	1832	7	18
	Poland	998	3080	57	73
	Romania	231	834	3	21
	Slovakia	110	498	5	9
	Total region	**2 332**	**7 666**	**106**	**137**
Western Europe	Austria	114	687	12	0
	Belgium	510	1674	135	21
	France	1798	6445	80	188
	Germany	1489	6277	24	121
	Netherlands	274	2349	21	48
	Switzerland	178	777	10	15
	Total region	**4 363**	**18 209**	**282**	**393**
Overall total		**15 933**	**53 845**	**634**	**956**

Country selection

The following 18 countries were selected for individual country analysis:

Table E: Selected countries (in alphabetical order)

1	Austria	7	France	13	Poland
2	Belgium	8	Germany	14	Portugal
3	Bulgaria	9	Hungary	15	Romania
4	Denmark	10	Italy	16	Spain
5	Estonia	11	Netherlands	17	Sweden
6	Finland	12	Norway	18	United Kingdom

The selected countries cover all regions as well as population sizes. In order to arrive at this selection of countries, a multiple-step process of "weeding out" took place.

In a first step, countries with numbers too low for the target groups were weeded out (ineligible countries). From the remaining 29 countries, those fulfilling minimum sample size requirements per target group were selected. We then grouped the countries according to the priority ranking of target groups for the study with students and alumni being the top priority, followed by employers and then HEIs. As a result, three different options for selection were available, ranging from 12 to 18 countries depending on the strictness of the indicators applied. In agreement with the EC, we opted for the most inclusive approach despite the more challenging visualisation of data as this option provides us with the widest possible range of interpretable data at the country level. All 29 eligible countries are included in the regional analysis.

In the graphs, we follow two different approaches for displaying countries. In Easymaps and Spiderwebs, we display as many countries as possible, only excluding those with an insufficient sample size for the respective data. For all other representations, country examples serve only as displays of extreme outliers in general or in their region.

Representation of data

In order to provide a reader-friendly design of the study, a differentiating methodology was used for the data representation on the different levels of the analysis. As one can also see from the introductory part, there are two main levels of the analysis in the study – regional and country level. Starting from this perspective, the study then also focuses on different target groups, skills and aspects. The data visualisation aims to underline this approach by using colours, symbols and chart types in a way that allows direct recognition of the foci of the specific question.

A specific colour set has been defined for the regional data representation. A compliance with the colours across the whole study enables the reader to notice and compare the regional tendencies in the different aspects. For the regions, the following colours were chosen:

In total, five respondent groups are represented in the study. To provide the reader with further assistance in understanding the different perspectives of the analysis, the following symbols have been used to mark and distinguish the different respondent groups.

We use these symbols when comparing perceptual responses of some or all of these groups related to the performance of the other target groups or themselves. For example, if we compare the perception of employers and HEIs regarding the performance of students, the symbols for HEIs and employers would be used but not for students.

Additionally, colours are also used for the specific target groups and sub-groups in the charts. These are used when the target group is the object of analysis. For example, when the performance on memo© or opinions of any of these groups on certain aspects of analysis (such as European identity or career opportunities) are displayed:

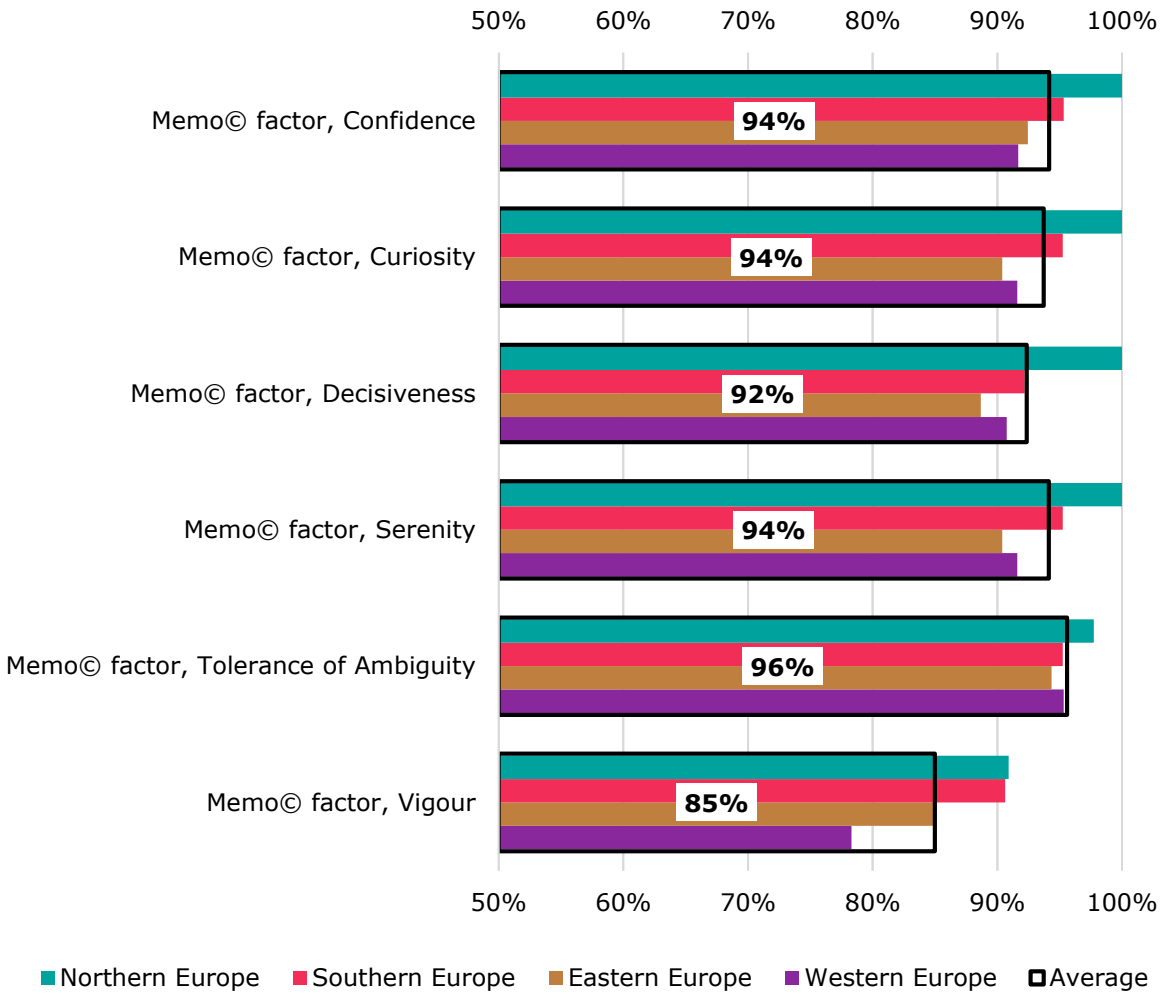
As part of the data representation methodology, a set of the chart types was developed. Data visualisation essentially differs at the regional and country level, while specific charts were used for the visualisation of Cohen's d values. Except for standard charts, the data are displayed through infographics in order to achieve reader-friendliness. Infographics were also used in specific cases in which the standard chart types were impossible to apply (especially regarding country analysis displaying less than 12 countries).

Bar charts for regional analysis

Basic bar chart

Bar charts are used to display data of the regional analysis. Bar charts compare one or more values (e.g. per factor/skill) across different regions. To show more than one value in a bar chart, grouped bar charts or charts divided into subparts are used. The black frame in the chart signifies the average value for 29 countries covering all regions included in the analysis.

Example:

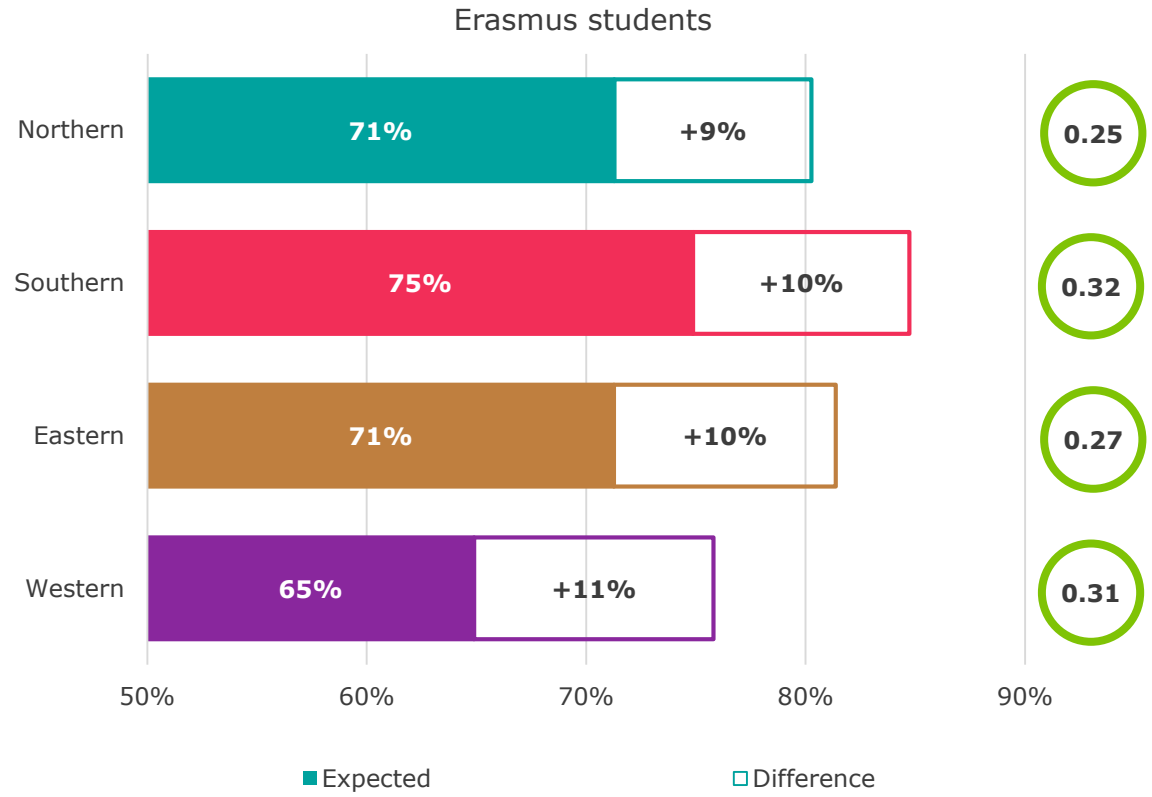


The data in the example shows the shares of employers considering the individual memo© factors relevant for employability.

Bar chart to display difference

This bar chart is used for regional data visualisation. Each single bar of the chart shows the expected values (coloured part of the bar) vs. difference in expected and perceived value (white part of the bar). The bar as a whole compares the perceived values. This graphic enables regional comparison of the expected values, the perceived values and the difference. Where applicable, Cohen's d value is displayed in circles on the side. Cohen's d value in the circle is related to the respective region. The colour of the circle around Cohen's d signifies whether it is a positive change (green) or a negative one (red), as Cohen's d itself is non-directional. Yellow circles identify change values below the threshold.

Example:



The example shows the share of Erasmus students that expected an improvement in the personality (filled bar) versus those who perceived a change after the mobility (unfilled bar). The value in the circle on the right indicates the respective Cohen's d.

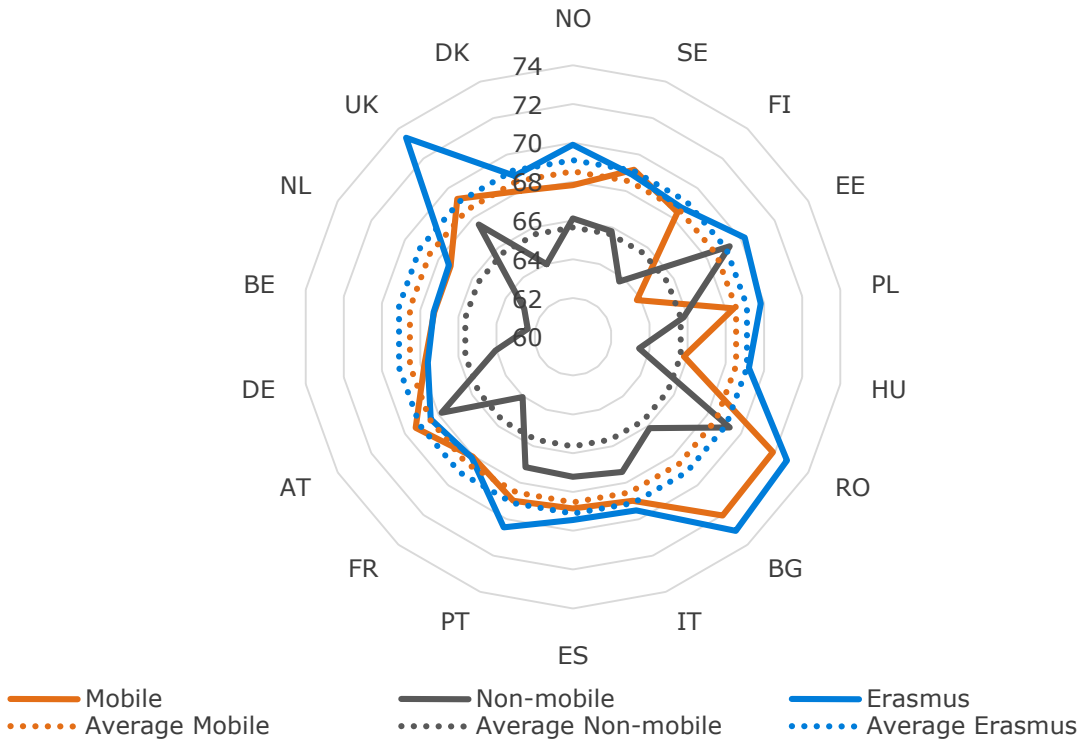
Spider webs for country analysis

The spider web is used to show results per country for up to 18 countries analysed in the selected country analysis. The average value for each of the sub-groups is displayed as a dotted line in the same colour. The countries are displayed in geographical order (North at the top, East on the right, South at the bottom and West on the left) to indicate regional and also intraregional trends and exceptions and variability between the countries.

Country codes used are as follows:

Austria	AT	France	FR	Poland	PL
Belgium	BE	Germany	DE	Portugal	PT
Bulgaria	BG	Hungary	HU	Romania	RO
Denmark	DK	Italy	IT	Spain	ES
Estonia	EE	Netherlands	NL	Sweden	SE
Finland	FI	Norway	NO	United Kingdom	UK

Example:

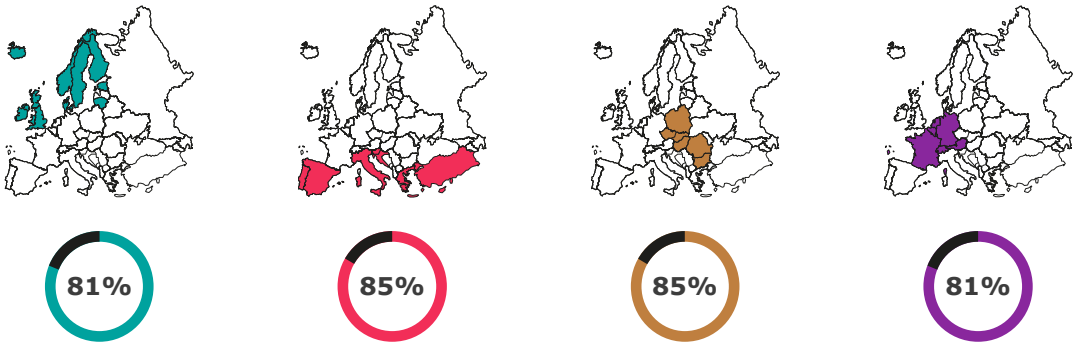


The example shows a comparison of the average memo© total values for three target groups (mobile, Erasmus, non-mobile) per country compared to the overall averages across regions of these three groups (dotted lines).

Easymaps for regions

Easymaps at the regional level have been used to compare the differences between the regions (representing 29 countries) related to a particular value.

Example:

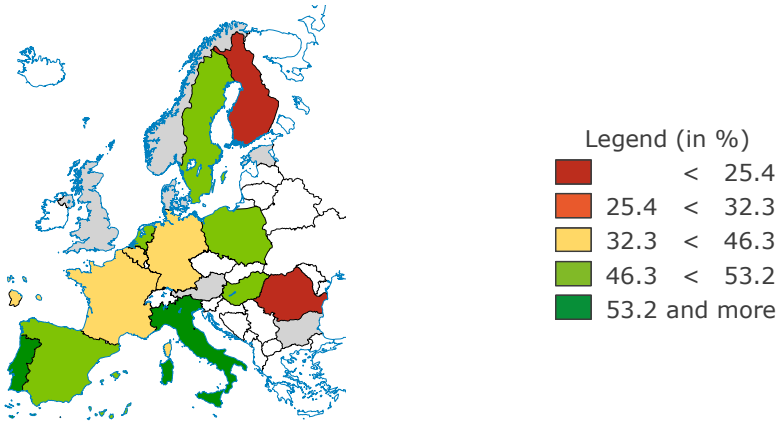


In this example, the Easymap only serves as a visualisation of the region instead of using its name (e.g. Northern Europe). The relevant value is in the partially filled circle above each Easymap. The percentages in this example show the share of alumni who were offered a position by the company or organisation where they did their traineeship abroad.

Easymaps for country analysis

Easymaps are used to display the country performance for one value or the difference between two values. To compare more values, easymaps are grouped together. The analysed countries with sufficient sample sizes are coloured on a scale from dark green through light green, yellow, light red and dark red according to their performance. Dark green indicates the most positive and dark red the most negative trend. Each map contains a legend describing the distribution of the percentiles on the scale, which may vary for each map.

Example:



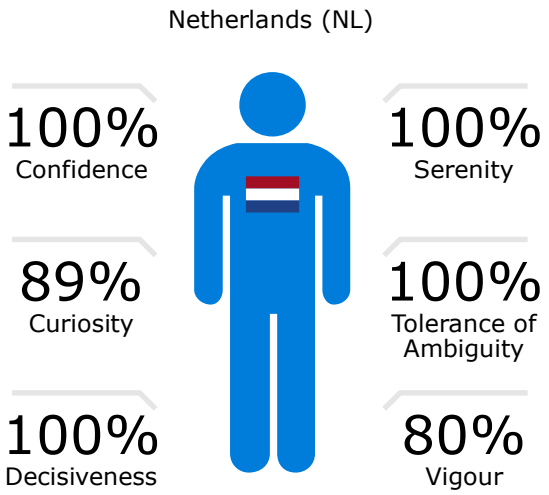
Colours for country performance scale indication:

In the Easymap above, the values represent the share of alumni who were offered a position by the company or organisation where they did their traineeship abroad.

Infographics

The infographics, flags and symbols were used in specific cases in order to achieve reader-friendliness, both at regional and country levels, especially if the standard chart types were impossible to apply (e.g. for a country analysis displaying less than 12 countries).

Example:

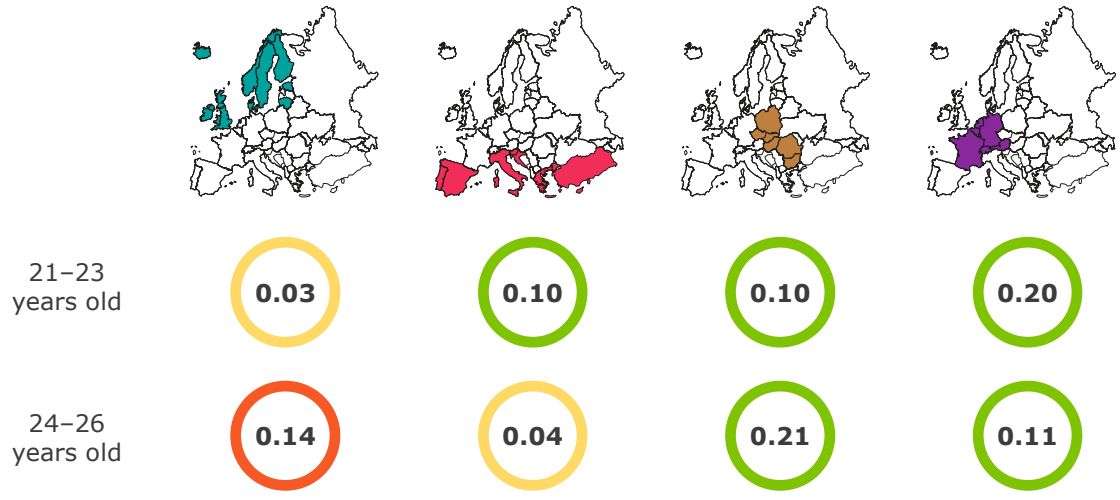


The example shows the share of employers in Belgium that considered each individual memo© factor relevant for employability.

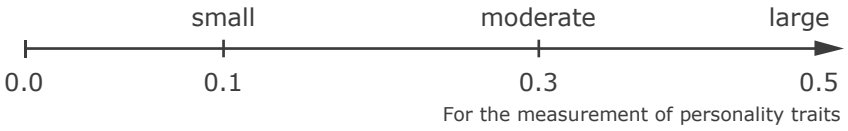
Visualisation of Cohen's d

Effect size is usually displayed by infographics. In these cases, a yellow circle indicates that the effect size is below the minimum threshold of Cohen's d, as explained above.

Example:



Cohen's d: Mean difference between two groups in standard deviation units.



The graph shows the memo© total Cohen’s d by age group for Erasmus students in Northern and Southern Europe (graphical representation on the left). Although Cohen's d cannot identify a direction, we think that for the reader it is still helpful to understand whether the effect size describes a positive (gain) or negative (loss) development. Therefore we mark the Cohen’s d – if above the minimum threshold – with a positive direction in green and those with a negative in red. Yellow circles will not be displayed except in cases where the result is telling in contrast to other results to the positive or negative.

Literature

Ardelt, M. (2000). *Still stable after all these years? Personality stability theory revisited*. Social Psychology Quarterly, Vol 63(4), Dec 2000, 392-405. doi: 10.2307/2695848

Baguley, T. (2009). *Standardized or simple effect size: what should be reported?* British journal of psychology, 100(Pt 3), 603–17.

Brandenburg, U; Berghoff, S.; Taboadela, O.; Bischof, L.; Gajowniczek, J.; Gehlke, A.; Hachmeister, C.; Ilieski, Z.; Leichsenring, H.; Petrova, D.; Vancea, M. Lenuta: The ERASMUS Impact Study. Effects of mobility on the skills and employability of students and the internationalisation of higher education institutions. Luxembourg, European Union, 2014. ISBN 978-92-79-38380-9

Bouchard, T.J. Jr; McGue, M. (2003). *Genetic and environmental influences on human psychological differences.* Journal of Neurobiology, 54 (1), 4–45

CHE Consult. (2013). QUEST, CHE Consult. Berlin. Accessed November 14, 2013. http://www.che-consult.de/cms/?getObject=1035&getLang=de.

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). New Jersey: Lawrence Erlbaum Associates

Costa P.T., Jr., and McCrae R.R. (1980). *Still stable after all these years: Personality as a key to some issues in adulthood and old age*. In: P. Baltes, and O.G. Brim (Eds.): *Lifespan development and behavior*. New York: Academic Press, p. 65-102.

Folger, R. (1989). *Significance testing and the duplicity of binary decisions*. Psychological Bulletin, 106, 155-160.

Kagan, J. (1998). *A parent's influence is peerless*. Boston Globe, 1998, September 13, p. E3.

Kandler, Cr., Riemann, R.; Spinath, F.M.; and Angleitner, A.; (2010). *Sources of Variance in Personality Facets: A Multiple-Rater Twin Study of Self-Peer, Peer-Peer, and Self-Self (Dis)Agreement.* Journal of Personality, Oct, 78 (5), 1565-94

Lappalainen, S.; Odenbring, Y.; Steen-Olsen, T. *Welfare, social justice, and equality in educational settings in the Nordic countries.* NSE-2013-4. book, pp. 249-53

Rice, M. E.; Harris, G. T. (2005). *Comparing Effect Sizes in Follow-up Studies: ROC Area, Cohen's d, and r*. Law and Human Behavior, Vol. 29, No. 5 (Oct., 2005), pp. 615-620

Specht, J.; Egloff, B.; Schmukle, S. (2011). *Stability and change of personality across the life course: the impact of age and major life events on mean-level and rank-order stability of the Big Five*. SOEP Papers on multidisciplinary panel data research; No.377. Berlin: DIW

Zimmermann, J.; Neyer, F.J. *Do We Become a Different Person When Hitting the Road? Personality Development of Sojourners.* Journal of Personality and Social Psychology, 105 (3), Sep 2013, 515-30.

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